

From words to action: comparing the disparities between national drug policy and local implementation in Tijuana, Mexico and Vancouver, Canada

Smith DM^{1,2}, Werb D^{1,3}, and Strathdee SA¹

¹ *Division of Global Public Health, Department of Medicine, University of California, San Diego, USA;*

² *Faculty of Health Sciences, Simon Fraser University, Burnaby, British Columbia, Canada;*

In 2009, Mexico passed a national drug policy reform decriminalizing the possession of small amounts of certain drugs for personal use with the aim of diverting drug-dependent individuals from prison and towards addiction treatment. However, the public health approach codified by the reform has not yet led to a meaningful change in local police practices nor contributed to the meaningful scale-up of harm reduction and addiction treatment services in many Mexican cities. Specifically, in Tijuana, Baja California, there continues to be a variety of local level barriers – including arbitrary police behaviours – that hinder the ability of people who inject drugs (PWID) from accessing vital harm reduction services. This has implications for the growing HIV epidemic in Mexico’s northern border region, given that access to harm reduction interventions has been shown to effectively reduce the risk of HIV infection among PWID.

In contrast to the largely enforcement-based local response seen in Tijuana, the municipal Four Pillars approach implemented in Vancouver, Canada in 2001 was passed as a public-health oriented response to the rising prevalence of HIV/AIDS among PWID in the Downtown Eastside of Vancouver. Centered on the balancing of four approaches – harm reduction, treatment, prevention and enforcement – the Four Pillars approach in Vancouver has led to a well-resourced local harm reduction and addiction treatment system. This local emphasis on harm reduction contrasts with the Canadian federal government’s opposition to harm reduction approaches. However, police-public health partnerships along with strong political support have led to the substantial scale up of harm reduction services as well as the reduction of HIV/AIDS among people who inject drugs in Vancouver, unlike what has been observed in Tijuana.

This commentary therefore aims to assess the discrepancies between federal policy and local responses to drug-related harms in order to fully understand the impact and implications of national drug policies in shaping local response to drug related harms among populations of PWID. Through a comparison of the drug policy landscape in two cities linked by a large North American drug trafficking route—Tijuana, Mexico and Vancouver, Canada—this commentary suggests that drug policy reform in and of itself will have little impact at the local level unless it is appropriately resourced and meaningfully supported by key stakeholders.

INTRODUCTION

Over 30 years ago, the first cases of HIV/AIDS in the U.S. were reported; since then, many more cases have been reported in the spiraling HIV/AIDS epidemic.¹ By 2012, approximately 35 million people were infected with HIV/AIDS worldwide.² As a major leading cause of HIV transmission, needle sharing associated with injection drug use has been a key contributor to the spread of the pandemic.³ Overall, three million of the estimated 16 million people who inject drugs (PWID) worldwide are believed to be HIV-positive.⁴

The HIV epidemic among injection drug users can be attributed to many factors, one of which is the criminalization of drug use as codified by international drug policies, such as the Single Convention on Narcotic Drugs (herein referred to as the “Single Convention”). Signed in 1961 by 73 countries, the Single Convention aimed to unify previous international drug policies to create an unprecedented global system for international drug control.⁵ Poised with the concern for the “health and welfare of mankind,”⁶ the Single Convention further aimed to limit the non-medical and non-scientific use of narcotic drugs, with the view that “addiction

to narcotic drugs constitutes a serious evil for the individual that is fraught with social and economic danger to mankind.”⁵ Further restrictions to the global drug policy landscape were cemented with the 1971 and 1988 amendments to the Single Convention, which outlined limitations on the trafficking of narcotics as well as the traditional use of plants like coca and further mandated that any behaviours contrary to the limitations of the Convention were punishable offences to be enforced by “imprisonment or other penalty of deprivation of liberty.”⁶⁻⁸ These measures have caused tension between the tenets of the Single Convention—which is still in effect to this present day—and concern for the health of PWID. In this context, the criminalization of drug use and possession codified by the Single Convention and subsequent agreements have hampered the efforts of evidence-based public health and harm reduction initiatives, which are defined as “policies, programmes and practices that aim to reduce adverse health, social and economic consequences of the use of legal and illegal psychoactive drugs use without necessarily reducing drug consumption.”^{7,8,9} These harm reduction initiatives, such as needle and syringe distribution programs (NSP), supervised injection facilities (SIF) and methadone

maintenance therapy (MMT)—methadone being a synthetic opioid agonist used to treat opioid addiction—have been shown to decrease the risk of HIV transmission among PWID. Despite the criminalization of drug use as codified by the Single Convention, these preventative harm reduction services, specifically NSPs and MMT, have nevertheless been adopted as part of a comprehensive package for HIV prevention by international bodies such as the World Health Organization and UNAIDS.^{10,11}

Within this global drug policy landscape, Canada and Mexico—two signatory countries of the Single Convention linked by a North American drug trafficking route spanning from the Andean region in Latin America (i.e., Colombia, Bolivia, Peru) to the Mexico/USA border—have experienced HIV epidemics among PWID populations in certain urban areas.^{12–15} This drug trafficking route ensures that illegal drugs—and consequentially high rates of injection drug use—are plentiful in Mexico, the US and Canada.¹⁶ In Vancouver, a western port city located near Canada's southern border, the Downtown Eastside (DTES) neighbourhood is characterised by an open-air illegal drug market.^{17,18} By 2011, although the HIV prevalence was 0.2% in Canada overall, HIV incidence was at 12.1% among PWID.^{13,19} Similarly, Mexico has a low country-wide HIV prevalence of 0.3%; the distribution of HIV infection, however, varies throughout the country, with concentrated epidemics among PWID in certain municipalities.^{12,20} The Mexican border city of Tijuana, located along Mexico's northern border in the western state of Baja California, is home to approximately 10,000 PWID, among which 4% of males and 10% of females are estimated to be HIV positive.^{12,21,22} Although Vancouver and Tijuana are both experiencing HIV epidemics among large populations of PWID, the drug policy environments in both settings differ drastically.

At the national level, the Canadian federal National Anti-Drug Strategy, launched in 2007, explicitly removed harm reduction as a key tenet of the country's drug policy.^{23–25} This was largely a result of the election of a Conservative federal government in 2006, which perceived harm reduction as enabling of drug use.^{24,25} Currently, the federal drug control budget allocates 40% of resources towards drug law enforcement, which aims to strictly criminalise possession and use of illegal drugs such as cocaine, marijuana, methamphetamine and heroin (among other substances).²³ In contrast, in 2009, the Mexican federal government instituted the *Narcomenudeo* law, a national drug policy reform that partially legalizes the possession of small amounts of narcotic drugs, specifically methamphetamine, cocaine, heroin and marijuana, for personal use.^{26–28} This major policy reform was instituted with the primary aim of having police divert PWID away from prison and towards addiction services, as well ensuring scale-up and availability of harm reduction services such as NSPs and MMTs.^{26–28}

In both Tijuana and Vancouver, however, the policy frameworks instituted at the national level are at odds with the local drug policy realities in each city. At the local level, strong provincial, municipal and community support in Vancouver led to the institution of the municipal "Four Pillars Approach," which was launched in 2001.^{15,29} Centered on a balance of "four pillars"—harm reduction, treatment, prevention and enforcement—the Four Pillars approach in Vancouver has led to a well-resourced, comprehensive and expanding local harm reduction and addiction treatment system.^{15,17,18,30,31} This unique local emphasis on harm reduction stands in contrast with the Canadian federal government's opposition to harm reduction approaches.^{29,32} The success of this unique local response is due to support from key stakeholders, such as the provincial and local government, the Vancouver police department, as well as the Supreme Court of Canada.^{15,29,33} In Tijuana, however, the public health approach codified by the federal *Narcomenudeo* law has not yet led to a meaningful change in local, street-level law enforcement practices or contributed to the meaningful scale-up of harm reduction and addiction treatment services.²⁸ Specifically, there has been a lack of scale-up of both NSPs and MMTs in Tijuana, and substantial barriers to their use remain, critically undermining the effectiveness of Mexico's federal public health-oriented drug policy reform.^{22,28} For example, even though drug possession is decriminalized under the *Narcomenudeo* law reform, many lo-

cal police in Tijuana are either unaware of changes in policy or do not abide by the new law.²⁸ As such, the experience of PWIDs in both Vancouver and Tijuana differs dramatically from the nationally mandated policy environments of Canada and Mexico.

Similar discrepancies between national policy reform and local implementation have been previously reported in other settings, such as Australia.^{34,35} It is important to assess these discrepancies between national governance and local responses to drug-related harms in order to fully understand the impact and limits of drug policies in controlling HIV epidemics among populations of PWID. Through a comparison of the 'on the ground' impact of drug policy on harm reduction scale-up and the prevalence of HIV/AIDS among PWID in Tijuana, Mexico and Vancouver, Canada, this commentary aims to describe factors contributing to successful policy implementation in order to provide insight for other countries undergoing drug policy reform at the national level.

VANCOUVER AND TIJUANA: UNIQUE POLICY ENVIRONMENTS

Vancouver, Canada

In the late 1990s, the epidemic of HIV/AIDS among PWID in Vancouver led to vigorous political mobilization by community groups, such as the Vancouver Area Network of Drug Users (VAN-*DU*) and From Grief to Action (FGTA).^{15,29} These community groups pressured municipal and provincial governments to support harm reduction initiatives in the DTES and increased public awareness by speaking to the media and actively protesting.^{15,29} While these lobbying activities were underway at the community level, political leaders at the municipal and provincial level were in discussion about the success of drug policy reform and harm reduction initiatives in other global settings, such as Frankfurt, Germany and Geneva, Switzerland.^{15,29} The lobbying activities by local groups such as VAN-*DU* and FGTA along with evidence-based research and support from local political leaders led to the eventual adoption of the Four Pillars Approach in 2001—approximately 10 years after the first indication of HIV/AIDS crisis in the DTES in 1990.²⁹

The ongoing success of the Four Pillars approach in Vancouver is a result of continuing local partnerships.³⁶ For instance, the local Vancouver Police Department (VPD) has participated in a police-public health partnership that has increased PWID attendance at Insite, Vancouver's SIF.³⁶ In a study completed from 2003 to 2005 in the DTES of Vancouver, researchers found that 16.7% of 182 PWID study participants were referred to Insite by VPD officers.³⁶ Indeed, the VPD has explicitly expressed that they "support the Four Pillars approach in the City of Vancouver" including the "public health objectives of needle exchange and the Health Canada mandated research project at the Supervised Injection Site."³³ Further support for Insite occurred in 2013, when the VPD released an advisory urging PWID to use the SIF after two individuals died of heroin overdose.³⁷ Even though drug use is criminalized by federal law, these reports suggest that local police in Vancouver are responding to drug-related harms among PWID in a manner that appears to seek a balance between police and public health goals.³⁶

In addition, Vancouver has also experienced a substantial local expansion of evidence-based harm reduction and addiction services such as NSP and MMT.^{18,38} NSPs in Vancouver expanded significantly from one site in 1996 to 29 sites in 2010, while British Columbia's provincial MMT program—the largest in Canada—has also increased significantly.^{18,38,39} In British Columbia, primary care physicians are responsible for prescribing methadone to individuals enrolled in MMT, who are then able to receive methadone free of charge at many local pharmacies throughout Vancouver.^{38,40} In a prospective study from 1996–2005, researchers found that MMT attendance in a cohort of PWID in Vancouver was 11% at baseline in 1996, but increased by an additional 31% during follow-up from 1996 to 2005.³⁸ Along with the scale-up of anti-retroviral therapy as well as the ongoing operation of Vancouver's SIF, this harm reduction expansion has contributed to a significant reduction in HIV incidence among PWID in British Columbia, from 30% in 1998 to an incidence rate of 12.1% in 2011.^{19,32,41}

This highlights how an effective “on the ground” public health response to drug-related health harms can be scaled up within an enforcement-based policy environment to effectively reduce HIV transmission.^{18,42}

However, despite support for evidence-based harm reduction initiatives (i.e., NSPs, MMT and SIFs) from the Vancouver Police Department, as well as municipal and provincial policymakers, the Canadian federal government has employed considerable resources to limit the expansion of harm reduction interventions.⁴² Indeed, in 2006, Canadian Prime Minister Stephen Harper announced that “we as a government will not use taxpayers’ money to fund drug use” and placed a moratorium on the further expansion of SIFs in Canada.²⁵ Despite the Canadian federal government’s efforts to shutter Vancouver’s SIF in accordance with the National Anti-Drug Strategy’s rejection of harm reduction, the Supreme Court of Canada ruled harm reduction services as “essential health services” in 2011 and upheld the legality of Vancouver’s SIF, given its proven medical benefits.¹⁵ This decision by the Supreme Court was appealed by the federal government, but nevertheless the legality of Insite has still been upheld by key political and legal stakeholders.²⁵ This episode highlights the importance of support from multiple stakeholders—such as the judiciary—in the success of the Four Pillars approach in Vancouver.

Tijuana, Mexico

The disparities between local response and national policy in Tijuana may be attributed to a variety of factors, including lack of knowledge of the new national policy as well as ambiguous changes to state level criminal code.^{28,43} For instance, under the Narcomenudeo law, small-scale drug dealers are distinguished from large-scale traffickers through the institution of quantity thresholds (eg. $\leq 50\text{mg}$ for heroin, $\leq 5\text{g}$ for marijuana, $\leq 0.5\text{g}$ for cocaine and $\leq 40\text{mg}$ for methamphetamine) that define possession for personal use.^{27,43,44} Under the new law, responsibility for small-scale drug dealers was transferred to the state-level, with the intention of allowing the federal system to focus attention to large-scale drug trafficking within Mexico.^{26,28} However, even after institution of the Narcomenudeo law, small-scale possession still accounted for up to 57% of federal drug cases in Mexico, with over 140,000 people legally processed for consumption of illicit drugs, and a further 300,000 people processed for possession from 2006 to 2013.⁴³ By 2013, one-third of Mexican states still had not changed their criminal codes to reflect overarching national policy changes.⁴³ These disparities may be a residual result of the “War on Drugs” mentality in Mexico, wherein drug crimes are still punished more harshly than many other crimes.⁴³ Indeed, during the War on Drugs administered under President Calderon from 2006 to 2012, federal forces increased the number of militarized anti-drug operations in an attempt to curb drug trafficking and violence.^{43,45} Even today, wherein possession of certain amounts of drugs is legal as codified by the Narcomenudeo law, the military still enforces anti-drug laws in accordance with previous administration.⁴³ In 2013 alone, 7000 Mexican civilians were arrested by federal forces on small-scale drug related charges.⁴³ This is of major concern, as it appears that changes to national level policy have yet to transcend into meaningful implementation at the local level, creating an environment of legal uncertainty for local police forces as well as PWID within Tijuana and other Mexican municipalities.⁴³

Policing behaviours in Tijuana remain a major barrier to public health responses to local drug-related harms despite the passage of the public health-oriented Narcomenudeo law at both the federal and state level.^{26,28} Policing in Tijuana has been shown to significantly reduce the capacity of PWID to access treatment and harm reduction services by discouraging PWID from carrying injection equipment or from accessing NSPs, thereby increasing their risk of HIV infection and injection related harms through needle-sharing.^{22,28,44} A recent study assessing the impact of the Narcomenudeo law found that 76% of PWID in Tijuana reported being stopped or arrested two years after the law was passed, and only 2% of those arrested reported being directed to addiction services, which is a key aspect of the Narcomenudeo law.²⁸ Further, arbitrary policing behaviours such as the confiscation of syringes, physical abuse and extortion continue to occur at a high frequency

among PWID populations in Tijuana.²⁸ Such practices are not only inconsistent with the public health objectives of the Narcomenudeo law, but they also directly decrease the ability of PWIDs to adhere to safe injection practices and create an environment of legal instability that increases the risk of injection-related harms.²⁸ This policing strongly suggests that the potential public health benefits embedded in the Narcomenudeo law have not translated into effective public health interventions ‘on the ground’ in Tijuana. In contrast, in Vancouver the police have openly expressed support for harm reduction initiatives and the public health policies as codified by the Four Pillars Approach, as will be further described in later sections of this commentary.³³

There are many aspects of the municipal Tijuana police department that may be influencing these arbitrary behaviours, including police knowledge and beliefs as well as individual pay scales. For example, the annual salary of a Tijuana police officer is only \$11,000 US dollars, as compared to the average per capita household net-adjusted disposable income of approximately \$13,000 US dollars a year in Mexico overall.^{46,47} This difference in salaries may contribute to corruption among officers whose job demands do not line up with the reality of departmental pay scales.⁴⁶ Indeed, in a prospective study from 2008 to 2009, researchers found of those PWID that reported syringe confiscation (i.e. police interaction), 91% experienced financial extortion, and a further 71% were robbed by law enforcement.⁴⁸ This finding suggests that policing behaviours that put PWID in risk of injection related harms (such as syringe sharing) may be due in part to police corruption fueled by financial constraints. To that end, previous research has found that police corruption and engagement in extra-legal activities is often motivated by profit and power, as well as a perceived inability of police to have an effect on the problem.^{46,49} Therefore, educating local Tijuana police department on the beneficial tenets of the Narcomenudeo law, as well as ensuring a higher salary, training and accountability of local officers, is likely needed in order to see a police-public health partnership and effective local policy implementation as seen in Vancouver. In order to address these extra-legal police behaviours, a new education program facilitated by a bi-national collaboration between University of California, San Diego, and the Tijuana police department is currently underway.⁵⁰ The implications of this program will be discussed further in later sections of this commentary.

The effectiveness of the Narcomenudeo law is further compromised by the lack of scale-up of addiction and treatment services in Tijuana and a large deportee community. While in Vancouver organized community groups pressured local and provincial stakeholders for the adoption of an extensive harm reduction program, in Tijuana the PWID community is largely made up of deportees from the US as well as migrants from within Mexico and from Central America.^{12,51,52} Indeed, approximately 300 Mexican deportees are displaced to Tijuana daily, with 135,000 deported in 2010 alone.⁵¹ Deportees are especially at high risk for HIV acquisition, as they are often deported with a drug use history from the US and lack many essential resources such as identification and healthcare documents.⁵¹ This risk is only further compounded by the lack of harm reduction services in Tijuana. Currently, there are only three MMT clinics in Tijuana, all of which charge user fees for service.²² As such, despite the implementation of the Narcomenudeo law, there remain significant obstacles to effective treatment utilization among PWID.²² For example, a recent prospective study in Tijuana from 2011-2013 found that among the 80.8% of PWID participants reporting opioid use, only 7.5% reported accessing MMT.^{22,26} This is of major concern, particularly given that 47.3% of PWID also reported a desire to initiate addiction treatment.²² In addition, ongoing arbitrary policing practices such as extortion and physical abuse have been shown to severely limit the ability of PWID to access these services.^{26,28} For example, a 2015 study by researchers at the University of California San Diego found that 50% of the study participants at baseline reported paying a bribe to police in the previous 6 months, which was significantly associated with an increased likelihood of accessing MMT, while other studies have found that fear of police interaction is one of the major barriers to NSP use in Tijuana.^{22,53} This highlights how reform

in drug policy in and of itself may not have positive impacts on reducing HIV prevalence among PWID in Tijuana if local-level barriers continue to hamper the use of harm reduction services.

Comparing Tijuana and Vancouver

There are many potential explanations for these disparities between Vancouver and Tijuana. First, PWID in Vancouver formed politically mobilized community groups, such as VANDU, that pressured the local and provincial governments for the eventual adoption of a well-resourced, well-supported, comprehensive and expanding harm reduction and addiction treatment system in the DTES.^{25,42,54} In contrast, the PWID community in Tijuana is largely made up of deportees from the US or migrants from within Mexico, who are often without social or physical capital, and have limited resources for contacting relatives, let alone mobilizing against government policy or creating community groups.^{51,52} Second, there continues to be a scarcity of resources allocated towards drug treatment program scale-up in Tijuana, while in Vancouver there are well resourced systems and institutions in place that have allowed for the expansion of harm reduction services.⁵⁵ Third, there remain significant barriers to enrolment in addiction treatment and harm reduction services in Tijuana—including arbitrary policing behaviours—in contrast to the police-public health partnership present in Vancouver.^{22,28} Fourth, unlike Vancouver, law enforcement in Tijuana lacks resources such as proper salary and training, which has incentivized arbitrary policing practices, including bribery and extortion, among law enforcement officers.²²

Indeed, there are substantial disparities between local policing activities in Vancouver and Tijuana. While law enforcement in Vancouver are increasingly supportive of addiction and harm reduction services, ongoing arbitrary policing practices in Tijuana continue to be a risk factor for injection-related behaviors associated with HIV transmission among PWID populations.^{26,28,36,44} The influence of local level policing practices on the success of national drug policy implementation has been previously observed elsewhere.^{34,36} For example, while Australia has a national drug policy that emphasizes harm reduction in a similar manner to the *Narcomenudeo* law, previous research has found that PWID in certain Australian municipalities reported fear of accessing NSPs or carrying needles due to pressure from local police.^{34,35,56} These examples highlight the limits of written national drug policies in influencing local responses to injection-driven HIV epidemics, and further suggest that other countries undergoing similar reforms to national drug policy should pay special attention to local-level implementation—including ensuring education and inclusion of key stakeholders such as law enforcement in decision making—in order to ensure that the reform is meaningfully implemented and does not result in unintended consequences.^{56,57}

FUTURE RECOMMENDATIONS

It is valuable to consider Tijuana's challenges in effectively implementing a public health-oriented drug policy within the context of Vancouver's success. For instance, the meaningful participation of the Tijuana Police Department as full partners within the city's public health sector, as has been the case in Vancouver with the VPD, is likely critical to the implementation of the public health approach codified within the *Narcomenudeo* law.^{28,22,36} Furthermore, educating police in Tijuana could potentially reduce arbitrary policing practices that are contrary to the public health goals of Mexico's drug policy reform and thereby reduce barriers to NSP and MMT uptake among PWID.²⁸ This will require ensuring proper salary and pay for police officers in order to strengthen the rule of law in Tijuana as well as improving management practices, reducing staff turnover and limiting police corruption.^{26,28} A binational project between the University of California, San Diego School of Medicine and the U.S.-Mexico Border Health Commission, Mexico Section, is currently in the process of creating a police education program in collaboration with the Tijuana police department.⁵⁰ The project, called Proyecto ESCUDO (SHIELD), aims to integrate education on occupational safety—including avoiding needle stick injuries (NSIs)—with education on the prevention of HIV/AIDS as well as police behaviours that may inter-

fere with these preventative measures.⁵⁰ This represents a promising step towards reducing arbitrary policing behaviours, and ongoing research will determine the impacts of this partnership in reducing injection-related harms among PWID in Tijuana.

However, addressing policing behaviours alone will not sufficiently reduce injection-related harms if there is no concurrent scale-up of treatment and harm reduction services for PWID.²² In Vancouver, scale-up of NSP and MMT is due in part to the presence of well-resourced systems and institutions such as Vancouver Coastal Health—the local health authority responsible for Vancouver's Downtown Eastside neighbourhood, and which manages a range of harm reduction initiatives—along with support from regional and local stakeholders.^{30,38,58} Furthermore, the decentralization of NSP services and the provision of MMT free of charge has been critical to reducing barriers to NSP and MMT access by PWID in Vancouver.^{30,41} In order for a similar scale-up of NSPs and MMT in Tijuana to be successful, municipal and regional Mexican stakeholders—such as police and politicians—will need to advocate for coverage of MMT under Mexico's universal healthcare system, *Seguro Popular*, in order to reduce economic barriers for PWID. While other strategies may exist for increasing MMT use among PWID in Tijuana, ensuring methadone free of charge and increased access to services has previously been shown to be effective for increasing MMT enrollment in various settings internationally.⁵⁹ An increase in the number of accessible NSPs in areas with high prevalence of injection drug use across Tijuana is also needed.^{30,22} The simultaneous scale-up of harm reduction services along with the meaningful participation of the Tijuana police in seeking to achieve the public health goals of the *Narcomenudeo* law may result in substantial reduction of injection related harms among PWID including HIV infection, similar to what has been observed in Vancouver.

CONCLUSION

Vancouver and Tijuana are two border cities linked by a large North American drug trafficking route that has ensured easy access to narcotic drugs and subsequent high rates of injection drug use in both municipalities. However, in both cities, drug policy implementation at the local level differs drastically from their respective overarching national policy environments. In Mexico, and in Tijuana in particular, the *Narcomenudeo* law is a potentially meaningful step towards addressing the high rates of drug-related harms including HIV transmission among PWID. However, there are two overarching barriers to the success of this drug policy at the local level, including the education of Tijuana's local police force and the scale up of addiction and harm reduction services. The Four Pillars approach in Vancouver, implemented within a national policy environment hostile to harm reduction, may be a potentially useful framework for Mexican cities such as Tijuana, wherein structural barriers to drug policy reform—such as a lack of evidence-based addiction treatment and arbitrary policing practices—remain. This is especially important given that national drug policy in Mexico is supportive of harm reduction services and a public health approach to drug related harms, unlike what is seen in Canada. Ultimately, in an era where drug policy reform is expanding to a number of settings worldwide, the experiences in Tijuana and Vancouver can provide insight for effective policy implementation in different settings internationally.^{60,61} For example, Tijuana's experience in failing to meaningfully operationalize a national drug policy that prioritizes a harm reduction approach makes it clear that there may be a variety of barriers to successful implementation at the local level. As such, determining what barriers exist prior to legislation may allow other countries undergoing drug policy reform to avoid similar challenges to policy implementation. By contrast, given that many countries are still steadfastly opposed to harm reduction, the example of Vancouver makes it clear that effective public health responses to HIV risk among PWID can still occur within enforcement-based policy environments through strong political mobilization and community support.^{15,29} Given that the 2016 UN General Assembly Special Session (UNGASS) will focus on international goals with respect to addressing “an integrated and balanced strategy to counter the

world drug problem,” further research and reports on the implications of national policy and local implementation of drug policies will likely emerge in the near future.⁶² Ultimately, through a comparison of local drug policy environments in Vancouver and Tijuana, it is apparent that drug policy reform in and of itself will have little impact on HIV risk reduction among PWID populations unless it is appropriately resourced and meaningfully supported.

Acknowledgments

Dan Werb is supported by a NIDA Avenir Award (DP2 DA040256-01) and the Canadian Institutes of Health Research (MOP-79297). Steffanie Strathdee is supported by a NIDA MERIT award R37 DA019829.

References

- Centres for Disease Control and Prevention. HIV and AIDS — United States , 1981 – 2000. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5021a2.htm>. 2001;50(21):430-434.
- UNAIDS. Global Report: UNAIDS Report on the Global AIDS Epidemic 2013.; 2013. http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Global_Report_2013_en_1.pdf. Accessed October 7, 2015.
- UNODC. World Drug Report 2004. 2004:47-52.
- World Health Organization. HIV/AIDS. People who inject drugs. 2015. <http://www.who.int/hiv/topics/idu/en/>. Accessed December 5, 2015.
- Bewley-Taylor BD, Jelsma M. Fifty Years of the 1961 Single Convention on Narcotic Drugs : A Reinterpretation. 2011;(12):1-20.
- Bewley-Taylor D, Jelsma M. Regime change: Re-visiting the 1961 Single Convention on Narcotic Drugs. *Int J Drug Policy*. 2012;23(1):72-81. doi:10.1016/j.drugpo.2011.08.003.
- United Nations. Convention on Psychotropic substances. 1971. http://www.unodc.org/pdf/convention_1971_en.pdf.
- United Nations. Convention against illicit drugs and psychotropic substances. https://www.unodc.org/pdf/convention_1988_en.pdf. 1989;5(4).
- International Harm Reduction Association. What is harm reduction? 2015. <http://www.ihrna.net/what-is-harm-reduction>. Accessed October 12, 2015.
- World Health Organization. Effectiveness of Sterile Needle and Syringe Programming in Reducing HIV/AIDS Among Injecting Drug Users. *Who*. 2004;1-30.
- Unaid. WHO, UNODC, UNAIDS Technical Guide. 2009.
- Strathdee S a., Magis-Rodriguez C, Mays VM, Jimenez R, Patterson TL. The Emerging HIV Epidemic on the Mexico-U.S. Border: An International Case Study Characterizing the Role of Epidemiology in Surveillance and Response. *Ann Epidemiol*. 2012;22(3):426-438.
- PHAC. Estimates of HIV Prevalence and Incidence in Canada , 2011 Estimate of the number of new HIV infections in 2011. 2015:1-7.
- UNODC. Drug Trafficking. Mexico, Central America and the Caribbean. 2015. <https://www.unodc.org/unodc/en/drug-trafficking/mexico-central-america-and-the-caribbean.html>. Accessed November 4, 2015.
- Linden IA, Mar MY, Werker GR, Jang K, Krausz M. Research on a vulnerable neighborhood - The Vancouver downtown eastside from 2001 to 2011. *J Urban Heal*. 2013;90(3):559-573. doi:10.1007/s11524-012-9771-x.
- Werb D, Kerr T, Nosyk B, Strathdee S, Montaner J, Wood E. The temporal relationship between drug supply indicators: an audit of international government surveillance systems. *BMJ Open*. 2013;3(9):e003077.
- Evan Wood, Mark W Tyndall, Calvin Lai JSM and TK. Impact of a medically supervised safer injecting facility on drug dealing and other drug-related crime. *Subst Abuse Treat Prev Policy*. 2006;5:1-5. doi:10.1186/1747-597X-1-Received.
- Werb D, Kerr T, Buxton J, et al. Patterns of injection drug use cessation during an expansion of syringe exchange services in a Canadian setting. *Drug Alcohol Depend*. 2013;132(3):535-540.
- BC Centre for Disease Control. HIV in British Columbia: Annual Surveillance Report 2011.; 2012. doi:http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/STI/HIV_Annual_Report_2011_20111011.pdf.
- Magis-Rodriguez C, Brouwer KC, Morales S, et al. HIV prevalence and correlates of receptive needle sharing among injection drug users in the Mexican-U.S. border city of Tijuana. *J Psychoactive Drugs*. 2005;37(May 2015):333-339.
- Strathdee S a., Fraga WD, Case P, et al. “Vivo para consumirla y la consumo para vivir” [“I live to inject and inject to live”]: High-Risk injection behaviors in Tijuana, Mexico. *J Urban Heal*. 2005;82(3):58-73.
- Werb D, Wagner KD, Beletsky L, Gonzalez-Zuniga P, Rangel G, Strathdee S a. Police bribery and access to methadone maintenance therapy within the context of drug policy reform in Tijuana, Mexico. *Drug Alcohol Depend*. 2015;148:221-225.
- Department of Justice. National Anti-Drug Strategy Evaluation. 2015:1-26. www.justice.gc.ca/eng/rp-pr/cp-pm/eval/rep-rap/12/nas-sna/p1.html.
- Webster PC. The redefining of harm reduction programs. *CMAJ*. 2012;184(1):E21-E22. doi:10.1503/cmaj.1094054.
- Dooling K, Rachlis M. Vancouver’s supervised injection facility challenges Canada’s drug laws. *CMAJ*. 2010;182(13):1440-1444. doi:10.1503/cmaj.100032.
- Werb D, Mora MEM, Beletsky L, et al. Mexico’s drug policy reform: Cutting edge success or crisis in the making? *Int J Drug Policy*. 2014;25:823-825.
- Mackey TK, Werb D, Beletsky L, Rangel G, Arredondo J, Strathdee S a. Mexico’s “ley de narcomenudeo” drug policy reform and the international drug control regime. *Harm Reduct J*. 2014;11(1):31.
- Beletsky L, Wagner KD, Arredondo J, et al. Implementing Mexico’s “Narcomenudeo” Drug Law Reform: A Mixed Methods Assessment of Early Experiences Among People Who Inject Drugs. *J Mix Methods Res*. 2015.
- McCann EJ. Expertise, truth, and urban policy mobilities: Global circuits of knowledge in the development of Vancouver, Canada’s “four pillar” drug strategy. *Environ Plan A*. 2008;40(4):885-904. doi:10.1068/a38456.
- Hyshka E, Strathdee S, Wood E, Kerr T. Needle exchange and the HIV epidemic in Vancouver: Lessons learned from 15 years of research. *Int J Drug Policy*. 2012;23(4):261-270. doi:10.1016/j.drugpo.2012.03.006.
- Wood E, Kerr T, Montaner JS, et al. Rationale for evaluating North America’s first medically supervised safer-injecting facility. *Lancet Infect Dis*. 2004;4(5):301-306. doi:10.1016/S1473-3099(04)01006-0.
- Riley D. Drugs and Drug Policy in Canada: a Brief Review and Commentary. *Parliam Canada*. 1998:1-29.
- The Vancouver Police Department. Vancouver Police Department Drug Policy. <http://vancouver.ca/police/assets/pdf/reports-policies/vpd-policy-drug.pdf>. 2006;(September):1-10.
- Lisa Maher and David Dixon. Policing and Public Health: Law Enforcement and Harm Minimization in a Street-level Drug Market. *Br J Criminol*. 1999;39(4).
- Aitken C, Moore D, Higgs P, Kelsall J, Kerger M. The impact of a police crackdown on a street drug scene: evidence from the street. *Int J Drug Policy*. 2002;13(3):193-202. doi:10.1016/S0955-3959(02)00075-0.
- DeBeck K. Police and public health partnerships: Evidence from evaluation of Vancouver’s supervised injection facility. *Subst Abuse Treat Prev Policy*. 2008;3(17):1-10. doi:10.1186/1747-597X-3-Received.
- Bailey I. Vancouver police urge drug addicts to use Insight following deaths. *The Globe and Mail*. <http://www.theglobeandmail.com/news/british-columbia/vancouver-police-warn-drug-addicts-to-use-insight/article14366192/>. Published 2013. Accessed October 22, 2015.
- Kerr T, Marsh D, Li K, Montaner J, Wood E. Factors associated with methadone maintenance therapy use among a cohort of polysubstance using injection drug users in Vancouver. *Drug Alcohol Depend*. 2005;80(3):329-335. doi:10.1016/j.drugalcdep.2005.05.002.
- Anderson, JF and Warren L. Client Retention in British Columbia Methadone Program. 1996-1999. *Can J Public Health*. 2004;95(2):104-109.
- College of Physicians and Surgeons of British Columbia. Methadone Maintenance Program. 2015. <https://www.cpsbc.ca/programs/bc-methadone-program/methadone-maintenance>. Accessed October 25, 2015.
- Kerr T, Small W, Buchner C, et al. Syringe sharing and HIV incidence among injection drug users and increased access to sterile syringes. *Am J Public Health*. 2010;100(8):1449-1453. doi:10.2105/AJPH.2009.178467.
- Small D. Fools rush in where angels fear to tread. Playing God with Vancouver’s Supervised Injection Facility in the political borderland. *Int J Drug Policy*. 2007;18(1):18-26. doi:10.1016/j.drugpo.2006.12.013.
- Catalina Perez Correa. Drug Law Reform in Mexico.; 2014.
- Strathdee S a., Beletsky L, Kerr T. HIV, drugs and the legal environment. *Int J Drug Policy*. 2015;26:S27-S32.
- Shirk D a. A Tale of Two Mexican Border Cities: The Rise and Decline of Drug Violence in Juárez and Tijuana. *J Borderl Stud*. 2014;29(4):481-502. doi:10.1080/08865655.2014.982470.
- Miller CL, Firestone M, Ramos R, et al. Injecting drug users’ experiences of policing practices in two Mexican-U.S. border cities: Public health perspectives. *Int J Drug Policy*. 2008;19:324-331.
- OECD. OECD Better Life Index. <http://www.oecd-betterlifeindex.org/countries/mexico/>. Accessed December 6, 2015.
- Beletsky L, Lozada R, Gaines T, et al. Syringe confiscation as an HIV risk factor: The public health implications of arbitrary policing in Tijuana and Ciudad Juárez, Mexico. *J Urban Heal*. 2013;90(2):284-298.
- INCB. Report of the International Narcotics Control Board for 2010.; 2011. https://www.incb.org/documents/Publications/AnnualReports/AR2010/AR_2010_English.pdf.
- Strathdee S a, Arredondo J, Rocha T, et al. A police education programme to integrate occupational safety and HIV prevention: protocol for a modified stepped-wedge study design with parallel prospective cohorts to assess behavioural outcomes. *BMJ Open*. 2015;5(8).
- Pinedo M, Burgos JL, Ojeda VD. A critical review of social and structural conditions that influence HIV risk among Mexican deportees. *Microbes Infect*. 2014;16:379-390.
- Robertson AM, Garfein RS, Wagner KD, et al. Evaluating the impact of Mexico’s drug policy reforms on people who inject drugs in Tijuana, B.C., Mexico, and San Diego, CA, United States: a binational mixed methods research agenda. *Harm Reduct J*. 2014;11(1):4.
- Philbin MM, Mantsios A, Lozada R, et al. Exploring stakeholder perceptions of acceptability and feasibility of needle exchange programmes, syringe vending machines and safer injection facilities in Tijuana, Mexico. *Int J Drug Policy*. 2009;20(4):329-335.
- Kerr T, Palepu A. Safe injection facilities in Canada: Is it time? *CMAJ*. 2001;165(4):436-437.
- BC Harm Reduction Strategies and Services. BC Harm Reduction Strategies and Services Committee. Policy Indicators Report. 2014. [http://www.bccdc.ca/resource-gallery/Documents/Educational Materials/Epid/Other/BCHRSS2012PolicyIndicatorsReportDRAFTJuly2014.pdf](http://www.bccdc.ca/resource-gallery/Documents/Educational%20Materials/Epid/Other/BCHRSS2012PolicyIndicatorsReportDRAFTJuly2014.pdf). Accessed December 6, 2015.
- Philbin MM, Lozada R, Zúñiga ML, et al. A qualitative assessment of stakeholder perceptions and socio-cultural influences on the acceptability of harm reduction programs in Tijuana, Mexico. *Harm Reduct J*. 2008;5:36.
- Burris S, Blankenship KM, Donoghoe M, et al. “The Risk Environment” Addressing for Injection Drug Users : The Mysterious Case of the Missing Cop. *Milbank Q*. 2004;82(1):125-156.
- Vancouver Coastal Health. Harm Reduction. 2014. <http://www.vch.ca/your-health/health-topics/harm-reduction/harm-reduction>. Accessed October 10, 2015.
- Harm Reduction International. The Global State of Harm Reduction 2012: Towards an Integrated Response.; 2012. http://www.ahrn.net/library_upload/uploadfile/file3130.pdf.
- Hughes CE, Stevens A. A rounding success or a disastrous failure: Re-examining the interpretation of evidence on the Portuguese decriminalisation of illicit drugs. *Drug Alcohol Rev*. 2012;31(January):101-113. doi:10.1111/j.1465-3362.2011.00383.x.
- Chatwin C. Mixed Messages from Europe on Drug Policy Reform : The Cases of Sweden and the Netherlands.; 2015.
- UNODC. Special Session of the General Assembly UNGASS 2016. 2015. <https://www.unodc.org/ungass2016/en/about.html>. Accessed October 12, 2015.