# LOWERING the THRESHOLD

Models of Accessible Methadone and Buprenorphine Treatment

# verboden te parkeren dagelijks van 3. 30 uur tot 14. 45 uur i. v. m. methadon bus

INTERNATIONAL HARM REDUCTION DEVELOPMENT PROGRAM



OPEN SOCIETY INSTITUTE Public Health Program

# Lowering the Threshold: Models of Accessible Methadone and Buprenorphine Treatment

February 2010

International Harm Reduction Development Program



Copyright © 2010 Open Society Institute. All rights reserved.

Writing:	Elizabeth Keeney and Roxanne Saucier
Editing:	Roxanne Saucier, Paul Silva, and Thomas Bane
Layout:	Judit Kovács l Createch Ltd.

For more information, contact:

International Harm Reduction Development Program OSI Public Health Program www.soros.org/health Telephone 1 212 548 0600 Email ihrd@sorosny.org

#### Acknowledgments

This document would not have been possible without input from Patrizia Carrieri, Ante Ivancic, Andrej Kastelic, David Marsh, Beatrice Stambul, and Gerrit Van Santen.

### Contents

Introduction	5		
Detoxification vs. Maintenance Low-threshold Programs Innovative Programs			
		Methadone on Demand: The Hong Kong Model	7
		Treatment by Prescription in France	11
Slovenia: High Coverage, Low HIV Prevalence	15		
High Coverage	15		
Flexible Eligibility Requirements	17		
Medication-assisted Treatment in Prisons	17		
Widespread and Uncontroversial: Methadone and Buprenorphine in Croatia			
Flexible Take-home Doses	20		
Comprehensive Services and Referrals	21		
Methadone by Bus in Amsterdam			
Mobile Methadone			
Patient-centered	25		
Vancouver: Integrated Low-threshold Models of Care			
Prescribing Physician Discretion	27		
Pharmacy Dispensing	28		
Sheway	28		
Fir Square	29		
Vancouver Native Health Society	31		

### Introduction

Sixty-five countries now offer the medications buprenorphine and methadone to treat opiate addiction. Deemed "essential medicines" by the World Health Organization they are recognized by the United Nations Office on Drugs and Crime, UNAIDS, and multiple national, regional, and international medical organizations to reduce drug injection and drug-related crime, and to improve public order, family satisfaction, return to employment, and adherence to HIV treatment.

Unfortunately, even when medication-assisted treatment programs with methadone or buprenorphine are available, they fail to reach many of those who could benefit. One reason for this is the many requirements—including admission restrictions, limited hours of operation, waiting lists, and cumbersome prescription and storage requirements—that make it difficult for patients to enter treatment.

This volume documents low-threshold methadone and buprenorphine programs—that is, programs that seek, in the spirit of harm reduction, to meet patients "where they're at" and minimize bureaucratic requirements.

### **Detoxification vs. Maintenance**

Methadone and buprenorphine are two of the best studied and most effective treatments for opiate addiction. Both medicines can be used for detoxification and maintenance purposes. Used for detoxification, they reduce withdrawal symptoms and block the effects of subsequent opiates. However, many individuals who are dependent on opiates return to illicit drugs after detox. Regular use of these medicines, sometimes referred to as maintenance treatment or therapy, can be used to reduce or eliminate cravings for heroin and other illicit opiates. During maintenance treatment, individuals are stabilized on methadone or buprenorphine for as long as is necessary to help them avoid harmful drug use. The benefits of maintenance treatment, and the absence of negative side effects, are well documented in scientific literature.

### **Low-threshold Programs**

Low-threshold programs are flexible in their organization of services and eligibility requirements. The objective is treatment accessibility for the greatest number of individuals in need. Interventions are designed specifically to engage and retain some of the most marginalized and hardest to reach populations. The non-judgmental approach of low-threshold programs aims to reduce negative health outcomes while not requiring individuals to completely abstain from illicit drug use.

#### **Innovative Programs**

From Canada to Croatia, countries throughout the world offer innovative models for methadone and buprenorphine provision. Accessibility is the cornerstone of methadone treatment in Hong Kong, where individuals can start treatment on demand, usually receiving their first dose the day they sign up at the clinic. In France, patients receive their methadone or buprenorphine through a prescription, as they would any other medication, which has the effect of destigmatizing medication-assisted treatment and mainstreaming the practice.

Early and comprehensive implementation of harm reduction services in Slovenia is credited with keeping HIV prevalence among injecting drug users below one percent. Slovenia also offers slow-release morphine as a third treatment option to those dependent on opiates. Croatia's progressive model of medication provision, linked with comprehensive services and referrals, was established to be widespread and uncontroversial. In the Netherlands, the use of a bus to distribute methadone is part of the "methadone dispensing circuit" intended to reach a broad number of at-risk clients and to give clients incentives to progress through low, medium, and high-threshold medication provision. Vancouver, Canada's model includes pharmacy dispensing and comprehensive "woman-centered, harm reduction-based" health and social support services for pregnant opiate users, including methadone provision.

Each of these programs offers new insights for how countries can make methadone and buprenorphine treatment accessable and oriented to meet the needs of people dependent on opiates, and in doing so, achieve progress in HIV and overdose prevention.

# Methadone on Demand: The Hong Kong Model

Though thousands of Hong Kong residents are dependent on opiates, levels of HIV among injecting drug users are far lower than those found in neighboring countries or other parts of China. Overall rates of HIV among injecting drug users in Hong Kong are less than one percent.<sup>1</sup> The widespread availability of methadone is thought to be the major reason why.<sup>2</sup>

Hong Kong authorities have demonstrated commitment to methadone since before the AIDS epidemic, opening the first methadone clinic in 1972 and continuing to support low-threshold methadone detoxification and longer-term methadone maintenance treatment ever since.<sup>3</sup> The region has 20 operational methadone clinics<sup>4</sup> and is one of the only places in Asia where methadone maintenance treatment is easily available upon demand. More than 70 percent of heroin users attend methadone clinics at any one time.<sup>5</sup> The vast majority of clients (about 98 percent) opt for the clinics' methadone maintenance programs, rather than the detoxification programs.<sup>6</sup>

A harm reduction media campaign in 2000 promoted medication-assisted treatment for reducing personal and societal harm associated with drug injection. This was the first time that the social marketing of methadone treatment was introduced as a government effort, with community support. In 2002, the Department of Health launched a publicity campaign with the slogan "Break the needle habit. Methadone does it." The government described the campaign as an effort to increase acceptance of methadone treatment among drug users and the wider public.



From the Department of Health, Government of Hong Kong Special Administrative Region website: http://www.info.gov.hk/aids/harmreduction/english/3\_3.htm

Accessibility is the key to Hong Kong's methadone treatment approach. In contrast to the United States and Western Europe, where entrance into methadone treatment frequently requires protracted paperwork, waiting lists, and referrals, treatment in Hong Kong is generally available on demand, the same day it is requested. Opiate-dependent people who are under the age of 18 are allowed into the program, but are generally requested to provide evidence of parental consent.<sup>7</sup> The fee for treatment has remained unchanged for years at HK\$1 (less than US\$0.80) per day. Clinics operate seven days a week and are open early and late to serve the estimated 57 percent of participants who are employed.<sup>8</sup>

In contrast to many other countries where methadone program staff are subject to rigid educational demands and certification requirements, Hong Kong clinics have historically been supervised by a physician but staffed by Auxiliary Medical Service volunteers whose regular occupations may range from shoe salesman to housewife to bank clerk. Working for a nominal fee, these volunteers have enabled clinics to operate at extended hours with minimal expenses.<sup>9</sup>

Patients, too, are less strictly monitored: while urine tests are collected to assess general program effectiveness in limiting heroin use, these reportedly aren't used to disqualify patients from participation. Since 2004, visitors to the clinic have undergone regular urine screenings for HIV (clients preferred urine screenings over blood screenings). These screenings serve to promote early HIV detection, provide information to clients about the connections between HIV and drug use, and link HIV detection and treatment services.<sup>10</sup>

Besides offering methadone, the clinics also provide social workers, group counseling, and tetanus vaccinations. The majority of clinics share facilities with general outpatient clinics. All clinics display HIV prevention materials and make condoms freely available.<sup>III</sup>

The Hong Kong government has reaffirmed its commitment to ongoing, accessible methadone treatment. Health officials are engaged in efforts to strengthen counseling and HIV reduction measures for people who attend the clinics.<sup>12</sup>

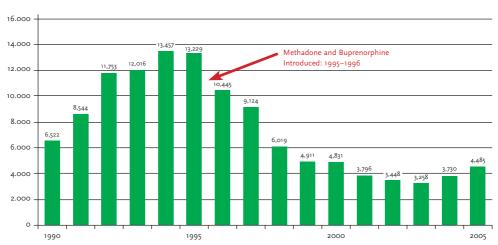
- Shui-shan, L. 2005. The contribution of methadone maintenance treatment to HIV prevention—the case of Hong Kong. www.nd.gov.hk/conference\_proceedings/Drugs\_proBK\_Part3/Drugs\_proBK\_LeeSS.pdf. Accessed May 15, 2008.
- 2. See: Hong Kong Advisory Council on AIDS. *Recommended HIV strategies for Hong Kong 2007–2011.* www.hivpolicy.org/Library/HPP001244.pdf. Accessed May 15, 2008; and Shui-shan, 2005.
- 3. See: Action Committee Against Narcotics. 2000. *Report on review of methadone treatment programme*. Government of Hong Kong.
- 4. See: Reid, G. and G. Costigan. 2002. Revisiting 'the hidden epidemic': A situation assessment of drug use in Asia in the context of HIV/AIDS. Fairfield, Australia, The Centre for Harm Reduction at The Burnet Institute; and, Department of Health, Government of Hong Kong Special Administrative Region. N.D. Harm reduction website. 2009. www.info.gov.hk/aids/harmreduction/english/3\_3.htm Accessed April 23, 2009.
- 5. Special Preventive Programme Centre for Health Protection, Department of Health, Hong Kong Special Administrative Region. 2007. *HIV Surveillance Report*—2006 Update. www.hivpolicy.org/Library/HPP001440. pdf. Accessed May 15, 2008.

- 6. Working Group on HIV Prevention among Injecting Drug Users in Hong Kong. 2006. *Report of community* assessment and evaluation of HIV prevention among injecting drug users in Hong Kong 2006. Hong Kong Advisory Council on AIDS. www.info.gov.hk/aids/pdf/g172.pdf. Accessed May 15, 2008.
- 7. Narcotics Divison, Security Bureau. 2000. *Report on review of methadone treatment programme*. www.nd.gov. hk/MTP\_e.htm. Accessed May 15, 2008.
- For more details on clinics and treatment services, see: Society for Aid and Rehabilitation of Drug Abusers. 2007. Treatment and rehabilitation services: Methadone clinic counseling service. www.sarda.org.hk/eng/sarda\_ home.html. Accessed May 15, 2008; and, Pi, P. 2005. Counseling services in methadone clinics – A Hong Kong model. www.nd.gov.hk/conference\_proceedings/Drugs\_proBK\_Part4/Drugs\_proBK\_PeterPi.pdf. Accessed May 15, 2008.
- 9. See: Newman, R.G. 1985. Narcotic addiction and methadone treatment in Hong Kong: Lessons for the United States. *Journal of Public Health Policy* 6 (4): 526-538; and, Shui-san, 2005.
- 10. Shui-san, 2005.
- 11. Working Group, 2006.
- 12. Action Committee Against Narcotics, 2000; HIV Surveillance Report, 2007.

# Treatment by Prescription in France

France began offering buprenorphine treatment by prescription in 1996. Today an estimated 90,000 patients receive buprenorphine, and an additional 10,000 are on methadone treatment.<sup>1</sup> Medication-assisted treatment reaches an estimated 70 percent of drug users in France, and has resulted in an 80 percent reduction in heroin overdose deaths, a 75 percent reduction in HIV prevalence among drug users, and a 75 percent reduction in drug-related crime.<sup>2</sup> Treatment with methadone or buprenorphine is credited with saving 3,500 lives since 2004.<sup>3</sup>

France began a comprehensive harm reduction program in 1995, in response to a growing AIDS epidemic.<sup>4</sup> The program included drug user outreach and education, needle and syringe exchange programs, and the expansion of medication-assisted treatment.<sup>5</sup>



#### Number of Arrests for Heroin Use, France: 1990-2005

Graph courtesy of Dr. M.P. Carrieri.

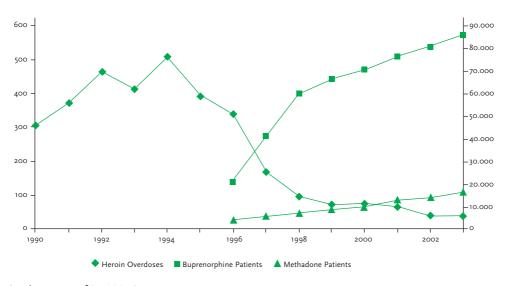
Methadone, which was introduced in France in 1995,<sup>6</sup> is initiated only in drug maintenance clinics, though the prescription may be transferred to a general practitioner after the patient is stabilized.<sup>7</sup> There is no registration of users, no biological testing for use of other substances, and patients are not required to undergo any type of counseling.

Methadone is generally prescribed for a maximum of 14 days with divided doses available every seven days at the dispensing pharmacy. Prescribing physicians may allow longer periods for the divided dose. Buprenorphine (prescribed in its pure form as Subutex) can be prescribed by any general practitioner, without special training or licensing. Clinics also have general practitioners who can prescribe Subutex.

Similar to methadone but with a longer maximum prescription length of 28 days, Subutex is typically prescribed with divided doses every seven days unless otherwise ordered by the prescribing physician. Dispensing pharmacists are expected to provide buprenorphine daily for the first several days and directly observe dose-taking before beginning unsupervised administration.

Though all general practitioners can prescribe buprenorphine, in practice, 26 percent of doctors prescribe to 75 percent of users undergoing treatment.<sup>8</sup> Unlike in the United States, where physicians face a 30-patient cap, in France there is no limit to the number of patients that one physician may treat with buprenorphine.

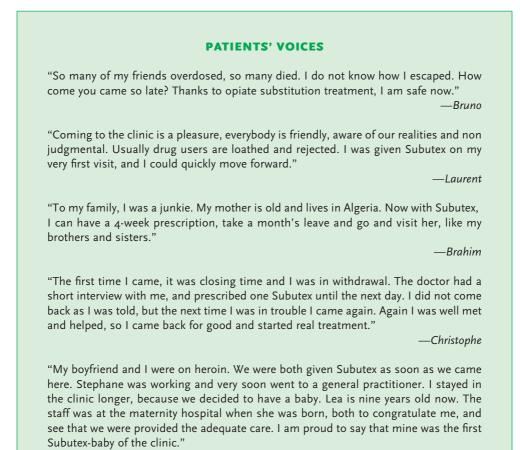
Methadone is free in clinics, while buprenorphine is purchased at a pharmacy and reimbursed through classic prescription coverage, with third parties often paying for most or all of the treatment.<sup>9</sup>



Access to Methadone and Buprenorphine and Decline in the Number of Overdose Deaths France: 1990–2003

Graph courtesy of Dr. M.P. Carrieri.

The prescription-based model is credited with mainstreaming drug dependence treatment into primary care, and therefore destigmatizing it.<sup>10</sup> It has also resulted in more comprehensive treatment for patients—many French physicians now prescribe both methadone or buprenorphine treatment and antiretroviral treatment to HIV-positive patients,<sup>11</sup> resulting in a better ability to manage drug interactions.



-Sophie

- 1. Carrieri, M.P., L. Amass, et al. 2006. Buprenorphine use: The international experience. *Clinical Infectious Diseases*, 43: S197–215.
- 2. Carrieri, M.P. and B. Stambul. 2007. Treatment shortage fuels drug diversion. [Letter to the editor]. *The Baltimore Sun*: December 29.
- 3. Carrieri, M.P. and B. Spire. 2008. Harm reduction and control of HIV of injecting drug users in France. *The Lancet*, 376: 448.

- 4. Roux P., V. Villes et al. 2008. Buprenorphine in primary care: Risk factors for treatment injecting and implications for clinical management. *Drug and Alcohol Dependence*, 97(1-2): 105–113.
- 5. Carrieri, M.P. and B. Stambul. 2007.
- 6. Roux P., V. Villes et al. 2008.
- 7. Guichard A., F. Lert et al. 2007. Buprenorphine substitution treatment in France: drug users' views of the doctor-user relationship. *Social Science and Medicine*, 64(12): 2578–2593.
- 8. Carrieri, M.P., L. Amass, et al. 2006.
- 9. Guichard A., F. Lert et al. 2007.
- 10. Carrieri, M.P., L. Amass, et al. 2006.
- 11. Ibid.

## Slovenia: High Coverage, Low HIV Prevalence

Slovenia and Croatia have offered methadone and buprenorphine treatment longer than any other country in Eastern Europe; the two countries also have the lowest prevalence rates of HIV among injecting drug users in that region.<sup>1</sup> Early and comprehensive implementation of harm reduction services is credited with keeping Slovenia's HIV prevalence rate among drug users below one percent.<sup>2</sup> This comprehensive package includes widely available and easily accessible methadone and buprenorphine treatment, as well as treatment with slow-release morphine. Additionally, treatment is available in prisons.

### **High Coverage**

Since 1994, Slovenia has offered medication-assisted treatment at no charge to clients through a network that now comprises 19 specialized Centers for Prevention and Treatment of Drug Addiction, including 18 local outpatient centers and one national center, which coordinates the network and offers both inpatient and outpatient services.<sup>3</sup> In some rural areas where residents live far away from treatment centers, general practitioners and pharmacists dispense treatment to opioid-dependent persons.

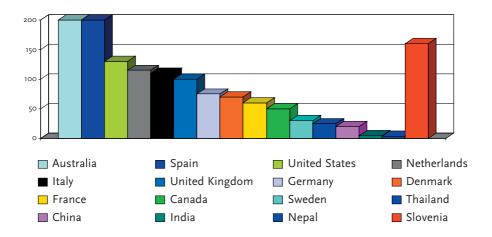
In late 2006, 2,689 people received medication-assisted treatment and 1,730 additional patients attended the centers to receive some other forms of treatment and care.<sup>4</sup> Estimates suggest that slightly less than half of the "problem drug users"<sup>5</sup> were registered at centers throughout Slovenia and approximately one-third received medication-assisted treatment at those centers.<sup>6</sup> Within the European Union, these figures represent a high national coverage.<sup>7</sup>

Methadone is prescribed to  $8_1$  percent of patients receiving treatment, generally in liquid form, while buprenorphine tablets are taken by 13 percent of the opioid-dependent clients.<sup>8</sup> Subsitol, slow-release morphine tablets, became available in 2005<sup>9</sup> and were prescribed to six percent of clients the next year.<sup>10</sup>





Map Courtesy of Dr. Andrej Kastelic, as cited in Simon and Iliuta, 2006.





Courtesy of Dr. Andrej Kastelic. Data source: European Monitoring Centre for Drugs and Drug Addiction.

### **Flexible Eligibility Requirements**

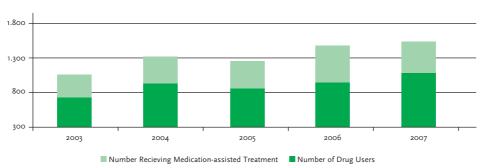
Medical doctors are responsible for new patient intake, prescription, dosage, and pick-up schedules, but nurses generally dispense medication in the centers. The centers maintain flexible policies regarding take-home doses, but patients are typically given no more than one week's worth of medication at a time. There are no waiting lists, but clients must have valid health insurance, which is free for every citizen and completely covers the cost of the medications.<sup>11</sup> Patients must have a general practitioner to enroll and be at least 16 to receive methadone and 15 for prescriptions of buprenorphine or slow-release morphine.

There is no national register of drug users; treatment centers report only coded individual data to the National Institute of Public Health, and client information is not reported to the National Health Insurance Institute.<sup>12</sup>

In addition to the national network of medication-assisted treatment centers financed by the Health Insurance Institute of Slovenia, the Ministry of Health, and the Ministry of Labor, Family and Social Affairs fund both high- and low-threshold NGO-run drug treatment services. These services include a range of prevention and intervention services from needle and syringe exchange to therapeutic communities and self-help groups.

### **Medication-assisted Treatment in Prisons**

Prisons in Slovenia have offered medication-assisted treatment since 2003; in 2007, 586 inmates received treatment in seven Slovene prisons.<sup>13</sup> That number represents 53 percent of the estimated 1,090 drug users in custodial settings in Slovenia in 2007. Slovenia has become a model in the region for ensuring the highest attainable level of care for drug dependent inmates: In 2007, Serbian prisons opened their first "drug-free units," which offer treatment and support services, including medication-assisted treatment, and are based on the Slovenian program.<sup>14</sup>



Percentage of Patients in Custodial Settings Recieving Treatment

Data courtesy of Dr. Andrej Kastelic.

- 1. Carrieri, M.P., L. Amass. 2006. Buprenorphine use: the international experience. *Clinical Infectious Diseases*, 43: S197-215.
- Simon, A.W. and C. Iliuta. 2006. NGO Perspectives on HIV/AIDS in Slovenia. http://ec.europa.eu/health/ ph\_projects/2004/action3/docs/2004\_3\_11\_frep\_a6\_en.pdf. Accessed April 23, 2009.
- Trautmann, F., N. Rode et al. 2007. Evaluation of substitution maintenance treatment in Slovenia. Assessing its quality and efficiency. Trimbos Institute and the Faculty of Social Work at the University of Ljubljana. Also, see Kastelic, A. and T. Kostnapfel Rihtar. 2005. Ten years of organized drug addiction treatment in the Republic of Slovenia. Zdrav Var, 44: 111–112.
- 4. Kastelic, cited in Trautmann, Rode et al. 2007.
- Problem drug use defined as "those with intravenous drug use (IDU) or long duration/regular use of opiates, cocaine or amphetamines, during a one-year period, in the age group of 15–64." (National Report, 2004, Grgic-Vitek, 2004, cited in Trautmann et al. 2007).
- 6. Trautmann, Rode et al. 2007.
- 7. Van der Gouwe et al. 2006, cited in Trautmann, Rode et al. 2007.
- 8. Trautmann, Rode et al. 2007.
- 9. European Monitoring Centre for Drugs and Drug Addiction. 2008. Drug Situation: Country Overviews: Slovenia. http://www.emcdda.europa.eu/html.cfm/index35999EN.html. Accessed November 14, 2008.
- 10. Kastelic, cited in Trautmann, Rode et al. 2007.
- 11. Trautmann, Rode et al. 2007.
- 12. European Monitoring Centre for Drugs and Drug Addiction. 2008.
- 13. Kastelic, A. 2008. E-mail correspondence, November 2008.
- 14. Organization for Security and Cooperation in Europe. 2007. OSCE establishes first drug-free units in Serbia's prisons. www.osce.org/serbia/item\_2\_25725.html. Accessed April 23, 2009.

# Widespread and Uncontroversial: Methadone and Buprenorphine in Croatia

Today Croatia and Slovenia, both of which have had methadone programs since the mid 1990s, account for 52 percent of patients receiving medication-assisted treatment for opioid dependence in Central and Eastern Europe.<sup>1</sup> A belief among Croatia's medical professionals that addiction should be treated as any other disease, and methadone and buprenorphine prescribed as any other medicine, has enabled the country to embrace one of the most progressive models of methadone and buprenorphine provision in the region.<sup>2</sup>

Outpatient methadone and buprenorphine treatment is available at 21 clinics, and through a dense network of general practitioners. Provision of medication-assisted treatment has been successful in Croatia, in part because it was introduced without strict regulation or widespread public debate.<sup>3</sup> In 2004, Croatia approved buprenorphine for treatment of opioid dependence.

In 2006, the World Health Organization reported an estimated 10,000 injecting drug users out of a total population of 4,556,000 and today the number of injecting drug users is estimated to be between 15,000 and 18,000.<sup>4</sup> Despite such a large population of injectors, the low-threshold accessibility and availability of medication-assisted treatment and other harm reduction services, including needle and syringe programs, has helped keep Croatia's HIV prevalence among injectors at a low one percent since 1991.<sup>5</sup> That proportion has not increased over the last 15 years.<sup>6</sup>

The most recent data reports that there are currently 5,703 opiate users in Croatia receiving medication-assisted treatment, with 2,141 on methadone and 1,164 receiving buprenorphine.<sup>7</sup> Dr. Ante Ivancic, of the Center for Addiction Treatment in Porec, Croatia, believes the 2007 data underreports today's numbers by about 20 percent: He estimates the number of patients on methadone to be 3,500 and the number of patients on buprenorphine to be 2,500.<sup>8</sup> Over half of the country's 2,400 general practitioners have patients on maintenance treatment and all general practitioners are obligated to provide treatment should their patients require it.<sup>9</sup>

### Flexible Take-home Doses

Outpatient treatment centers are responsible for initial assessment, prescribing a starting dosage and dose adjustments, psychosocial counseling, urine screens, and epidemiological data collection. General practitioners cooperate with specialists at the centers for outpatient treatment and prescribe the methadone or buprenorphine, supervise consumption, and provide take-home doses.

Daily methadone doses are adjusted to the patient's needs, and may range anywhere from 10 mg to more than 100 mg.<sup>10</sup> Methadone is provided at the general practitioner's office and takehome doses are common and available for up to one week for a large percentage of patients.



Nurse Prepares Methadone Take-home Dose by Crushing Methadone Tablets and Mixing with Orange Powder

Photo courtesy of Dr. Ante Ivancic.

Buprenorphine is prescribed as a take-home medication for one week at a time and patients can get it in the pharmacy just like any other medicine. Supervised consumption of buprenorphine is extremely rare. There is no official data on the average dose of buprenorphine but if the dose is low, between 2-6 mg, patients may have their take-home prescription extended beyond one week. The average dose is estimated to be increasing and likely falls somewhere around 6 mg.<sup>TT</sup>

#### **Comprehensive Services and Referrals**

The outpatient treatment centers, located in areas with a high prevalence of injecting drug use, are staffed with multidisciplinary teams, including medical practitioners, psychologists, social workers, and nurses; they provide psychosocial counseling, perform evaluations, and collect epidemiological data. There are no waiting lists to enter the program, and all services are paid for by the National Health Institute. Individual client data from both inpatient and outpatient clinics are recorded in a Register of Persons Treated for Psychoactive Drugs Misuse.

Outpatient treatment centers communicate and coordinate with other institutions, referring patients with HIV or hepatitis C to infectious disease specialists, and pregnant patients to obstetric care. Centers also maintain good relationships with law enforcement officials. Persons charged with opiate possession are offered the option of initiating treatment at the outpatient treatment centers; if the person accepts such treatment, criminal proceedings are dropped.<sup>12</sup>

There is no obligation to attend any service on a regular basis and the terms for treatment in the specialized outpatient centers are individualized depending on the status and needs of the client. While urine screens are used, patients are not banned from the program if drugs are detected, and retention rates are high at about 85 percent.<sup>13</sup>

- 1. Carrieri, M.P., L. Amass. 2006. Buprenorphine use: the international experience. *Clinical Infectious Diseases*, 43: S197-215.
- Ivancic, A. 2003. Methadone therapy in Croatia. Annales de Medecini Interne,154: 51–54. See, also, Sarang A., R. Stuikyte, et al. 2007. Implementation of harm reduction in Central and Eastern Europe and Central Asia. International Journal of Drug Policy, 18: 129–35.
- 3. Ivancic, A. 2009. E-mail correspondence, February 2009.
- 4. Ibid.
- 5. World Health Organization. 2008. Sexually transmitted infections/HIV/AIDS: Croatia. www.euro.who. int/aids/ctryinfo/overview/20060118\_9. Accessed April 23, 2009.
- 6. Gjenero-Margan I. and B. Kolaric. 2006. Epidemiology of HIV infection and AIDS in Croatia: An Overview. *Collegium Antropologicum*, S2: 11–16.
- Croatian Public Health Institute. 2007. http://www.hzjz.hr/publikacije/Ovisnici2007.pdf. Accessed April 23, 2009.
- 8. Ivancic, 2009.
- 9. Ivancic, A. 2008. Fifteen years of office-based prescribing in Croatia : Attitudes, obstacles, and outcomes. [Letter to the Editor]. *Heroin Addiction & Related Clinical Problems*, 10(3): 37–40.
- 10. Sakoman, S. 2002. The experience with methadone maintenance programmes in Croatia. In *Models of Medication Supported Treatment for Opioid Addicts*. World Health Organization, Regional Office for Europe.
- 11. Ivancic, 2009.
- 12. Sakoman, S. 2004. Croatia. In *The practices and context of pharmacotherapy of opioid dependence in Central and Eastern Europe*. World Health Organization, Department of Mental Health and Substance Abuse.
- 13. Sakoman, 2002.

### Methadone by Bus in Amsterdam

Methadone reaches an estimated 2,700 (or 68 to 77 percent) of the 3,500 to 4,000 opiate users in Amsterdam.<sup>1</sup> The municipality has achieved this wide coverage through a program of integrated low-, medium-, and high-threshold methadone provision. A study of drug users in Amsterdam found that full participation in harm reduction programs<sup>2</sup> was associated with a two- to threefold reduction in the risk of HIV seroconversion, and a six- to sevenfold reduction in the risk of hepatitis C seroconversion. One component of Amsterdam's harm reduction program is a bus that distributes methadone to about 200 people throughout the city—without a waiting list.

Heroin was introduced to the Netherlands in 1972, and in 1979, the municipality of Amsterdam initiated the program of integrated low-, medium-, and high-threshold methadone provision, known as the Methadone Dispensing Circuit. The idea of the system is to reach the broadest number of, and most at-risk, clients through low-threshold programs, while giving clients incentives to move to higher-threshold programs.<sup>3</sup> Drug users can freely move between the different programs.

High-threshold programs consist of addiction clinics where drug use is not tolerated.<sup>4</sup> Medium-threshold programs consist of general practitioners and psychiatrists who prescribe methadone to patients in one- or two-week take-home doses; patients may find this approach less stigmatizing, as methadone is dispensed similarly to other medications.<sup>5</sup> Any physician can prescribe methadone; a special license is not needed.

### **Mobile Methadone**

About half of those receiving methadone through the dispensing circuit do so through low-threshold programs.<sup>6</sup> Low-threshold methadone provision is delivered by mental health centers and an innovative mobile bus. The mobile program began in 1979 as a response to concerns that a fixed location methadone dispensary would draw drug users to an area<sup>7</sup> and in an effort to reach as many drug users as possible.<sup>8</sup> The first mobile clinic was run out of a refurbished but makeshift city bus; today the methadone bus is outfitted with a heating system, automatic doors, video-screens,

hygienic means for needle and syringe disposal, telephones, and security windows. The bus runs 365 days a year, making four one-hour stops each day.



Road Sign in Amsterdam Alerts Drivers to Parking Ban Between Designated Hours When Methadone Bus Is Stationed There

Photo courtesy of Gerrit Van Santen.

Before receiving methadone from the bus, clients must be assessed at health centers; dosages are set by doctors at these clinics, as the buses are staffed only by nurses and a driver. To prevent double prescription, all programs participate in a central methadone registry. The registry records dosage, type, and site of all methadone prescriptions, along with date of first contact, gender, date of birth, and nationality. The bus dispenses methadone free of charge—it is financed by the health insurance system (every Dutch citizen is required to have health insurance; those who can't afford it are insured through social security). The system aims to keep in touch with drug users most at risk, including sex workers, pregnant women, and people living with HIV.<sup>9</sup> Methadone is dispensed in liquid form daily and patients may progress from daily dosing to weekly visits with take-home tablets in between.

#### **Patient-centered**

Though patients are required to have regular contact with a medical doctor and be entered into the methadone registry, there is no mandatory contact with a counselor and continued drug use while receiving methadone is not grounds for exclusion. The methadone registry is controlled under the Dutch health care information protection law, and information can only be shared with the permission of the patient.

The bus dispenses not only methadone, but also provides free condoms, clean needles and syringes, and other prescribed medications. Each patient is tested annually for HIV, hepatitis C virus, syphilis, and tuberculosis, and hepatitis B vaccinations are given. Case managers are available to help devise treatment plans, and testing is accompanied by counseling and education.

- 1. Van Den Berg, C., C. Smit et al. 2007. Full participation in harm reduction programs is associated with decreased risk for human immunodeficiency virus and hepatitis C virus: evidence from the Amsterdam cohort studies among drug users. *Addiction* 102 (9): 1454–1462.
- 2. In this study, full participation in harm reduction programs was defined as daily methadone doses of 60 mg or more in the past six months and either no injecting or 100 percent of needles received through needle and syringe exchange programs during this period.
- 3. Plomp, H.N., H. van der Hek et al. 1996. The Amsterdam methadone dispensing circuit: genesis and effectiveness of a public health model for local drug policy. *Addiction* 91(5): 711–721.
- Langendam, M.W., H.J.A. van Haastrecht et al. 1998. Differentiation in the Amsterdam methadone dispensing circuit: determinants of methadone dosage and site of methadone prescription. Addiction 93(1): 61–72.
- 5. Plomp, H.N., H. van der Hek et al., 1996.
- 6. Ibid.
- 7. Ball, J. and G.F. van de Wijngaart.1994. A Dutch addict's view of methadone maintenance: an American and a Dutch appraisal. *Addiction*, 89: 799–802.
- 8. See Buning, van Brussel et al. 1990.
- 9. Plomp, van der Hek et al., 1996.

### Vancouver: Integrated Low-threshold Models of Care

In 1997 public health officials in Vancouver, Canada declared a state of emergency in response to a severe injection-driven HIV epidemic that made evident the ineffectiveness and inaccessibility of current treatment provision.<sup>1</sup> As a consequence of the city's HIV epidemic, there was a move to expand methadone maintenance programs and institute broader harm reduction measures. The city encouraged doctors to become licensed to prescribe methadone and pushed for community pharmacies to become licensed dispensaries.

In 1995, the number of patients on methadone maintenance treatment in the province of British Columbia, Canada, numbered  $1,000^2$  and by 2007 that number had grown to 8,985.<sup>3</sup>

Since a peak of 416 overdose deaths in 1998, methadone treatment has contributed to a 62 percent reduction in such deaths among injection drug users.<sup>4</sup> Medication-assisted treatment is also credited with a 57 percent reduction, since 1996, in the annual rate of new HIV infections among injection drug users.<sup>5</sup>

### **Prescribing Physician Discretion**

Methadone is prescribed by licensed physicians and dispensed by licensed pharmacies. Prescriptions are generally issued on a weekly basis but this is at the discretion of the treating physician.<sup>6</sup> The starting dose for most patients begins at 40 mls and increases every few days or at the prescribing physician's discretion.<sup>7</sup> Prescriptions are filled at community-based participating pharmacies; patients typically go to the same pharmacy every day for witnessed ingestion until they qualify for take-home doses.<sup>8</sup>

Though patients are required to have regular contact with their prescribing physician and to be registered in the provincial methadone maintenance program, selection of patients for methadone treatment, dose prescription, and patient monitoring is the sole responsibility of the treating physician. While the College of Physicians and Surgeons of British Columbia recommends urine drug screens when patients have take-home doses, the decision to screen and frequency of screening are left up to the treating physician. Patients are not excluded from the program for continued drug use while on methadone.

There is no age requirement and while doctors are required to assess patients before prescribing methadone, subsequently they typically see patients only twice monthly.<sup>9</sup> Patients generally see the same doctor and use a consistent pharmacy while receiving treatment but transfers to another methadone prescribing physician are possible, if requested by either the patient or doctor. Of the 321 physicians in British Columbia who are authorized to prescribe methadone for opiate dependence, 199 of them have registered patients.<sup>10</sup>

Buprenorphine was approved for use in Canada in 2005 both in its pure form, Subutex, and in the combination tablet, Suboxone. Only Suboxone is commercially available. Suboxone combines buprenorphine and naloxone—a drug used to reverse opiate overdose—in a 4:1 ratio. This combination was developed to discourage misuse, diversion, and injection, and to increase patient access to treatment. In Canada the Suboxone tablet is not yet covered by the provincial drug benefits plan and there are only a small number of patients with prescriptions.<sup>11</sup>

### **Pharmacy Dispensing**

In 2008, there were approximately 76 pharmacies dispensing the drug and 13 of those were located in the Downtown Eastside neighborhood.<sup>12</sup> The Downtown Eastside is one of the oldest neighborhoods in the city and the most notoriously low-income and under-served. The Downtown Eastside has an estimated 18,000 residents. In 2007 the UN Population Fund reported that hepatitis C rates in the Downtown Eastside were nearly 70 percent, while the neighborhood's HIV prevalence rate of 30 percent rivaled Botswana's.<sup>13</sup> Of the 8,985 patients registered in methadone programs in British Columbia<sup>14</sup> approximately 2,849 of those patients reside in Vancouver and 1,323 of those are living in the Downtown Eastside neighborhood.<sup>15</sup>

There are waiting lists to enroll in methadone maintenance in Vancouver<sup>16</sup> and experts believe that treatment may still be reaching only half of the population in need, largely because of barriers to access and the incapacity of those with dual diagnoses, or living with HIV or hepatitis C.<sup>17</sup>

The Downtown Eastside is home to three innovative models of low-threshold care that work to reduce those barriers and support those hardest to reach.

### Sheway

Sheway, meaning "growth" in Coast Salish, a First Nations language, is a program that responds to the urgent needs of pregnant and newly parenting women who struggle with substance use issues. A 1993 study of babies born to mothers in the Downtown Eastside showed that 40 percent had Fetal Alcohol Syndrome/Neonatal Abstinence Syndrome, 33 percent had low birth weights, and nearly 100 percent were removed by the Ministry for Children and Family Development.<sup>18</sup>

In response, concerned community members forged an initiative to offer these women comprehensive, "woman-centered, harm reduction based" health and social support services.<sup>19</sup>

> "It's a safe place; instead of being out there... I'm lucky this place is here, otherwise I'd probably be six feet under long ago."

> > -Sheway participant (Payne, 2007)

Before Sheway was established, most programs in the city approached women who were pregnant and using drugs with judgment and suspicion; pregnant women were refused services or required to be abstinent from drugs during treatment and then separated from their babies at birth.<sup>20</sup> The result of this approach was that many women simply avoided prenatal care to avoid hostility or out of fear of losing their children, putting both mother and child at increased medical risk, and almost guaranteeing separation at delivery.

Sheway's comprehensive health and social services include street outreach, drop-in services, and prenatal care and support to pregnant women and women with children up to 18 months of age. The program has drop-in hours Monday through Friday, including a daily free hot lunch. An extensive, multidisciplinary staff provides assistance with food and nutrition, advocacy for safe affordable housing, referrals and access to medical care, methadone maintenance, immunizations, contraception counseling, testing and counseling for HIV and other sexually transmitted infections, and resources for newborns.

With British Columbia Women's Hospital as its acute-care provider for withdrawal management, Sheway connects women with other programs to provide methadone maintenance at discharge from Sheway. Sheway does not use urine screening in patient monitoring, believing it often deters trust and relationship-building, however if a woman requests a urine screen to show government officials that she is not using illicit drugs, staff will provide her with the requested screen.

Research and evaluation are an ongoing component of the program; one report documented improvement in the program's success at keeping mothers and children together after delivery: among Sheway clients the child removal rate fell from 30 percent in 2002 to 21.3 percent in 2005.<sup>21</sup>

### **Fir Square**

Prior to 2003, Sheway was the only program specifically offering perinatal services to substanceusing women in Vancouver.<sup>22</sup> In 2003, the British Columbia Women's Hospital expanded on-site services to pregnant women with problematic substance use and newly parenting mothers and their substance-exposed newborns, opening the Fir Square Combined Care Unit. Fir Square has 12 individual patient rooms for integrated antepartum and postpartum care and four nursery beds if specialized treatment for newborns is needed.

"Recovery is not this place of ultimate success, but involves human dignity and a growing confidence in one's self as choices and decisions are made. Fir can be that first tiny light in the tunnel or it can be a very profound experience of change."

—Fir Square staff nurse (Payne, 2007)

Pregnant women are often initiated into methadone treatment at Fir Square or Sheway, where the physicians and obstetricians/gynecologists are licensed to prescribe methadone maintenance treatment. In Canada, methadone maintenance treatment is available to pregnant women wherever there is a licensed methadone physician, but many methadone-prescribing physicians do not practice obstetrics, so, in practice, getting a prescription as a pregnant woman can be difficult (Payne 2009).<sup>23</sup> Fir Square and Sheway help fill this gap.

Other programs in the country separate substance-exposed newborns from their mothers at birth, deprive them of sensory stimuli, and keep them in a nursery for their entire hospital stay; however, there is no evidence that this practice improves neonatal withdrawal.<sup>24</sup> Since Fir Square has been able to accommodate mothers and babies staying in the same room, a prospective study reported a 40 percent decrease in the number of newborns requiring pharmacological treatment for withdrawal symptoms.<sup>25</sup> Mothers can breastfeed at any maternal dose of methadone<sup>26</sup> and Fir Square staff have observed that the more the babies are held, touched, and breastfed, the less likely they are to need morphine.<sup>27</sup>

Any woman who is at least 15 weeks pregnant and dealing with substance use issues is eligible for and welcomed to Fir Square. Doctors, street nurses, counselors, and friends refer women to the program; women can also self-refer. Lack of identification or a fixed address are not barriers to care. Women are admitted on a first-come, first-served basis, and while most of the clients are residents of Vancouver, the program will admit non-Vancouver residents.

Fir Square maintains what the staff refer to as a "woman-centered" and harm reduction approach; allowing women back if they choose to leave against medical advice.

### Vancouver Native Health Society

Vancouver Native Health Society is one of the funding partners of Sheway and is located just steps away in the Downtown Eastside. Vancouver Native Health Society delivers medical, social, and counseling services with a focus on reducing health disparities in the Aboriginal community of the Downtown Eastside.

The Aboriginal population is disproportionately affected by HIV/AIDS in Canada; in 2006, the percent of new HIV infections caused by injecting drug use among Aboriginal Canadians was 53 percent, compared to 14 percent among non-Aboriginals.<sup>28</sup>

"Expecting a woman to stop using drugs and alcohol when she is not ready is not realistic and can be harmful, as these expectations will often result in her leaving the ward or not telling us she has used substances..."

—Senior Practice Leader (Payne 2007)

The Vancouver Native Health Society provides services to native (and some non-native) individuals through its drop-in medical clinic. The clinic is open late into the evening and on weekends. All services provided on-site are free, including primary care, HIV/AIDS treatment and counseling, testing for sexually transmitted infections, methadone maintenance, and alcohol and drug counseling. The adjacent Eastside Pharmacy helps ensure that patients can easily access and adhere to treatment, and that pharmacists can communicate directly with physicians. No appointment is necessary, though waiting times can be long due to high demand.



Photo courtesy of Vancouver Native Health Society.

In addition to the medical clinic, the Vancouver Native Health Society operates the Positive Outlook Program, providing support, care, and treatment services for people living with HIV and liaising between hospitals, community-based, and specialized services in the Downtown Eastside.

The Positive Outlook Program includes nursing, social work, addiction counseling and outreach services, legal advocacy, food bank and meals, crisis intervention, and "maximally assisted medication therapy." The medication therapy is an intensive case management model for people living with HIV and includes holding HIV medications for patients at the center and dispensing to patients only at the center. Program staff provide coverage seven days a week and see approximately 200 patients each day.<sup>29</sup> Staff visit patients at their homes and deliver methadone or other medications when patients are unable to access the pharmacy. The Positive Outlook Program services are grounded in a fundamental respect for First Nations cultures and a commitment to client-centered, holistic service delivery.

- 1. Marsh, D. and Fair, B. 2006. Addiction treatment in Vancouver. *International Journal of Drug Policy*, 17: 137–141.
- 2. Marsh and Fair, 2006.
- College of Physicians and Surgeons of British Columbia. 2008. Annual Report 2008. https://www.cpsbc. ca/node/128. Accessed February 10, 2009.
- 4. College of Physicians and Surgeons of British Columbia. 2005. Methadone maintenance handbook. www. bcguidelines.ca/gpac/guideline\_methadone.html. Accessed February 10, 2009.
- 5. Ibid.
- 6. Ramsay, D. 2009. E-mail correspondence, February 2009.
- 7. College of Physicians and Surgeons of British Columbia, 2005.
- 8. Marsh, D. 2009. E-mail correspondence, February 2009; Payne, 2009.
- City of Vancouver. 2008. Four Pillars Newsletter. http://vancouver.ca/fourpillars/newsletter/Septo8/ Methadone.htm. Accessed April 23, 2009.
- 10. College of Physicians and Surgeons of British Columbia, 2008.
- 11. Marsh, 2009.
- 12. Vancouver Drug Policy Coordinator Report, 2007.
- UN Population Fund. 2007. Vancouver: Prosperity and poverty make for uneasy bedfellows in world's most 'liveable' city. [State of the World Population 2007 Press Kit Feature Story]. www.unfpa.org/swp/2007/ presskit/docs/vancouver\_feature\_eng.doc. Accessed April 24, 2009.
- 14. College of Physicians and Surgeons BC, 2008.
- McClelland, cited in City of Vancouver Planning Department. 2008. 10 years of Downtown Eastside revitalization: A backgrounder. http://vancouver.ca/commsvcs/planning/dtes/pdf/DTESDirectionsbackgrounder. pdf.
- 16. Marsh and Fair, 2006.
- 17. Anderson, cited in City of Vancouver Planning Department, 2008.
- Loock et al., cited in Benoit, C., D. Carroll et al. 2003. In search of a healing place: aboriginal women in Vancouver's Downtown Eastside. Social Science & Medicine, 56: 821–833.

- Payne, S. 2007. Caring not Curing: caring for pregnant women with problematic substance use in an acutecare setting: a multidisciplinary approach. In With child: Substance use during pregnancy: A woman-centred approach. S. Boyd and L. Marcellus. Halifax, Nova Scotia, Fernwood: 56–69.
- Payne, S. 2007. In-Hospital Stabilization of pregnant women who use drugs. In *Highs and lows: Canadian* perspectives on women and substance use. N. Poole and L. Greaves. Toronto, Center for Addiction and Mental Health: 249–255.
- 21. Vancouver Native Health Society. 2008. http://www.vnhs.net/. Accessed December 19, 2008.
- 22. Payne, 2007.
- 23. Payne, 2009.
- 24. Abrahams, R., A. Kelly et al. 2007. Rooming-in compared with standard care for newborns of mothers using methadone or heroin. *Canadian Family Physician*, 53: 1722–1730.
- 25. Payne, 2007.
- 26. Abrahams, R. 2005. Perinatal addiction: the Vancouver experience. Enjeux Methadone, 8: 8-10.
- 27. Payne, 2007.
- Silversides, A. 2006. Complex and unique HIV/AIDS epidemic among Aboriginal Canadians. *Canadian Medical Association Journal*, 175(11), 1359. http://www.cmaj.ca/cgi/content/full/175/11/1359. Accessed February 12, 2009.
- 29. Ibid.

#### **Public Health Program**

The Open Society Institute's Public Health Program aims to build societies committed to inclusion, human rights, and justice, in which health-related laws, policies, and practices are evidence-based and reflect these values. The program works to advance the health and human rights of marginalized people by building the capacity of civil society leaders and organizations, and by advocating for greater accountability and transparency in health policy and practice. The Public Health Program engages in five core strategies to advance its mission and goals: grantmaking, capacity building, advocacy, strategic convening, and mobilizing and leveraging funding. The Public Health Program works in Central and Eastern Europe, Southern and Eastern Africa, Southeast Asia, and China.

#### International Harm Reduction Development Program

The International Harm Reduction Development Program (IHRD), part of the Open Society Institute's Public Health Program, works to advance the health and human rights of people who use drugs. Through grantmaking, capacity building, and advocacy, IHRD works to reduce HIV, fatal overdose and other drug-related harms; to decrease abuse by police and in places of detention; and to improve the quality of health services. IHRD supports community monitoring and advocacy, legal empowerment, and strategic litigation. Our work is based on the understanding that people unwilling or unable to abstain from illicit drug use can make positive changes to protect their health and that of their families and communities.

The International Harm Reduction Development Program (IHRD), part of the Open Society Institute's Public Health Program, works to advance the health and human rights of people who use drugs. Through grantmaking, capacity building, and advocacy, IHRD seeks to reduce HIV and other drug-related harms and to end policies and practices that marginalize and discriminate against drug users. We work to decrease abuse by law enforcement and to improve the quality of health services, through support of community monitoring and advocacy, legal empowerment, and strategic litigation. Our work is based on the understanding that people unwilling or unable to abstain from illicit drug use can make positive changes to protect their health and that of their families and communities.

