

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;
3. International Centre for Science in Drug Policy, St. Michael's Hospital, Toronto, Canada.

Senior Supervisor: Dr. Robert Hogg

Second Reader: Dr. William Small

[Dr. Werb and Dr. Strathdee provided editorial support for this capstone project. The paper has been submitted to the student-run Journal of Global Health for publication.]

Word Count: 5,795

References: 74

Capstone Timeline

- Draft of paper due September 15th 2015
- Revisions: September 15th 2015 to November 1st 2015
- Final Draft due November 15th 2015
- Date of primary proposed presentation: Tuesday January 19th 2016 12pm
- Date of secondary proposed presentation: Tuesday January 12th 2016 12pm
- Final revisions due: February 29th 2016

Table of Contents

Abstract.....	4
INTRODUCTION.....	5
VANCOUVER AND TIJUANA: UNIQUE POLICY ENVIRONMENTS	9
Vancouver, Canada	9
Tijuana, Mexico	13
Comparing Tijuana and Vancouver	16
FUTURE RECOMMENDATIONS	18
CONCLUSION	20
CRITICAL REFLECTION	21
What did you learn about yourself in the process of doing this work?.....	21
How did your research/practice influence others?	22
What would you do differently?	22
Acknowledgments.....	23
APPENDIX	23
Table 1. Comparison of factors between Vancouver and Tijuana that impact local-level drug policy implementation.	23
References	24

Abstract

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 Conservative 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 PWID 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 U.S. Centers for Disease Control published their first report on what would soon be known as the HIV/AIDS epidemic in the U.S in 1981.¹ 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,”⁵ 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^{7,8} 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.”⁹ These harm reduction initiatives, such as needle and syringe distribution programs (NSP), supervised injection facilities (SIF) and methadone maintenance therapy (MMT), 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, HIV incidence was at 12.1% among PWID,¹⁹ as compared to a prevalence of 0.2% in Canada overall.¹³ Similarly, Mexico has a low country-wide HIV prevalence of 0.3%;¹² 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 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 and national level, strong provincial, municipal and community support in Vancouver led to the institution of the municipal 'Four Pillars Approach,' which was launched in 2001 under the Liberal federal government.^{15,25,29} 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} However, the election of the Conservative federal government in 2006 placed this unique local emphasis on harm reduction in contrast with the Conservative opposition to harm reduction

approaches.^{29,32} The on-going success of this unique local response -despite opposition from the Conservative federal government - is due to support from key stakeholders, such as the provincial and local government, the Vancouver police department (VPD), 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 local 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

There are many factors that contributed to the rise of the HIV/AIDS epidemic in the DTES. For instance, the shift in injection drug use patterns from heroin to cocaine increased injection frequency – from 2 times a day to approximately 40 times a day- which propagated the spread of HIV/AIDS through increased re-use and sharing of syringes associated with maintaining cocaine binging patterns.^{36,37} The risky injection patterns associated with injecting cocaine were compounded by a lack of sterile syringes along with the high HIV viral load among newly infected PWID, which increased the likelihood of HIV transmission through a single syringe sharing event.³⁶ Lastly, the concentration of single room occupancy (SRO) hotel rooms in the DTES coupled with the de-institutionalization of the mentally ill led to the formation of a condensed neighbourhood of socially and economically vulnerable individuals in the DTES.^{36,38} The combination of these social, structural and economic conditions propagated risky injection practices that saw the HIV prevalence increase almost 10 fold in a very short period of time.³⁶ By 1997, the local health authority of Vancouver declared a ‘public health emergency’ after the incidence of HIV/AIDS reached as high as 18% among PWID in the DTES.²⁹

The booming epidemic of HIV/AIDS among PWID in the DTES led to vigorous political mobilization by select community groups, such as the Vancouver Area Network of Drug Users (VANDU) and From Grief to Action (FGTA).^{15,29} Through progressive activism and media attention - resulting in increased public awareness - these community groups pressured municipal and provincial governments to support harm reduction initiatives in the DTES.^{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 VANDU 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 among PWID in the DTES in 1990.²⁹

However, due to strong local drug enforcement presence in the DTES, the implementation of the Four Pillars approach was not met with immediate success. For example, two years after the adoption of the Four Pillars approach, the VPD launched a police crackdown initiative called the City-Wide Enforcement team (CET) with the aim of addressing the open-air illicit drug market in the DTES and reducing public disorder.^{39,40} An evaluation on the impacts of policing during this period highlighted that police displaced PWID away from addiction services and increased risky injection practices, such as rushed injections and syringe sharing.³⁹⁻⁴¹ Police crackdowns in the DTES during the early implementation period were also associated with injecting in risky environments - such as alleyways or other hidden locations- in order to evade detection by police.^{39,42} These enforcement practices undermined the success of public health initiatives in reducing injection related harms among PWID during the early implementation of the Four Pillars approach.³⁹ As such, public health officials and stakeholders aimed to align public health and enforcement goals in order to address the harms associated with policing in the DTES. As a result, Vancouver's first SIF – Insite – was launched in 2003 with the aim to simultaneously increase public order in the DTES and reduce injection related harms among PWID.^{39,42}

Insite was opened as an exemption to the Controlled Drugs and Substance Act under the Liberal federal government of Canada, with an accompanying evaluation plan aimed at assessing its public health and enforcement impacts.^{25,43} An array of peer-reviewed literature published on

Insite in the early years after its opening highlighted how the site helped to increase public order in the DTES, decrease drug-related crime, and increase addiction service utilization as well as safe injection practices.⁴³⁻⁴⁷ The spike in literature on this topic- in combination with the on-going support from provincial, municipal and community stakeholders - further helped to create balance between public health and enforcement goals in the DTES. By 2006, support for the tenets of the Four Pillars approach from the VPD was explicitly expressed in the Vancouver Police Department Drug Policy report, which stated that they “support the Four Pillars approach in the City of Vancouver”³³ including the “public health objectives of needle exchange and the Health Canada mandated research project at the Supervised Injection Site.”³³ Further support for harm reduction and public health initiatives occurred in 2013, when the VPD released an advisory urging PWID to use Insite after two individuals died of heroin overdose.⁴⁸ Even though drug use is criminalized by Conservative federal law, these reports suggest that currently, the local police in Vancouver are responding to drug-related harms among PWID in a manner that appears to seek a balance between drug enforcement and public health goals.⁴⁹

Beyond the successes of Insite, Vancouver has also experienced a substantial local expansion of evidence-based harm reduction and addiction services such as NSP and MMT.^{18,50} NSPs in Vancouver expanded significantly from one site in 1996 to 29 sites in 2010,¹⁸ while British Columbia’s provincial MMT program – the largest in Canada – has also increased significantly.^{18,50,51} 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.^{50,52} In a prospective study from 1996-2005, researchers found that MMT attendance in a cohort of PWID in Vancouver increased from 11% at baseline to an additional 31% during follow-up.⁵⁰ Along with the scale-up of antiretroviral

therapy as well as the ongoing operation of Insite, 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.^{19,32,53} 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,^{18,54} to effectively reduce HIV transmission.

Despite support for evidence-based harm reduction initiatives by the VPD as well as municipal and provincial policymakers, the Conservative Canadian federal government has employed considerable resources to limit the expansion of harm reduction interventions.⁵⁴ Five years after the Four Pillars approach was launched under a largely supportive Liberal federal government, the Conservative party was elected in 2006 and subsequently removed harm reduction as a key tenets of the federal drug strategy.²³⁻²⁵ Indeed, in 2006, Canadian Prime Minister Stephen Harper announced that “we as a government will not use taxpayers’ money to fund drug use,”²⁵ and placed a moratorium on the further expansion of SIFs in Canada.²⁵ Despite the Conservative 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 Conservative 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.^{28,55} 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.^{27,55,56} 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 2013.⁵⁵ By 2013 only two thirds of Mexican states had changed their criminal codes to reflect overarching national policy changes.⁵⁵ 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.⁵⁵ 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.^{55,57} 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.⁵⁵ In 2013 alone, 7000 Mexican civilians were arrested by federal forces on small-scale drug related charges.⁵⁵ 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.⁵⁵

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} Similar to the early implementation of the Four Pillars approach in Vancouver, 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.^{22,28,56} 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 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.

There are many factors within 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,⁵⁸ as compared to the average per capita household net-adjusted disposable income of approximately 13,000 US dollars a year in Mexico overall.⁵⁹ . This may contribute to corruption among officers whose job demands do not line up with the reality of departmental pay scales.⁵⁸

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.⁶⁰ This 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.^{58,61} 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.⁶² 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.^{12,63,64} Indeed, approximately 300 Mexican deportees are displaced to Tijuana daily, with 135,000 deported in 2010 alone.⁶³ 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.⁶³ 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, there remain significant obstacles to effective treatment utilization among PWID despite the implementation of the *Narcomenudeo* law.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,²² while other studies have found that fear of police interaction is one of the major barriers to NSP use in Tijuana.⁶⁵ 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 the disparities currently observed between Vancouver and Tijuana, as shown in Table 1. 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.^{25,54,66} 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.^{63,64} 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.⁶⁷ 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 presently observed in Vancouver.^{22,28} Fourth, unlike in 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, local policing activities have been extremely influential to the success of drug policy implementation in both Vancouver and Tijuana. While law enforcement in Vancouver are increasingly supportive of the research goals of addiction and harm reduction services,⁴⁹ policing practices during early period of the Four Pillars approach limited the success of harm reduction initiatives and displaced PWID away from addiction and treatment services.³⁹ Similarly, policing in Tijuana continues to be a risk factor for injection-related behaviors associated with HIV transmission among PWID populations.^{26,28,56} In Tijuana specifically, these discrepancies in policing practices may be due to the Tijuana police's lack of awareness for the specific tenets of the *Narcomenudeo* law in Mexico, as well as the lack of changes in and implementation of state-level policy.^{28,55} The impacts of local level policing practices on the success of drug policy implementation has been previously observed in other settings internationally.^{34,68} For example, in Australia - wherein the national drug policy 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.^{34,35,68} These examples highlight the potential limits of written national drug policies in influencing local responses to injection-driven HIV epidemics, especially during early implementation wherein

legal uncertainty and arbitrary policing practices may limit policy success. As such, 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.^{68,69}

FUTURE RECOMMENDATIONS

Given the similarities between Vancouver and Tijuana in the early years after policy implementation, it is valuable to consider Tijuana’s challenges in effectively implementing a public health-oriented drug policy within the context of Vancouver’s current success. For instance, the meaningful participation of the Tijuana Police Department as full partners within the city’s public health sector, as is currently the case in Vancouver with the VPD, is likely critical to the implementation of the public health approach codified within the *Narcomenudeo* law.^{22,28,49} 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 bi-national 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.⁶² 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 interfere with these preventative measures.⁶² 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 which manages a range of harm reduction initiatives⁷⁰ - along with support from regional and local stakeholders.^{30,50} Further, 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.^{30,53} 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.⁷¹ An increase in the number of accessible NSPs in areas with high prevalence of injection drug use across Tijuana is also needed.^{22,30} 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 to 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, the *Narcomenudeo* law is a potentially meaningful step towards addressing the high rates of drug-related harms including HIV transmission among PWID, and in Tijuana in particular. However, there are two overarching local 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, currently 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 under the Conservative federal government in Canada. Ultimately, in an era where drug policy reform is expanding to a number of settings worldwide,^{72,73} the experiences in Tijuana and Vancouver can provide insight for effective policy implementation in different settings internationally. 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 experience in 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,”⁷⁴ further research and reports on the implications of national policy and local implementation of drug policies will likely emerge in the near future.⁷⁴ 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.

CRITICAL REFLECTION

What did you learn about yourself in the process of doing this work?

I learned a lot about myself throughout the process of doing research for this project, which was heavily influenced by my time spent at UCSD during my practicum. I would like to focus on three specific things in particular. First, I learned that working with the community and interacting with people is something that is very important to me. Through my practicum experience I was able to meet and interact with study participants in Tijuana, which really cemented my drive to work with communities. I really enjoyed working on this project, but I would have been even more engaged if I was able to include personal interviews or qualitative information that allowed me to be able to directly interact with individuals in both Tijuana and Vancouver. Second, I learned that I was confidently able to incorporate my knowledge from my MPH courses into the writing of my capstone, which was a really fulfilling experience. In writing this project, I was able to recognize the myriad of factors that impact health for PWID - including the economic, political and social

determinants of health – that have been a major focus of many of my courses. It was really rewarding to apply what I had learned in the classroom into a work related setting, and through this I was able to better appreciate the big picture theories and concepts of public health that I had been taught throughout my MPH degree. Third, I realized through writing my capstone and other manuscripts, that I need to continue practice writing in order to continually improve my writing skills. Before writing this project, I was not a very confident writer, but through the help and guidance of my mentor – Dr. Dan Werb – I was able to become more confident in my ability to write and have enjoyed this project as a means to further my literary and authorship skills.

How did your research/practice influence others?

This work has the potential to influence others in that it may be well received by individuals in positions of power to change policy and implement positive change in the lives of PWID. I am very interested to see how this work will influence future studies of drug policy reform and implementation, especially given that reform is currently occurring in many places globally. Furthermore, I think that this manuscript has the ability to influence researchers to think about the parallels between international settings. It is really interesting having lived in Vancouver and also having had the short experience to live in San Diego/Tijuana, which allowed me to experience firsthand the differences that helped me to confidently be able to compare and contrast the settings in both places. In addition, I am working towards having this work published in a journal, and as such this work will hopefully be read by many people and be able to influence future scholars.

What would you do differently?

I would have also included primary data analysis into my capstone project and perhaps be able to see the results of epidemiological research on drug policy implementation at the national, regional and local level. This report was a literature review, but it would be interesting to complete a research study comparison, perhaps using qualitative data. Finally, as I also mentioned earlier, I

would have really liked to be more immersed in the communities of PWID in both Tijuana and Vancouver, and would love to further this study by incorporating qualitative and/or quantitative data. Interestingly, my mentor for this project, Dan Werb, has received funding for a large combination drug cohort study (PRIMER) that involves looking at PWID across six cities (including Vancouver, Tijuana, San Diego, Marseille, Paris and Bordeaux) so there may be room for an expansion of this work perhaps with that study in the future.

Acknowledgments

I would like to thank Dr. Dan Werb and Dr. Steffanie Strathdee for their on-going help and editorial support with this project. I would also like to thank Dr. Robert Hogg for the opportunity to work with him during my MPH and his support and guidance during my master's degree, as well as Dr. William Small for agreeing to be my second reader on this project.

APPENDIX

Table 1. Comparison of factors between Vancouver and Tijuana that impact local-level drug policy implementation.

	VANCOUVER	TIJUANA
Stakeholder and community involvement	Mobilized and organized community groups	Deportee community with little social capital or

	Support from local and regional politicians	resources for political mobilization
Treatment availability	Comprehensive methadone maintenance therapy program provided free of charge	Limited methadone maintenance therapy availability and pay-for service charges
Police support	Police-public health partnership which encourages use of supervised injection facility.	On-going police practices that hinder access to addiction and health services despite law reform
Harm reduction availability	Expanding and de-centralized needle and syringe distribution program that provides safe injection material, along with Canada's only supervised injection facility. Supported by organized systems and institutions.	Lack of funding and institutions for harm reduction. Limited needle and syringe exchange availability, no supervised injection site.

References

1. Centres for Disease Control and Prevention. HIV and AIDS — United States , 1981 – 2000. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5021a2.htm>.

2. 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.
3. UNODC. World Drug Report 2004. 2004:47-52.
4. World Health Organization. HIV/AIDS. People who inject drugs. <http://www.who.int/hiv/topics/idu/en/>. Published 2015. Accessed December 5, 2015.
5. Bewley-Taylor BD, Jelsma M. Fifty Years of the 1961 Single Convention on Narcotic Drugs : A Reinterpretation. 2011;(12):1-20.
6. 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.
7. United Nations. Convention on Psychotropic substances. 1971. http://www.unodc.org/pdf/convention_1971_en.pdf.
8. United Nations. Convention against illicit drugs and psychotropic substances. https://www.unodc.org/pdf/convention_1988_en.pdf.
9. International Harm Reduction Association. What is harm reduction? <http://www.ihra.net/what-is-harm-reduction>. Published 2015. Accessed October 12, 2015.
10. World Health Organization. Effectiveness of Sterile Needle and Syringe Programming in Reducing Hiv/Aids Among Injecting Drug Users. *Who*. 2004:1-30.
11. Unaid. WHO, UNODC, UNAIDS Technical Guide. 2009.
12. 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.
13. PHAC. Estimates of HIV Prevalence and Incidence in Canada , 2011 Estimate of the number of new HIV infections in 2011. 2015:1-7.
14. UNODC. Drug Trafficking. Mexico, Central America and the Caribbean. <https://www.unodc.org/unodc/en/drug-trafficking/mexico-central-america-and-the-caribbean.html>. Published 2015. Accessed November 4, 2015.
15. 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.
16. 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.
17. 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 Abus Treat Prev Policy*. 2006;5:1-5. doi:10.1186/1747-597X-1-Received.
18. 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.

19. 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.
20. Magis-Rodríguez 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.
21. 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.
22. 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.
23. Department of Justice. National Anti-Drug Strategy Evaluation. www.justice.gc.ca/eng/rp-pr/cp-pm/eval/rep-rap/12/nas-sna/pl.html. Published 2015.
24. Webster PC. The redlining of harm reduction programs. *CMAJ*. 2012;184(1):E21-E22. doi:10.1503/cmaj.109-4054.
25. 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.
26. 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.
27. 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.
28. 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*. 2015:1-18.
29. 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.
30. 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.
31. 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.
32. Riley D. Drugs and Drug Policy in Canada: a Brief Review and Commentary. *Parliam Canada*. 1998:1-29.
33. The Vancouver Police Department. Vancouver Police Department Drug Policy. <http://vancouver.ca/police/assets/pdf/reports-policies/vpd-policy-drug.pdf>.
34. 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).
35. 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.
 36. O'Shaughnessy M V, Hogg RS, Strathdee S a, Montaner JSG. Deadly public policy: what the future could hold for the HIV epidemic among injection drug users in Vancouver. *Curr HIV/AIDS Rep.* 2012;9(4):394-400. doi:10.1007/s11904-012-0130-z.
 37. Tyndall MW, Currie S, Spittal P, et al. Intensive injection cocaine use as the primary risk factor in the Vancouver HIV-1 epidemic. *AIDS.* 2003;17(6):887-893. doi:10.1097/01.aids.0000050859.71999.ae.
 38. Shannon K, Ishida T, Lai C, Tyndall MW. The impact of unregulated single room occupancy hotels on the health status of illicit drug users in Vancouver. *Int J Drug Policy.* 2006;17(2):107-114. doi:10.1016/j.drugpo.2005.09.002.
 39. Small W, Kerr T, Charette J, Schechter MT, Spittal PM. Impacts of intensified police activity on injection drug users: Evidence from an ethnographic investigation. *Int J Drug Policy.* 2006;17:85-95.
 40. Wood E, Spittal PM, Small W, et al. Displacement of Canada's largest public illicit drug market in response to a police crackdown. *CMAJ.* 2004;170(10):1551-1556. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=400719&tool=pmcentrez&rendertype=abstract>. Accessed February 2, 2016.
 41. Shannon K, Rusch M, Shoveller J, Alexson D, Gibson K, Tyndall MW. Mapping violence and policing as an environmental-structural barrier to health service and syringe availability among substance-using women in street-level sex work. *Int J Drug Policy.* 2008;19:140-147.
 42. Kerr T, Small W, Wood E. The public health and social impacts of drug market enforcement: A review of the evidence. *Int J Drug Policy.* 2005;16(4):210-220. doi:10.1016/j.drugpo.2005.04.005.
 43. Tyndall MW, Kerr T, Zhang R, King E, Montaner JG, Wood E. Attendance, drug use patterns, and referrals made from North America's first supervised injection facility. *Drug Alcohol Depend.* 2006;83(3):193-198. doi:10.1016/j.drugalcdep.2005.11.011.
 44. Wood E, Kerr T, Small W, et al. Changes in public order after the opening of a medically supervised safer injecting facility for illicit injection drug users. *CMAJ.* 2004;171(7):731-734. doi:10.1503/cmaj.1040774.
 45. Stoltz JA, Wood E, Small W, et al. Changes in injecting practices associated with the use of a medically supervised safer injection facility. *J Public Health (Bangkok).* 2007;29(1):35-39. doi:10.1093/jpubhealth/fdl090.
 46. Milloy MJS, Kerr T, Tyndall M, Montaner J, Wood E. Estimated drug overdose deaths averted by North America's first medically-supervised safer injection facility. *PLoS One.* 2008;3(10):1-6. doi:10.1371/journal.pone.0003351.
 47. Wood E, Tyndall MW, Zhang R, et al. Attendance at supervised injecting facilities and use of detoxification services. *N Engl J Med.* 2006;354(23):2512-2514. doi:10.1056/NEJMc052939.

48. Bailey I. Vancouver police urge drug addicts to use Insite following deaths. *The Globe and Mail*. <http://www.theglobeandmail.com/news/british-columbia/vancouver-police-warn-drug-addicts-to-use-insite/article14366192/>. Published 2013. Accessed October 22, 2015.
49. 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.
50. 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.
51. Anderson, JF and Warren L. Client Retention in British Columbia Methadone Program. 1996-1999. *Can J Public Health*. 2004;95(2):104-109.
52. College of Physicians and Surgeons of British Columbia. Methadone Maintenance Program. <https://www.cpsbc.ca/programs/bc-methadone-program/methadone-maintenance>. Published 2015. Accessed October 25, 2015.
53. 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.
54. 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.
55. Catalina Perez Correa. *Drug Law Reform in Mexico*. Vol 47.; 2014.
56. Strathdee S a., Beletsky L, Kerr T. HIV, drugs and the legal environment. *Int J Drug Policy*. 2015;26:S27-S32.
57. 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.
58. 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.
59. OECD. OECD Better Life Index. <http://www.oecdbetterlifeindex.org/countries/mexico/>. Accessed December 6, 2015.
60. 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 Juarez, Mexico. *J Urban Heal*. 2013;90(2):284-298.
61. INCB. *Report of the International Narcotics Control Board for 2010*.; 2011. https://www.incb.org/documents/Publications/AnnualReports/AR2010/AR_2010_English.pdf.
62. 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).
63. 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.
 64. 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.
 65. 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.
 66. Kerr T, Palepu A. Safe injection facilities in Canada: Is it time? *CMAJ*. 2001;165(4):436-437.
 67. BC Harm Reduction Strategies and Services. BC Harm Reduction Strategies and Services Committee. Policy Indicators Report. [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). Published 2014. Accessed December 6, 2015.
 68. 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.
 69. 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.
 70. Vancouver Coastal Health. Harm Reduction. <http://www.vch.ca/your-health/health-topics/harm-reduction/harm-reduction>. Published 2014. Accessed October 10, 2015.
 71. Harm Reduction International. *The Global State of Harm Reduction 2012: Towards an Integrated Response*.; 2012. http://www.ahrn.net/library_upload/uploadfile/file3130.pdf.
 72. Hughes CE, Stevens A. A resounding 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.
 73. Chatwin C. *Mixed Messages from Europe on Drug Policy Reform : The Cases of Sweden and the Netherlands*.; 2015.
 74. UNODC. Special Session of the General Assembly UNGASS 2016. <https://www.unodc.org/ungass2016/en/about.html>. Published 2015. Accessed October 12, 2015.