

**PUBLIC INJECTION DRUG USE IN VANCOUVER'S  
DOWNTOWN EASTSIDE: ADDRESSING PUBLIC  
HEALTH AND PUBLIC ORDER CONCERNS**

by

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# APPROVAL

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## **Abstract**

This study investigates public injecting among participants enrolled in VIDUS using logistic regression analyses. Variables found to be significant and positively associated with public injection include: homelessness, frequent heroin injection, frequent crack use and binge drug use. Participation in addiction treatment was found to be negatively associated with public injecting. A sub-analysis of reported reasons for public injecting provided further support for a strong link between homelessness and public injecting. A range of policy options to address public injection drug use were subsequently evaluated against selected criteria. Outcomes of this evaluation indicate that expanding drug consumption facilities and building supportive housing are the policy initiatives expected to have the greatest impact on reducing public injecting. Moving towards the medical regulation of selected currently illegal drugs was also identified as having potential to have a positive impact on the health and social harms associated with public injecting.

**Keywords:** drug policy; right to health; medical regulation of psychoactive substances, drug consumption facilities, peer based outreach, law enforcement

## Executive Summary

Public injection drug use presents a range of serious public health and public order concerns which have long been identified by health professionals and policy makers as areas requiring decisive policy action. In recent years a number of new government initiatives have targeted these issues, including the ‘Vancouver Agreement’ in 2000 and the implementation of the ‘Four-Pillar Approach to Drug Problems in Vancouver’ in 2001. These initiatives have facilitated the adoption of specific policy actions including the establishment of a pilot supervised injection facility in 2003 as well as periodic police crackdown campaigns targeting public drug use. Despite these initiatives and interventions, public injection drug use continues to occur in Vancouver’s DTES.

Previous investigations have described public injecting and public injectors in other cities, but the specific characteristics of Vancouver’s population of public injectors remains largely unexplored, and factors perpetuating this behaviour appear to be poorly understood by local policy makers. Currently, the City of Vancouver is in the process of implementing a range of initiatives through *Project Civil City*, which aims to reduce public disorder. However, a number of *Project Civil City* initiatives are not rooted in scientific evidence and have potential to exacerbate health-related harms associated with public drug use.

To better inform local policy, the following study was undertaken to examine key characteristics and behaviours of people who inject drugs in public spaces and to identify factors that may perpetuate this risky behaviour. Characteristics significantly associated with public injection drug users in Vancouver were identified through logistic regression analysis and additional sub-analyses were undertaken to explore the perspectives of public injectors and gain insight into why individuals engage in this behaviour. The findings of these quantitative and qualitative analyses highlight a strong association between public injecting and homelessness.

Considering these findings in light of existing literature, eight potential policy interventions to target public injection drug use were identified and subsequently evaluated against five selected criteria including: effectiveness (specifically in relation to addressing both the public health and public order components of public injection drug use); political feasibility; cost effectiveness; adherence to human rights principles and associated risks. Consultation

through semi-structured interviews with six selected experts in the field of addictions and drug policy, including people who use drugs, provided an additional range of perspectives concerning the potential effectiveness and political feasibility of presented policy responses.

Although homelessness and a lack of appropriate housing were consistently identified as root factors perpetuating public drug use, the policy option that rates the highest overall in the five criteria categories is the 'expand drug consumption facilities' proposal, which is considered to be most effective in addressing public injection drug use behaviour, as well as cost effective and relatively politically feasible. Increasing supportive housing options for people with severe addictions is an important and necessary policy step; however, it is recognized that constructing units of housing is a lengthy process and the benefits of adopting this policy approach would not be realized for a number of years. In turn, the central policy recommendation put forward in this analysis is to pursue a combination of policy actions. Specifically it is proposed that the most effective policy approach to address public injection drug use is to expand access to drug consumption facilities, create 750 units of supportive housing for active injection drug users and move towards the medical regulation of selected psychoactive substances. Together these three policy approaches target risk-producing structural factors by altering the context of injection drug use and thereby enable safer injection practices and bring injectors off the streets. Another advantage of this policy combination is that it encompasses short and long-term components; expanding drug consumption facilities responds to the immediate needs of public drug users while building supportive housing addressed long-term issues. The broad scope of this bundle of policy options is expected to have the most potential to protect the health of people who inject drugs and significantly reduce public drug use.

There are a number of key implementation issues to consider for this policy option bundle. Specifically, for drug consumption facilities to be effective current limitations related to operational regulations and capacity have to be addressed to increase access to facilities. For supportive housing to be effective it must be properly resourced and managed to accommodate injection drug use and related activity. Additionally, given the unknowns surrounding aspects of the medical regulation of selected drugs implementation of this option should be done in incremental steps with consistent monitoring and evaluation.

Other recommended positive initiatives include expanding addiction treatment options for people with addictions and promoting peer-based outreach targeted at encouraging public injectors to inject in safer locations. However, these options are narrow in scope and have less potential than the previous options to modify structural factors associated with perpetuating public

injection drug use. As such, the adoption of these policy options is desirable, but only recommended if in conjunction with more structurally-focused interventions.

The current policy analysis concludes that law enforcement and urban redesign strategies, including those currently proposed in *Project Civil City*, are undesirable policy approaches associated with significant health, social and monetary costs. It is recommended that policy makers avoid these courses of action in favour of evidence-based policy approaches. Furthermore, the policy analysis portion of this capstone establishes the importance of considering the relationship between policy action and human rights principles. However, *Project Civil City* does not include a focused consideration of the human rights or public health impacts of proposed policy actions, and this failure reflects a serious flaw in the City of Vancouver's current approach to managing issues related to public disorder. The City of Vancouver is urged to require that all future policy action to address public drug consumption include a focused consideration of their impact on the health and wellbeing of vulnerable IDU populations.



## **Dedication**

This paper is dedicated to my Grandmother Ellen and her partner Sarah. I treasure our weekly dinners and the space to share my victories and defeats. Thank you for keeping me grounded and honest with your constant love and support.

With much love.

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## **Glossary**

AOR	Adjusted Odds Ratio
CAST	Chronic Addiction Substitution Treatment Trial
DTES	Downtown Eastside
HCV	Hepatitis C Virus
IDU	Injection Drug User(s)
IST	Injection Support Team
NAOMI	North American Opiate Medication Initiative
SIF	Supervised Injection Facility
UDHR	Universal Declaration of Human Right
VANDU	Vancouver Area Network of Drug Users
VIDUS	Vancouver Injection Drug Users Study
VPD	Vancouver Police Department

# 1 Introduction

Drug market activity in the form of individuals openly dealing and consuming illegal drugs is prominent in a number of the parks, alleys and streets of Vancouver's Downtown Eastside (DTES). The appropriation of these public spaces for the purpose of injecting illegal drugs is a concern for health professionals and policy makers. These concerns largely pertain to the public health risks associated with public injecting behaviour as well as the drug-related public disorder that results from open injection drug scenes. Despite a range of explicit attempts to address these issues, open drug use and dealing continue to take place in the DTES. Building on previous research, and through a studied examination of public injectors in Vancouver's DTES the goal of this project is to identify and develop policy interventions that protect the health of injection drug users and reduce drug-related public disorder.

To inform the development of appropriate policy responses data obtained through a cohort-based study of local injection drug users (IDU) is used to identify prominent characteristics and behaviours of people who inject drugs in public spaces and to identify potential structural factors that may perpetuate this risky behaviour. While previous investigations have described the profile of public injectors in Montreal and Ottawa (Green et al. 2004; Navarro & Leonard, 2004) and explored public injecting among people who use Vancouver's supervised injection facility (McKnight et al., in press), the characteristics of Vancouver's broader population of public injectors remains largely unexplored and factors perpetuating this behaviour appear to be poorly understood by local policy makers. Currently, the City of Vancouver is in the process of implementing a range of initiatives through *Project Civil City* that aim to reduce public disorder (Office of the Mayor 2006). However, a number of these initiative are not based in scientific evidence and are likely to exacerbate health harms associated with public drug use. To better inform local policy, the following study was undertaken to identify characteristics significantly and independently associated with Vancouver based public injection drug use through logistic regression analysis, and additional sub-analyses were undertaken to explore the perspectives of public IDU and gain insight into why individuals engage in this behaviour.

Considering existing literature in light of these findings, a range of eight potential policy interventions that target public injection drug use are identified and subsequently evaluated

against five selected criteria including: effectiveness (specifically in relation to addressing both the public health and public order components of public injection drug use); political feasibility; cost effectiveness; and adherence to human rights principles and associated risks. Consultation through short interviews with selected experts in the field of addictions and drug policy, including people who use drugs, provides an additional range of perspectives concerning the potential effectiveness and political feasibility of presented policy response. The findings of this policy analysis offer valuable direction for current policy makers aiming to address public health and public order concerns related to public injection drug use.



## **2 Background**

### **2.1 History of Vancouver's Downtown Eastside**

This capstone is based on research of injection drug user (IDU) populations in an area of Vancouver known as the Downtown Eastside (DTES). Situated next to Vancouver's harbour front and central business district, the DTES is one of the oldest neighbourhoods in Vancouver. Historically the DTES attracted seasonal workers, particularly loggers and fishermen, who were drawn to the area by inexpensive hotels and rooming houses as well as by the large number of pubs and drinking establishments located in the neighbourhood (Newnham 2005). With the erosion of affordable housing in other parts of Vancouver and the deinstitutionalization of thousands of psychiatric patients in the 1970s, the DTES has become home for large numbers of individuals with little or no income, and both substance abuse and mental health issues (City of Vancouver 2006).

In the early 1990s the social problems of the DTES were exacerbated by an inundation of inexpensive crack cocaine and high purity heroin which led to a dramatic increase in the number of overdose deaths among local IDU populations (from 18 in 1988 to 200 by 1993) (Cain 1994). Shortly after an explosive HIV epidemic emerged among injection drug users (Strathdee et al. 1997) which resulted in approximately 35 percent of the city's estimated 15,000 IDU becoming HIV infected (Wood et al. 2001). The DTES is now known as the poorest urban postal code in Canada and specialized health and social services for IDU populations are concentrated in this area (Smith 2003). The policy problem which is the focus of this capstone is the high prevalence of public injection drug use in the DTES which presents serious public health and public order concerns.

### **2.2 Public Health Concerns Related to Public Injecting**

Public health is an approach to medicine that focuses on and directs action to protect and improve the health and wellbeing of entire populations, or sub-population, rather than individual persons (Public Health Agency of Canada 2002). Practices associated with injecting drugs have made IDU populations especially vulnerable to HIV infection and other injection-related health

hazards including contracting hepatitis C Virus (HCV), developing abscesses and endocarditis, and overdosing (Adlaf et al. 2005; EMCDDA et al. 2005; Millar, 1998; Cain, 1994). According to the Public Health Agency of Canada, in the first six months of 2005, over 20 percent of all newly recorded HIV infections in Canada were associated with injection drug use (Public Health Agency of Canada 2005). Given the health risks related to injection drug use, IDU populations have become a focus of public health attention. Moreover, IDU who inject in public settings have been identified as a population especially susceptible to experiencing negative health outcomes.

Both epidemiological and ethnographic research indicates that individuals who inject drugs in public settings participate in riskier injecting practices. These injectors have been found to be less likely to follow risk-reduction injection procedures when injecting in public settings (Navarro & Leonard, 2004; Green et al. 2003; Fitzgerald et al. 2004; Klee & Morris, 1995) due, in part, to fear of police and street associates (Cooper et al. 2005; Aitken et al. 2002; Small et al. 2006a; Mayer & Dixon, 1999; Burris et al. 2004). For instance, to avoid arrest and police harassment, public injectors have been found to be less likely to carry clean needles and syringes and are more likely to share contaminated needles and syringes, increasing their risk of contracting HIV, HCV and other blood borne infections (Blankenship & Koester, 2002; Mayer & Dixon, 1999; Small et al. 2006a; Dovey et al. 2001). Public injectors are also less likely to cook and filter their drugs which puts them at increased risk of developing abscesses and other injection-related infections (Mayer & Dixon, 1999). Furthermore, public injection settings often lack access to clean water which perpetuates the use of unhygienic substances for mixing drugs and deters public injectors from washing their hands or their injection site, which further increases the risk of infection (Rhodes 2002; Bourgois et al. 1997; Small et al. 2006b; Broadhead et al. 2002). Given the pressured nature of the injection setting, public injectors are less likely to 'taste' their drugs for potency which increases their chance of overdosing and they are more likely to damage their veins in the injection process due to rushing (Small et al. 2006a; Aitken et al. 2002; Mayer & Dixon, 1999; Broadhead et al. 2002).

Contracting HIV, HCV, developing injection-related infections or overdosing as a result of the risky practices employed when injecting in public settings is a serious public policy concern. Not only do these conditions negatively impact the quality of life and life expectancy of affected IDU, but they also pose significant health costs and strain our already overburdened health care systems. For instance, every new case of HIV infection in Canada has been estimated to cost \$150,000 in medical costs alone (Albert et al. 1998). Based on that figure British Columbia can expect to spend over \$215 million in medical expenditures for HIV infection

among its IDU population (Kuyper et al. 2004). Furthermore, recent analysis of Vancouver-based IDU determined that the greatest proportion of emergency room visits among this population were due to abscesses, cellulitis and other skin-related infections (Kerr et al. 2005b); conditions likely perpetuated by practices employed by injectors when injecting in public settings. In addition to the above health-related costs, the problems associated with public injection drug use also carry significant public order implications.

### **2.3 Public Order Concerns Related to Public Injecting**

In the context of this project 'public order' is meant to reflect the appearance of civil obedience whereby individuals outwardly respect and follow state laws and regulations giving public spaces a semblance of peace and safety. Conversely 'public disorder' reflects a condition of relative public chaos whereby individuals engage in behaviour which openly disregards state laws and/or regulations. 'Drug-related disorder' is one form of public disorder and occurs when individuals openly deal and consume illegal drugs in public spaces thereby violating criminal codes prohibiting the distribution, possession and use of illegal substances (MacPherson 2001). Given the unregulated nature of the illegal drug market, drug market activity is often accompanied by violence and hostility, which further erodes the appearance of public order and safety on the streets (Erickson 2001).

Some citizens and governing bodies fear that drug-related disorder perpetuates further deviant transgressions which could potentially undermine the rule of law and threaten establish societal norms and values (Fisher et al. 2004). In addition, as a result of drug-related disorder, investment confidence in businesses located in the proximity of open drug scenes is often low and these areas typically suffer economically (Smith 2002). In Vancouver, there is also fear that public drug use and the presence of drug-related debris, including used needles and syringes, negatively affects the global image and reputation of Vancouver. Recently the internationally renowned *Economist* magazine challenged the status of Vancouver as the 'Most Livable City' in light of the open drug scene and the prevalence of poverty in the DTES (*Economist*, July 2006). There is concern that publicity of this nature has far reaching implications with the power to deter tourism and even foreign economic investment (Office of the Mayor 2006). Furthermore, projecting a positive global image has become increasingly important for Vancouver with the upcoming 2010 Winter Olympic Games.

The Vancouver Police Department (VPD) recently (2006) released a *Drug Policy Position Paper* which affirmed that the reduction of 'street disorder' and enforcement 'against

public psychoactive substance abuse' were strategic priorities for the Department (Vancouver Police Department 2006). In identifying public drug use as a priority problem the VPD emphasizes that its mandate and central objectives relate to promoting public safety and order, not public health. They state that "The VPD is reluctant to engage in a debate about public health practices as our expertise lies in policing, not health" (Vancouver Police Department 2006, p7). This statement reflects a tension that has historically existed between public health and public order objectives (Cohen & Csete, 2006). However, given the established health implications associated with public injection behaviour it is clear that both public order and public health are important public policy priorities and thus a policy approach which takes both concerns into account is required when developing and implementing interventions to address public injection drug use.

## **2.4 Past Policy Responses**

In response to the public health and public order challenges presented by public drug use government officials have developed a range of policy initiatives including the formation of the 'Vancouver Agreement' in 2000 and the implementation of the 'Four-Pillar Approach to Drug Problems in Vancouver' in 2001. both are outlined briefly bellow. These initiatives have facilitated the adoption of policies and programs targeting public drug use and a number have generated considerable controversy.

### **2.4.1 Vancouver Agreement**

Representatives from the City of Vancouver, the Province of British Columbia and the Government of Canada came together in 2000 to form an urban development initiative targeting the DTES called the 'Vancouver Agreement'. The terms of the Agreement extended over a five year period in which the provincial and federal partners each contributed \$10 million in funding and the City of Vancouver made 'in kind' contributions. The goals of the Vancouver Agreement were to promote economic development and job creation, improve the health of area residents and increase public safety. Dismantling the open-drug scene in the DTES was identified as a key priority for the first five year phase of the Vancouver Agreement and law enforcement efforts and the implementation of a supervised injection facility were recognized to be central components supporting this objective (Vancouver Agreement 2004).

After the initial five year period of the Vancouver Agreement all three levels of government renewed the terms of the agreement for an additional five years. In the renewed

Agreement dismantling Vancouver's open-drug scene was again identified as a key priority. Initiatives to provide permanent and transitional housing for individuals suffering from addiction and mental illness, as well as law enforcement initiatives targeting street-based drug activity are included as actions supporting this objective (Vancouver Agreement 2003).

#### **2.4.2 Four Pillar Approach**

In response to Vancouver's substantial substance addiction problems the City of Vancouver also drafted and adopted a municipal drug policy in 2001 called the 'Four Pillar Approach'. This policy drew heavily on German and Swiss drug policy models which incorporate a range of harm reduction practices. The adoption of harm reduction measures as a central component in Vancouver's drug policy expanded the traditional drug policy model which previously relied on prevention, treatment, and enforcement measures to address all aspects of problematic substance use. The goal of Vancouver's Four Pillar Approach is to restore public order, protect public health and involve all levels of government in addressing problematic substance use (MacPherson 2001).

#### **2.4.3 Controversy over Policy Approaches**

The Vancouver Agreement and the Four Pillar Approach have supported the adoption of a number of controversial policy interventions; specifically targeted law enforcement campaigns to crackdown on public drug use activity as well as a pilot supervised injection facility in 2003. Two focal points of present controversy concerning these interventions relate to: a) the impact of policing action the health of people who use drugs and surrounding communities, and b) the efficacy of providing sanctioned consumption facilities for people who use illegal drugs.

Health and policy researchers are generating a growing body of literature documenting how law enforcement crackdown campaigns do not effectively deter drug use or manage drug-related disorder but rather has the effect of dispersing concentrated drug scenes into surrounding areas which creates additional public health and public order concerns (Wood et al. 2004b; Cooper et al. 2005; Aitken et al. 2002; Mayer & Dixon, 1999; Burrell et al. 2004; Blankenship & Koester, 2002). For instance, the destabilized effect of drug market dispersion is associated with heightened levels of violence and increase theft and property crime (Mayer & Dixon, 1999). Dispersion also separates drug users from health and prevention services which perpetuates risky injection practices (Wood et al. 2004b). As well, to conserve drugs during periods of police crackdowns, some users have been found to shift to injecting instead of smoking or snorting

drugs, increasing their risks for experiencing a range of negative health outcomes (Mayer & Dixon, 1999). One notable study conducted by Vancouver based public health researchers established that a Vancouver Police Department crackdown on public drug use launched in April 2003 named the 'Citywide Enforcement Team' did not effectively eliminate drug market activity, but rather displaced it into surrounding areas, which resulted in additional individual and social harms (Wood et al. 2004b).

Policing tactics that target open drug use through crackdown campaigns also receive criticism from human rights advocates. The international human rights organization Human Rights Watch condemned the VPD's 2003 crackdown on public drug use for violating the human rights of drug users and negatively impacting public health and safety in the DTES (Csete & Cohen, 2003). Ethnographic observation in the DTES during the period of the campaign further documents the range of negative health impacts resulting from the crackdown (Small et al. 2006a).

The VPD currently acknowledges that their enforcement activities may at times undermine public health objectives, but affirm that their mandate primarily relates to promoting public order. The VPD asserts that they,

Strive to manage and mitigate these [negative health] impacts through communication with its partners in health services. However, it is understood that there will be some tension between the need of substance abusers to access harm reduction measures, and the rights of other citizens who simply want to freely access public spaces free of crime and disorder.

*Vancouver Police Department 2006*

Along side enhanced enforcement strategies, the 'Vancouver Agreement' and the 'Four Pillar Approach' supported the establishment of a pilot supervised injection facility (SIF) in 2003. Supervised injection facilities are places where injection drug users can inject pre-obtained illegal drugs under medical supervision without fear of arrest or harassment. A scientific evaluation of Vancouver's injection facility has established that the SIF's ability to reduce the prevalence of public injection and the amount of injection related debris improved public order in the immediately surrounding area (Wood et al. 2004a). As well the evaluation found that the injection site simultaneously protects and promotes the health of IDU through a number of mechanisms (Wood et al. 2006b; Kerr et al. 2006b; Kerr et al. 2005a). While these are promising findings, Vancouver's supervised injection facility is currently restricted by capacity constraints and a number of operational regulations have been associated with deterring IDU from utilizing the site. Specifically, operating hours, wait times and the banning of assisted injections within the facility

(McKnight et al. in press) have been identified as potential barriers to the use of the supervised injection site. In turn, the supervised injection facility does not adequately meet the needs of all those who inject illegal drugs in public settings. Preliminary research on the facility indicates that expanding the capacity and broadening the model of drug consumption rooms could further significantly improve both public health and public order components of public drug use. However, vocal members of the RCMP and the current federal government administration do not support expanding this initiative claiming that the evidence presented to date does not compellingly dismiss their concerns about providing harm reduction oriented services of this nature (Doucette 2006; Health Canada 2006).

Despite tensions over policy approaches public health and law enforcement agents have been effective partners on a number of health promoting initiatives. Examples include the Vancouver Police Department's drug overdose policy whereby the police employ discretion to avoid attending non-fatal overdoses to encourage drug users to call ambulance services in the event of an emergency. Similarly, the VPD is mandated to minimize physical presence around health services utilized by drug users, including Vancouver's supervised injection site and needle exchange services, to ensure that people who use drugs feel comfortable accessing these services (British Columbia Ministry of Health 2005).

Nevertheless, aside from a handful of examples the number of partnerships between law enforcement and public health officials are limited. It has been observed, "the major challenges to cultivating healthy working partnerships are the different objectives, values and service philosophies of police and health agencies" (British Columbia Ministry of Health 2005, p9). One aspect of these different philosophies relates to approaching addiction. The culture of law enforcement could be described as supporting a 'tough love' approach towards people with addiction issues. This is based, in part, on a belief that action taken to make life uncomfortable and unpleasant for people who use drugs pushes them to their 'rock bottom', which encourages them to make other choices; ultimately, to seek addiction treatment and abstain from using drugs (Caulkins 2002). Conversely, public health proponents seek to protect people who use drugs from the negative health outcomes associated with their drug use highlighting an important difference in the service philosophies of many law enforcement and public health agencies. Given the complicated nature of different ideological positions on psychoactive substance use, addressing drug-related public disorder involves complex dynamics and policy approaches to date have been unable to effectively manage these issues.

### 3 Literature Review

To address the public health and public order components of public injection drug use potential policy options range from interventions that focus on altering the behaviour of targeted individuals to broader approaches that focus on the social and structural conditions which surround public drug use. Since identifying the role of injection drug use in driving HIV transmission, individually based interventions have typically dominated public health approaches to managing this form of substance abuse. Public health interventions have mainly sought to provide injectors with safer injection education with the assumption that if injectors were made aware of the risks associated with their behaviour they would respond rationally and adopt the proposed safer injection practices that mitigate negative health outcomes (Moore 2004). While increasing awareness of the dangers associated with injection drug use is important, this approach has been unable to effectively eliminate risky injection practices and the spread of blood-borne infections among IDU remains a prominent health concern. Recently public health experts have estimated that interventions focused on altering the behaviour of individual IDU have only been able to reduce the risks of transmission of blood-borne viruses by 25-40 percent at the most (Heimer et al. 2002).

Through extensive observation and interviews with street-based IDU in Australia, David Moore (2004) describes the 'lived experience' of street-based injectors as being characterized by fear of police, fear of being robbed by street associates and the pain of withdrawal symptoms. Moore outlines how behaviourally focused harm reduction strategies developed by medical researchers, epidemiologists and psychologists do not account for the social and structural realities that shape the 'lived experience' of this population of IDU and are hence impractical and ineffective interventions.

The gap between the delivery of public health education messages and the ability of 'at risk' populations to adopt the endorsed health promoting behaviour has been documented by other social researchers. Through his field work observing street-based homeless heroin addicts in San Francisco Philippe Bourgois' (1997, 1998) identifies a range of mechanisms by which the short-term survival strategies of homeless heroin addicts can prevent the adoption of HIV prevention and harm reduction strategies. Bourgois explains:



Risky needle practices are an integral part of the micro-strategies that street addicts use to prevent themselves from becoming “dope-sick”, to minimize the risk of arrest, and to construct reliable social networks... Virtually all the core members of our network admit that when they suffer from heroin withdrawal – or even anticipate it – they use “any old needle: hell! Even a Bic pen if it’s around”.

*Bourgois et al. 1997 p.160*

Bourgois’ work has made an important contribution to the advancement of HIV prevention efforts as it highlights the significance of considering the social and structural aspects of the drug use environment in the production of HIV risk. Similarly, writing in the context of the cholera epidemic in Venezuela in the early 1990s, Charles Briggs (2003a, 2003b) illustrates discrepancies between public health cholera prevention messages and the ability of indigenous and other marginalized populations living in poverty to employ the advice of public health officials, again drawing attention the role that social and structural factors play in shaping health risks.

Given these lessons it is critical that policy interventions designed to address public injection drug use do not rely on injectors to alter their injecting behaviour without addressing the social and structural realities facing street-based injection drug users. Indeed there is growing support in public health literature for the necessity to adopt comprehensive policy approaches which consider the contextual factors in which health risks related to injection drug use are produced (Blankenship et al. 2000; Sumartojo 2000; Des Jarlais 2000; Heimer et al. 2002; Galea et al. 2003; Rhodes 2002; Moore and Dietze, 2005; Rhodes et al. 2005; Rhodes et al. 2006; Blankenship et al. 2006).

Structural policy interventions in this context can be defined as policy approaches that focus on the context and environment surrounding risk behaviour. Structural interventions in public health literature have been defined as “interventions that work by altering the context within which health is produced or reproduced. Structural interventions locate the source of public-health problems in factors in the social, economic and political environment that shape and constrain individual, community, and societal health outcomes.” (Blankenship et al. 2000, p S11). Additionally, structural interventions have been described as interventions that may “require changing laws, standards, or administrative procedures using strategies that include advocacy, community organizing, legislation and litigation. They are based on the idea that health is a product of social structures and processes that can be promoted by changing the political, legal, or cultural context within which health is produced or diminished.” (Heimer et al. 2002, p103). Structural interventions are intended to modify environmental conditions to effectively “free’ individual IDU to act upon already existing motives to practice risk reduction” (Des Jarlais, 2000,

p S42). An identified strength of structural public health interventions over individually based interventions in the context of injection drug use is that structural approaches modify the environment for a larger portion of individuals, and hence can have a larger impact with more effective prevention results (Des Jarlais 2000; Blankenship et al. 2006).

Despite the strengths of structural interventions to reach beyond individually based approaches there are limiting aspects of structural interventions which may impede their adoption. Specifically, the direct effects of structural interventions by nature are inherently difficult to measure and evaluate. Standard scientific practices are currently ill equipped to establish direct causal links between risk behaviours and changes in the structural environment (Des Jarlais 2000; Sumartojo 2000; Blankenship et al. 2006). Therefore it is difficult for researchers to provide policy makers with precise measures of the effects that changes in the structural environment will have on risk behaviour and public health. Furthermore, structural interventions may involve action that challenge established legal, political and social norms making their implementation a controversial process in comparison to individual based interventions (Blankenship et al. 2006). Nevertheless, environmental and structurally focused policy interventions related to public health and drug use are successfully implemented. Both needle exchange programs and supervised drug consumption facilities are designed to enable injectors to practice safer injecting by altering the context of drug use. By increasing access to clean injecting equipment and similarly, by providing a sanctioned hygienic environment for consuming drugs, these interventions have been found to reduce risky injection practices among IDU.

Given that individual and structurally focused interventions both make important contributions to public health promotion, the most beneficial policy approaches are likely ones which incorporate aspects of each. In sum, the following policy analysis includes a focused consideration of the role that environmental factors play in producing risk and drug-related harms and aims to identify policy interventions that support the creation of environments which enable injection drug users to employ safer injecting practices. Potential policy approaches also draw on individually focused public health interventions with the aim of compiling a multifaceted public policy strategy to address public injection drug use.

## **4 Methodology**

This study uses quantitative and qualitative analysis to profile public injection drug users and identify structural factors that may perpetuate this behaviour. Identifying and understanding public injection drug users at the population level is critical for developing policy interventions that have the widest spread potential to reduce public drug consumption. Basing this project on data derived from a large sample of IDU is especially appropriate given these aims.

### **4.1 Data**

The current study is based on cross-sectional data collected through the Vancouver Injection Drug User Study (VIDUS) which is an open prospective cohort study that began in 1996 and has since enrolled over 1,500 participants. Most participants (82%) have been recruited through outreach and word of mouth from other participants. Recruitment is also done through poster advertising in the DTES (10%), and referrals from community organizations (5% needle-exchange programs, 3% clinics). To be eligible participants are required to be over 14 years of age, have injected drugs in the last month, live in the Greater Vancouver Regional District and provide written informed consent. The population of IDU in Vancouver's DTES is estimated to be 4,700 and is found to over-represent Aboriginal peoples and the lowest socio-economic strata (Miller et al., 2006). The VIDUS sample is found to be highly representative of this IDU population (Wood et al., 2000).

At enrolment and semi-annually subjects complete an interviewer-administered detailed questionnaire which elicits information regarding demographics, patterns of drug use, injecting practices and behaviour, sexual practices, needle exchange service utilization, health care access and participation in drug treatment programs. Participants also provide blood samples and receive pre and post-test HIV counselling as well as referrals to appropriate clinics and agencies for medical or social support services if requested. Participants receive a \$20 honorarium for each study visit and the study is approved by the St. Paul's Hospital Ethics Committee and the University of British Columbia's Research Ethics Board (Tyndall et al., 2002; Wood et al., 2001). A key strength of this data is its ability to provide information on injection drug users at a population level.

## 4.2 Variables

The dependent variable used throughout this study is self-reported public injection drug use. Participants who responded that in the past six months they had injected in public 'always', 'usually', 'sometimes' and 'occasionally' were coded as a 'public injector'. Public spaces are defined to include; public washrooms, streets, alleys, parks and abandoned buildings.

The rationale for selecting independent variables to include in statistical analysis is based on: relevance to public injection, potential explanatory power, theoretical soundness, and evidence in existing literature indicating that the variable is an important predictor of public injection drug use (Hosmer & Lemeshow, 1989). Variables of interest for the primary analysis include a range of general demographic characteristics, drug use patterns, sexual risk behaviours and other risk characteristics. Variables chosen which meet one or more of the above criterion are: gender (female vs. male); ethnicity (Aboriginal yes vs. no); age (additional year); homelessness, defined as having no fixed address in last six months (yes vs. no); sex trade involvement (in last six months yes vs. no); drug dealing (in last six months yes vs. no); recent incarceration (in last six months yes vs. no); frequent cocaine injection ( $\geq$ daily vs. < daily); frequent heroin injection ( $\geq$ daily vs. < daily); frequent crack cocaine smoking ( $\geq$ daily vs. < daily); binge drug use, defined as going through periods of consuming more drugs than usual in the last six months (yes vs. no); overdose (in last six months yes vs. no); syringe borrowing (in last six months yes vs. no); syringe lending (in last six months yes vs. no); condom use with regular partner (in last six months yes vs. no); condom use with casual partner (in last six months yes vs. no); requires help injecting (in last six months yes vs. no); DTES residency (yes vs. no); HIV status (positive vs. negative); and participation in any addiction treatment program (in last six months yes vs. no).

## 4.3 Univariate and Logistic Regression Analyses

Distinguishing traits associated with public injection by comparing individuals who inject in public with those who do not inject in public is an appropriate means of identifying the risk taking behaviours and potential needs of public injectors, as well as isolating factors which may be driving public injection drug use. In undertaking this investigation the primary cross sectional analysis is restricted to VIDUS participants who were seen for a follow-up visit during the period March 1<sup>st</sup> 2005 to December 31<sup>st</sup> 2005.

In the primary analysis univariate and multivariate statistics are used to identify factors associated with public injection drug use. At as first step, univariate analysis is conducted using Pearson's Chi-square test for dichotomous variables and the Wilcoxon rank sum test for continuous variables. To adjust for potential confounding variables and identify variables independently associated with public injection drug use, a multivariate model is prepared whereby variables that are  $p < 0.05$  in univariate analyses are entered into a fixed logistic regression model. All p-values are two sided and all statistical analyses are performed using SAS software version 8.0 (SAS, Cary, NC). Previous studies examining correlates of public injection drug use have successfully employed this approach (Klee & Morris 1995; Green et al. 2003; Navarro & Leonard 2004; McKnight et al. in press).

#### **4.4 Sub-Analyses**

To gain insight into the phenomenon of public injecting from the perspective of injection drug users and to identify potential focus areas for policy interventions a sub-analysis is also conducted among public injectors based on reported reasons to the open-ended question "why do you inject in public?" This investigation involves undertaking a content analysis which requires devising a coding scheme to identify recurring themes and patterns in the responses. Also, to determine whether responses to this question are influenced by the intensity of public injection drug use, two categories of public injectors ('always' and 'usually' =frequent vs. 'sometimes' and 'occasionally' =infrequent) are analyzed separately. Previously, Navarro and Leonard (2004) successfully employed a similar content analysis approach to assess variation in rationales for injecting in public locations in Ottawa, Canada. This current sub-analysis draws on the coding scheme devised by Navarro and Leonard.

A limitation of content analysis is that aspects of coding involve a degree of subjectivity, which could potentially reduce the reliability of findings (Carney 1972). However, specific criteria for each category were determined for coding and translation rules were used to support a consistent and coherent process (Weber 1990). To further increase reliability the researcher had a VIDUS research associate with extensive qualitative research experience separately code responses using the same category specifications. There were no noteworthy variations between the two analyses indicating that within the current study there is a high degree of coding reliability.

## 4.5 Expert Interviews

The final research component of this capstone is 6 semi-structured interviews with a City of Vancouver employee associated with the Drug Policy Program, a member of the Vancouver Police Department involved in local drug policy development, a Vancouver Coastal Health addictions service provider and three injection drug users living in the DTES recruited from the VANDU Injection Support Team (IST).<sup>1</sup> Individuals were selected and contacted for interviews based on their knowledge of the DTES drug use environment. The injection support team was approached as a group and asked if any members were interested in taking part in the study. Three members volunteered to participate and received a \$10 stipend at the end of the interview.

The purpose of these interviews was to gain feedback and insight from individuals involved in addiction and drug policy issues to inform the evaluation of proposed policy options. This sample of experts is not representative and outcomes should not be interpreted to reflect a comprehensive assessment of all relevant perspectives. Nevertheless, the expertise and insights offered from this group are invaluable tools in determining the feasibility and potential effectiveness of proposed policy options. As well, given their intimate knowledge of dynamics specific to Vancouver's local drug market and environment, these individuals are uniquely suited to be able to identify important issues and factors requiring specific consideration at the policy development and policy implementation stages.

Expert interviews consisted of open-ended discussions between the researcher and selected individuals. The first question posed to interviewees was "why do you think people inject drugs in public spaces in the DTES?" Participants were then asked to identify potential policies they thought would be effective in addressing public injection drug use in the DTES and were then presented with a list of eight proposed policy options defined by the researcher and asked to assess the effectiveness, political viability and potential risks associated with each option. Respondents were also given the opportunity to make general remarks on the topic of public injection drug use at the end of the interview. All interviews were tape recorded and the content of interviews is analyzed with the purpose of identifying statements which provide important information and perspectives regarding the proposed policy options and public injection drug use generally.

Interview subjects provided written informed consent and all study instruments are approved by the University of Simon Fraser Research Ethics Board.

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<sup>1</sup> The Injection Support Team is a group of injection drug users who are trained in providing health and safety education to peer injection drug users. Two members of the team patrol the DTES for 2hrs Mon-Fri.

## 5 Results

### 5.1 Univariate and Logistic Regression

Of the 465 IDU included in statistical analysis, 208 (45%) are female, 140 (30%) are of Aboriginal decent, 55 (12%) report being homeless (no fixed address), and 101 (33%) report having injected drugs in public in the last six months. The univariate and logistic regression analyses of associated behavioural and socio-demographic variables are presented in table 1.

Table 1 Factors significantly associated with public injection drug use in cross sectional analysis

Characteristics <sup>†</sup> [Yes vs. No]	Univariate Analysis		Logistic Regression	
	Odds Ratio (95% CI)	<i>p-value</i>	Adjusted Odds Ratio (95% CI) <sup>‡</sup>	<i>p-value</i>
Homelessness	10 (5.4 - 18.6)	< 0.001	7.9 (3.7 - 17.1)	< 0.001
Drug Dealing	3.6 (2.1 - 5.9)	< 0.001		
Recent Incarceration	3.9 (2.2 - 6.9)	< 0.001		
DTES Residency	3.0 (1.9 - 4.7)	< 0.001		
Sex Trade Involvement	3.5 (2.0 - 6.9)	< 0.001		
Frequent Heroin Inject	9.0 (5.5 - 14.7)	< 0.001	4.1 (2.1 - 7.8)	< 0.001
Frequent Cocaine Inject	2.9 (1.7 - 5.1)	< 0.001		
Frequent Crack Use	3.9 (2.5 - 6.2)	< 0.001	1.9 (1.0 - 3.6)	0.041
Binge Drug Use	4.7 (2.8 - 7.8)	< 0.001	3.5 (1.8 - 6.8)	< 0.001
Recent Overdose*	4.3 (1.7 - 11.0)	< 0.001		
Requires Help Injecting*	11 (3.4 - 35.4)	< 0.001		
Syringe Borrowing*	3.9 (1.6 - 9.6)	0.002		
Any Treatment	0.4 (0.3 - 0.6)	< 0.001	0.4 (0.2 - 0.7)	0.003

Note: <sup>†</sup>CI = Confidence Interval; <sup>‡</sup>All variables are referring to activities or situations that have taken place in the previous 6 months; \* Indicates variables where 25% of cells have expected counts of less than 5 in univariate analysis. [n=465]

Presented in the first column of table 1. are the 13 factors found to be significantly associated ( $p < 0.05$ ) with public injection drug use in univariate analysis. Outcomes of the univariate analysis are represented in 'odds ratios' (OR) which indicate the odds of an IDU possessing the characteristic to inject in public vs. the odds of an IDU who does not possess the characteristic to inject in public (when no other factors are held constant). Odds ratios are presented with confidence intervals which represent the range of values that can be expected 95% of the time. For instance, the first column of table 1. indicates that there is a 95% probability that: homeless IDU are 5-19 times more likely to inject in public than housed IDU, frequent heroin injectors are 6-15 times more likely to inject in public than those who do not frequently inject heroin, IDU who require help to inject are 3-35 times more likely to inject in public than those who do not require help injecting, and IDU who engage in binge drug use are 3-8 times more likely to inject in public than IDU who do not engage in binge drug use.

No significant associations were found between public injecting and other variables of interest. However, it should be noted that among this sample there is a low number of observations (less than 5 in 25% of cells) among the variables: recent overdose, requires help injecting and syringe borrowing, as well as syringe lending (which is not found to be significant in univariate analysis). In turn the Chi-Square test for these variables may not be valid. Thus low confidence is placed on the associations (or lack of association) found in the current analysis between these variables and public injecting. Most notably, this carries important implications for the variable 'requires help injecting' as previous literature has identified this as a predictive factor for public injection drug use in Vancouver (McKnight et al., in press).

The reliability of univariate analysis is relatively weak because it does not control for other variables. Therefore, factors that are found to have significant univariate associations may not be independently associated with the dependent variable once other variables are considered. To determine factors independently associated with the dependent variable all variables found to be significant in univariate analysis were entered into a multivariate regression.

Outcomes of the multivariate analysis are represented in 'adjusted odds ratios' (AOR) which indicate the odds of an IDU possessing the characteristic to inject in public vs. the odds of an IDU who does not possess the characteristic to inject in public (when other factors are held constant). Adjusted odds ratios are also presented with confidence intervals which represent the range of values that can be expected 95% of the time. In this multivariate analysis factors that remained positive and significantly associated with public injection drug use include homelessness (AOR = 7.9, 95%CI 3.7-17.1), frequent heroin injection (AOR = 4.1, 95%CI 2.1



7.8), binge drug use (AOR = 3.5, 95%CI 1.8–6.8) and frequent crack smoking (AOR = 1.9, 95%CI 1.0–3.6). Enrolment in addiction treatment is found to be negative and significantly associated with public injecting (AOR = 0.4, 95%CI 0.2–0.7). These findings can be interpreted to indicate that when other variables are held constant, homeless IDU are almost 8 times more likely to inject in public than housed IDU 95% of the time. Additionally, IDU who are frequent heroin injectors are over 4 times more likely to inject in public, IDU who engaged in binge drug use in the last six months are almost 4 times more likely to inject in public, and those who frequently smoked crack cocaine are 2 times more likely to inject in public spaces 95% of the time. Conversely, IDU who had been participated in addiction treatment in the last six months are less than half as likely to inject in public spaces 95% of the time.

## 5.2 Sub-Analyses

Among the 101 injection drug users who reported having injected in public in the last six months, 92 provided a brief response to the open-ended question “why do you inject in public?” Initial content analysis determined that all reported reasons for public injection drug use could be classified into seven distinct categories (largely adopted from the previous works of Navarro & Leonard 2004). See table 2 for categorical descriptions of responses to the question “why do you inject in public?”.

Table 2 Categories of responses for sub-analysis

Categories of responses to the question “why do you inject in public?”	
<b>Convenience</b>	This category includes responses that explain that the decision to inject in public was based on convenience in that respondents indicated that they inject in public because it is easier for them to do it there than to go anywhere else. An important distinction for this category was that respondents did not indicate that public locations are their overall preferred injecting venue, only that there is something convenient or easy about injecting in public spaces. Actual responses that fall into this category include “It’s a quick pit stop” and “It’s handy”. This category also includes respondents who indicated that they were in a rush, but not individuals who explicitly state that they were in a rush because they were experiencing withdrawal symptoms and were ‘drug sick’.
<b>‘Drug Sick’ (Withdrawal Sickness)</b>	The majority of responses included in this category explicitly state that they injected in public because they were experiencing withdrawal symptoms and were too ‘drug sick’ to go anywhere else. Examples include: “dope sick and need to get it in me” and “too sick to get home”.
<b>InSite not Available</b>	This category encompasses responses that indicate that the decision to inject in public was due to the supervised injection facility being either full or closed.

Categories of responses to the question “why do you inject in public?”	
<b>No Other Place</b>	This category includes responses that specifically indicate that they injected in public because they do not have a home or did not have anywhere else to go. Examples include: “That is where we live” and “Depressed and homeless”.
<b>Preference</b>	This category captured responses which indicated that the decision to inject in public was based on preference. Reasons for this preference included statements indicating that the outdoors were more comfortable and two respondents said they felt ‘safer’ outside.
<b>Privacy</b>	This category reflected explanations that public locations were sought out for injecting because the respondent felt it gave them privacy. One example is: “Don’t want kids and landlord to know”.
<b>Too Far to go Elsewhere</b>	The category ‘too far to go elsewhere’ included explanations for injecting in public that attributed the difficulty of relocating to a private location to geographical distance. Some respondents in this category indicated that it was ‘too far’ to go to home to inject because they were in a rush to use after they purchased drugs from their dealer -although they did not say they were drug sick. Examples include: “Too far away from home or InSite”, “Was downtown working” and “When I get my dope from my dealer I want to use it right away”.

The reported intensity of public injecting among this sample of public injectors ranges from ‘always’ (n=19, 21%), to ‘usually’ (n=22, 24%), to ‘sometimes’ (n=28, 30%), to ‘occasionally’ (n=23, 25%) (see figure 2). The distribution of responses among categories is present in figure 1. ‘Convenience’ is the most frequently reported reason for public injection drug use (n=30, 33%) followed by ‘No Other Place’ (n=21, 23%). However, when the responses are aggregated by intensity of public injection drug use the findings are markedly different. In contrast to respondents who infrequently inject in public (see figure 4), among injectors who frequently inject in public ‘Convenience’ is not the most prevalently reported explanation. Rather, ‘No Other Place’ is the most common reported reason for injecting in public among frequent public injectors (35% vs. 14% for ‘No Other Place’) (see figures 3 and 4). Most of these frequent public injectors indicated that they had no other place to inject because they were homeless. One responded explained that they injected in public because they were “depressed and homeless” and another responded stated that they injected in public because that was where they lived. It is also likely that a number of individuals who are categorized as ‘housed’ live in accommodations that do not allow active drug use (such as recover and transition houses), and thus may resort to injecting in public because they too feel they have no other place.

Figure 1 Reported reasons for injecting in public

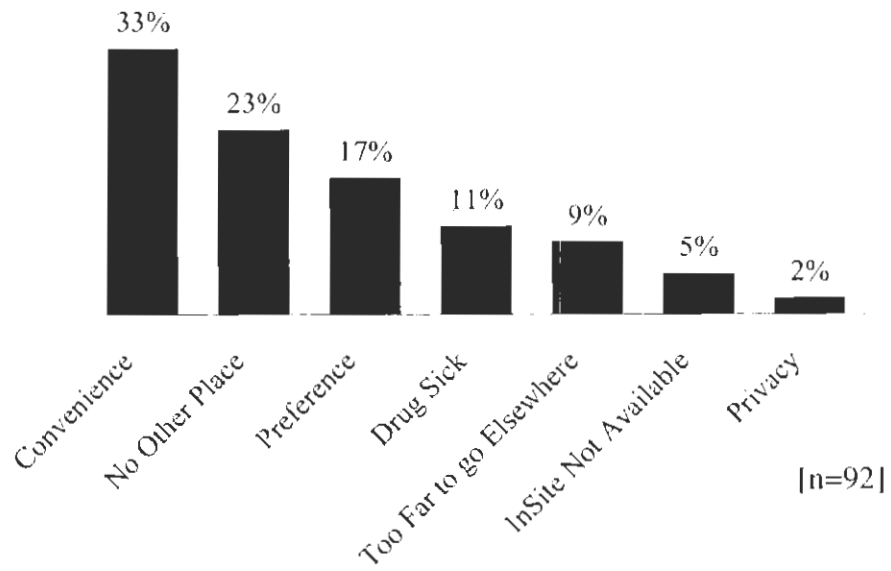


Figure 2 Reported frequency of public injection drug use

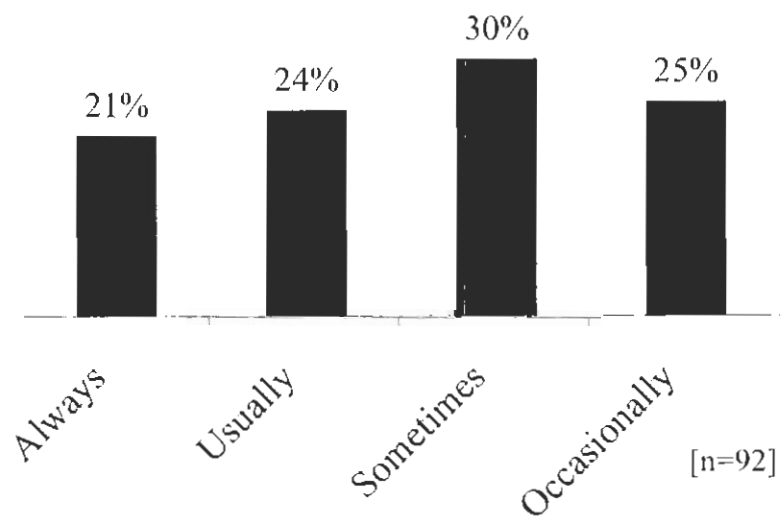


Figure 3 Reported reasons for injecting in public among frequent public injectors

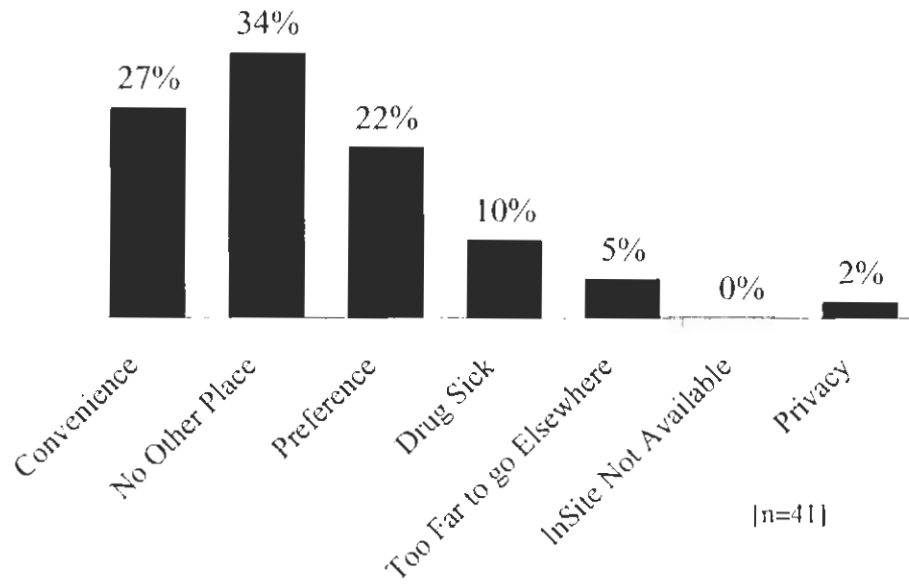
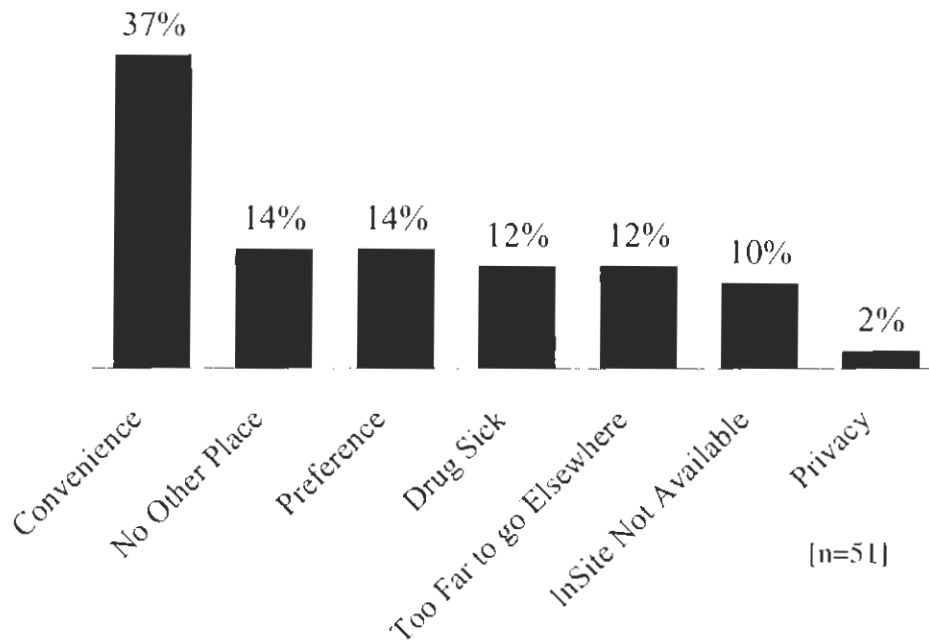


Figure 4 Reported reasons for injecting in public among infrequent public injectors



### 5.3 Discussion

These analyses indicate that homelessness and potentially the lack of appropriate housing are driving factors of public injection drug use. As policy action that targets frequent public injectors is likely to have the greatest impact on reducing public injection drug use it is of interest from a policy perspective that frequent public injectors are more likely than infrequent public injectors to identify their situation of homelessness and their lack of options as primary explanations for injecting in public. This finding provides important direction for tailoring an effective policy response to public injection drug use.

Additional policy implications emerge from examination of other variables that remained independently associated with public injection drug use in multivariate regression analysis. Notably, participation in addiction treatment programs is found to be negatively associated with public injection drug use suggesting that increasing access to treatment programs may reduce public injection drug use in Vancouver's DTES. Additionally, the finding that frequent crack use is positively associated with public injecting may be interpreted to support previous work (Shannon et al., 2006) which indicates that significant numbers of IDU in Vancouver are poly-drug users who may smoke crack and inject in the same drug consumption session. Although it is beyond the ability of regression analysis to explain this type of causal link with authority, it is theoretically sound to interpret this finding as an indication that injectors who prefer to smoke crack when they inject are not able to access the supervised injection site and thus are more likely to resort to consuming their drugs in public areas.

There are a number of limitations in this study. First, as with most other cohort studies of injection drug users, the VIDUS study is not a random sample and therefore these findings may not be generalizable to other IDU populations. Secondly, this study relies on self-reported information concerning stigmatized behaviours, including injecting drugs in public spaces and engaging in other forms of risk behaviour, and is hence susceptible to socially desirable reporting (Des Jarlais et al. 1999). In the present study this may have led to an under-reporting of public injection drug use and related risk behaviours resulting in the prevalence of and risks associated with public injecting being underestimated. Third, the absence of an association between public injecting and the variables: syringe borrowing, syringe lending, recent overdose and requires help injecting is not a reliable finding given the low number of observations within these categories. Fourthly, while the sub-analysis of reported reasons for public injection drug use is informative, it should be noted that categories are not mutually exclusive and it is likely that in each case of public drug use a number of factors are interacting and contributing to this phenomenon.

Furthermore, responses such as 'convenience' and 'preference' are somewhat incomplete as they do not identify or specify the aspects of public spaces that makes them convenient or preferred. For instance, are public spaces 'convenient' because the respondent is a sex trade worker and does not want to take time out from work to go to a private location to use drugs? Or is it 'convenient' because the respondent wishes to remain anonymous and finds it easier to use in an ally than conceal their use from a partner or parent? Similarly, are public locations 'preferred' because the respondent feels unsafe bringing drugs into their home? Or is injecting in public 'preferred' for social reasons, perhaps related to being part of a social network or community that gathers and socializes outside? In a number of ways, these types of vague responses present a range of additional questions for researchers and policy makers. The inability of the researcher to probe and have respondents clarify and elaborate on vague responses such as these highlights the constraints inherent in utilizing questionnaire based data collection methods. In turn this analysis may been seen as a first step in developing a comprehensively understanding of the perspectives of public injection drug users and the complex dynamics behind factors perpetuating public drug use. Nevertheless, an important strength of the findings of the current analysis are that they are derived from a large sample of IDU and identify important behaviours and characteristics associated with public injecting thus providing useful policy direction and insight.

## 6 Policy Criteria

To determine an appropriate policy response to the problems surrounding public injection drug use a range of potential policy options are evaluated against five criteria categories (see table 3). Specifications of criteria are presented below and in the following section policy options are presented and scored on a scale of low, medium to high in relation to each criterion.

### 6.1 Effectiveness

The central factors that are taken into consideration when evaluating policy options against this criteria is whether the intervention is likely to address both public health and public order components of public injection drug use. Indicators used in relation to meeting public health objectives include whether the intervention: a) increases contact between injection drug users and health and social services; and b) has a positive influence by reducing risky injecting behaviours, specifically: sharing needles and other contaminated injection paraphernalia (cookers/filters), rushing injections and following recommended hygienic practices throughout the injection process. Indicators of interest in relation to the public order components of the policy problem are whether the intervention is expected to reduce the prevalence of open injection drug use and drug-related debris in the neighbourhood.

For an intervention to be considered effective it must both promote public health objective and reduce the prevalence of public injection as specified above. If the intervention is expected to address both these aspects it is given a 'check' which is a rating of 'moderate' in the effectiveness category (see tables 3 and 4). If the option addresses structural conditions associated with perpetuating public injecting and is expected to have an impact at the population level it is considered to be a large scale intervention and receives a 'check plus' making it a 'highly' effective policy option. Furthermore, if the impact of the option is expected to be relatively immediate its rating is 'check plus plus' and it is considered to be a 'very highly' effective policy option.

Acknowledging that there are inherent limitations in measuring the projected effectiveness of proposed policy options, evaluations are based on critical analysis of previous

research surrounding the presented policy options. These evaluations are further supplemented with information gathered from interviews with people who inject drugs and selected professionals working in the field of addiction and drug policy.

## **6.2 Political Feasibility**

The central component of political feasibility that is examined relates to whether a significant portion of the public body perceives the policy option to be an appropriate response. A proxy measures for perception of appropriateness includes public opinion polls indicating public support for a policy. A policy approach is also more likely to be perceived as acceptable if it is familiar to the public and if it reflects the values of Canadian citizens. If there is evidence that the policy can be “sold” to the public it is rated ‘moderately’ politically feasible. If effectively implementing such a policy does not require multiple levels of government to act, the rating of the policy increases to ‘highly’ politically feasible. Similarly, if there are no direct equity issues involved in implementing the policy it too will increase its political feasibility rating to ‘very high’ (if it did not require multiple levels of government to act) or ‘high’ (if it does require multiple levels of government mobilization). However, if there is significant vocal opposition to the policy the highest rating it can get is ‘moderately’ politically feasible.

Information to assess the political feasibility of each option is gathered from public opinion polls and other existing documents. This information is further supplemented with expert interviews to illicit the direct perspectives of selected stakeholders.

## **6.3 Cost Effectiveness**

A specific policy option is considered to be cost-effective if there is evidence of potential long-term cost savings. The prevention of illness and related health costs, as well as reductions in the reliance on expensive emergency services, such as policing, ambulance and acute hospital care services are examples of potential long-term cost savings. In turn, policies that have large initial start-up costs may still be considered ‘cost effective’ if there are expected long-term cost savings. The costs associated with the current status quo policy approach are in some cases used as a point of reference to measure other policy action. As well, previously undertaken cost-benefit analyses and cost-effectiveness calculations are used to inform evaluations of policy options against this criterion. If there is evidence of long-term cost savings a policy is rated ‘high’ for cost-effectiveness.



## 6.4 Adherence to Human Rights Principles

Evaluating potential policy interventions on the basis of human rights principles as defined by the United Nations is critical for developing public policies that adhere to the social and cultural values of Canadians. As a member of the United Nations, the Government of Canada has agreed that the protection and promotion of human rights “is the first responsibility of Governments” (United Nations 1993). The most relevant human right for the purpose of this policy analysis is article 25, paragraph 1 of the *Universal Declaration of Human Rights* (UDHR) which is “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health”, commonly referred to as the ‘Right to Health’. In articulating aspects of the right to health *The United Nations Committee on Economic, Social and Cultural Rights* declared that the right to health includes having access to the determinants of health, which includes nutrition and housing (United Nations Committee on Economic, Social and Cultural Rights 2000, para. 4). Furthermore, *the United Nations Office of the High Commissioner for Human Rights* declared that the right to health requires states to “pay special attention to the situation of vulnerable groups” (United Nations Office of the High Commissioner for Human Rights 2004). Additionally, in articulating aspects of governments’ responsibilities with respect to the right to health *The United Nations Committee on Economic, Social and Cultural Rights* states that “The formulation and implementation of national health strategies and plans of action should respect, *inter alia*, the principles of non-discrimination and people’s participation... Promoting health must involve effective community action in setting priorities, making decisions, planning, implementing and evaluating strategies to achieve better health.” (United Nations Committee on Economic, Social and Cultural Rights 2000, para. 54).

Given the strong association between injection drug use and a number of negative health outcomes including HIV, HCV, injection-related infections and overdosing, it is especially appropriate to include a discussion of human rights when evaluating policies that aim to address this issue (Cohen & Csete, 2006). In consideration of the above mentioned United Nations documents policy options are considered to rate ‘high’ in the human rights criterion if they promote article 25.1 of the UDHR by, a) supporting populations to gain access to determinants of health, b) paying special attention to protect the health of vulnerable populations, and/or c) supporting ‘people’s’ participation in the policy making process.

## 6.5 Risks

This policy criterion is intended to indicate if the adoption of the proposed policy option will likely carry unintended harmful consequences. If there are many unknowns surrounding a policy option this is also considered to be a significant risk factor.

Table 3 Policy criteria and measurements

Criteria	Components of Criteria	Measure	Highest Score
Effectiveness	→ Public Health and Public Order	= ✓	✓ ++
	→ Structural focus/impact at pop level	= +	
	→ Immediate impact	= +	
Political Feasibility	→ Perceived as an appropriate response	= ✓	✓ ++
	→ NO multilevel government cooperation	= +	
	→ NO significant equity issues	= +	
	→ Vocal opposition	= -	
Cost Effectiveness	→ Potential for long-term cost savings	= ✓+	✓ +
Supports Human Right to Health (Article 25 of UDHR)	→ Access to determinants of health	= ✓+	✓ +
	→ Attention to vulnerable populations	= ✓+	
	→ Support for “people’s” participation	= ✓+	
Risks	→ Unknowns/known neg outcomes	= !	-

Table 4 Legend of measurements

Legend of Measurements			
✓	= Moderate Rating	✘	= Low Rating
✓+	= High Rating	!	= Risk
✓++	= Very High Rating	-	= No Risk

## 7 Policy Options and Evaluations

The following are a set of eight policy options related to addressing public injection drug use in the DTES of Vancouver (see table 4 for brief descriptions of policy options). These policy options have been identified and developed from the information collected through this project's quantitative and qualitative investigation as well as background research on previously adopted policy approaches and recently proposed policy options. The fundamental components of each policy option are presented and an assessment of each option in relation to the five previously specified criteria follows.

Table 5 Policy options

Policy Options	Description of Policy Option
<b>Status Quo</b>	<ul style="list-style-type: none"> <li>• No change from current policy approach</li> </ul>
<b>Housing</b>	<ul style="list-style-type: none"> <li>• Create 750 units of supportive housing for people with drug addiction (# based on City of Vancouver's 2005 housing strategy)</li> <li>• Expected start up construction costs = \$150 million (\$200,000 x 750)</li> <li>• Yearly supportive housing costs: \$20-38 per day = \$5.6 million - \$10.5 million per year</li> <li>• Control demolition and conversion trends with regards to existing SRO; improve quality of existing SRO conditions but maintain zero reduction in units</li> </ul>
<b>Medical Regulation of Selected Drugs</b>	<ul style="list-style-type: none"> <li>• Move towards medical regulation of psychoactive substances based on public health model as called for by BC Provincial Health Officers Council</li> <li>• Legislative reform to take place in incremental steps with careful monitoring and evaluation</li> <li>• Potential mechanisms for regulation could include: age and location restrictions, licensing and registration requirements for sellers and purchasers, knowledge tests</li> </ul>

Policy Options	Description of Policy Option
<b>Addiction Treatment</b>	Objective: eliminate wait times for any treatment program ↑ detoxification services until there are no wait time ↑ residential treatment and rehabilitation services until no wait times ↑ post treatment reintegration support and counselling <ul style="list-style-type: none"> <li>• Support development of innovative addiction treatment options including drug substitution and drug maintenance therapies</li> </ul>
<b>Drug Consumption Facilities</b>	↑ number (+4) and capacity of injection sites with the objective of eliminating wait times <ul style="list-style-type: none"> <li>• Address current limitations related to operating hours (make 24hrs) and regulations against assisted injection (develop a procedure whereby those who require help injecting can receive help in a supervised injection setting)</li> <li>• Develop inhalation sites to accommodate crack and heroin smoking</li> </ul>
<b>Peer Based Outreach</b>	<ul style="list-style-type: none"> <li>• Train local active IDU in health and safety promotion</li> <li>• Support peer outreach workers to encourage public injectors to inject in safer locations; supervised injection site/safe indoor locations</li> </ul>
<b>Law Enforcement</b>	↑ police resources dedicated to DTES (increase number of officers) ↑ severity of criminal sanctions and punishments <ul style="list-style-type: none"> <li>• introduce new bylaws; model Ontario's Safe Streets Act, and Kelowna's 'No Sit No Lie' bylaws</li> </ul>
<b>Urban Redesign</b>	<ul style="list-style-type: none"> <li>• Redesign alleys and other public spaces to deter public drug use by removing dumpsters from alleys and installing surveillance cameras</li> </ul>

## 7.1 Status Quo

In responding to concerns related to public injection drug use one policy option available to government is to maintain the status quo and 'do nothing'. With this approach measures currently in place with regards to law enforcement and public health promotion would remain as they currently stand but no new policy action directed at addressing public injection drug use would be adopted. An endorsement of this option would reflect a decision that the concerns related to public injection drug use were not significant enough to warrant action, or that available actions would be too costly, ineffective or potentially harmful.

## Evaluation

The effectiveness of this option is rated ‘low’ as it will not address public health or public order concerns related to public injecting. Given the prevalence of public injection drug use and the known health harms and economic costs associated with such behaviour, maintaining the status quo is not perceived to be an appropriate response. It is also not a cost effective option and does nothing to support human rights principles related to any aspect of the right to health. None of the addiction or drug policy experts that were interviewed supported this policy approach. In sum, the current situation surrounding public injection drug use is acutely problematic from public health and public order perspectives and ‘doing nothing’ does not appear to be inline with the values and interests of Vancouver residents.

*Table 6 Summary of evaluation for the status quo policy option*

Criteria	Status Quo	Measure	Score
Effectiveness	→ Public Health and Public Order	✘	✘ =low
	→ Structural focus/impact at pop level		
	→ Immediate impact		
Political Feasibility	→ Perceived as an appropriate response	✘	✘ =low
	→ NO multilevel government cooperation		
	→ NO significant equity issues		
	→ Vocal opposition		
Cost Effectiveness	→ Potential for long-term cost savings	✘	✘ =low
Right to Health	→ Access to determinants of health	✘	✘ =low
	→ Attention to vulnerable populations	✘	
	→ Support for “people’s” participation	✘	
Risks	→ Unkuowns/known neg outcomes	!	! =risk

## 7.2 Increase Supportive Housing Options for IDU

“It wouldn’t be there if people had homes.”

- Interviewee No. 2. “Megan” IDU and DTES resident

The findings of both the quantitative and qualitative portion of this study indicate that homelessness is strongly associated with public injection drug use. In Vancouver measures of the homeless adult population have more than doubled from 628 persons in 2002 to 1,291 persons in 2005 (GVRD 2005). During that time frame a local community organization has documented a

net loss of 415 low cost single occupant housing units in the DTES (Pivot Legal Society 2005). Currently injection drug users face a range of challenges when attempting to secure affordable housing in Vancouver. Identified barriers to becoming housed include difficulties locating vacant units, obtaining required damage deposits, overcoming prejudice and biases of landlords and accessing social assistance (Eby & Misura 2006). Furthermore, according to one of the long time drug users interviewed for this project “social housing in the DTES is for everybody but drug addicts and [sex trade] working women” (Interviewee No. 3. “Joe” IDU and DTES resident).

To address homelessness among the public injecting drug user population the ‘increase supportive housing options for IDU’ policy alternative involves creating 750 units of supportive housing for people with drug addiction issues (this figure is based on the City of Vancouver’s 2005 housing strategy) (City of Vancouver 2005). These units would be designed to accommodate individuals who actively use illegal drugs and would specifically target the ‘hard to house’ drug addicted population that is likely contributing to a large proportion of drug-related public disorder in the DTES. Supportive housing of this nature is designed to provide long-term accommodation and connect residents with appropriate health and social services. Supportive housing is described as providing:

Opportunities for individuals to stabilize their personal situation and re-establish connections with the community. The housing is linked to support services that are voluntary and flexible to meet residents’ needs and preferences. Support services may include the development of life skills, training and support with housekeeping, meal preparation, banking support, budget management, access to medical care, counselling, referrals, crisis response and intervention.

*City of Vancouver, 2005*

The initial cost of constructing 750 units of housing for people with addictions is considerable. The City of Vancouver’s housing department recently estimated that the building cost per unit of social housing in Vancouver is currently \$200,000 (City of Vancouver Housing Department 2007). Total construction costs for 750 units would thus be in the scope of \$150 million dollars. Subsequent to construction, operation costs range from \$20-\$38 per day per person depending on the type of support provided; in turn, yearly operational expenses would amount to \$7.3 - \$13.8 million for 750 units (City of Vancouver 2005). By way of comparison, the City of Vancouver reports that “the cost of a bed at St. Paul’s psychiatric ward is \$500 per day and a bed in a Provincial correctional institution costs \$155 - \$200 per day” (City of Vancouver 2005, p4). Given these figures it is clear that the initial start up costs of providing social supportive housing are large, but there is significant potential for long-term cost savings.

Important components of an effective housing strategy for high-risk IDU includes expanding programs which link 'hard to house' substance addicted individuals with supportive housing. It is also critical that there be adequate levels of care and support within the housing structures to accommodate the complex needs of this population. Furthermore, to stabilize the broader housing situation in the DTES measures are required to control the demolition and conversion of existing single room occupancy (SRO) units. While it is necessary to improve the living conditions of a large portion of the current SRO housing stock, these actions should be undertaken without reducing the total number of available units.

### **Evaluation**

Creating 750 supportive housing units for people with serious addiction issues is rated to be a 'highly' effective policy approach with regards to public injection drug use. The findings of a strong association between public injection drug use and homelessness in both the quantitative and qualitative components of this study suggest that individuals are less likely to inject in public if they have secure housing. The link between housing and public drug use was emphasised in all three interviews with IDU. One respondent stated that in their observation as a resident in the DTES and as a member of the VANDU Injection Support Team "the reason that [people] inject outdoors is that they have no choice, they are homeless" (Interviewee No. 1. "Sarah" IDU and DTES resident). Indeed, longitudinal studies have found unstable housing to be independently associated with HIV risk behaviours including injecting with used needles and involvement in sex trade work (Corneil et al., 2006), and improvements in housing status have been found to be associated with subsequent reductions in HIV risk behaviour such as sharing needles and engaging in unprotected sex (Aidala et al., 2005). Despite this promising evidence, constructing new units of housing is a lengthy process and benefits of adopting this policy approach would not be realized for a number of years.

There are a number of important implementation issues that have to be properly address in order for this policy option to protect the health of injection drug users and effectively reduce the prevalence of injection drug use in public spaces. The central implementation issue is that supportive housing units have to accommodate the injecting behaviour of residence which requires extensive planning and management. For instance, procedures would have to be in place for responding to overdose incidents and other injection-related health complications. As well, measures to control violent and disruptive behaviour related to drug market activity and intoxication would be required. One IDU interviewee explained that "some addicts only really

feel safe outside” and went on to describe how public injecting was a survival strategy for many drug users living in the DTES. In the respondent’s experience the desperation to use drugs can cause some with serious addiction to resort to stealing drugs from other drug users making many of the hotels and SRO accommodations in the DTES unsafe. They state: “imagine living in the Balmoral or the Regent,<sup>2</sup> in some of these places the doors are hanging off the walls and you want to walk in with a quarter, or an eight ball or a half or a gram or whatever – somebody is going to come along and you know [rob you] and so you do it outside” (Interviewee No. 3. “Joe” IDU and DTES resident). These scenarios emphasize that to meaningfully address the needs of public drug users it is critical to ensure that people feel that they are safe when injecting in private locations.

Addressing health and safety issues is integral to the effectiveness of this policy option and highlights the importance of ensuring that supportive housing units are adequately staffed and resourced. As a policy response, if suitably implemented and supported, creating 750 supportive housing units for severely addicted drug users could, with time, have a significant long-term positive impact on public injection drug use in the DTES. Given its large scale structural focus this policy option is rated ‘highly’ effective.

The political feasibility of creating 750 supportive housing units is rated ‘moderate’. While providing social housing to homeless individuals is the type of policy action that the majority of Canadians endorse, it requires extensive resources and in practice is a difficult initiative to secure funding for. Real estate in Vancouver’s Lower Mainland is in high demand and many other groups of people including families with multiple children, single-parent households and people with mental health issues, also experience homelessness. This introduces the complicating issue of equity as it is likely that portions of the public would oppose a government initiative that built supportive housing for people with severe addiction issues but did not provide housing for other vulnerable populations who also experience homelessness. The City of Vancouver estimates that to address the core needs of the majority of Vancouver’s homeless population 3,200 additional new units of social housing are required over the next four years; the monetary funds required to provide this level of housing amount to roughly \$640 million dollars.<sup>3</sup> As previously explored in this capstone, support for long-term structural interventions is difficult to generate. These types of large scale projects require long-term foresight and commitment by multiple levels of government. Even though such action is in accordance with Canadian social values and ideals governments do not typically operate in this fashion. The feasibility of

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<sup>2</sup> These are two SRO hotels located in the heart of the DTES

<sup>3</sup> Calculation based on City of Vancouver’s Housing Department’s estimation that construction costs for each unit of social housing costs \$200,000 [3,200\*200,000 = 640,000,000]



controlling the demolition and conversion of the current SRO stock in the DTES is also subject to monetary constraints as the opportunity costs involved in protecting SRO are significant given economic market forces.

Despite a rating of 'moderate' for political feasibility, in terms of long range economic costs, the cost effectiveness of this policy option is rated 'high'. As previously discussed, the initial costs of creating supportive housing units for people with severe addictions is considerable; however, providing housing has been found to be cost effective over the long run. In a study conducted by the BC Ministry of Social Development and Economic Security, among a sample of homeless and previously homeless but currently housed individuals, the costs associated with providing health, criminal justice and social services to those in periods of homelessness were 33% higher than for individuals who were housed. In turn, even when accounting for start-up costs the 'increase supportive housing option for IDU' policy option is rated 'high' for overall cost effectiveness.

Yet, one of the strongest aspects of this policy option is not that it is cost effective, rather it is that it adheres to human rights principles related to the right to health. The widespread public health benefits of providing vulnerable populations of IDU with safe, stable, supportive housing are immense. Housing is identified in public health literature as a key determinant of physical and mental health and the positive ripple effects of increasing contact between vulnerable populations and health and social services are also well established (Public Health Agency of Canada 2004; Galea et al., 2003; Galea & Vlahov 2002; WHO 2003). The stress of being homeless has been associated with limiting drug users' ability to adopt HIV risk reduction practices and, as previously highlighted, improvements in housing status have been found to reduce risky injection practices among IDU (Aidala et al., 2005). There is a strong link between stable housing and positive health outcomes and thus creating supportive housing units that accommodates active injection drug users is rated 'high' in the adherence to human rights criteria category.

The potential risks associated with adopting this policy approach are considered to be 'low'. However, there are minor risks relate to finding appropriate locations for supportive housing. Given the long-term nature of this approach and the increasing real estate prices in Vancouver the opportunity costs of investing in specific locations are considerable and sometimes difficult to determine; also, neighbourhood opposition to social housing projects can delay construction and increase costs. There are also tradeoffs associated with the decision of whether to concentrate supportive housing units for IDU in the DTES or spread the units around the Lower Mainland. Keeping IDU in the DTES would mean that they remained in close proximity to

the specialized health and social services which are concentrated in the area, as well, it would likely contain drug market activity in the DTES. However, there may be important benefits in integrating this vulnerable population with communities outside the DTES. Having IDU live outside the DTES may increase employment options or other opportunities unavailable in the DTES, and may also serve to reduce temptation to use drugs among those striving for recovery or abstinence.

In sum, providing supportive housing units for IDU is assessed to have an important long-term impact on public injection drug use and be moderately politically feasible to implement. It is considered to be cost effective, a strong promoter of human rights principles and is anticipated to carry low risks.

Table 7 Summary of evaluation for the increase supportive housing policy option

Criteria	Increase Supportive Housing	Measure	Score
Effectiveness	→ Public Health and Public Order	✓	✓+ =high
	→ Structural focus/impact at pop level	+	
	→ Immediate impact		
Political Feasibility	→ Perceived as an appropriate response	✓	✓ =mod
	→ NO multilevel government cooperation		
	→ NO significant equity issues		
	→ Vocal opposition		
Cost Effectiveness	→ Potential for long-term cost savings	✓+	✓+ =high
Right to Health	→ Access to determinants of health	✓+	✓+ =high
	→ Attention to vulnerable populations	✓+	
	→ Support for "people's" participation		
Risks	→ Unknowns/known neg outcomes	-	- =none

### 7.3 Medical Regulation of Selected Psychoactive Substances

In October 2005 the Provincial Health Officers Council of British Columbia released a discussion paper titled *A Public Health Approach to Drug Control in Canada* in which they present a drug policy framework for regulating currently illegal drugs based on public health principles. They propose that:

The removal of criminal penalties for drug possession for personal use, and placement of these currently illegal substances in a tight regulatory framework, could both aim implementation of programs to assist those engaged in harmful

drug use, and reduce secondary unintended drug-related harms to society that spring from a failed criminal-prohibition approach. This would move individual harmful illegal drug use from being primarily a criminal issue to being primarily a health issue.

*Health Officers Council of British Columbia 2005*

Medical regulation of selected drugs as proposed by the Provincial Health Officers of British Columbia involves legislative reform to remove criminal sanctions that punish individuals for using psychoactive substances and replace them with a range of regulatory mechanisms based on public health principles. Protecting the health of both psychoactive substance and non-psychoactive substance using populations is expected to be achieved in part through implementing age and location restrictions on purchasing psychoactive substances, licensing and registration requirements for sellers and purchasers, and requirements to pass knowledge tests related to the physical and psychological effects of specified substances as well as their addictive and harmful properties (Hayden 2004). Legislative reforms required to move towards the medical regulation of selected drugs is expected to take place in incremental steps. Proposed outcomes of medically regulating selected drugs include the widespread implementation of medical prescription programs such as the North American Opiate Medication Initiative (NAOMI), which is currently a clinical trial testing the effect of medically prescribing heroin to long-term heroin users who have not responded to other forms of addiction treatment (City of Vancouver 2004).

## **Evaluation**

One outcome of Canada's current drug policies which includes a legislative ban all controlled psychoactive substances has been to limit the range of tools available to addiction specialists for managing addictions. This has impeded attempts to develop alternative systems to regulate and manage currently illegal drugs. Thus, there is relatively little empirical evidence indicating what the widespread implications would be of replacing enforcement oriented strategies for managing addictions with public health based approaches. Although many of the effects of medically regulating currently illegal drugs are largely unknown, to the extent that regulation creates new tools for preventing and managing problematic addictions (such as heroin prescription programs), regulation has the potential to significantly influence the public health and public order components of public injection drug use and as such is considered to be an effective approach. The benefits of heroin maintenance were described by one expert interviewee who explained:

Heroin does something to level me out. I've been married. I had kids. My kids are wonderful –and I did heroin all my life. The only time I've been in jail is for

heroin possession. The only thing I have done is put heroin in my body and now I've been on the heroin project for a year and I've been [speaking about addiction] all over the country, and I've been able to do that because heroin was legally given to me.

*-Interviewee No. 2. "Megan" IDU and DTES resident*

To be clear, altering the regulatory mechanisms for psychoactive substances will not address underlying addiction issues, rather it will provide government and public health officials with different tools to manage and control the harmful effects of substance use on individuals and society. By removing the criminal sanctions that punish substance dependent individuals for using drugs, medical regulation also has the ability to reduce the isolation and stigma associated with drug use and provide important opportunities to make contact with chronic public injectors and bring them into safer injecting environments. It doing so medical regulation can significantly alter the context of drug use on a population basis and have a significant impact on reducing risky injection practices. Given this structural/population level focus, medical regulation is rated highly effective.

Although medical regulation of selected drugs may appear to be a radical proposal, it is already taking place in forms such as the NAOMI heroin prescription trial in Vancouver. Furthermore, the Canadian public appears to be increasingly aware of the costs and harms associated with our current law enforcement-based approach to drug control as evidenced by a national poll released in January 2007 which found that 65% of Canadians believe that drug abuse is "a medical problem requiring more prevention and treatment programs" and should not be addressed through law enforcement (Innovative Research Group Inc. 2007). It could be argued that although the Canadian public may wish to move away from law enforcement oriented policies, Canada's obligations to international drug control treaties poses serious barriers which could be perceived to make medical regulation of selected psychoactive substances politically unfeasible. However, Broadhead and colleagues (2002) argue that all international drug control treaties allow for provisions for public health approaches and actively encourage signatures to take 'all practical measures' to reduce disease and addiction (p343). Although there is a practical basis of support for the medical regulation of selected psychoactive substances, this type of action would require significant multilevel government coordination and action, and would require addressing the concerns of those who opposed medical regulation. Given these factors the overall political feasibility of medically regulating selected psychoactive substances is rated 'moderate'.

The cost effectiveness of medical regulation of selected drugs is partly unknown. However, in relation to the costs associated with the present strategy of policing, prosecuting and

incarcerating individuals to deal with drug addiction it is likely that more cost effective approaches exist. As a point of reference, British Columbia in 2002 spent \$153.35 million on policing activities related to illegal drugs, \$43.06 million on court costs to prosecute illegal drug offences, and \$80.9 million to incarcerate individuals for illegal drug offences (Rehm et al, 2006). In total these estimates indicate that direct costs related to enforcing drug laws in British Columbia for the year of 2002 amounted to \$277.31 million. In sum, there are significant cost saving to be realized in reforming current legislation surrounding psychoactive substance.

The human rights component of moving towards the medical regulation of selected psychoactive substances is rated 'high' as reform which removes criminal penalties and jail terms for individuals with severe addictions are expected to have significant positive health impacts on injection drug users. Currently, in Canadian prisons there are no needle exchange services and IDU have limited access to clean injecting equipment resulting in high incidences of needle sharing among inmates while incarcerated (Small et al., 2005; Canadian HIV/AIDS Legal Network 2006). Analysis of local Vancouver based IDU determined that approximately 20 percent of HIV infections among this population were acquired in prison (Hagan 2003). The potential for medical regulation and accompanying legislative reform to limit contact between drug users and the criminal justice system is thus likely to have significant health benefits thereby supporting human rights principles.

Given the unknowns surrounding many aspects of medical regulation this policy option is considered to be a high risk policy approach. Thus implementing this policy option should be done in incremental steps with careful monitoring and evaluation.

In sum, reforming psychoactive substance control legislation to reflect a public health approach has the potential to positively change the context of drug use and reduce risky injection practices among a significant portion of injecting drug users. It is considered to be moderately politically feasible. There are considerable cost savings to be realized in moving away from enforcement oriented approaches, and the human rights implications are rated positive and high.

*Table 8 Summary of evaluation for the medical regulation of selected drugs policy option*

Criteria	Medical regulation for Selected Substances	Measure	Score
Effectiveness	→ Public Health and Public Order	✓	✓+ =high
	→ Structural focus/impact at pop level	+	
	→ Immediate impact		

Criteria	Medical regulation for Selected Substances	Measure	Score
Political Feasibility	→ Perceived as an appropriate response	✓	✓ =mod
	→ NO multilevel government cooperation		
	→ NO significant equity issues	+	
	→ Vocal opposition	-1	
Cost Effectiveness	→ Potential for long-term cost savings	✓+	✓+ =high
Right to Health	→ Access to determinants of health		✓+ =high
	→ Attention to vulnerable populations	✓+	
	→ Support for “people’s” participation		
Risks	→ Unknowns/known neg outcomes	!	! =risk

## 7.4 Increase Availability and Expand Models of Addiction Treatment

To reduce the prevalence of public injection drug use another approach is to improve access to addiction treatment services with the aim of stabilizing the lives of people with serious addictions and eliminating or reducing harmful drug consumption habits. ‘Addiction treatment’ is a broad term and can include a range of programs and services based on numerous different models; however, available addiction treatment is largely abstinence oriented meaning that participants are expected to move towards abstaining from all psychoactive substance use. The objective of this policy option is to take action to eliminate wait times for currently available abstinence based addiction treatment programs as well as to expand the range of accessible addiction treatment models to accommodate drug users who may not be willing or ready to enter abstinence oriented treatment programs. This involves introducing and expanding drug substitution and drug maintenance treatment models where the objective may not be to have all participants move towards abstaining from drug use but rather to enable participants to lead stable, healthy lives.

To increase the availability of existing abstinence treatment options, this policy proposal involves increasing detoxification services until all individuals who wish to enter detox can access it immediately. Similarly, it is proposed that the existing capacity of residential treatment facilities and rehabilitation counselling services be increased until wait-times are eliminated. A follow-up component to treatment includes providing individuals who complete addiction treatment programs with post-treatment reintegration support and counselling services; this too would be part of the addiction treatment policy option.

The final component of this policy proposal is to support the continued development of innovative addiction treatment options, including drug substitution and drug maintenance programs. One example of this is Mayor Sullivan's recently proposed 'Chronic Addiction Substitution Treatment Trial' (CAST) which aims to introduce 700 substitution therapy spaces which are designed to reduce the use of illegal street drugs by prescribing legal orally-administered replacement drugs for Vancouver's severely addiction drug using population (Inner Change Society 2007; Office of the Mayor 2006, 2007). This initiative will include exploring stimulant replacement therapy for people who use cocaine and methamphetamines; an initiative that has never been implemented in Vancouver before.

### **Evaluation**

All expert interviewees enthusiastically endorsed increasing addiction treatment, and one responded particularly emphasised the importance of increasing treatment options for youth. They explained that "underage [youth] can't get welfare, can't get housing - there are young little girls who are out on the street and a lot of them would just love to get into detox and they don't need to be told there is a waitlist -- we need to be looking out for our youths better" (Interviewee No. 1. "Sarah" IDU and DTES resident).

While there are many benefits to addiction treatment the effectiveness of increasing and expanding addiction treatment options as a vehicle for addressing public injection drug use is only expected to be 'moderately' effective. As with building supportive housing, the effect of expanding treatment options for persons with addiction issues is unlikely to have an immediate impact in the DTES (Interviewee No. 4. Anonymous representative from the City of Vancouver). Furthermore, while increasing access to addiction treatment may attract a portion of public injection drug users, willingness to participate in treatment is likely to be lower for heavily addicted IDU and many severely addicted drug users do not respond to current treatment models (Interviewee No. 6. Anonymous representative from Vancouver Coastal Health). Thus, increasing the availability of current treatment models is expected to have, at best, a small scale effect on public injection drug use in the DTES. However, innovations in addiction treatment models such as drug substitution and drug maintenance programs which accommodate drug users who are not willing to enter into current abstinence based treatment programs is the type of treatment development which could have a significant impact on public drug consumption. Nevertheless, the implementation of innovative programs are associated with a range of difficulties and their

success is unknown. In fact, to date there are no established pharmaceutical substitute drugs for many problematic stimulants including crack cocaine and crystal methamphetamine.

The political feasibility of increasing treatment options for people with substance addictions is also rated 'moderate'. Similar to building social housing, the public largely supports increasing addiction treatment programs; however, addiction treatment is expensive to provide and competes for funds with other health services. Furthermore, innovative substitution and maintenance programs may be contentious for individuals who believe abstinence based treatment is the only appropriate model for addressing addictions. Nevertheless, increasing treatment options for persons with addictions is politically feasible.

As previously mentioned, addiction treatment is costly, but many studies have also found it to be very cost effective. Vancouver's Four Pillar Drug Strategy highlights the Alberta Alcohol and Drug Abuse Commission which estimates that after one year each dollar spent on addiction treatment saves \$7.14 in health and justice costs as well as through increased productivity (MacPherson 2001). Furthermore, an American based study, also referenced in Vancouver's drug strategy document, found that in targeting cocaine consumption the comparative effectiveness of treatment was "7 times more effective than law enforcement, 10 times more effective than interdiction and 21 times more effective than attacking drugs at their source" (MacPherson 2001, p41). In turn, existing evidence indicates that the cost effectiveness of increasing addiction treatment options is 'high'.

Similarly, the human rights component of increasing addiction treatment options is rated 'high' as it directly supports the human right principle of ensuring access to health and social services for vulnerable populations. However, forced participation in addiction treatment, particularly forced participation in substitution or maintenance therapies would directly violate the rights of people who use drugs to determine what form of treatment would be most appropriate for them.

While increasing access to established addiction treatment services does not pose serious risks or threats; the unknowns surrounding innovative substitution and maintenance therapies have yet to be fully explored and given the potential for coercive or forced participation in substitution and maintenance treatment, the implementation of innovating treatment options is of central importance.

In sum, increasing the availability and expanding models of addiction treatment services is expected to be moderately effective in addressing public drug consumption and moderately



politically feasible to implement. If the implemented model of treatment is not coercive in nature, it is a low risk policy option, rated highly cost effective and highly supportive of human rights principles related to the right to health.

*Table 9 Summary of evaluation for the increase addition treatment policy option*

Criteria	Increase Addiction Treatment	Measure	Score
Effectiveness	→ <b>Public Health and Public Order</b>	✓	✓ =mod
	→ <b>Structural focus/impact at pop level</b>		
	→ <b>Immediate impact</b>		
Political Feasibility	→ <b>Perceived as an appropriate response</b>	✓	✓ =mod
	→ <b>NO multilevel government cooperation</b>		
	→ <b>NO significant equity issues</b>		
	→ <b>Vocal opposition</b>		
Cost Effectiveness	→ <b>Potential for long-term cost savings</b>	✓+	✓+ =high
Right to Health	→ <b>Access to determinants of health</b>	✓+	✓+ =high
	→ <b>Attention to vulnerable populations</b>	✓+	
	→ <b>Support for “people’s” participation</b>		
Risks	→ <b>Unknowns/known neg outcomes</b>	-	- =none

## 7.5 Expand Drug Consumption Facilities

Vancouver currently has the only supervised injection facility in all of North America. The site is a pilot project and the twelve seat facility is reported to have been operating at capacity for over two years (Tyndall et al., 2006). Furthermore, coverage estimates indicate that the existing facility can accommodate at most 5-10% of injections that occur in the DTES (Kerr et al., 2004). As previously outlined, the potential for drug consumption facilities to accommodate the needs of a wider range of drug users is currently restricted by operating hours (it is not open 24hrs), limited capacity (leading to wait times), the banning of assisted injections within the facility and the banning of inhalation or smoking within the facility. To target public injection drug use the ‘expand drug consumption facilities’ policy approach involves increasing the capacity and number of injection sites in the DTES to cover a larger area and developing operating models for facilities which specifically tailor to the needs of drug users who require help injecting and those who smoke drugs as well as other sub-populations of drug users with identifiable needs that may be accommodated through modifications in operational design. To

expand drug consumption facilities the City of Vancouver in partnership with other levels of government and public health bodies could begin by constructing four additional drug consumption facilities in the DTES.

## **Evaluation**

Addiction and drug police experts interviewed for this analysis had many comments regarding drug consumption rooms. Two IDU interviewees adamantly explained that, based on their observations and experiences, they felt that a key reason that people inject outside instead of at the supervised injection site relates to the federal regulation which prohibits assisted injections (Interviewee No. 1. “Sarah” IDU and DTES resident; Interviewee No. 2. “Megan” IDU and DTES resident). They identified women and young girls as having particular difficulty injecting due in part to a lack of injection knowledge and to women having smaller veins than men (Interviewee No. 1. “Sarah” IDU and DTES resident; Interviewee No. 2. “Megan” IDU and DTES resident). Another issue that emerged related to privacy and the importance for many IDU of not being watched when injecting drugs. Creating more private injecting booths at the supervised injection site was one way the facility could be redesigned to attract more IDU according to these two interviewees.

In relation to the proposal to introduce inhalation rooms to accommodate injectors who smoke crack and heroin, none of the expert respondents saw this as a high priority. One IDU interviewee did not think there were many injection drug users who would insist on smoking crack when they injected (Interviewee No. 2. “Megan” IDU and DTES resident) and most emphasised that providing hygienic supervised environments for injecting drugs was most important (Interviewee No. 1. “Sarah” IDU and DTES resident; Interviewee No. 2. “Megan” IDU and DTES resident; Interviewee No. 3. “Joe” IDU and DTES resident). One interviewee emphasised that “when we ask for smoke inhalation rooms we put less bearing on the importance of the whole aspect of injection use and the infection it creates – we are doing it [providing injection sites] for the infection it creates” (Interviewee No. 1. “Sarah” IDU and DTES resident). Similarly, the VPD interviewee indicated that the VPD would not support inhalation rooms as they felt there was not compelling evidence to indicate that there was a significant public health concern that an inhalation room would address.

Given these perspectives it appears that the benefits of inhalation rooms are less certain and emphasis should be placed on expanding supervised injection sites and improving their models to accommodate more IDU. The effectiveness of adopting this policy approach is rated to

be 'very high'. Providing easily accessible alternative locations for drug users to consume drugs has been shown to attract high risk injectors and move their injecting behaviour out of public spaces in Vancouver (Wood et al., 2004a; Wood et al., 2006a). Unlike building supportive housing units, the impact of this policy option will be realized relatively quickly and both public health and public order benefits would result (Interviewee No. 4. Anonymous representative from the City of Vancouver).

The political feasibility of this option is rated 'moderate'. While vocal members of the RCMP and the current federal administration do not support supervised drug consumption facilities, both provincial and municipal levels of government are strongly in favour of Vancouver's injection site, as are local municipal police and the public at large. Recent public opinion polls show that 71% of British Columbians support supervised injection facilities (Decima Research Inc. 2006). It appears that should the federal political climate shift, the feasibility of expanding supervised consumption facilities would significantly increase. Of note, the Vancouver Police Department representative interviewed for this project raised concerns about the effect of establishing additional injection facilities in other areas without a significant increase in policing resources. From the VPD's perspective having police present to maintain order around an injection facility is critical for its operation. This interviewee did not have any concerns about increasing the capacity and extending the hours of the current facility stating that this would be a negligible additional strain on policing resources.

Compared to the costs associated with creating supportive housing for people with addictions, providing supervised spaces for consuming drugs is relatively inexpensive. Furthermore, the scope of the intervention is likely to be broader and more directly targeted at public injection drug use than interventions which aim to increase addiction treatment programs (Interviewee No. 4. Anonymous representative from the City of Vancouver). As such, expanding drug consumption facilities is rated 'highly' cost effective. Similarly, providing drug users with a supervised hygienic environment to consume drugs amounts to treating drug addiction as a health issue thereby promoting human rights principles related to health. Thus this policy option is also rated 'high' in the human rights category.

Given the evidence generated from the current pilot supervised injection site, the risks associated with expanding drug consumption facilities are considered 'low' (Wood et al., 2006a). To date there has been no evidence to indication that drug consumption rooms encourage drug use or act as 'magnets' drawing additional drug users and related public disorder into the area surrounding such a facility.

In sum, expanding drug consumption rooms is considered to be very highly effective in addressing public injection drug use behaviour and moderately political feasible in the current political climate; however, changes in the federal government administration are expected to have a significant impact on the acceptability of this policy approach. Both the cost effectiveness of drug consumption facilities and their support for human rights principles are rated high, and the potential for risks related to this policy option are considered to be low.

Table 10 Summary of evaluation for the expand drug consumption facilities policy option

Criteria	Expand Drug Consumption Facilities	Measure	Score
Effectiveness	→ Public Health and Public Order	✓	✓++=very high
	→ Structural focus/impact at pop level	+	
	→ Immediate impact	+	
Political Feasibility	→ Perceived as an appropriate response	✓	✓ =mod
	→ NO multilevel government cooperation		
	→ NO significant equity issues	+	
	→ Vocal opposition	-1	
Cost Effectiveness	→ Potential for long-term cost savings	✓+	✓+ =high
Right to Health	→ Access to determinants of health		✓+ =high
	→ Attention to vulnerable populations	✓+	
	→ Support for “people’s” participation		
Risks	→ Unknowns/known neg outcomes	-	- =none

## 7.6 Promote Peer Based Outreach

The DTES of Vancouver is home to an established internationally recognized drug user run organization called VANDU (Vancouver Area Network of Drug Users). Through political activism and peer based outreach VANDU works to improve the lives of drug users (Kerr et al., 2006a). Currently, VANDU runs two peer based outreach programs in the DTES called the ‘alley patrol’ and the ‘injection support team’. In both programs, VANDU members (who are typically active drug users) sign up for patrol shifts which involve walking the streets and allies of the DTES picking up discarded needles and drug paraphernalia and providing clean injecting and smoking equipment for other users. The injection support team is also specifically trained to provide information to users about safer injecting practices and inform users about available health and social services. This policy option would involve expanding these types of initiatives and introducing measures to encourage drug users involved in outreach to communicate to their

public injecting peers the health and safety benefits of relocating to private or supervised injecting locations. This could be described as an individual vs. structurally oriented intervention as it aims to change the behaviour of people who inject drugs in public spaces through peer delivered education and support.

## Evaluation

If alternative injecting environments (such as housing or drug consumption facilities) are not created on a large scale in conjunction with promoting peer based outreach, then adopting this approach will be ineffective as outreach workers will have no place to direct their public injecting peers. The overall coverage of this initiative is also likely to be low as peer outreach is mainly restricted to individual one on one contact with public IDU. For these reasons promoting peer based outreach is rated 'low' for effectiveness. However, if supportive programs which offer alternative injecting locations for public injectors are available then peer based outreach can be an important tool in reaching hard to access drug users and connecting them with health and social services.

Supporting this level of peer based outreach is relatively inexpensive, does not require government cooperation, is unlikely to face political opposition or present equity issues and is low risk. Given the participatory nature of empowering active drug users in efforts to address the health and social harms associated with public injection drug use, peer based outreach is rated 'high' on the scale of promoting human rights principles.

*Table 11 Summary of evaluation for the promote peer based outreach policy option*

Criteria	Promote Peer Based Outreach	Measure	Score
Effectiveness	→ Public Health and Public Order	✖	✖ =low
	→ Structural focus/impact at pop level		
	→ Immediate impact		
Political Feasibility	→ Perceived as an appropriate response	✓	✓++ =very high
	→ NO multilevel government cooperation	+	
	→ NO significant equity issues	+	
	→ Vocal opposition		
Cost Effectiveness	→ Potential for long-term cost savings	✓+	✓+ =high
Right to Health	→ Access to determinants of health		✓+ =high
	→ Attention to vulnerable populations	✓+	
	→ Support for "people's" participation	✓+	
Risks	→ Unknowns/known neg outcomes	-	- =none

## **7.7 Increase Law Enforcement**

As the distribution, possession and use of control substances are prohibited by law, imposing criminal penalties for people who use drugs in public to punish and deter such behaviour is a tool available to policy makers to discourage public injecting drug use. This action would include concentrating law enforcement efforts to the DTES, launching ‘crackdown’ campaigns against public drug use, and increasing resources for police and courts to punish people found consuming drugs in public. Additional bylaws modelled on Ontario’s ‘Safe Streets Act’ could be introduced to increase the severity of punishments associated with public drug consumption (Safe Streets Act, 1999).

### **Evaluation**

Increasing law enforcement is likely to reduce the visible signs of public injection drug use in targeted areas. However, as previously noted, research has established that the effect is likely to be short term (Scott 2003). Furthermore, when police presence is high in one area IDU have been found to relocate their injecting activities to adjacent areas. Neighbourhoods where drug activity relocates suffer from increased levels of improperly discarded needles and syringes and other activities that surround drug markets (Wood et al., 2004b). Drug market displacement is also associated with disrupting established connections between drug users and important health and social services, including discouraging IDU from accessing and carrying clean injecting equipment further perpetuating risky injection practices (Mayer & Dixon 1999).

The interviewed VPD representative struggled with these realities stating that “policing can have a definite impact in terms of what the street looks like, but of course the research is out there that indicates that when you do that there is a negative public health impact so how do you balance that?” (Interviewee No. 6. Anonymous representative from the Vancouver Police Department). The respondent went on to describe that the nature of the relationship between police and drug users is complicated due in part to the powers of police to arrest and incarcerate drug users for drug-related activities. But the respondent remarked that despite these tensions many drug users can appreciate the importance and necessity of policing and have benefited from policing presence in various forms. The interviewee provided examples of drug users approaching specific police officers who are well known for helping people with addictions get into addiction treatment programs.

Despite the ability of individual officers to reach out to IDU, substantial evidence indicates that increasing law enforcement activities are likely to undermine important public health objectives as enforcement crackdown campaigns are associated with driving drug users into isolation and likely to decrease contact between drug users and health and social services. Intensified enforcement is also likely to increase incarceration rates for IDU and correctional facilities are associated with negative health outcomes for this vulnerable population. According to this study's definition of effectiveness, the effectiveness of increasing law enforcement to address public injection drug use is rated 'low'.

However, given the historical precedent of adopting punitive approaches in dealing with drug addiction and public disorder the political feasibility of this option is rated 'very high'. In fact, the Mayor of Vancouver is proposing to introduce a range of stiffer penalties for law enforcement to use against individuals who contribute to public disorder in Vancouver (Office of the Mayor 2006) and this option has not been met with notable public resistance. Political support for increasing law enforcement remains despite the exuberant costs associated with policing, prosecuting and incarcerating individuals for drug-related offences. As previously noted, British Columbia annually spends in the range of \$275 million dollars on drug law enforcement alone (Rehm et al., 2006). Given these costs the cost effectiveness of this option is rated 'low'.

The negative health outcomes associated with enforcement practices and incarceration undermine human rights principles related to health and protection of vulnerable populations. In 2002 the Canadian Centre on Substance Abuse found that 20 percent of federal inmates in Canada report that they committed their most serious offence in order to obtain illegal drugs (Pernanen et al., 2002). When addiction is recognized as a health issue sending large numbers of people to prison for action directly related to their substance addiction violates the Canadian Government's obligation to protect and uphold the human right to health of all its citizens; especially its most vulnerable citizens.

In sum, the risks associated with enforcement-related activities are high and it is not considered to be effective in addressing the public health and public order components of public injection drug use. While the political feasibility of law enforcement has been rated 'very high', the cost effectiveness and support for human rights principles are both rated 'low'.

Table 12 Summary of evaluation for the increase law enforcement policy option

Criteria	Increase Law Enforcement	Measure	Score
Effectiveness	→ Public Health and Public Order	✖	✖ =low
	→ Structural focus/impact at pop level		
	→ Immediate impact		
Political Feasibility	→ Perceived as an appropriate response	✓	✓++ =very high
	→ NO multilevel government cooperation	+	
	→ NO significant equity issues	+	
	→ Vocal opposition		
Cost Effectiveness	→ Potential for long-term cost savings	✖	✖ =low
Right to Health	→ Access to determinants of health		✖ =low
	→ Attention to vulnerable populations		
	→ Support for "people's" participation		
Risks	→ Unknowns/known neg outcomes	!	! =risk

## 7.8 Urban Redesign

Making changes to the urban environment to discourage public injection drug use is another potential policy approach for discouraging public drug consumption. In the recently released *Project Civil City* the Mayor of Vancouver proposed removing dumpster from alleys in the DTES and installing closed circuit cameras to address drug-related public disorder in the area (Office of the Mayor 2006). These initiatives fit the crime prevention model of 'designing out' crime or in this case designing out drug use by making public spaces inhospitable to drug users (Rhodes et al., 2006).

### Evaluation

Reconfiguring the urban geography of the DTES to make public drug use more difficult is unlikely to reduce the overall prevalence of public injection drug use. If injectors are not provided with viable alternative injecting locations then blocking of selected public areas through urban redesign may reduce public drug consumption in those areas however injectors are likely to relocate their undesirable activity to surrounding locations. The effectiveness of this approach is thus considered to be 'low'. Politically urban redesign is rated 'high' on political feasible. While a number of Vancouver residents may be opposed to the city installing closed circuit cameras to monitor the public, a number of DTES business owners install cameras at their own expense to



deter crime and thus are likely to support the City taking additional crime prevention measures in the form of urban redesign.

In the current analysis the cost effectiveness of urban redesign is rated 'low' as without creating alternative injecting environments measures taken to reduce public drug consumption in one area are likely to push the activity to other public locations. There is no evidence to suggest that investing in surveillance cameras or removing dumpsters from alleys will result in any form of long-term cost savings. With respect to human rights principles urban redesign rates 'low' as well. Investigation into the effects of spatial crime prevention in communities with marginalized populations similar to the DTES have found such action to cause "the disintegration of local social networks... and the disproportionate targeting of marginalized populations through the increased surveillance, regulation and punitive control of public space" (Rhodes et al., 2006).

In sum, there are high risks associated with urban redesign on the health and well-being of marginalized populations as well as risks for areas where drug consumption activity is displaced. The overall effectiveness of this strategy in meaningfully addressing public injection drug use is low, though politically feasible to implement. Finally, there are few monetary benefits to be realized in urban redesign.

*Table 13 Summary of evaluation for the urban redesign policy option*

Criteria	Urban Redesign	Measure	Score
Effectiveness	→ Public Health and Public Order	✘	✘ =low
	→ Structural focus/impact at pop level		
	→ Immediate impact		
Political Feasibility	→ Perceived as an appropriate response	✓	✓+ =high
	→ NO multilevel government cooperation	+	
	→ NO significant equity issues		
	→ Vocal opposition		
Cost Effectiveness	→ Potential for long-term cost savings	✘	✘ =low
Right to Health	→ Access to determinants of health		✘ =low
	→ Attention to vulnerable populations		
	→ Support for "people's" participation		
Risks	→ Unknowns/known neg outcomes	!	! =risk

## 8 Policy Recommendations

At first glance it may appear that the housing option is the key intervention to address public drug use, however, in looking at the evaluations of effectiveness (see table 14) housing is not the highest rated policy option indicating that a strategic policy response requires action beyond housing.

Table 14 Police effectiveness matrix

	Public Health	Public Order	Focus on Structure	Immediate Impact	Total
Status Quo	<b>x</b>	<b>x</b>			<b>x</b>
Housing	✓	✓	+		✓+
Medical Regulation of Selected Drugs	✓	✓	+		✓+
Addiction Treatment	✓	✓			✓
Consumption Facilities	✓	✓	+	+	✓++
Peer Based Outreach	✓	<b>x</b>			<b>x</b>
Law Enforcement	<b>x</b>	✓			<b>x</b>
Urban Redesign	<b>x</b>	<b>x</b>			<b>x</b>

In evaluating key components of the proposed policy options, the policy option that rates the highest overall in the five criteria categories is the 'expand drug consumption facilities' proposal (see table 15). Along with 'expand drug consumption facilities, the 'housing' and the 'medical regulation of selected psychoactive substance' options are together considered to be the most promising policy approach. All three of these options target risk producing structural factors

(see table 14) by altering the context of injecting environments to enable safer injection practices and bring injectors off the streets. As highlighted in a review of the literature on public injection drug use, given the limitations of individually focused interventions, initiatives that seek to alter the context surrounding drug consumption are most equipped to have an impact at the population level and thus are most able to significantly reduce risk behaviour (in this case public injection drug use). By providing drug users with options (largely in the form of alternative injecting environments) that enable safer injection practice, drug consumption rooms, supportive housing and the medical regulation of selected drugs are all tools that promote public health objectives and have the potential to significantly reduce public injection drug use.

Table 15 Policy matrix

	Effective	Political Feasibility	Cost Effective	Human Rights	Risks
Status Quo	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>!</b>
Housing	<b>✓+</b>	<b>✓</b>	<b>✓+</b>	<b>✓+</b>	<b>-</b>
Medical Regulation of Selected Drugs	<b>✓+</b>	<b>✓</b>	<b>✓+</b>	<b>✓+</b>	<b>!</b>
Addiction Treatment	<b>✓</b>	<b>✓</b>	<b>✓+</b>	<b>✓+</b>	<b>-</b>
Consumption Facilities	<b>✓++</b>	<b>✓</b>	<b>✓+</b>	<b>✓+</b>	<b>-</b>
Peer Based Outreach	<b>x</b>	<b>✓++</b>	<b>✓+</b>	<b>✓+</b>	<b>-</b>
Law Enforcement	<b>x</b>	<b>✓++</b>	<b>x</b>	<b>x</b>	<b>!</b>
Urban Redesign	<b>x</b>	<b>✓+</b>	<b>x</b>	<b>x</b>	<b>!</b>

Expanding drug consumption facilities is expected to reduce public injection drug use more rapidly than the policy approaches of providing housing and reforming current legislation surrounding selected psychoactive substances to allow for the medical regulation of selected drugs (see table 14). As both ‘housing’ and the ‘medical regulation of selected drugs’ are anticipated to produce impacts in the long-term, these two policy options in combination with the

'drug consumption facility' policy option form a multifaceted policy approach to public injection drug use and is the recommended course of action for policy makers. The greatest weakness associated with the 'expand drug consumption facilities' portion of this policy recommendation relates to the current political climate of government at the federal level. However, given the broad based support for drug consumption rooms in other government and public sectors, it is expected that the current political dynamics surrounding drug consumption facilities has a limited life span.

It is likely that introducing structural interventions of this nature as recommended will impact a broad range of injection drug users. Conversely, the policy options 'expand addiction treatment' and 'promote peer based outreach', although considered positive initiatives, do not have a widespread reach and are less equipped to modify the structural factors which are associated with perpetuating public injection drug use (see table 14). For instance, willingness to participate in addiction treatment programs is typically lower among severely addiction IDU, which is of particular relevance given that high intensity addiction is found to be independently associated with public injection. In turn expanding addiction treatment for public injectors is expected to have a small scale impact at best.

Similarly, peer based outreach is restricted to individual one on one contact with public IDU and is thus a small scale intervention. Additionally, if alternative injecting environments in the form of housing or drug consumption facilities are not available for public injectors then peer based outreach workers will have no place to redirect their public injecting peers further reducing the potential impact of this intervention. Nevertheless, expanding addiction treatment and supporting peer based outreach supports human rights principles related to the right to health and are determined to be cost effective. As such, they are considered to be supportive policy actions and their adoption is desirable. However, to be effective it is recommended that they be implemented only in conjunction with the three specified structurally focused interventions.

The current policy analysis concludes that law enforcement and urban redesign strategies are undesirable policy approaches associated with significant social and monetary costs. In disrupting established links between vulnerable IDU populations and health and social services (including HIV prevention services), law enforcement crackdown campaigns have been found to undermine important public health objectives. Furthermore, the displacement that results from crackdown campaigns is associated with increased levels of public disorder in surrounding areas; specifically increased numbers of improperly discarded needles and syringes and increased incidences of violence and other drug market activity. There is no compelling justification for

these initiatives as their effectiveness is short term at best and does nothing to address the underlying factors perpetuating the problem. It is recommended that policy makers avoid these courses of action in relation to public injection drug use in Vancouver's DTES and focus on taking actions which encourage those currently injecting in public to relocate to safer injecting environments.

## **8.1 Policy Implementation**

For the proposed policy options to produce the intended effects a number of issues require attention at the policy implementation stage. For supervised drug consumption rooms to have a significant impact on reducing public drug use and protecting the health of IDU access to facilities has to be expanded in a number of ways including:

- Increase hours of operation to 24hs a day
- Increase capacity of facilities to eliminate wait times
- Amend operational regulations to accommodate those who require assistance injecting
- Design injecting booths inside facilities to be more private
- Broaden the location of facilities to provide services to a larger geographic area
- Introduce inhalation rooms to accommodate injectors who smoke drugs

For the housing option to be successful, the creation of supportive housing units for IDU must be designed to safely accommodate injection practices. Key aspects to a successful design include securing experienced front line staff to work with housing residents and developing practical management strategies to control violent and disruptive behaviour associated with drug market activity and intoxication as well as to ensure appropriate responses to overdose events and other injection-related health hazards. The success of providing IDU with supportive housing options will be maximised if implementation includes extensive training for staff and the development of a comprehensive management strategy; both of which require adequate and stable sources of funding.

Medical regulation of selected drugs should be undertaken in incremental steps with consistent monitoring and evaluation. Issues of importance related to the implementation of substitution and maintenance addiction treatment options for IDU largely pertain to the nature of participation in the programs. Forced or coercive recruitment into treatment is ethically unsound and infringes on the rights of people who use drugs and as such is an undesirable course of action.

It is recommended that the implementation of the policy option 'increase availability and expand models of addiction treatment' be designed to increase treatment options for people with addictions; not force IDU into treatment.

## 9 Policy Implications

The findings of this capstone are of particular importance in the current policy making climate as Vancouver Mayor Sam Sullivan is in the process of developing and implementing the *Project Civil City* initiative which includes activities found in the current analysis to be costly and harmful. Specifically, *Project Civil City* discusses introducing tougher penalties for “crimes of disorder” and suggests increasing police presence and law enforcement measures in the DTES. Similarly, it proposes pursuing urban redesign strategies to deter public drug use (Office of the Mayor 2006). As presented throughout this project, these actions are expected to push drug users into isolation and result in increased levels of incarceration among people who use drugs. In underscoring the costs and harms associated with policy actions currently proposed in *Project Civil City*, this capstone illustrates that the City of Vancouver’s response to public drug consumption includes poorly informed policy initiatives which are not supported by scientific evidence.

In the process of developing the foundation of *Project Civil City* Mayor Sullivan posted a non-scientific survey on his website to gauge public opinion on issues surrounding public disorder. Mayor Sullivan subsequently used the results of this web survey to conclude that “only a very small percentage (1.5%) [of respondents] said they feel that the current harm reduction strategies to address drug addiction (including the safe injection site) were working... rather, the survey findings suggest that a larger number of respondents feel there is a need for “tough love” designed to help those challenged with mental illness and drug addiction” (p21). While citizen engagement and public opinion are important components of policy development, it is concerning that the findings of this non-scientific internet based survey are portrayed to accurately reflect the perspectives and opinions of citizens. It is even more alarming that these findings are being used to direct and inform policy action when a number of scientifically credible public opinion surveys have found that 71% of British Columbians support supervised injection sites (Decima Research Inc. 2006) and 66% of British Columbians believe that the use of illegal drugs should be treated as an illness and addressed through focused prevention and addiction treatment initiatives - not law enforcement (Innovative Research Group Inc. 2007). Implementing law enforcement-based approaches to addressing issues related to public drug use based, in part, on speculation that

citizens support a 'tough love' approach towards addictions is poorly informed policy that is not well-supported by the available evidence.

Furthermore, the policy evaluation portion of this capstone emphasises the importance of considering the relationship between policy action and human rights principles, however, *Project Civil City* does not include a focused consideration of the human rights or public health impacts of proposed policy actions. Rather, *Project Civil City* is stated to be "designed to restore the public's sense of personal safety, promote civic pride and encourage personal responsibility through incremental change" (p7). The failure to directly integrate human rights principles and public health objectives into *Project Civil City* reflects a serious flaw in the City of Vancouver's current approach to managing issues related to public disorder. The City of Vancouver is urged to require that all future policy action to address public drug consumption include a focused consideration of their impact on the health and wellbeing of vulnerable IDU populations. Furthermore, the City of Vancouver is called upon to uphold the obligation to ensure that limitations and infringements on the human rights of an individual or population be 'proportional'. Meaning that if infringement of a human right is deemed necessary to preserve other important governance objectives, action must be taken to ensure that the least restrictive alternative be adopted (United Nations Committee on Economic, Social and Cultural Rights 2000, para. 29).

Evidence based aspects of *Project Civil City* which are supported by the current analysis include actions which protect the health of people who use drugs by modifying the context of drug use. Creating alternative injecting environments by expanding drug consumption rooms and providing supportive housing for IDU are critical policy tools for addressing public drug consumption and are recommended policies for *Project Civil City* to pursue. Furthermore, given the relationship between housing and public injection drug use, the City of Vancouver should take immediate action to control the demolition and conversion of existing affordable housing in the DTES and take decisive action to begin constructing supportive housing units for Vancouver's homeless population.

Another aspect of *Project Civil City* is the proposed Chronic Addiction Substitution Treatment Trial (CAST) which is designed to reduce the use of illegal street drugs by prescribing legal orally-administered replacement drugs for those with chronic addictions (Inner Change Society 2007). A stated focus of this initiative is to improve the health of people who chronically use drugs. Although CAST is only in the initial stage of development and will require approval from Health Canada before it can be launched, preliminary CAST plans state that the objective of



substitution treatment is to end drug dependency. While this may be effective for some participants, this goal should not eclipse the potential of substitution therapy to help those who may remain active drug users, move towards leading healthier, more stable lives. In finalizing the proposed CAST initiative, mechanisms should be in place to ensure that access to the benefits of this initiative are available to people with chronic addictions who may not be able to eliminate their drug dependence.

## 10 Next Steps

To further deconstruct public injection drug use additional exploration into the perspectives of public IDU could provide important insights for policy development. Through participant observation and in-depth interviews with public injection drug users, a deeper understanding of how factors such as 'convenience' and 'preference' serve to perpetuate this behaviour would be useful. Studies of a broad range of injection locations could be used to identify and isolate aspects of injecting environment that promote safer injecting practices. As well the development of methods to encourage public injectors to relocate to those safer locations would be beneficial. Also, longitudinal analyses or analyses involving a larger sample of IDU might be better able to determine whether a significant relationship exists between syringe sharing, requiring assistance to inject, overdosing and public injection drug use.

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