

Vancouver Drug Use Epidemiology

June 2005

Vancouver site report for
the Canadian Community
Epidemiology Network
on Drug Use (CCENDU)



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2. Sources of data

BC Ministry of Health Services ⇔ Addictions Information Management Systems

BC Ambulance Service

BC Centre for Disease Control

BC Coroners Service

First Nations and Inuit Health Branch

BC STATS ⇔ 2001 Canadian census

Per capita alcohol sales Vancouver/BC

Drug crime - Ministry of Public Safety and Solicitor General

BC Vital Statistics Agency Annual 2003 report and custom tabulation

Canadian Addiction Survey

College of Physicians and Surgeons of BC 2004 Annual report

Regional analysis of health statistics for Status Indians in British Columbia – (2002)

Vital Statistics Agency and First Nations and Inuit Health Branch

McCreary Centre Society ⇔ Adolescent Health Survey III 2003

Methamphetamine Response Committee

Ministry of Public Safety and Solicitor General Crime in BC

PHSA Harm Reduction Services Supply policy

Royal Canadian Mounted Police Rave/club drug analysis 2004

Uniformed Crime Report Data 2002/2003

Vanguard Project

Vancouver Coastal Health Tuberculosis and Addiction Services Treatment data

Vancouver Injection Drug Users Study

Vancouver Police Department Annual statistics 2003 report

Abbreviations

ACOD	Advisory Committee on Opioid Dependence
AHS III	Adolescent Health Survey III
AIMS	Addictions Information Management Systems, BC Ministry of Health Services
Anti-HCV	HCV anti-body
BCCDC	British Columbia Centre for Disease Control
CAS	Canadian Addiction Survey
CCENDU	Canadian Community Epidemiology Network on Drug Use
CCSA	Canadian Centre on Substance Abuse
CDSA	Controlled Drug and Substances Act
CHA	Community (Local) Health Areas
CHASE	Community Health and Safety Evaluation
CPSBC	College of Physicians and Surgeons of BC
DEYAS	Downtown Eastside Youth Activities Society
DTCV	Drug Treatment Court of Vancouver
DTES	Downtown Eastside of Vancouver
GBLT	Gay/Bisexual/Lesbian/Transgendered
GHB	Gamma Hydroxybutyrate
HA	Health Authority
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HRSS	Harm Reduction Supply Services
HSDA	Health Service Delivery Area
ICD-10	International Classification of Disease 10
ICD-9	International Classification of Disease 9
IDD	Illicit Drug Deaths
IDUs	Injection Drug Users
iPHIS	Integrated Public Health Information System
LSD	Lysergic Acid Diethylamide
MA	Methamphetamine
MARC	Methamphetamine Response Committee
MASY	Methamphetamine Survey of Youth
MDMA	3-4 Methylenedioxymethamphetamine - Ecstasy
NAOMI	North American Opiate Medications Initiative
NAT	Nucleic Acid Testing
NCPC	National Crime Prevention Centre
NCPS	National Crime Prevention Strategy
NON-SI	Non Status Indian
P.E.O.P.L.E. 28(29)	Population estimates and projections 28 (29)
RCMP	Royal Canadian Mounted Police
SI	Status Indian
SIF (S)	Supervised Injection Facility (Site)
SMR	Standardized Mortality Ratio
STD	Sexually Transmitted Diseases
VANDU	Vancouver Area Network of Drug Users
VCH	Vancouver Coastal Health
VIDUS	Vancouver Injection Drug Users Study
VPD	Vancouver Police Department
YTD	Year to Date

3. CCENDU Vancouver site committee members

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4. Executive summary

Overview

The Canadian Community Epidemiology Network on Drug Use (CCENDU) monitors drug use and its adverse consequences at the community level.

Vancouver is one of 12 participating urban sites across Canada. Each site collects, collates and interprets recent data in major drug use areas and six indicator areas- prevalence; treatment; morbidity; HIV/AIDS and hepatitis C; mortality and enforcement to produce a local report.

The Vancouver site committee developed a strategy to disseminate the 2003 Vancouver report. Copies of the report, and a four-page summary were sent to

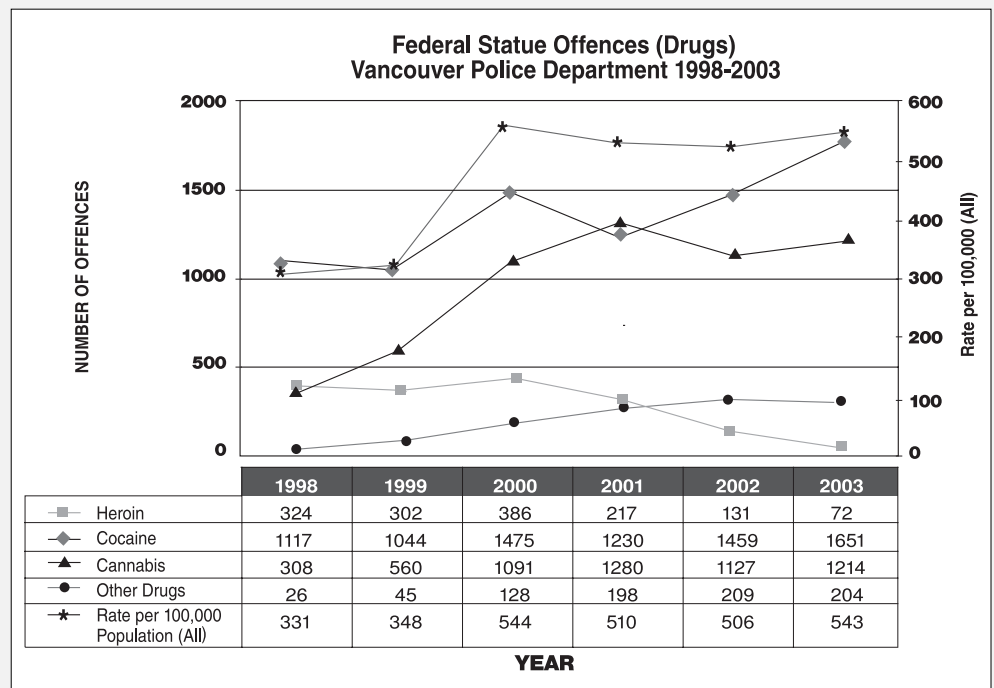
local agencies and organisations, and representatives from each were invited to attend a forum in April 2004. Their suggestions were incorporated into the 6th Vancouver site CCENDU 2005 report, which contains the latest information available.

The Downtown Eastside (DTES) of Vancouver continues to be the centre of the injection drug epidemic in Vancouver; 4,700 injection drug users (IDUs) were estimated to live in DTES in 2000. Males and Aboriginals are over-represented in DTES; it has a lower life expectancy for both sexes compared to Vancouver overall.

Crime and Enforcement

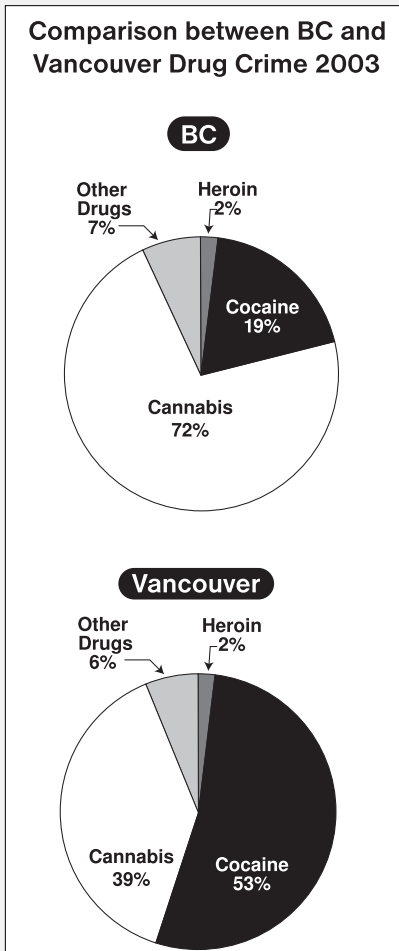
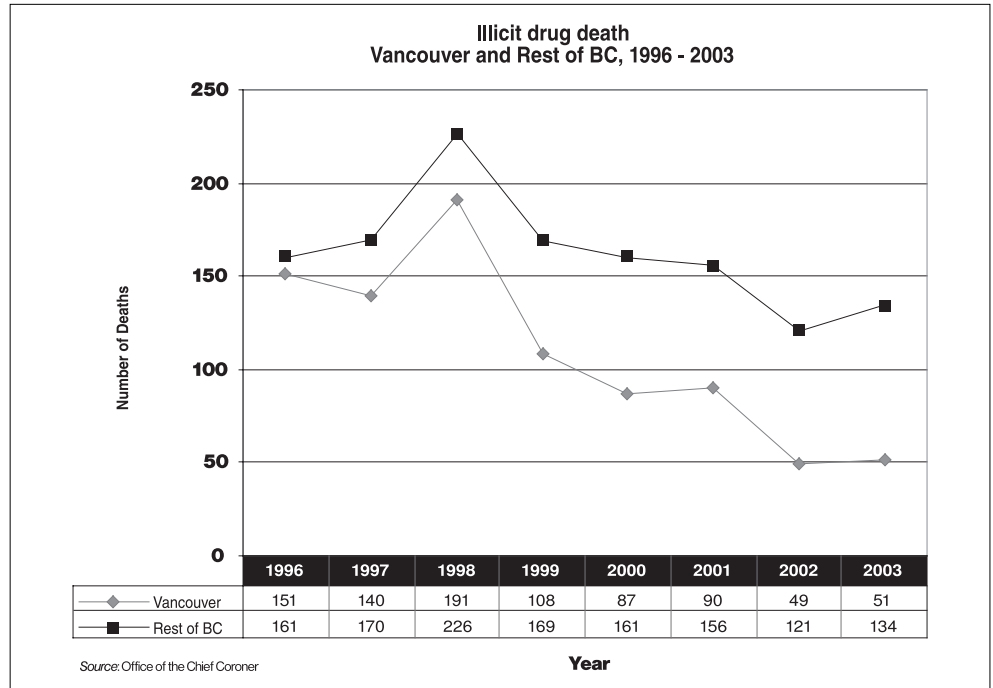
Drug offence data is directly influenced by police enforcement practices. Although drug crimes account for only 4.5% of all crime in BC in 2003, illicit drugs are associated with a range of other crimes, including break and enter, car theft, prostitution, and murder.

The number and rate of drug crimes in Vancouver and BC increased from 1998 until 2003, except for a slight decline in 2002. Cannabis related offenses in Vancouver increased >3 times from 1998 to 2001 but leveled off in 2002/03; offenses relating to heroin have decreased each year since 2000. Cocaine accounts for over half of all drug crimes in Vancouver but less than a quarter in BC overall. The number of grow ops dismantled has not dramatically increased since 2002, however the weight of marijuana seized in 2004 to end of October is almost 20 times that for 2002, and weight of methamphetamine seized has increased 10 fold in the same period.⁷



Mortality

In 2003 the rate of drug-induced deaths in DTES was more than 6 times the provincial rate. There were 185 illicit drug deaths in BC in 2003, down from a high of 417 in 1998. In 2003 the largest number of deaths occurred in 41-50 age group; 90% were classified as accidental; 11 were determined suicide. In 2001 the rate of drug induced deaths for Status Indian is 3 times non-status in 2001.



Harm Reduction Supply Services

The Harm Reduction Program (previously the Needle Exchange Program) was transferred from the Ministry of Health to BC Centre for Disease Control, April 2003. Distribution of harm reduction supplies continue to increase, the predicted budget for 2004/05 is \$1,750,000 almost double that of 2002. All Vancouver Coastal Health (VCH) Community Health Clinics, the Health Contact Centre and community-based contracted service providers offer needle exchange. The VCH needle exchange program has launched a one-year pilot project to distribute crack pipe mouthpieces.

'Insite', the first supervised injection facility pilot program in North America was opened in Vancouver in September 2003. The evaluation will include health and social impacts. Visits increased to an average of 588 visits/day in August 2004. March 10-August 31 2004, 107 overdoses were reported. No deaths have occurred at Insite since it opened. Heroin accounts for a third of all substances injected; cocaine about a quarter; morphine about 10%.²⁰

The Vancouver North American Opiate Medication Initiative (**NAOMI**) clinic opened in February 2005. The objective of the trial is to determine whether the provision of injectable pharmaceutical grade heroin (in combination with methadone if desired) is more effective than oral methadone maintenance therapy alone in recruiting, retaining, and benefiting chronic treatment resistant injection opiate users.

VCH continues to integrate and expand addiction services programs; each Community Health Centre has core addiction services teams consisting of a clinical supervisor, adult and youth counselor(s), and prevention worker. Access 1, a telephone based centralised access system of referral and screening service was implemented at VCH in September 2002. It handles up to 1500 calls per week and has reduced waiting times.

HIV/AIDS and hepatitis C

HIV continues to be a problem in Vancouver. BC has required mandatory reporting of HIV positive tests results since May 2003. The rate of positive HIV testing in Vancouver reached a peak in 1992, and has declined since, while the rate in the rest of BC has remained fairly constant.

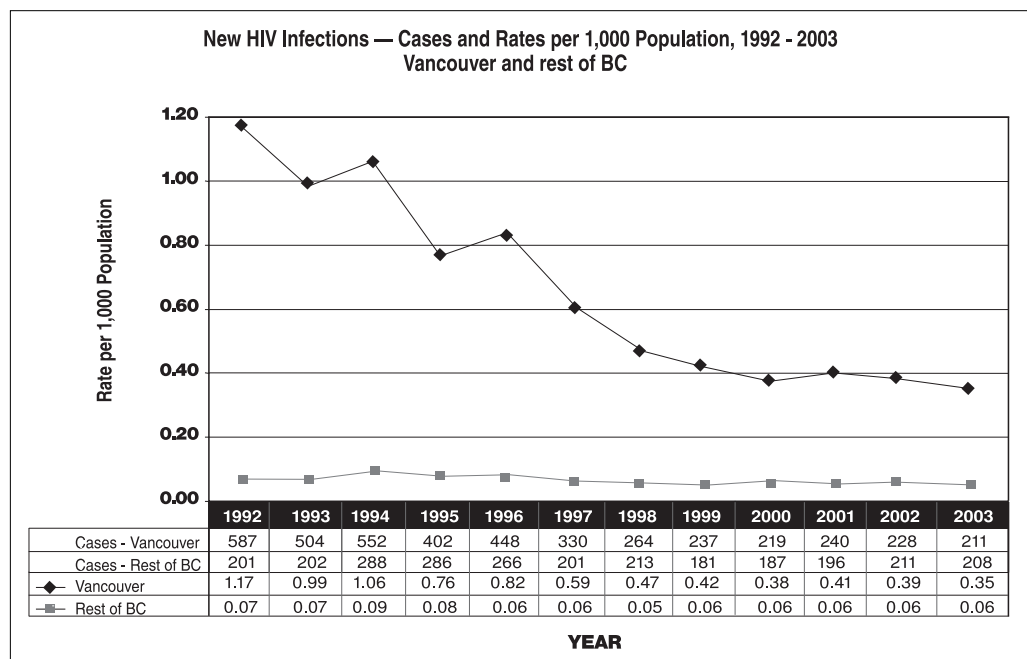
Aboriginal IDUs are becoming HIV positive at twice the rate of non-Aboriginal IDUs.

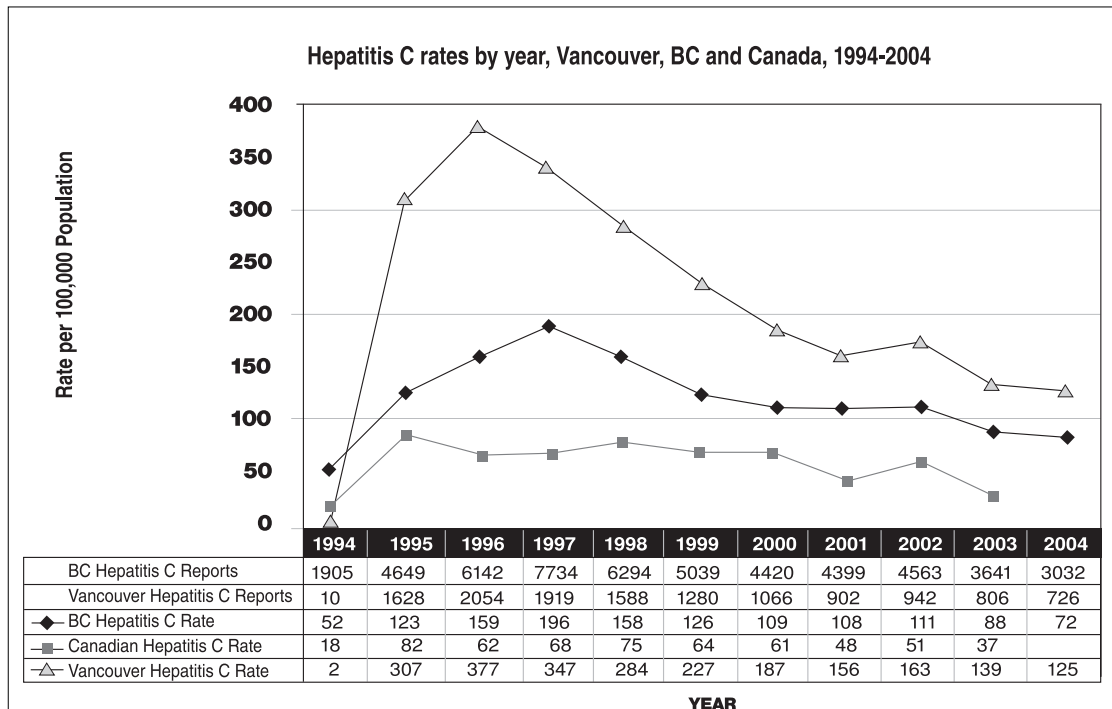
Injection drug use was the predominant mode of HIV transmission reported in BC from 1994 – 1999; in 2003 men who have sex with men was the predominant mode. A recent study of IDUs in Vancouver identified injecting cocaine as the strongest

predictor for acquiring HIV.³⁸ The prevalence of HIV among IDUs is reported to be from 17% to 31% in different cohorts. The total medical costs of HIV in IDUs in Vancouver DTES has been estimated to be \$215,852,613.

The rate of Hepatitis C infection (HCV) is much higher in Vancouver than BC or Canada. In 2004, 726 cases of HCV were identified in Vancouver. The highest number of cases was in 45-49 age group; males exceeded female in all age groups except 15-19 and 20-24 years. The prevalence of HCV in Vancouver IDUs has been reported from 63% to 92% in different cohorts. Aboriginal ancestry has shown to be an independent risk factor for HCV infection.

HIV and HCV co-infection is a growing concern in BC. Persons with HIV/HCV co-infection generally exhibit a more rapid progression to liver cirrhosis and liver failure than patients with HCV mono-infection. In 479 young (<29 years) IDUs who were part of the Vancouver Injection Drug Use Study cohort 16% were coinfected.¹⁷





Specific Reports

Vancouver residents spend >25% more on alcohol per year when compared to BC as a whole. In 2003, there were 83 alcohol related deaths in DTES, which is more than 3 times the provincial rate.⁵²

The RCMP Drug Awareness Service (Vancouver) confiscates drugs at rave and the dance scene. In 2004, 95 of 175 samples tested were pure, 46 were Ecstasy, 10 were methamphetamine (MA); however over half of the chemical cocktails contained MA. MA is cheap and readily available. The 2003 BC Adolescent Health Survey (AHS III) reported a slight decline in MA use from 5% in 1998 to 4% among youth attending grade 7-12 school in BC; however the prevalence of use among street-involved youth is reported as 70%. MA related deaths increased from 15 in 2003 to 31 in 2004 and were among all age groups but may reflect increased identification and testing.

The Western Summit on Crystal Methamphetamine was held in Vancouver, November 2004. It brought

together stakeholders from health, law enforcement, policy makers, academics and social service providers. A consensus panel will develop an integrated approach using evidence in the literature and presented by stakeholders at the summit including community groups.

The 2003 AHS III reported an overall decrease use of most illegal drugs since 1998; the proportion of students using each substance in Vancouver is lower than around the province. Nearly half of students surveyed in Vancouver (44%) had ever drunk alcohol, which is lower than overall BC (58%) rate. Marijuana use in Vancouver (24%) remains lower than in Greater Vancouver (28%) and BC overall (37%).

The Canadian Addictions Survey 2004, found lifetime use of cannabis in BC (52%) and other illicit drugs (23%) to be higher than the national average 44.5% and 16.5% respectively. Hallucinogens are the most common illicit drug other than cannabis used in BC with lifetime rate of 16.5% followed by cocaine/crack (16.3%).

5. CCENDU

The Canadian Community Epidemiology Network on Drug Use (CCENDU) <http://www.ccsa.ca/ccendu/> was established in 1996, spearheaded by the Canadian Centre on Substance Abuse (CCSA)

<http://www.ccsa.ca/>. CCENDU monitors drug use and the adverse consequences of drug use at the community level. The primary goal of CCENDU is to coordinate and facilitate the collection, organization and dissemination of qualitative and quantitative information on drug use at the local, provincial and national levels.

The National CCENDU steering committee includes representatives from CCSA, Canadian Society for Addiction Medicine, Correctional Service of Canada and the Royal Canadian Mounted Police. Twelve urban sites across Canada currently participate to varying degrees: Vancouver, Whitehorse, Calgary, Edmonton, Regina, Winnipeg, Ottawa, Toronto, Montreal, St John's, Halifax and Fredericton.

Each site collects, collates and interprets recent data in major drug use areas- (alcohol, cocaine, cannabis, heroin, sedative-hypnotics and tranquilizers, hallucinogens other than cannabis, and stimulants other than cocaine) and six indicator areas-prevalence; treatment; morbidity; HIV/AIDS and hepatitis C; mortality and enforcement to produce a local report. The site reports may have different emphasis and may not include all of the indicators. CCENDU aims to foster networking among multi-sectoral partners, to improve the quality of data being collected and to serve as an early warning system concerning emerging trends. Ultimately CCENDU strives to support and encourage sound policy and program development related to drug use.

Five new local CCENDU sites are under development with funding from the National Crime Prevention

Centre (NCPC). These five new sites are: Brockville, Windsor and Moose Cree First Nation in Ontario; Montreal and Pemberton/Mount Currie BC and thus include rural and Aboriginal communities.

NCPC has also provided funding to establish a proactive model for identifying and developing community specific responses to substance abuse. Different initiatives have been developed with this funding by Vancouver, Regina and Fredericton site CCENDU committees.

Vancouver site CCENDU report

This is the 6th site report for the city of Vancouver since December 1996. The last report was published July 2003 and can be found on the CCENDU website at (http://www.ccsa.ca/ccendu/pdf/report_vancouver_2003.pdf). Information contained in this most recent report reflects the latest and most complete information available at the time of writing. Time periods may differ between data sources- e.g. complete data may be available for different years, or calendar versus fiscal year may be reported. Geographical areas may differ, e.g. the Coroners regions in BC are not the same as the Health Regions. Where possible, data will be expressed as rates/100,000 population as well as absolute numbers. Surveys may be administered to different populations or question wording may vary. Source information may also be reported from different perspectives and data definitions may change. For example Vancouver Police Department introduced a new data base system in 2001 and BC vital statistics has used a different disease classification coding system since 2000.

Data contained in previous reports will not be fully discussed, but may be referenced for comparison and

to describe trends. Web addresses are contained in the report to enable the reader to readily access the original data source. These websites were current at the time this report was released. Extensive references are also included so the reader may explore areas of interest in greater depth.

Dissemination of Vancouver site 2003 report

The Vancouver site committee developed an initiative to establish a proactive model for identifying and developing community specific responses to substance abuse. A graphic designer formatted the report and created the cover design. A 4-page summary report was developed. Copies of the full report and 4-pager were sent to all members of the Vancouver site committee for distribution; to the national and other CCENDU site committees and to local agencies and organisations. The formatted report was posted on the CCSA and Vancouver Coastal websites.

Representatives from local agencies and organizations were invited to attend a forum in downtown Vancouver in April 2004. The main objectives of the forum were to:

- a. Increase the awareness of the 2003 Vancouver CCENDU report,
- b. Receive input from community stakeholders on the full and 4-page reports,
- c. Increase networking and participation of the various stakeholders for the data collection of the report.
- d. Collate feedback to increase utility and relevance of future reports.

After a brief reception there was a presentation about CCENDU and the Vancouver report with question and answers. This was followed by a breakout session

of two facilitated groups with feedback. Participants were asked to complete a short evaluation form before leaving.

Summary of findings:

- ▼ Many of the 26 participants had not previously heard of the report. All agreed that a *press release* should accompany publication of the next report and most believed that *greater distribution* of the report is needed. The agencies were willing to promote the report to their respective agencies and requested presentation material to be developed to assist this process.
- ▼ Input was received regarding the format, structure and content of the report. Participants requested more graphics and suggested additional data sources to be explored.

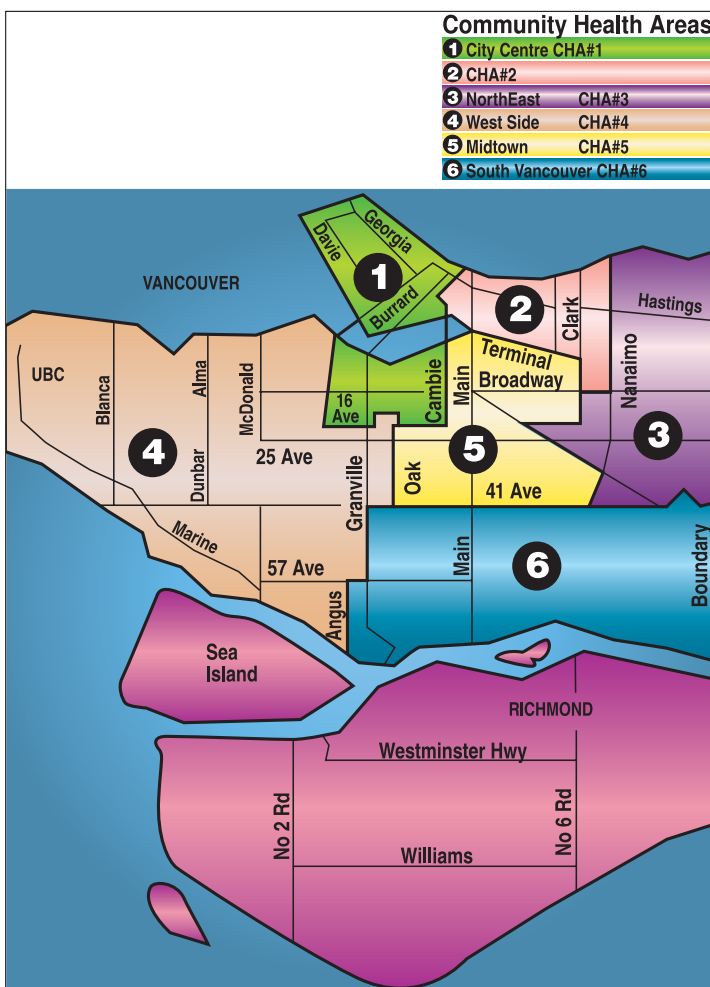
Suggestions where possible have been incorporated into this report and presentation tools to market this report are being developed. The full report of the dissemination process and outcome will be found on the CCSA website.

A. DEMOGRAPHIC and HEALTH PROFILE

Population statistics are helpful when comparing 'absolute numbers' of cases of a disease or death occurring in different places e.g. in Vancouver compared to the rest of BC. In this report rates/100,000 population are stated where possible; this takes into account different population sizes and allows more direct comparisons. Rates and demographic information contained in this report are based on population estimates from the Population estimates and projections (P.E.O.P.L.E. 29) extrapolated from the 2001 Census. The 2003 Vancouver site CCENDU report contained 2001 Census of Canada and historical population statistics, which will not be repeated; it used P.E.O.P.L.E. 28 estimates.

British Columbia is divided into five geographic Health Authorities (HA): Vancouver Coastal Health, Fraser HA, Vancouver Island HA, Northern HA and Interior HA. Each health authority is divided into Health Service Delivery Areas (HSDA). Vancouver Coastal Health (VCH) contains the HSDA of Richmond, Vancouver, and North Shore/Coast Garibaldi.

Figure A1. Vancouver Community (Local) Health Areas



Vancouver HSDA is divided into six Community (Local) Health Areas (CHAs) as shown in figure A1. The population estimates for BC, Vancouver and the various CHAs are shown in table A1.

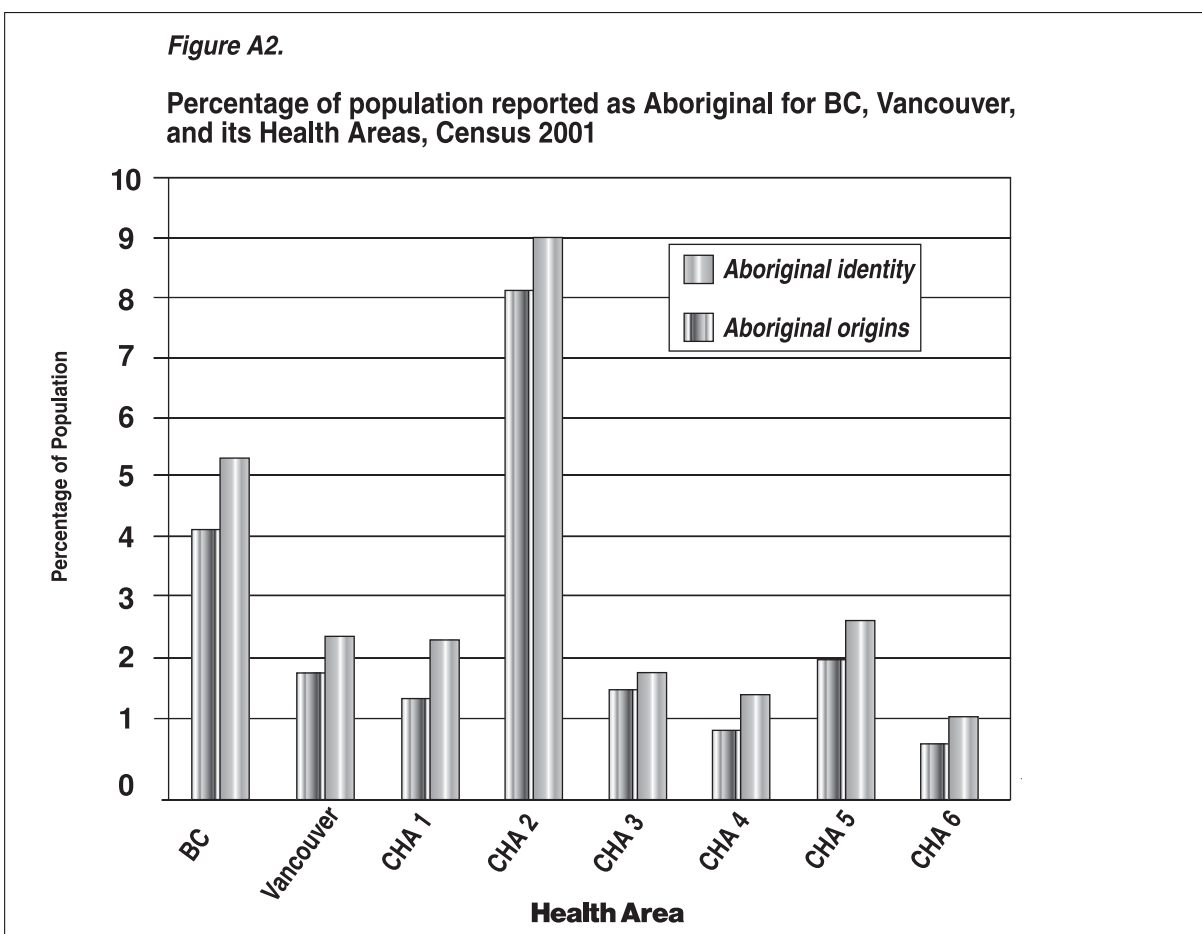
BC Stats (the central statistical agency of the Province of British Columbia) uses the term Downtown Eastside of Vancouver (DTES) synonymously with CHA2, which using P.E.O.P.L.E. 29 has an estimated population of 51,886 persons in 2004.

However, others describe DTES as an area of 10 square blocks within CHA2. The DTES is the centre of the injection drug use epidemic in Vancouver; in 1996 there were an estimated 16,275 residents in this area (http://www.vcn.bc.ca/vrhb/Down_Loads/Health_2000_Profile.pdf).¹

In 2000 the number of injection drug users (IDUs) living in DTES was estimated as 4,700 with 12,000 in the Greater Vancouver region.²

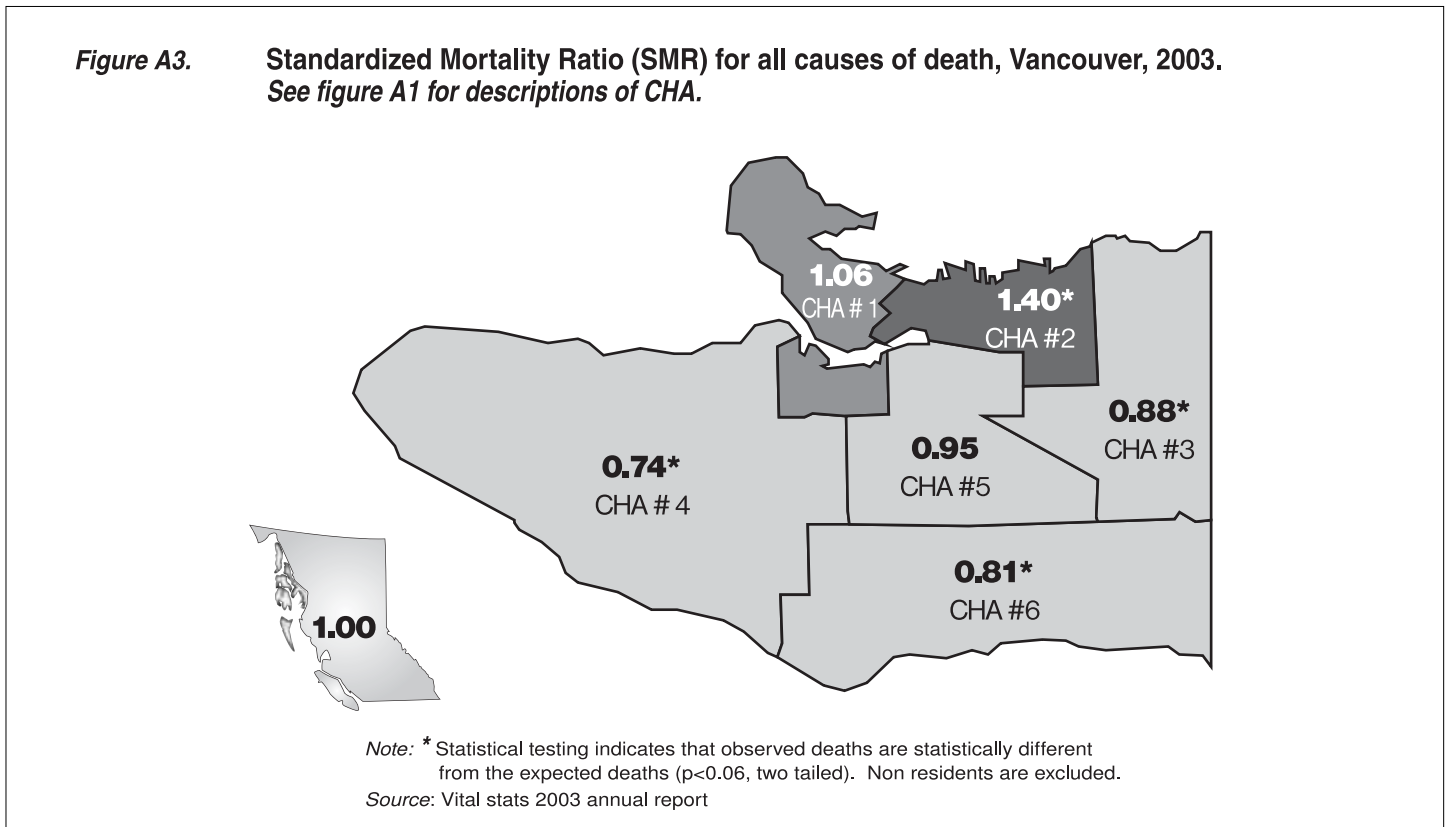
Gender	BC	Vancouver	CHA 1	CHA 2	CHA 3	CHA 4	CHA 5	CHA 6
Female	2,112,036	293,162	48,547	23,745	49,339	63,395	44,113	64,023
Male	2,072,968	287,872	50,325	28,141	48,499	57,915	42,940	60,052
Total	4,185,004	581,034	98,872	51,886	60,052	121,310	87,053	124,075
% Male	49.5	49.5	50.9	54.2	49.6	47.7	49.3	48.3

Males are over-represented in CHA2; 54% of the CHA2 population is male compared to less than 50% in Vancouver and BC as a whole. Aboriginals are also over represented in CHA2. In the 2001 Census 4.39% of all BC respondents reported Aboriginal identity compared to 2.02% in Vancouver and 8.4% in CHA2 (figure A2).



CHA2 has a significantly higher number of observed deaths from all causes than expected using the province as a whole (<http://www.vs.gov.bc.ca/stats/annual/2003/xl/tab33.xls>).⁵ The ratio of observed to expected deaths is called the standardized mortality ratio (SMR). The province of BC as a whole is the referent i.e. observed = expected number of deaths, thus SMR= 1. In CHA2, the SMR for all causes is 1.4 (95% confidence intervals

1.28-1.52). The 95% confidence intervals do not pass through 1, so this 40% higher number of deaths is significant. By comparison the SMR is significantly lower in CHA3- North East, CHA4-Westside and CHA6- South Vancouver at 0.88, 0.74 and 0.81 respectively (figure A3).

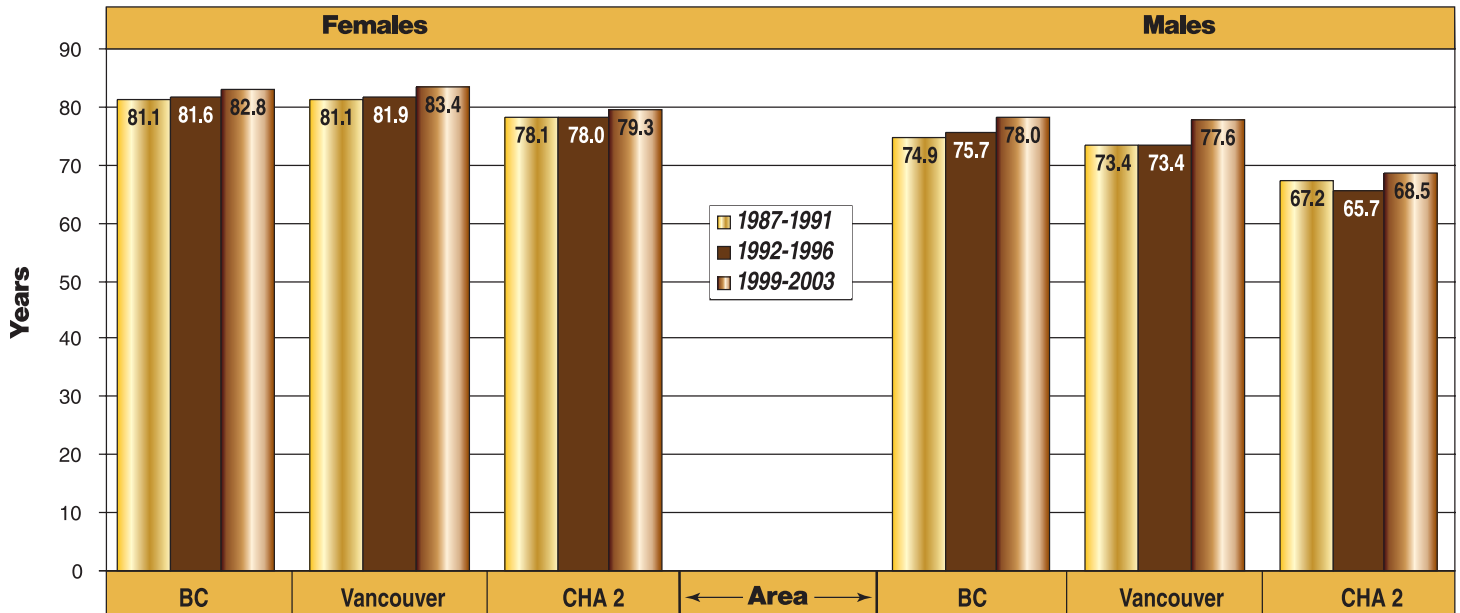


Life expectancy at birth

Life expectancy at birth (the average number of years a person may expect to live assuming mortality rates remain stable for each age) is a broad measure of health; usually aggregated over 5 year periods. In BC and Vancouver, it increased slightly from 1987/91 to 1999/03 in both females and males (<http://www.bcstats.gov.bc.ca/data/pop/popstart.htm#vital>).⁴ In CHA2 there was a slight decrease in life expectancy at birth for both sexes between 1987-1991 and 1992-1996; but increased in 1999-2003 (figure A4). Life expectancy at birth for females in CHA2 1999- 2003 remains 4 years less than Vancouver overall; and 9 years less in males.

When CHA2 is compared to Richmond there is an even greater disparity of life expectancy with a 4-year difference in life expectancy at birth of females and 13-year difference for males (84.7 and 81.7 years respectively for females and males in Richmond). Details are not shown.

Figure A4. Life expectancy at birth in BC, Vancouver, and CHA2 based on 1987/91, 1992/96, and 1999/03 deaths

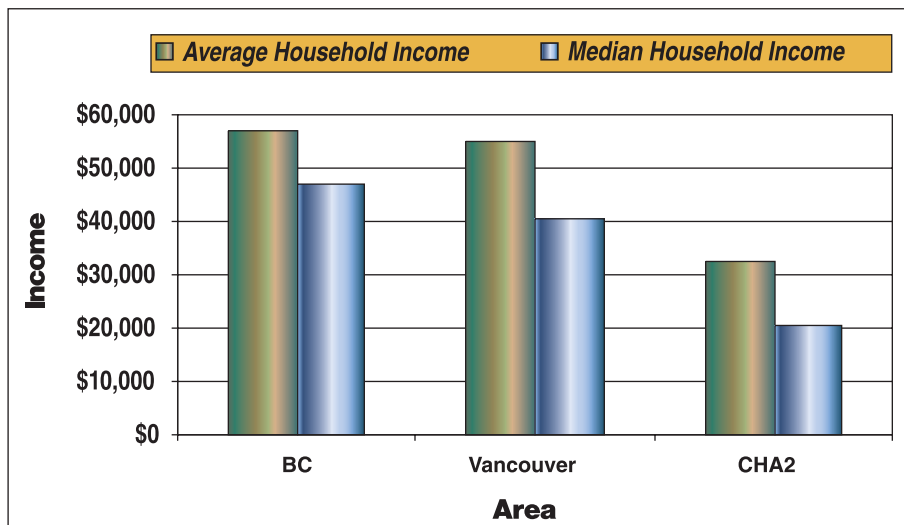


Source: BC STATS

Household income

The downtown eastside of Vancouver is often described as one of the poorest neighbourhoods in Canada. As can be seen from figure A5 below, CHA2 has a considerably lower average and median household income relative to Vancouver and BC.

Figure A5. Average and Median Household Incomes in BC, Vancouver, and CHA2 in 2001



Source: BC STATS 2001 Census

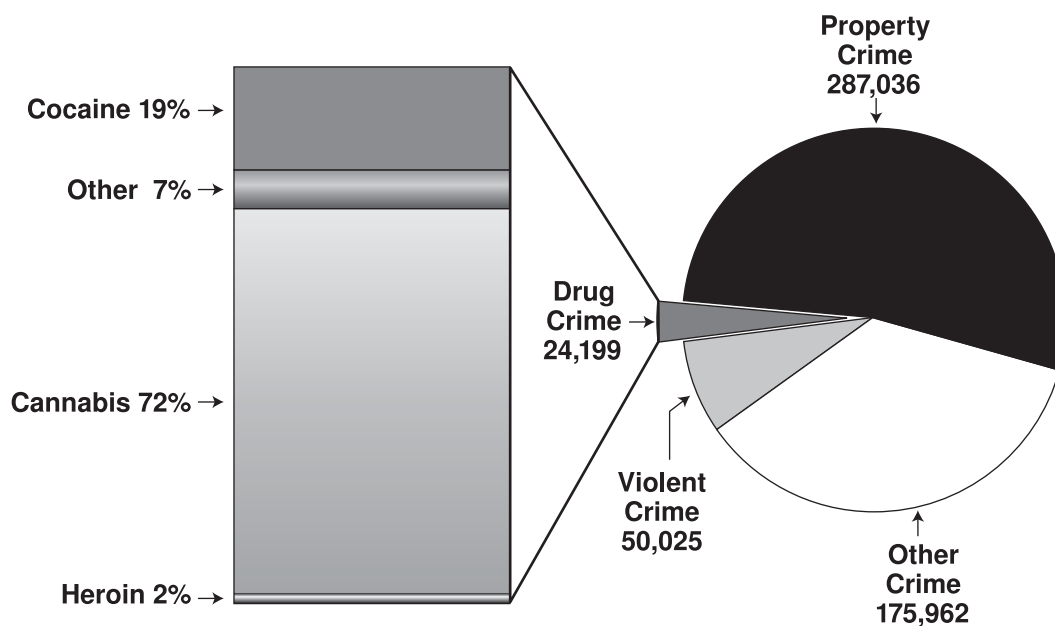
B. CRIME

The Controlled Drugs and Substances Act (CDSA) was enacted in Canada in 1997 (<http://laws.justice.gc.ca/en/C-38.8/>).⁵ Offences arising from federal drug statutes are categorized by drug type: heroin, cocaine, cannabis and other CDSA drug; or by type of crime: possession, trafficking, cultivation and importation.

Drug offence data is directly influenced by police enforcement practices. Thus a change in the number of drug offences may be the result of enforcement policy rather than an actual change in drug crimes. For example, decisions by policing organizations to crack down on marijuana grow operations are likely to result in an increase in the number of reported cultivation offences. Reporting of crimes by the public also influences the number of crimes recorded (figure B1)

(http://www.pssg.gov.bc.ca/police_services/publications/summary_statistics/Chapter_5.pdf).⁶

Figure B1. Overall Crime and Drug Crime in BC, 2003



Although drug crimes account for only 4.5% of overall crime in BC, illicit drugs are associated with a range of other crimes, including break and enter, robbery, car theft, prostitution, and murder. Illicit drug users may commit a variety of crimes to fund their drug habits.

The number and rate of drug crimes in BC increased from 1998 until 2001, declined slightly in 2002, and increased again in 2003. Over the past 10 years crime relating to cannabis has increased by 50%, heroin and cocaine have been relatively stable. The “other” category is increasing and in 2003 accounted for 7% of all drug crime in BC comparable to 6.5% in Vancouver (figures B2, B3).⁶

Figure B2. Number and Rate of Drug Crimes in BC, 1994 to 2003

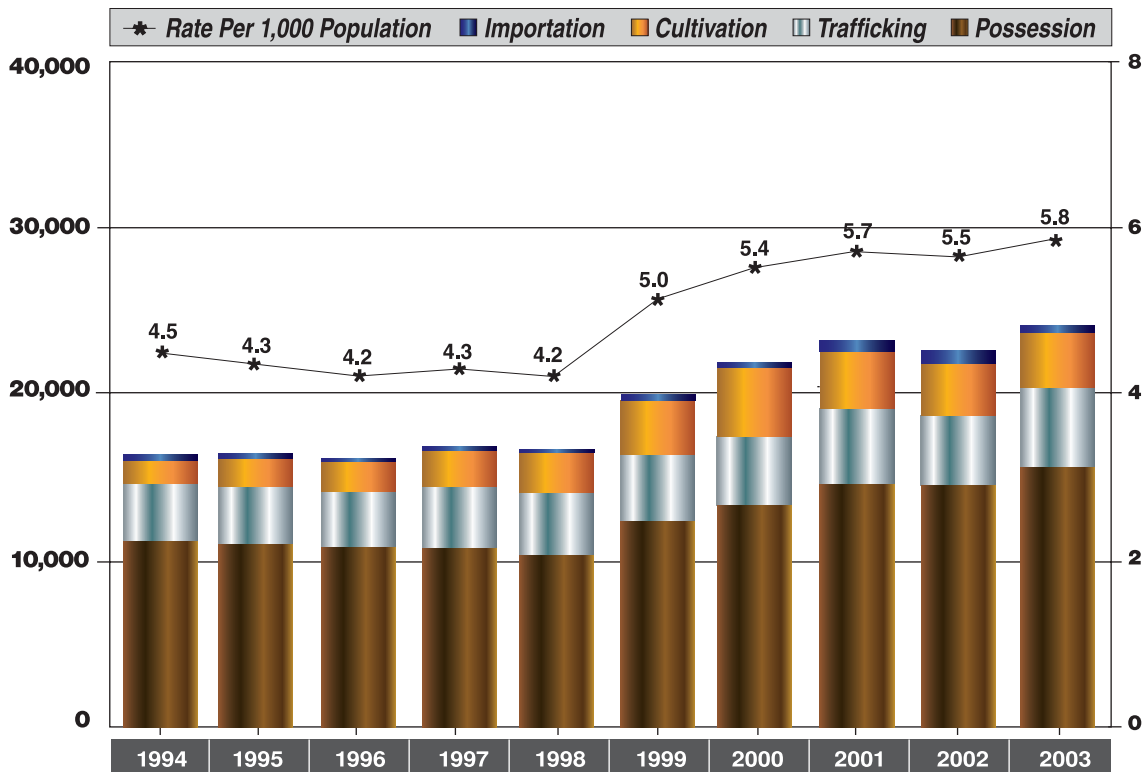
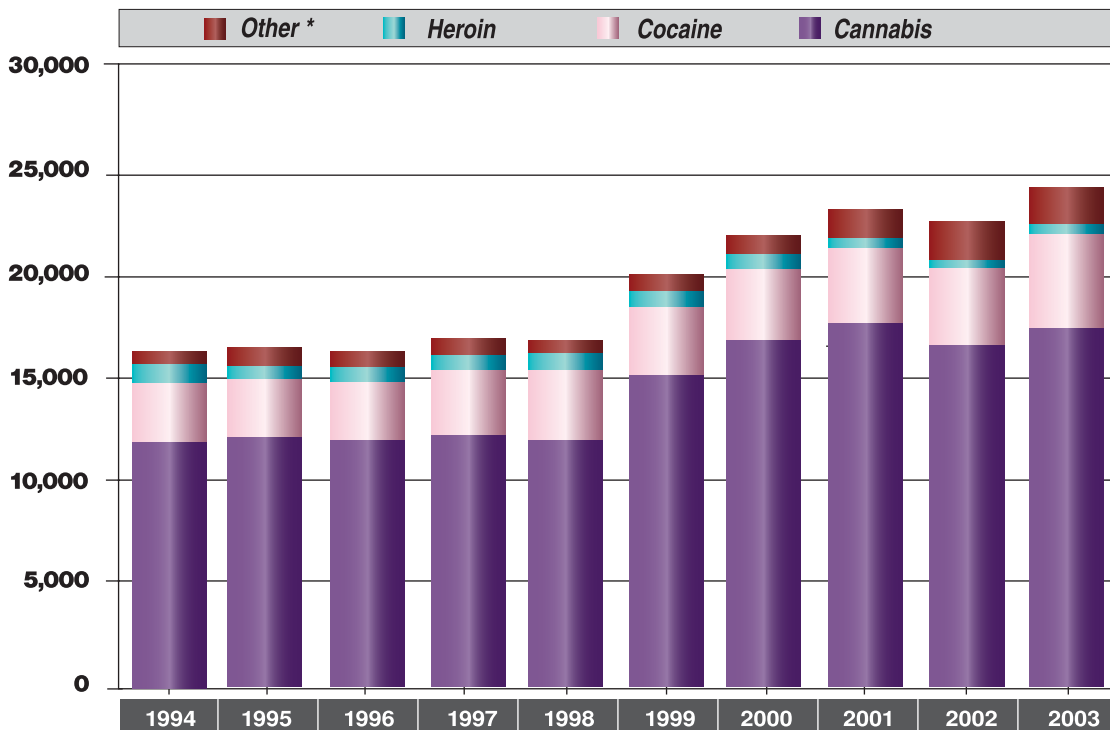


Figure B3. Drug Crimes by Type of Drug in BC, 1994 to 2003

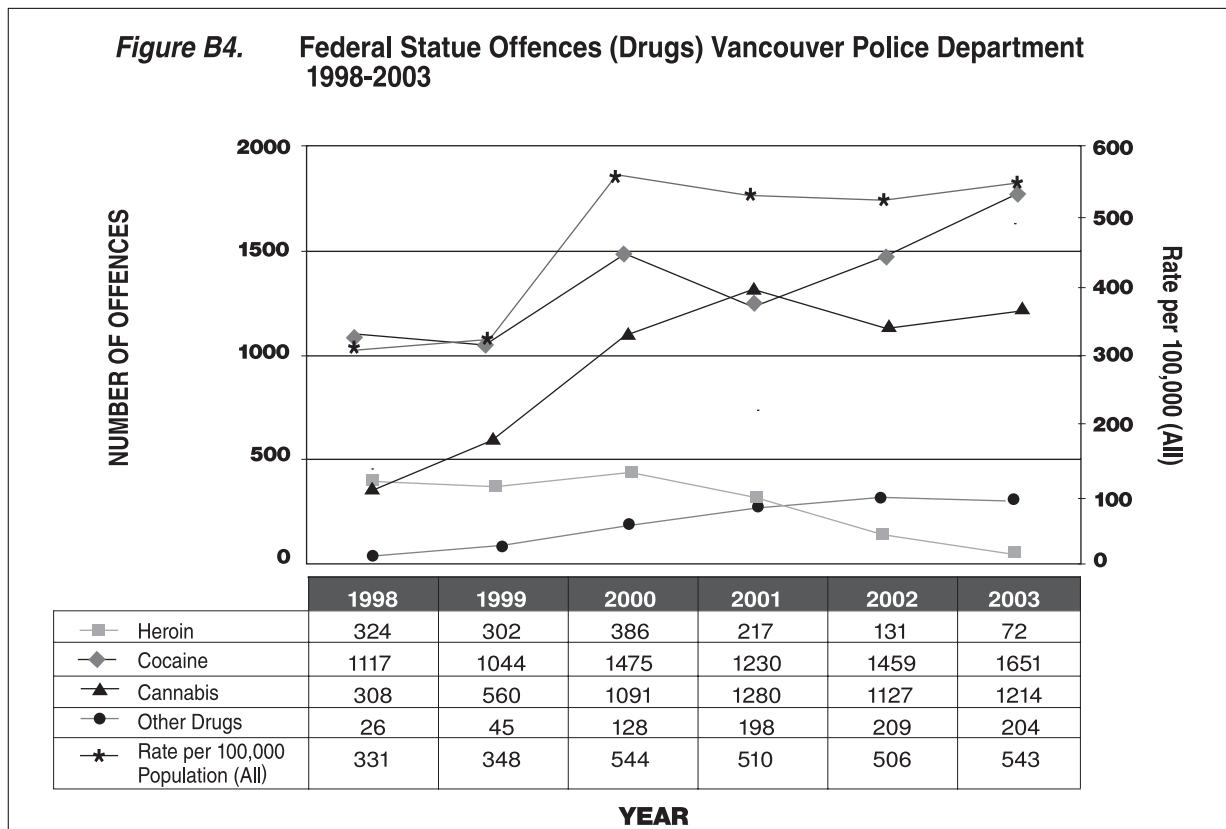


*From 1994 to 1997 Other Includes Other Drugs, Restricted Drugs and Controlled Drugs

Crime in Vancouver

The police database system "PRIME BC" was introduced in March 2001. Caution should be exercised when comparing statistics captured under PRIME and the prior record management system. The new system may capture previously unrecorded events. The latest annual report published by Vancouver Police Department (VPD) available at the time of writing is for 2003. (<http://www.city.vancouver.bc.ca/police/Planning/2003AnnualReport.pdf>)⁷ and shown in figure B4.

VPD currently only reports statistics based on the requirements for statistics Canada; therefore only the most serious violation per incident is reported and collated. In other Canadian cities all violations in an incident are reported. This discrepancy makes accurate comparisons between Vancouver and other cities impossible.



Offences relating to cannabis increased steadily from 1998 to 2001, leveled off in 2002, and increased in 2003; offences relating to heroin decreased to almost half in 2003 to 72 and offences relating to 'other' drugs remained rather stable from previous year at 204.

The VPD vice/drugs section productivity report shown in table B1 gives an indication of the volume of drugs involved. Although the number of grow ops dismantled has not dramatically increased since 2002 the weight of marijuana seized in 2004 to end of October is almost 20 times that for 2002, and methamphetamine seized has increased 10 fold in the same period. No corresponding increase in VPD human resources has been reported during that time.⁸

Table B1. Vancouver Police Department Vice/Drugs section productivity report, 2002 – October 2004

Statistic	2002	2003	2004 to end Oct
Arrests	509	744	451
Charges	897	1087	630
Weight of Drugs (grams)			
Cocaine	14,118	49,946	50,521
Heroin	214	403	13
Methamphetamine	2,072	6,358	20,679
Ecstasy	352	12,328	20,581
Ketamine	54.6	310	0
Psilocybin	515	35,273	16,472
Hashish	663	869	2050
Marijuana	419,478	6,727,184	8,044,786
Grow ops dismantled	351	378	212

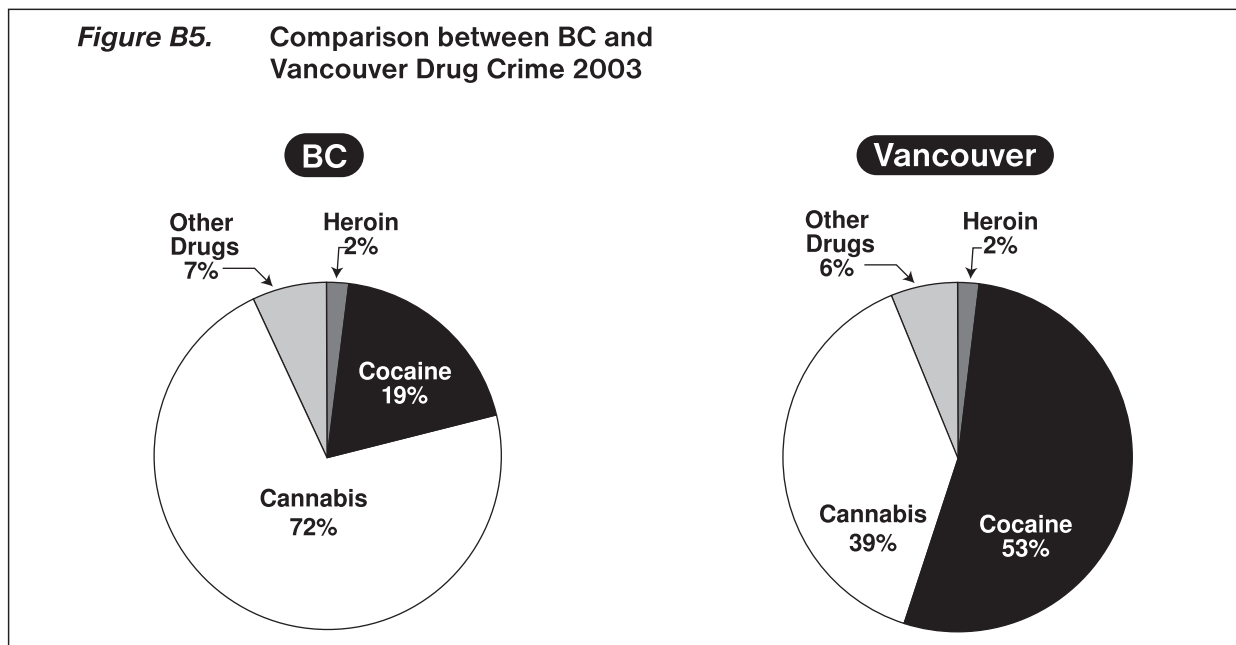


Figure B5 above shows cocaine accounts for over half of the drug crimes in Vancouver but less than a quarter in BC overall; and cannabis accounts for a greater proportion of crimes in BC compared to Vancouver.^{6,7}

Drug Treatment Court of Vancouver Program

In December 2001 the drug treatment court of Vancouver (DTCV) program, the second in Canada, opened (<http://www.prevention.gc.ca/en/library/features/dtc/facts-van.html>).⁹ The first drug court in the United States was created in Miami in 1989 and the first in Canada opened in Toronto in December 1998. There are now about 400 DTC in operation in US; others have been established in Australia, Ireland, Jamaica, and Scotland.

The aim of DTCV is to rehabilitate individuals who commit addiction-motivated crime(s) instead of sending them to jail. It provides a court supervised treatment based program for non-violent offenders who are charged with offences under the Controlled Drug and Substances Act (CDSA), namely possession, possession for the purpose of trafficking, and/or trafficking small amounts of controlled substances.

The Federal Crown is mandated to consider if there is sufficient evidence to institute proceedings and if it is in the public interest for prosecution to be pursued. The Crown identifies cases in which the offences fall under the criteria for the DTCV; it must be determined that the offence was addiction motivated and not 'for profit'.

Participation in the program is voluntary; the offender agrees to plead guilty to the drug offence and sign a waiver. The offender is released on stringent bail conditions, which include staying out of DTES, keeping a curfew and abstaining from alcohol. Those selected for the program attend a treatment centre every weekday, and return to court regularly, (initially twice per week) to report their progress and submit periodic and random urine tests. A positive drug test leads to discussion and possible treatment plan adjustments. Participants are not removed from the program unless there is a pattern of repeated positive testing and lack of compliance with the program.

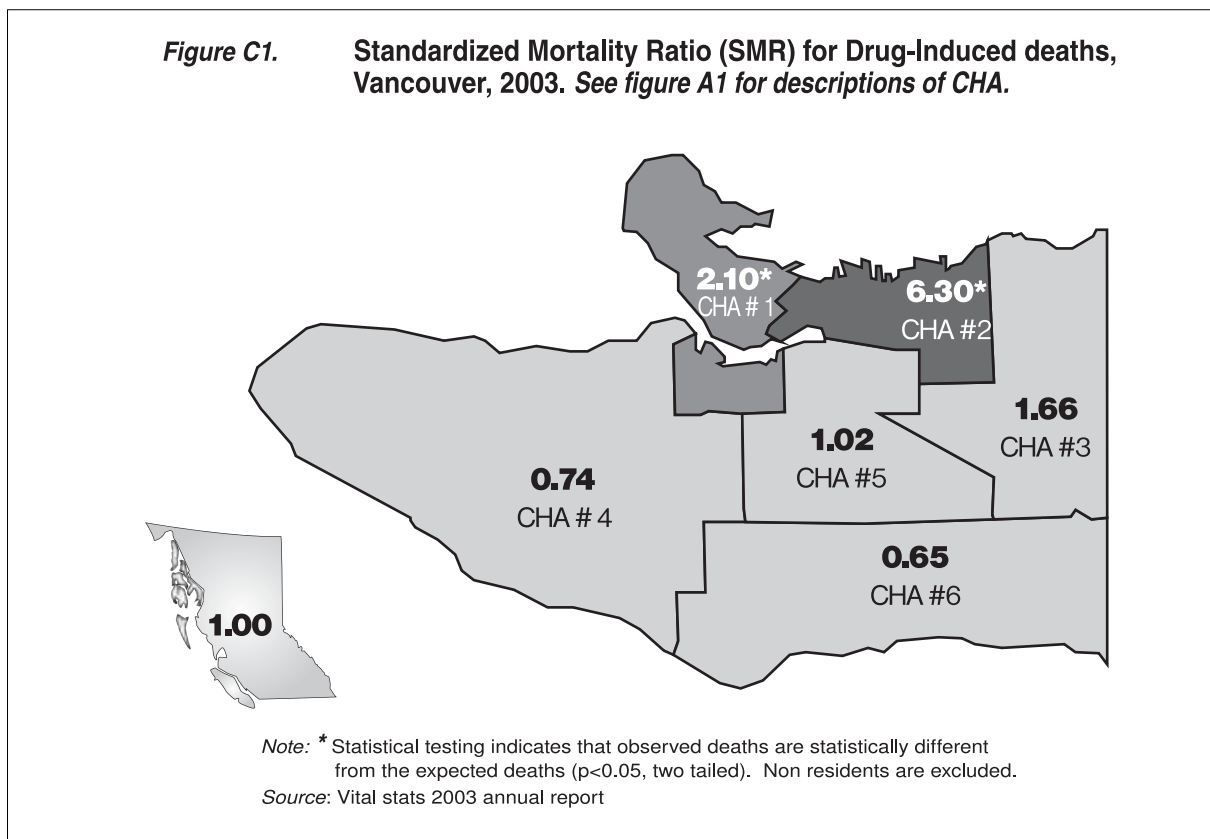
If the offender is not successful in completing the program they will then be sentenced as part of the regular court process. The participant undergoes 265 hours of treatment, which takes approximately a year to complete. There are 3 levels of graduation or completion. The graduate returns to the court for sentencing - usually a suspended sentence and a term of probation, which may include random urine testing.

The DTCV 4-year pilot project is being evaluated, funded through the National Crime Prevention Strategy. The evaluation has three components; a process evaluation, an outcome evaluation and a cost effectiveness analysis.¹⁰ Unfortunately the interim process and outcome report, due March 2004, is not yet available and the rigor of the evaluation is yet to be determined.

C. MORTALITY

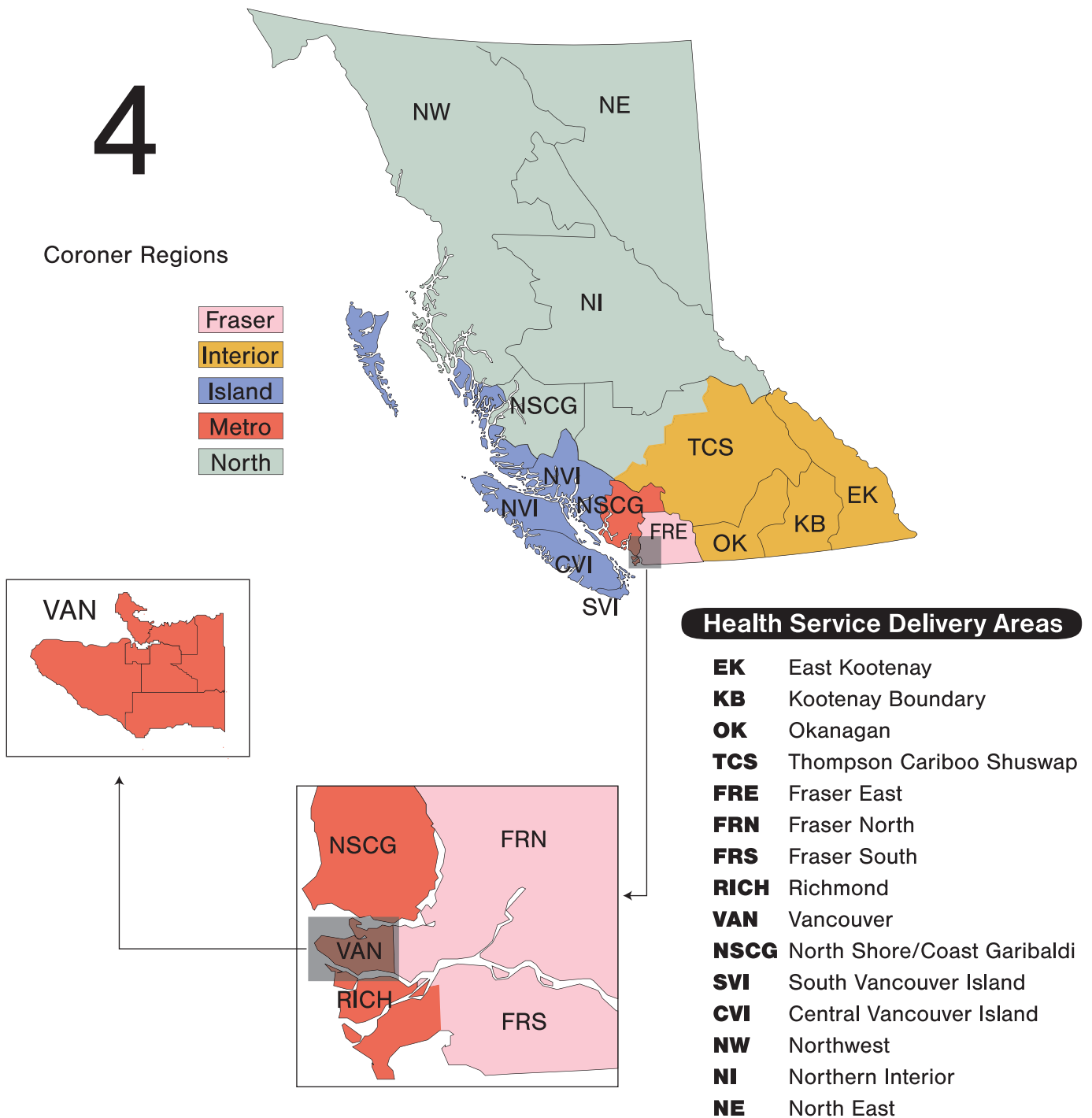
BC Vital Statistics Agency is responsible for the ascertainment, registration and certification of vital events. Death statistics summarize events by calendar year that occurred in the province of BC, in BC residents only. Medical certification of death is completed by either the physician in attendance at the last illness of the deceased, or by the coroner conducting an inquiry into the death. BC Vital Statistics Agency began using the tenth revision of the World Health Organization's International Classification of Diseases (ICD-10) coding scheme in 2000. ICD-10 is more detailed than ICD-9, and although translation tables and recoding ICD-9 mortality data to ICD-10 allow trend data to be produced, direct comparison of data prior to 2000 is not possible. Other provinces have continued to use ICD-9; thus direct comparison of current BC data with that of other provinces cannot be considered accurate.

Selected vital statistics and health status indicators are reported by Local Health Areas in the BC Vital Statistics Agency Annual Report 2003 (<http://www.vs.gov.bc.ca/stats/annual/2003>).¹¹ In 2003, CHA2 had a significantly higher number of observed deaths than expected from all causes when compared to the province as a whole, while CHA 3, 4 and 6 had significantly lower number of deaths (figure A3). CHA2 also had a significantly higher standardized mortality ratio (SMR) for both alcohol related and drug induced deaths compared to BC as a whole 3.39 (95% CI: 2.70-4.20) and 6.30 (95% CI: 4.19-9.11) respectively (table F3 and figure C1).



The BC Coroners Office Service regions differ from Health Authority boundaries.¹² Vancouver Metro, for example, includes Vancouver and Delta as shown in figure C2. The township recorded relates to where the overdose was administered rather than where the death occurred. If a death occurs outside the boundaries of any township such as in rural areas the death is typically coded as occurring in the closest township.

Figure C2. Coroner Regions and Health Service Delivery Areas in British Columbia



Drug induced deaths

The count of drug induced deaths (by specific category) 2000-2003 for Vancouver Health Service Delivery Area using ICD-10 codes are shown in table C1. The percentage of Vancouver deaths, which occurred in CHA2 are in brackets.¹¹

Table C1. Drug-induced deaths Vancouver residents, 2000-2003

Cause of Death (ICD 10)	2000 Total # (%CHA2)	2001 Total # (%CHA2)	2002 Total # (%CHA2)	2003* Total # (%CHA2)
Psychoactive substance and drug use/abuse (F11-F16, F19)	5 (20)	5 (40)	3 (67)	11 (45)
Accidental poisoning by drugs (X40-X44)	81(53)	76 (45)	50 (42)	51 (37)
Suicide by drugs (X60-X64)	10 (0)	20 (30)	16 (25)	20 (25)
Poisoning by drugs and medicaments undetermined (Y10-Y14)	1 (0)	2 (0)	1 (100)	- (-)
Adverse effects of drugs and medicaments [Y40-Y574, Y577-Y579, Y880)	1 (0)	2 (0)	-	-
Total	98 (45)	105 (40)	70 (40)	82 (35)

*Probable undercounts due to "pending" final coroners' reports.

CHA2: Vancouver- Downtown Eastside

Source: BC Vital Statistics Agency – custom tabulation

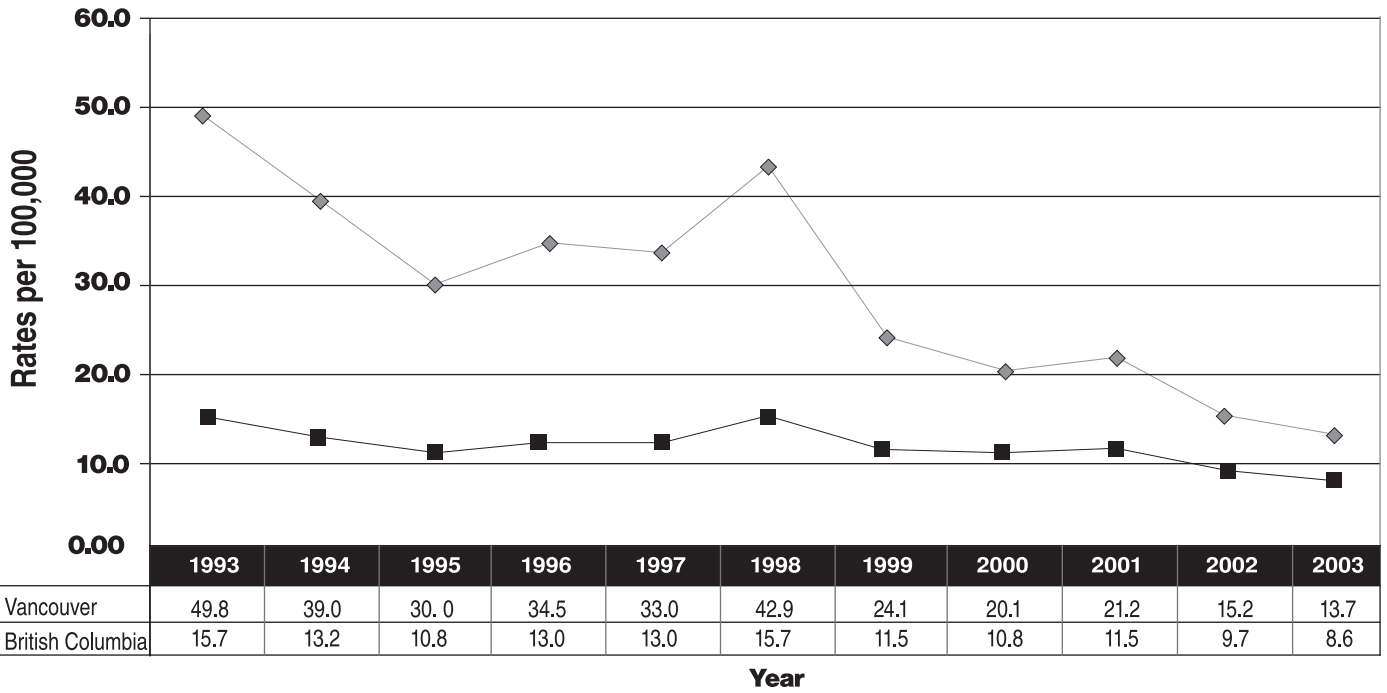
In 2003 the observed drug induced deaths in the CHA2 were more than 6 times that expected from the provincial rate. Drug induced deaths were also significantly higher in Vancouver City Centre at twice that expected. The SMR for each of the Community Health Areas is shown for the period 1992-2002 and for 2003 (table C2).

Table C2. Standardized Mortality Ratio, drug-induced deaths, Vancouver, 1998-2003

LHA	CHA	Description	1998-2002		2003			
			Observed Deaths	SMR	Observed Deaths	SMR	95% Confidence Interval	
							Lower	Upper
161	CHA1	Vancouver- City Center	122	1.71	19	2.10	1.26	3.27
162	CHA2	Vancouver- Downtown Eastside	257	6.93	28	6.30	4.19	9.11
163	CHA3	Vancouver- Northeast	63	1.07	12	1.66	0.86	2.90
164	CHA4	Vancouver-Westside	39	0.51	7	0.74	0.30	1.53
165	CHA5	Vancouver- Midtown	73	1.30	7	1.02	0.41	2.11
166	CHA6	Vancouver- South	50	0.68	6	0.65	0.24	1.42
Provincial Total			2,394	1.00	304	1.00	0.89	1.12

The rate of overdose deaths including alcohol, illicit drugs, prescription drugs and over the counter drugs or a combination for Vancouver and BC is shown in figure C3.

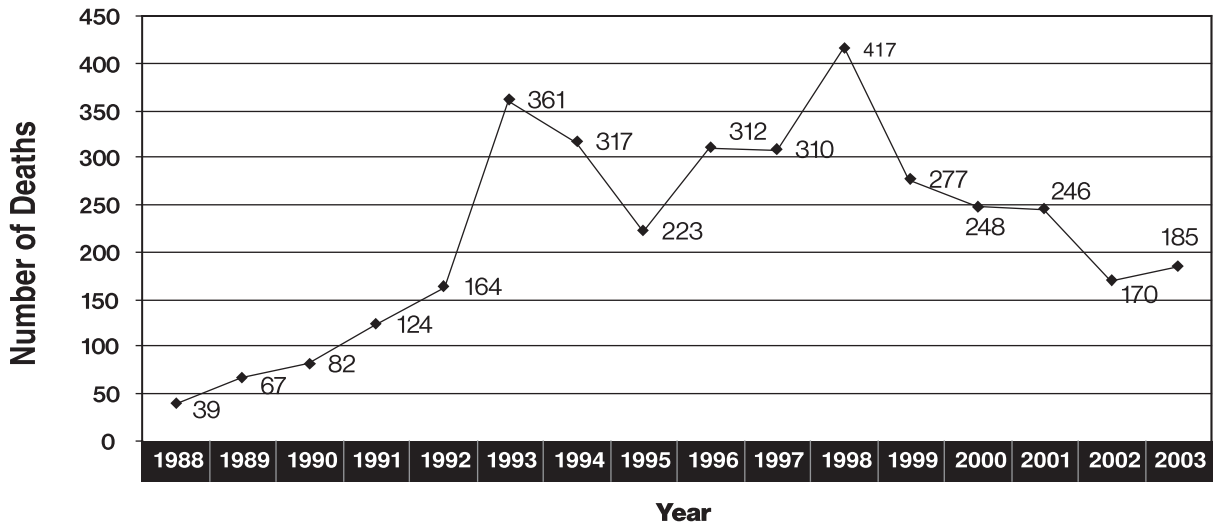
Figure C3. Alcohol and drug death rates, Vancouver and BC, 1993-2003



Illicit drug deaths

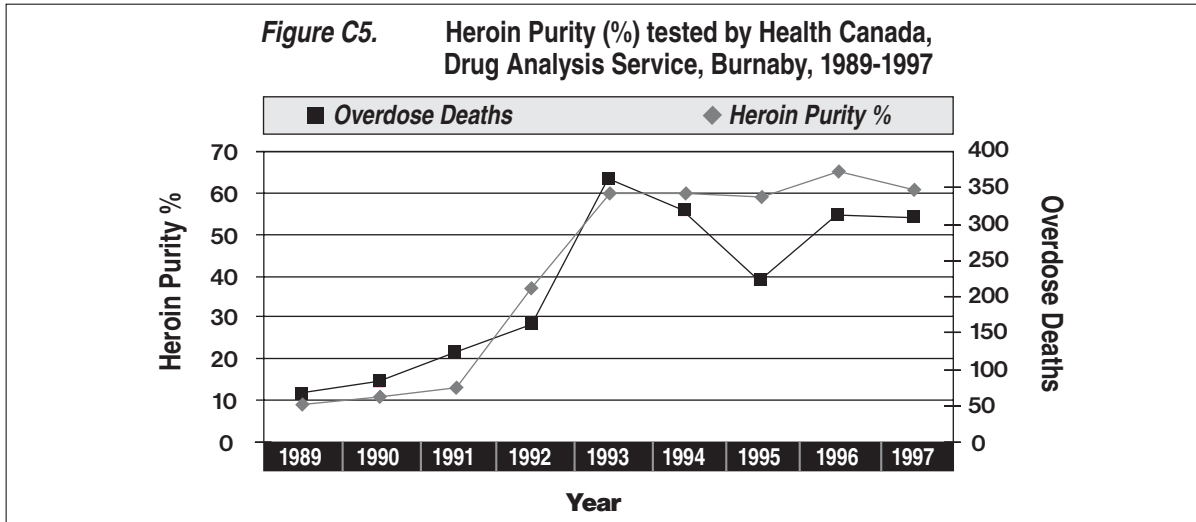
The illicit drug deaths (IDD) in BC have decreased since the high in 1998. The numbers of deaths in prior years shown in figure C4 have continued to be updated and so totals may have changed from the 2003 report. The 2003 report explored the decline in overdose deaths and discussed a variety of factors which have been proposed for this decline, including removal of rice wine from corner stores, ambulance response time and use of naran.

Figure C4. BC Illicit Drug Deaths, 1988-2003



Source: Office of the Chief Coroner

The initial earlier peak of overdose deaths in 1993 has been shown to correspond to an increase in potency (purity) of heroin as measured by Health Canada, Drug Analysis Service, Burnaby in samples obtained when the arrestee was prosecuted, figure C5.¹⁵



The BC Coroner’s office continues to provide monthly provincial and regional year-to-date (YTD) mortality statistics. This information is shared with the medical health officers of each Health Authority. Although it is provisional data and subject to change with time, it enables timely dissemination to all regions. Provisional data for the first quarter of 2005 indicates a slight downward trend of provincial IDD compared to previous years, but no comparable decline in Vancouver numbers.

There has been a dramatic decline in the number of IDD in both Vancouver and BC since 1998 (figure C6). The number of deaths in Vancouver in 2003 was nearly a quarter that of 1998, where as in the rest of BC the absolute number decreased by less than 50% of the 1998 number. The number and rate of IDD by age group for 2003 is shown in figure C7. In 2003, the largest number of deaths occurred in the 41-50 year old age group; in 2001 the age group with the most deaths was the 31-40 year age group.

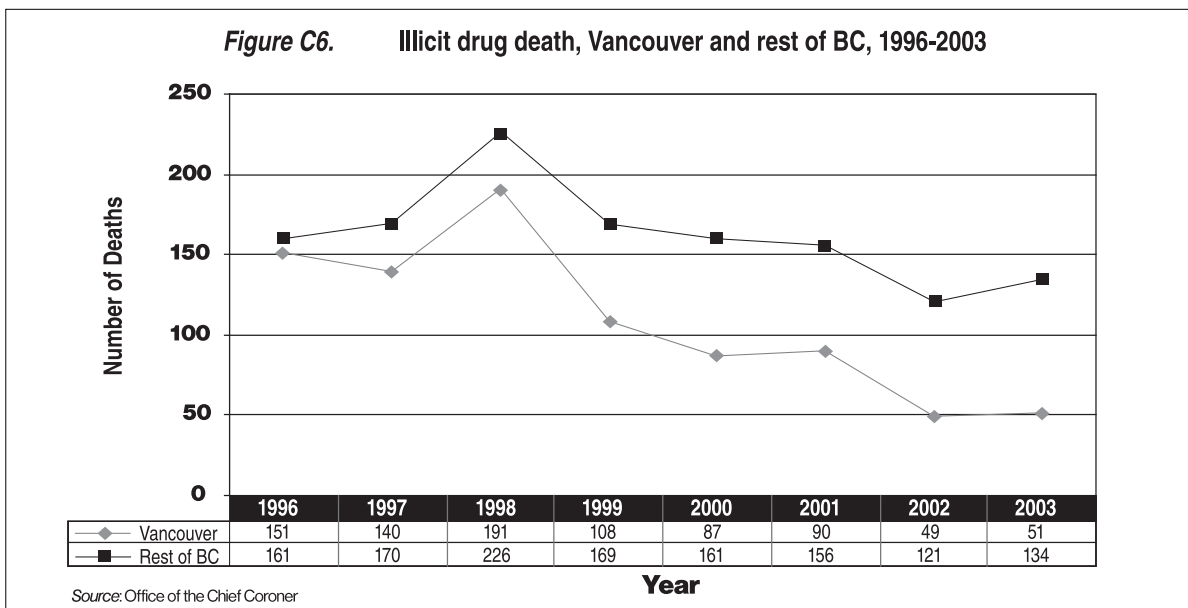
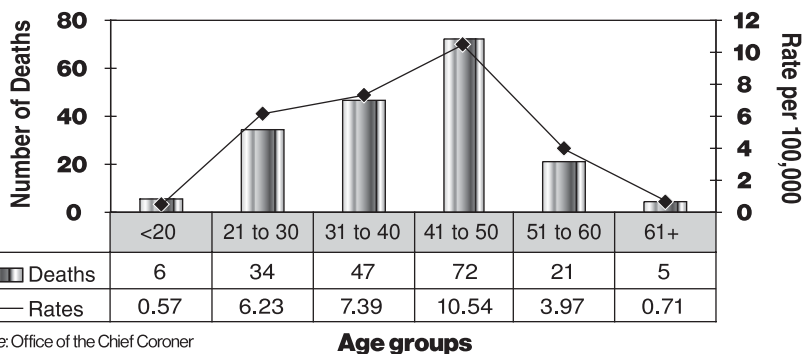


Figure C7. Number and rate of BC illicit drug deaths by age, 2003 (Total = 185)



Source: Office of the Chief Coroner

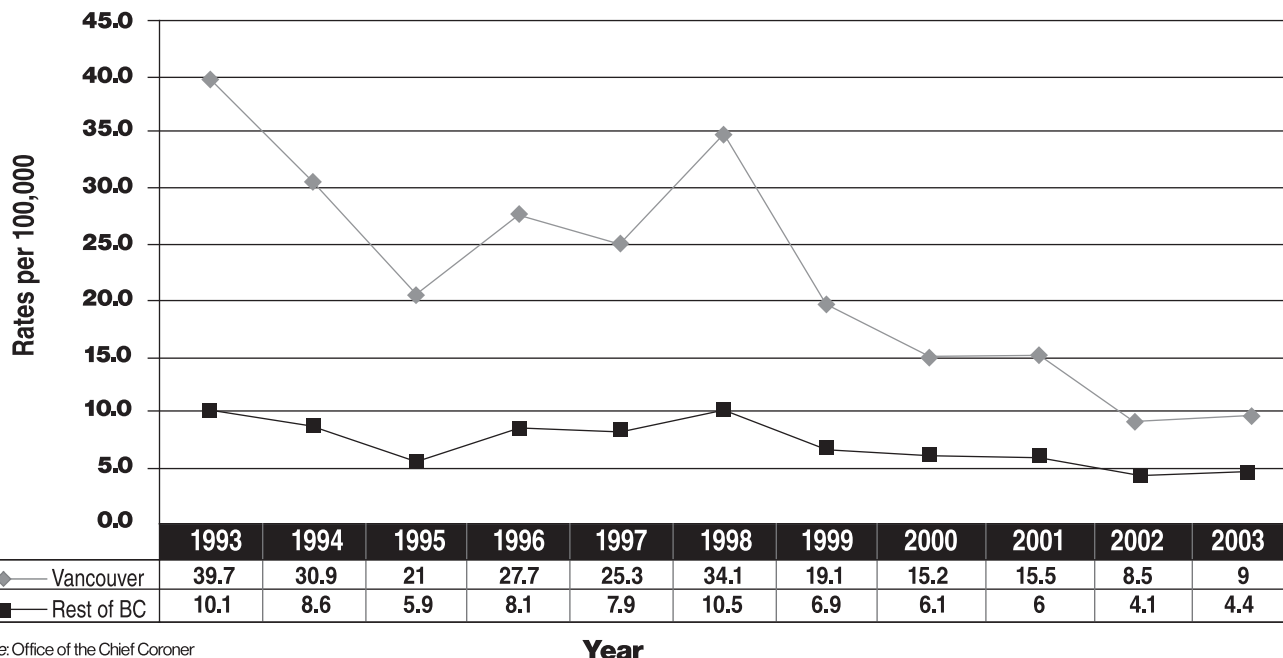
From 1997 to 2002 there was a consistent decline in both the number and the percentage of total IDD identified as First Nations ethnicity (8.1% to 2.9%). However in 2003 the number and percentage of the total increased (table C3).

Table C3. Ethnicity of illicit drug deaths by number and % of total for BC, 1997-2003

	1997	1998	1999	2000	2001	2002	2003
First Nations	25 (8.1)	30 (7.2)	13 (4.7)	10 (4)	8 (3.25)	5 (2.9)	17 (9.2)
Non First Nations	285	387	264	238	238	165	168
Total	310	417	277	248	245	170	185

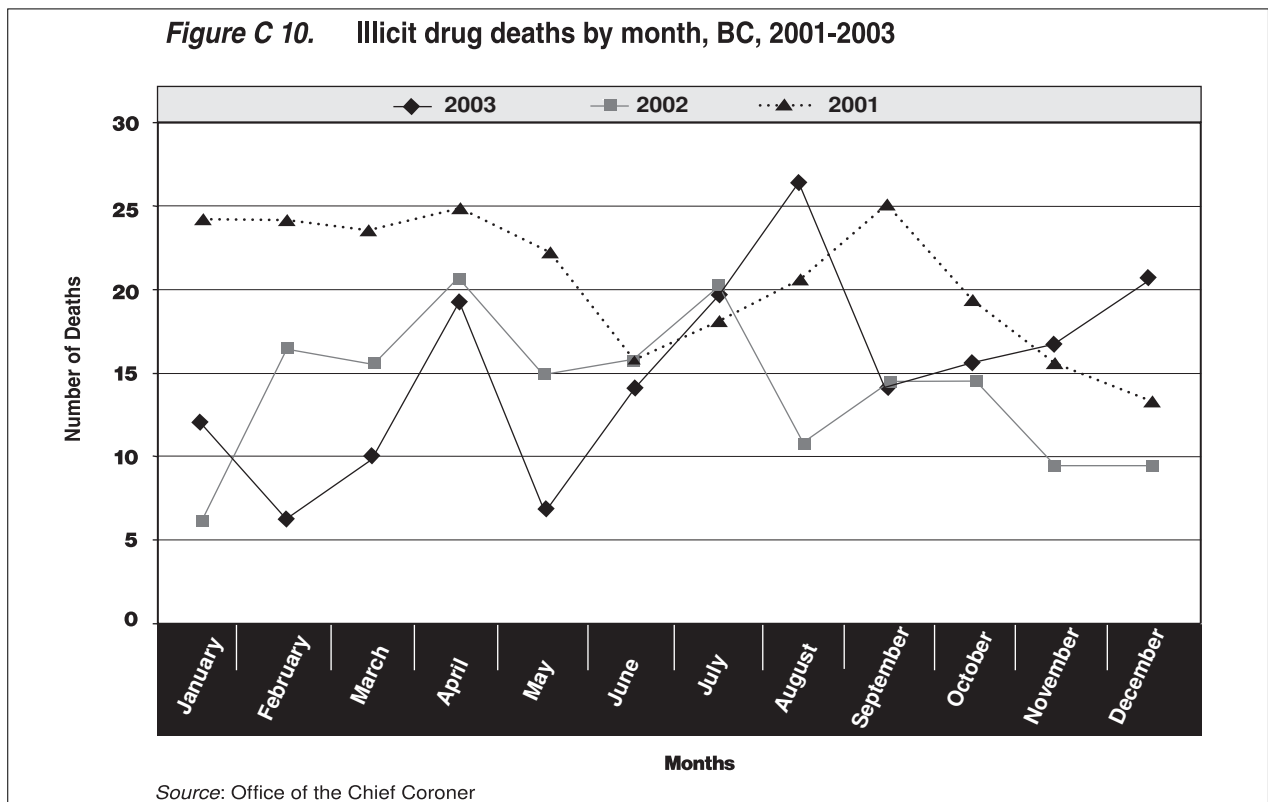
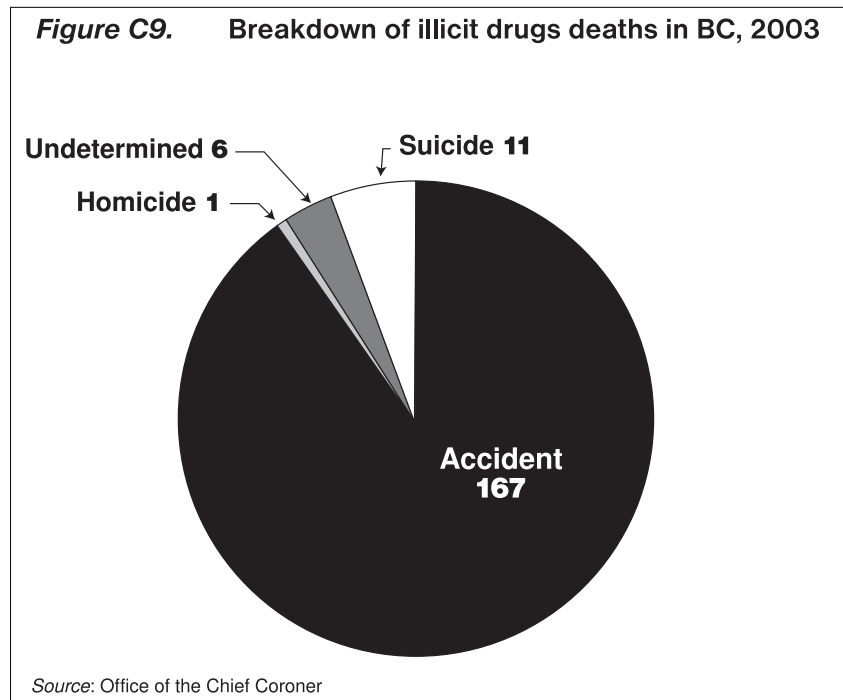
The IDD rate/100,000 can be seen in figure C8. From 1993 to 1998 the rate in Vancouver was more than 3 times that of the provincial rate but in 2002 and 2003 it was only about twice the rate.

Figure C8. Illicit drug death rates, Vancouver vs. BC, 1993-2003



Source: Office of the Chief Coroner

The majority of IDD are classified by the coroner as accidental (90% in 2003). In 2003 only 11 were determined as suicide; for a death to be classified as suicide there must be clear evidence of intent such as a note, therefore this category may be under reported (figure C9). Figure C10 shows the number of illicit drug deaths by month. In 2003 the highest number of deaths were reported in August with December and April following.



First Nations drug-induced deaths

First Nations and Inuit Health Branch partnered with the BC Coroners Service to review all Aboriginal death records 1996-2001 using BC Vital statistic agency data. Rates for drug-induced deaths were calculated for BC Status Indian (SI) and non-SI by health region. Unfortunately it was not possible to separate on and off reserve Status Indians. Status Indians had higher rates of drug-induced deaths in every region. The rate of drug induced deaths for Status Indian is 3 times that of non status; in rural areas of BC it was even higher at 4 times (figure C11).

Alcohol and drugs play a major role in injury deaths (figure C12); 34% of unintentional deaths were reported to be due to alcohol and drugs. Alcohol may be a contributing factor in other unintentional deaths, for example alcohol was a contributing factor in 59% of motor vehicle deaths.

Figure C11. Drug-Induced death rates by health region, Status Indians and non Status, BC, 1991 – 1999

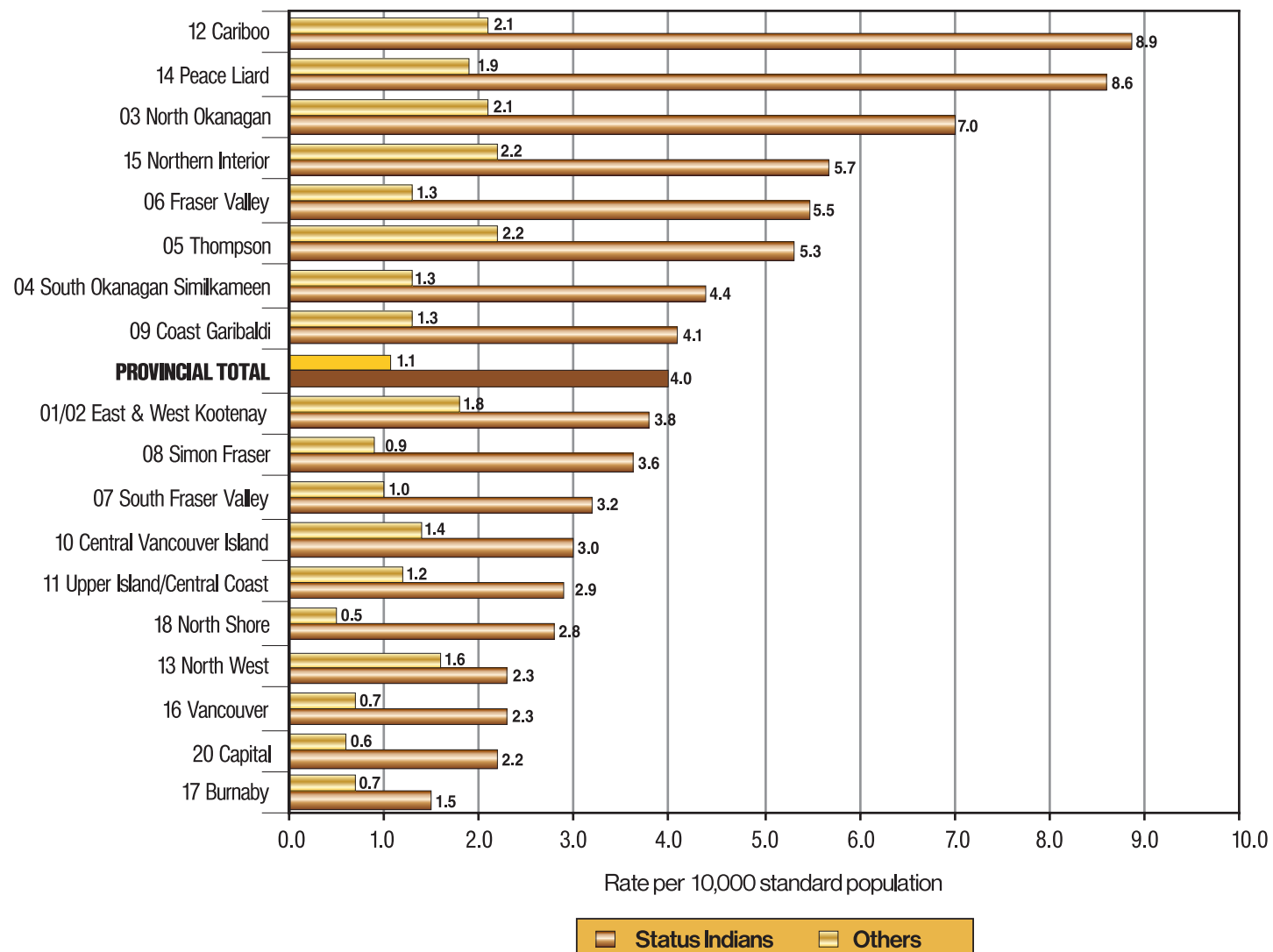


Figure C12. Unintentional deaths, Status Indians, 1996-2001

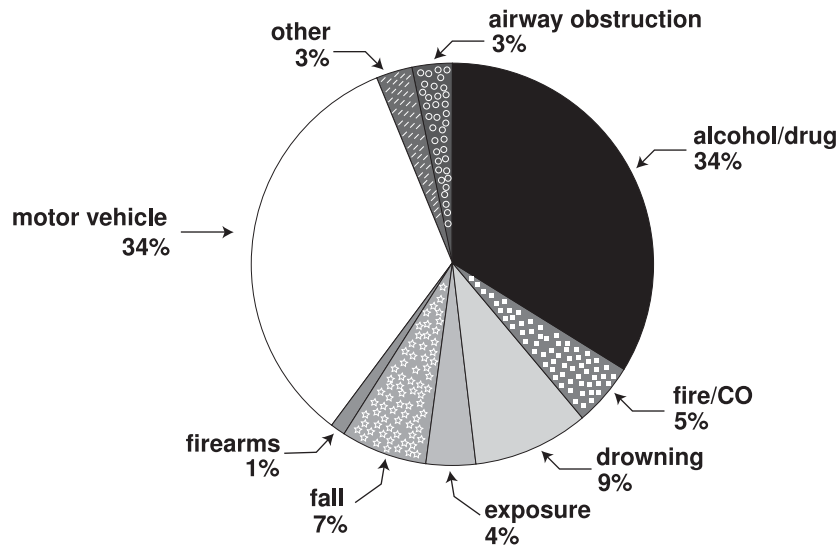


Table C4. Blood alcohol concentration (gm/100ml) in Status Indian deaths in BC, 1991-1999

Cause	% > 0.08
Homicide	43
Suicide	41
Undetermined intent	16
Unintentional	
Airway obstruction	33
Alcohol/drug poisoning	55
Fire or carbon monoxide	50
Drowning	40
Exposure	74
Fall	44
Firearms	33
Motor vehicle	52
other	6
All injury deaths	50

Table C4 shows the percentage of cases where blood alcohol was found to be >0.08gm/100ml (the legal limit for driving). The Canadian Medical Association has defined the blood alcohol concentration level of impairment for all people to be 0.05 grams/100 ml.

D. Harm Reduction Supply Services

Harm reduction

Effective harm reduction policy and programming rests on guiding principles that reflect a client-centered and ethical focus. The populations who are served by harm reduction activities are diverse and often already marginalized; and drug use compounds the stigmas they face. Individuals and systems involved in providing harm reduction supplies and services must respect human rights and the dignity of their clients by adhering to basic ethical principles such as fairness, beneficence and respect for autonomy. The aim is always to minimize the harm to both individuals and communities.

The Harm Reduction Program (previously known as the Needle Exchange Program) was transferred from the Ministry of Health Services to the Vaccine and Pharmacy Services, BC Centre for Disease Control, Provincial Health Services Authority on April 1st 2003. The provision of products and services to the end users are provided through a network of outreach service providers; the program currently serves 136 clients including health authorities and outreach-focused organizations. Products distributed include needles and syringes, condoms, lubricants, bleach and water vials. The latest BC Harm Reduction Supply Services (HRSS) policy and guidelines (November 2004) extends beyond the previous needle exchange policy. It is aimed at reducing harms from injection and other drug use. Core components include referrals, advocacy, education, and supplies distribution (http://www.bccdc.org/downloads/pdf/epid/reports/BC_HRSS_Policy_FINAL_October_26_2004.pdf)¹⁴.

Goals of BC Harm Reduction Services Supply policy

- 1.Reduce incidence of drug-related health harms, including transmission of blood-borne pathogens through needle sharing
- 2.Promote and facilitate referral to primary health care and addiction/mental health services
- 3.Increase public awareness of harm reduction principles, policies and programs.

The HRSS policy supports access to harm reduction supplies to whoever needs them regardless of the person's age, drug-using status, drug of choice, or residence such as a health facility or correctional centre. All programs should strive to provide maximum access to supplies and to distribute as many supplies as the individual client requires to meet their needs. It is deemed acceptable to provide supplies for the purpose of secondary distribution. There should be a strong emphasis placed on encouraging people to either return their used needles and syringes or to dispose of them properly. Monitoring of the program by Health Authority and HRSS agencies will include an account of needles provided, returned and reports of needles inappropriately discarded.

Needle (Syringe) Exchange numbers

In Vancouver needle exchange is available through all of the Vancouver Coastal Health (VCH) Community Health Clinics, the Health Contact Centre and community-based contracted service providers. All data for the decentralized needle exchanges in Vancouver is collected centrally by VCH. The expansion and decentralization necessitates an improved community needle sweep program to remove improperly discarded used needles from public areas.

Partnering with the City of Vancouver and community agencies, VCH is implementing a collection, education and monitoring system to reduce the amount of improperly discarded used injection equipment, educating the community and users on safety, and removing all debris from public areas as safely and as quickly as possible.

Prior to April 2003, the Downtown Eastside Youth Activities Society (DEYAS) needle exchange distributed, collected and collated the needle exchange numbers for all Vancouver. From 1998 to 2000 there was an increase each year in visits and the volume of needles traded. The reported volume of needles traded in 2001 and 2002 declined. In 2001 there were 197,277 visits (including visits by 218 new clients) to DEYAS fixed-site needle exchange, (down from 256,496 visits in 2000). The total needles distributed in Vancouver are shown in table D1. There was no evidence of an increase in volume of needle exchange in areas surrounding Vancouver to account for the decline.

Table D1. Needles distributed in Vancouver, 2000-2002

Year	D.E.Y.A.S		Other Vancouver		Total	
	Needles out	Needles in	Needles out	Needles in	Needles out	Needles in
2000	3,157,162	3,174,321	293,900	277,642	3,451,062	3,451,963
2001	2,800,667	2,814,787	460,929	460,789	3,261,596	3,275,576
2002	2,016,489	2,025,731	714,400	706,328	2,730,889	2,732,059

Due to a change in the responsible agency and data collection methods, the numbers of visits and needles exchanged before 2003 cannot be compared to 2003. Table D2 shows the numbers of needles distributed as recorded by VCH. The agencies reporting needle exchange are shown in table D3. However, some needle exchange providers including BCCDC Sexually Transmitted Disease Clinic, Street Nurses, Carnegie Street Outreach, and Pine Free Clinic are not reporting to VCH.

Harm reduction services budget

Each Health Authority is allocated a budget using the previous years spending patterns. The provincial budget predicted for 2004/05 is approximately \$1,750,000; more than double that spent in 2001/02 and will exceed the amount budgeted for 2004/05 by 50%. VCH has the largest spending deficit of all health authorities. The demand for HRSS continues to increase annually, as does the cost at a rate of about 30% per year. This may be due in part to increased access to services such as expansion of sites for needle exchange (including the supervised injection facility), changing the “1 to 1” needle exchange policy to a “needs based” exchange, and use of more expensive water vials instead of larger water bottles which previously could be shared. It is important that an increase demand for services is met to ensure harm reduction supplies are available to whoever needs them, but this should be done in a fiscally responsible manner.

Table D2. VCH Needle Exchange Totals for 2003

	Visits	Needles Recovered	Needles Distributed
January	4518	150444	170363
February	4836	154829	156505
March	4439	130106	160696
April	5008	140806	166641
May	7102	138225	178656
June	10353	126885	170836
July	10559	124199	166522
August	10167	131554	183999
September	9446	127418	163681
October	9917	123540	168544
November	7575	115069	144710
December	10521	160321	179278
TOTAL	94441	1,623,396	2,010,431

Table D3. Agency reports included in VCH needle exchange totals

VCH Clinics	Comments
3 Bridges	
Downtown	Extensive needle exchange only since late May 2003
Evergreen	Extensive needle exchange only since late May 2003
Health Contact Centre	Extensive needle exchange only since late May 2003
Insite	Data only for October 2003
North	
Pender	Extensive needle exchange only since late May 2003
Raven Song	
Agencies	
DEYAS	
DTES Women's Centre	
Grandview Woodlands Peer 2 Peer	Have not recorded client visits
HIV/IDU Services Consumers Board	
VANDU	First recorded needle exchange depot contacts in June

Distribution of mouthpieces for crack pipes

The VCH needle exchange program is launching a one-year pilot project to distribute crack pipe mouthpieces. The mouthpiece is simply a length of clear, food-grade plastic tubing, several inches long and about half an inch wide. It fits over the inhaling end of a crack pipe. The mouthpieces have been distributed previously by community agencies, and clients have expressed considerable interest.

A crucial component of this project is to provide education on harm reduction and health promotion for non-injecting crack users. This population faces significant marginalization and unique health risks associated with their drug use. A crucial step toward providing health interventions is to make initial contact with the clients.

Methadone in BC

Methadone is a synthetic opiate-like medication used to treat heroin addiction. It can be taken orally, has a slow onset of action and does not result in continuing tolerance, allowing a relatively constant dose over time. Methadone does not cause euphoric or sedating effects and is long acting. Outpatient methadone treatment programs administer methadone to reduce patients' cravings for heroin and block its effects.

Some patients move from methadone to abstinence while others remain on methadone indefinitely. Studies have shown that methadone maintenance reduces morbidity and mortality, diminishes the users' involvement in crime, reduces the risk of contracting HIV and helps drug users to gain control of their lives.

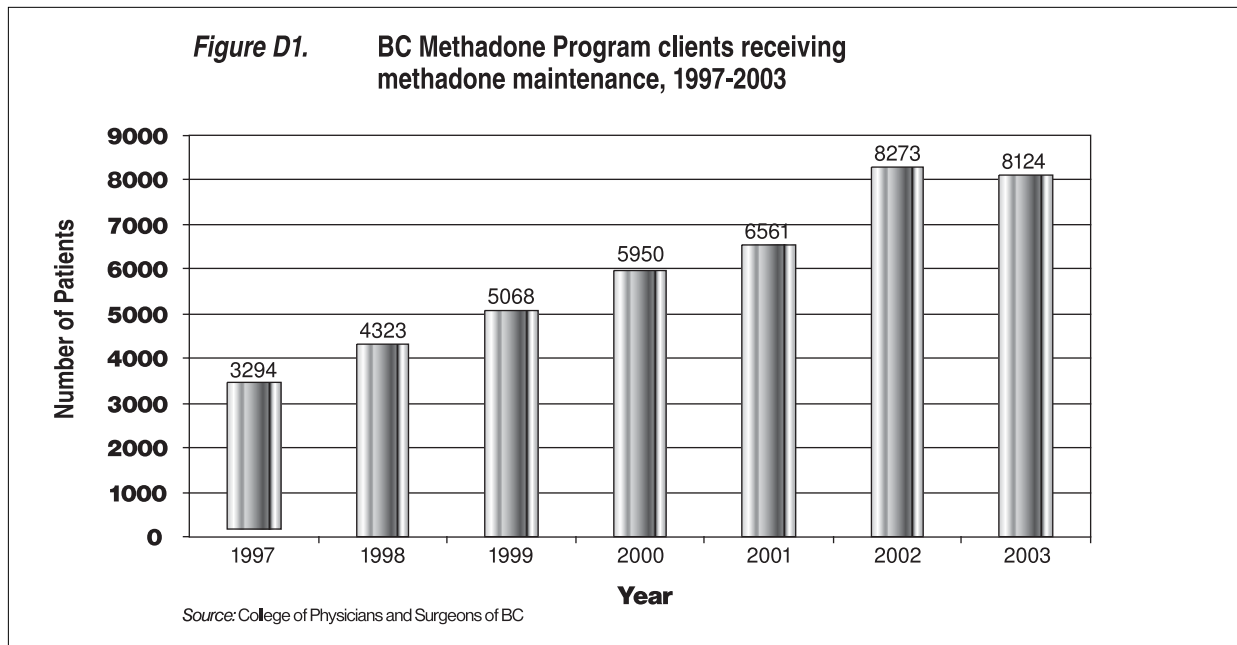
The College of Physicians and Surgeons of BC (CPSBC) monitors the standards of care provided by the BC methadone program to heroin dependent patients throughout the province. The methadone Program is supervised by the Advisory Committee on Opioid Dependence (ACOD). The Methadone Program has undergone administrative review and changes in reporting. In the past all physicians who held an exemption to prescribe methadone, regardless of indication, were counted in the report. Therefore previous numbers included those physicians who held an exemption for prescribing methadone for pain. Similarly the number of clients reported on treatment also included patients who received methadone for management of pain.

There are 301 physicians reported in the 2004 CPSBC annual report as currently authorised to prescribe methadone for maintenance in BC; this is almost half of 594 that were reported in 2003. The number of clients receiving methadone maintenance has also declined slightly (figure D1)

(https://www.cpsbc.ca/resources/cps/physician_resources/publications/annual_reports/document_uploads/2004_annual_report_72.pdf).¹⁵ No statistics regarding the age and gender of patients or the distribution of prescribing physicians have been made available since the last CCENDU report so are not reported here.

The retention of the client cohort entering the BC methadone program 1996-1999 was examined; 52% of program entrants were still receiving methadone one year after entry; 24% had left the program but later returned and the remaining 24% left but did not return to the program during the time period studied. The median and mean age of the group who remained in treatment was the oldest, and those who left but returned were youngest. Gender of the client appeared to have no effect on retention. However, the average daily dose of methadone was a predictor of retention in the program.¹⁶

In a sub cohort of VIDUS study, IDUs <29 years of age, accessing methadone maintenance therapy in the previous 6 months was found to be protective for acquiring co-infection with HCV and HIV.¹⁷



There are 10 adult and 3 youth custodial centres in BC receiving over 30,000 admissions per year. Methadone continuation is provided on admission for patients who have been on a recognised methadone maintenance program in the community. There is limited capacity for initiation of methadone maintenance in provincial correctional facilities, due to high turnover of inmates and short length of stay- usually under 30 days.

Further expansion of methadone programs should take into account the need for programs in prisons and consider offering methadone treatment as an alternative to imprisonment and other forms of criminalization- i.e. drug courts (see section B).

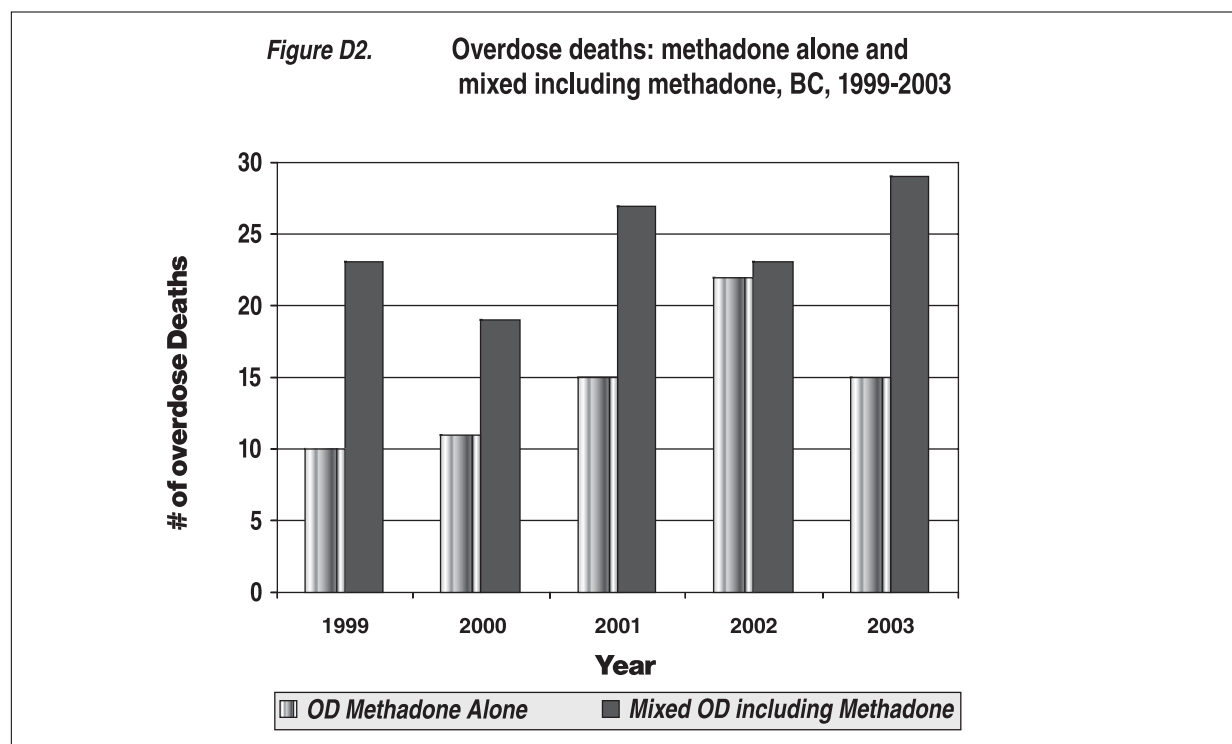
Methadone deaths

Reports linking 258 deaths with methadone in Ontario over the past 4 years are being investigated by the Coroner's office.¹⁸ Although methadone is detected, it is not necessarily the cause of death. BC Coroners Service reviewed the BC data, which is shown in figure D2. Whether those who died had been prescribed methadone or obtained it illicitly is not recorded.

Supervised injection site (facility)

'Insite', the first supervised injection facility (SIF) pilot program in North America was opened in Vancouver on September 22, 2003. Section 56 of the Controlled Drugs and Substances Act (CDSA) was used to designate staff and users at the supervised injection facility as exempt from criminal liability for offences such as possession of a controlled substance. SIFs were discussed in detail in the 2003 CCENDU report (http://www.ccsa.ca/ccendu/pdf/report_vancouver_2003.pdf).¹⁹

Federal approval for a 3-year pilot site was granted on the condition that a rigorous external scientific evaluation was undertaken. The evaluation of Insite is coordinated by BC Centre for Excellence in HIV/AIDS and will include health and social impacts. An electronic database was implemented in March 2004. Daily visits, though relatively stable, have slowly increased to an average of 588 visits per day in August 2004; monthly visits are



shown in Table D4. More visits have been recorded during the last week of the month, which corresponds with the timing of welfare cheque distribution (http://www.vch.ca/sis/Docs/esis_year_one_sept16_042.pdf).²⁰

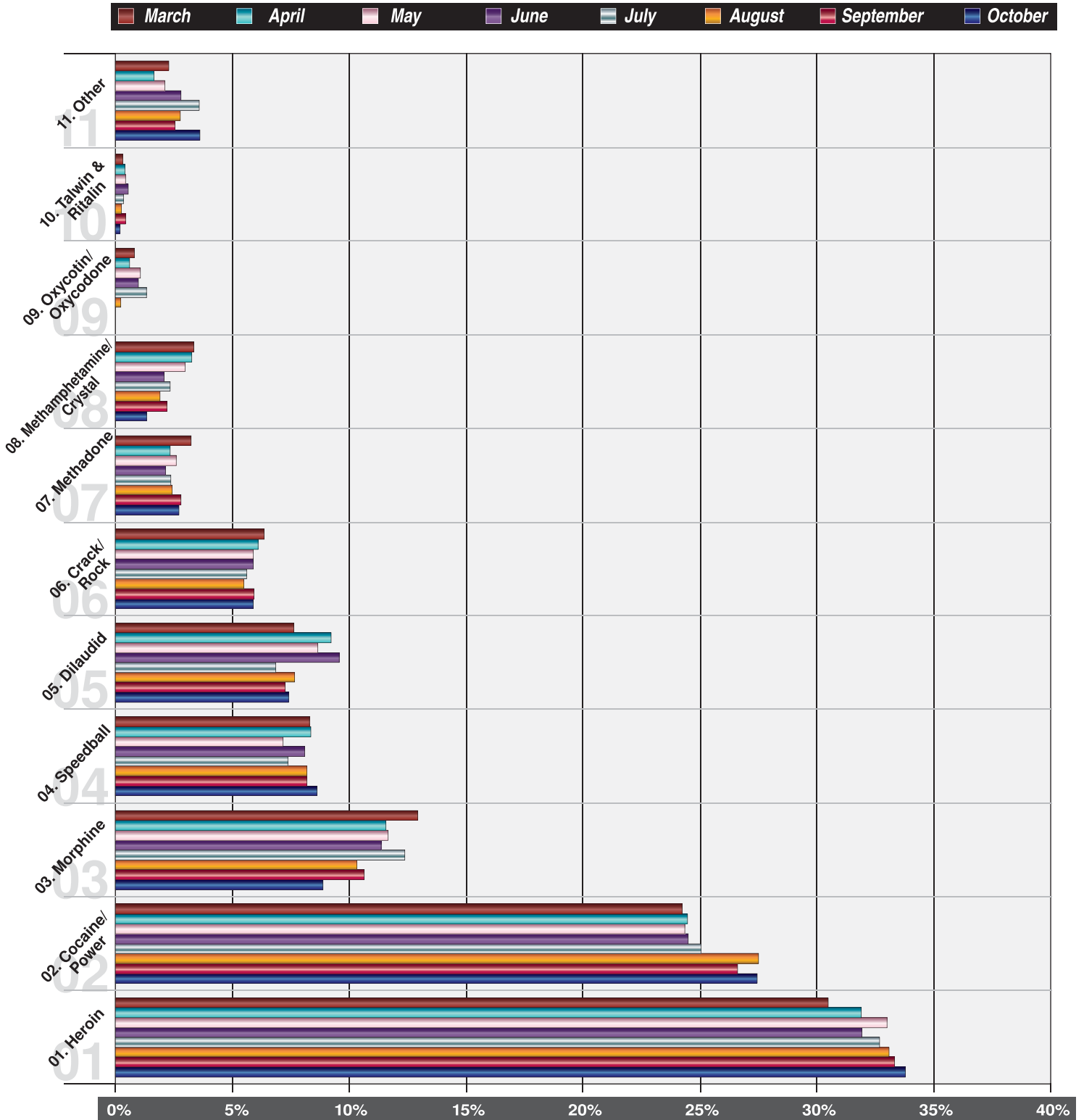
Table D4. Frequency of injections by month in 2004 at Insite

Frequency of injections	March	April	May	June	July	August
Number of injections	9,620	13,377	14,299	14,004	14,374	14,288
Number of persons	1,027	1,205	1,215	1,220	1,236	1,312
Number of injections/person	9.4	11.1	11.8	11.5	11.6	10.9

An average of 90 referrals is made from Insite every month and about half of these are to addiction counseling services. No deaths have occurred at Insite since it opened. Between March 10 and end of August 2004, 107 overdoses were reported among 72 clients. Response to overdoses included oxygen administration, calling 911 and giving narcan. Three clients had an airway inserted and one required cardio pulmonary resuscitation. Injection-related public order problems during the 6 weeks before and 12 weeks after the opening of the SIF were assessed using a prospective data collection protocol. The number of drug users injecting in public, and publicly discarded syringes and injection-related litter were all reduced in the 12-weeks following the SIF opening.²¹

A prospective cohort of a random selection of persons using the SIF will be followed up every 6 months for the 3-year study period. The enrollees to date are 70% male, 21% First Nations, 68% live in the DTES; of the 35% living within 3 blocks of SIF 35% live in hotel, 22% have no fixed abode/street, 19% are in an apartment, and 24% other. Preliminary testing of the cohort showed prevalence of HIV to be 17% and the prevalence of hepatitis C, 87%. Heroin accounts for a third of all substances injected, cocaine about a quarter and morphine about 10% (figure D3).²⁰

Figure D3. Percentage of substances used by persons attending supervised injection facility by month, 2004



Source: BC Centre for Excellence in HIV/AIDS, Evaluation of the Supervised Injection Site; Year One Summary - September 17, 2004

North American Opiate Medication Initiative (NAOMI) Trial

The objective of the NAOMI trial is to determine whether the provision of injectable pharmaceutical grade heroin (in combination with methadone if desired) is more effective than oral methadone maintenance therapy alone in recruiting, retaining, and benefiting chronic treatment resistant injection opiate users.

While methadone is effective for many addicts, there is a substantial proportion of people with opiate addiction who do not benefit from methadone maintenance therapy. The individuals in this treatment-refractory group could represent just 5% of the heroin-addicted population, but they account for a disproportionately large percentage of the opiate-related problems undermining public health, criminal justice and public order. Studies in Switzerland and the Netherlands have indicated that heroin maintenance can be useful in helping a limited number of chronic users to stabilize their addictions, reduce criminal activity and lead more healthy and productive lives.

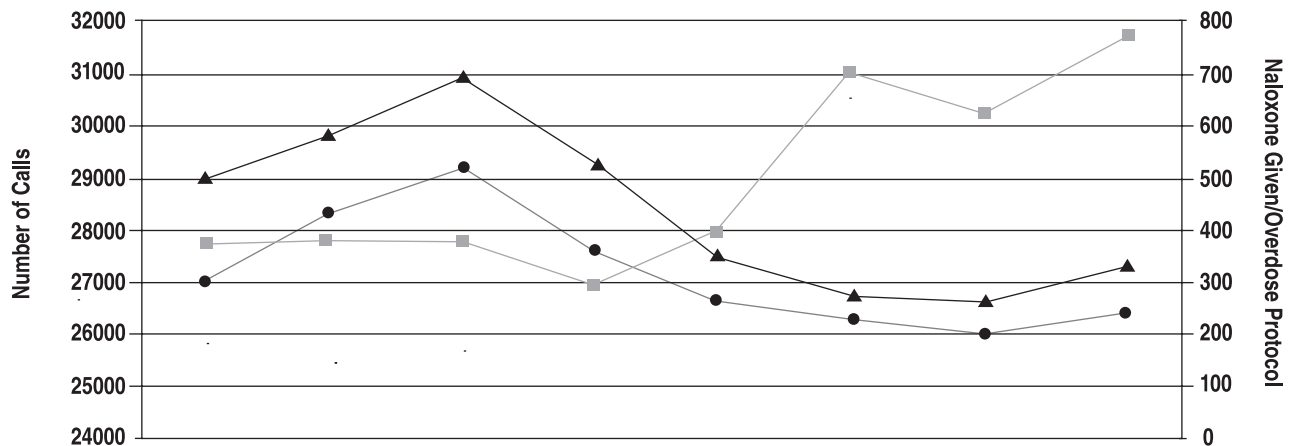
NAOMI is a clinical trial (carefully controlled medical-scientific study) sponsored by the Canadian Institutes of Health Research. It will test whether prescribed heroin can successfully attract and retain street heroin users who have not benefited from previous repeated attempts at methadone maintenance and abstinence programs. The study will enroll 420 participants at three sites (Vancouver (158), Montreal and Toronto). About half of these volunteers will be assigned to receive pharmaceutical-grade heroin (diacetyl-morphine) to inject 3x/day, 7 days/week under supervision of a physician and half will receive oral methadone. An additional 50 volunteers will be treated with medically prescribed Dilaudid (dihydromorphone) as an additional control.

The Vancouver NAOMI clinics opened in February 2005. Montreal and Toronto will start later in the year. Each participant will be treated for 12 months then transitioned into either abstinence or methadone maintenance (http://www.naomistudy.ca/pdfs/naomi_brief.pdf).²²

BC Ambulance Services

Ambulances from 4 ambulance stations (242, 245, 248, and 261) may serve the DTES, but 2 stations (242 and 248) receive the majority of calls. The total number of ambulance calls decreased slightly from 1998/99 to 1999/2000; but has increased again from 2000/01. The number of calls where naloxone was given, and where overdose protocol was initiated both showed a significant downward trend from 1998/99 to 2002/03 but rose again in 2003/04. The trend for the 2 stations shown in figure D4 are mirrored in the trend for all 4 stations overall.²³

Figure D4. Ambulance calls for 2 stations (242, 248) that serve majority of DTES calls, Vancouver, 1996-2004 (fiscal year)



	1996/1997	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
■ Responses (2 Stations)	27602	27730	27712	26996	27953	31171	30482	31598
▲ Naloxone (2 Stations)	499	586	689	521	357	278	268	329
● Overdose Protocol (2 Stations)	301	433	515	384	271	229	201	237

YEAR

VCH Addiction Services

VCH continues to integrate and expand addiction services programs. The transfer of addiction services from the Provincial Government to the then Vancouver Richmond Health Board began with contracted service providers and Vancouver Detox in 2000. The VCH Vancouver Community assumed management responsibility for the Alcohol and Drug Outpatient Clinics in April 2002. The redesign process was built on community consultations and documents outlining the gaps in addiction services and proposed programs to address the gaps.

The first piece of the redesign of Addiction Services programs was to implement the core addiction services teams at each Community Health Centre (CHC). The goal of this model is to increase access at the local CHC, to decrease inconsistencies and inequity in the delivery of care and ultimately to provide a more effective, timely and appropriate quality of service. Each team consists of a clinical supervisor, adult counselor(s), youth counselor and prevention worker.²⁴

There are currently 4 levels of detoxification available in Vancouver (table D5):

- ▼ Level I > Home Detox
- ▼ Level II > Daytox (Intensive Day Treatment with Physician and Nursing Services)
- ▼ Level III > Non-Medical/Social Residential Withdrawal Management (Cordova Detox)
- ▼ Level IV > Medically Monitored Residential Withdrawal Management (Vancouver Detox)

Table D5. Addiction treatment services in Vancouver

Day Treatment Services	Family Services of Greater Vancouver		Daytox VCH	Watari Yth	TOTAL
	Groups	Referred Elsewhere			
# of clients served (annual)	266	153	1,547	306	2,119
Average served (month)	22	38	227	26	275

Withdrawal Management	Van. Detox	Cordova Detox	Youth	TOTAL
# of clients served (annual)	1,770	1,920	831	4,521
Average # of clients/month	147	160	69	307
Average # new referrals (month)	123	n/a	n/a	
# bed days utilized (annual)	n/a	9384	3357	
Average Length of Stay (days)	5 to 7	5 to 7	n/a	
Capacity (beds)	24	29	9	53

NOTE: All numbers are subject to multiple counting. Therefore, these numbers are not the actual number of new different clients but are a good estimation.

Residential Treatment	Pacifica Treatment Centre (Adult)		Peak House (Youth)	TOTAL
	Intensive	Stabilization		
# of clients served (annual)	165	255	52	472
# bed days utilized	3327	6052	1712	11091
Capacity (beds)	12	22	6	40

Counselling Services	SWAP*		CHCs**	Youth	TOTAL not incl. 'Drop-ins'
	Counselling	Drop-ins	Counselling	Counselling	
# unique clients served (annual)	1,320	1,726	1,982	973	4,275
Average # served (month)	110	144	1,665	81	1,856

*SWAP= Senior Well Aware Program

**note: CHC = Community Health Centre- DCHC data has not been reported so not included

NOTE: All numbers are subject to multiple counting. Therefore, these numbers are not the actual number of new different clients but are a good estimation.

Access 1

Access 1 was started at VCH in Sept 2002 and operates 9 am to 9 pm. It is a telephone based, centralised access system of referral and screening service, matching patient needs to the level of withdrawal management service/care. It has reduced the waiting times and improved utilization of resources. There are separate lines for clients and physicians. Before Access 1 was introduced, multiple calls to the same, or different detox centres were time consuming. A long waiting time (up to 6 weeks) delayed referral to other agencies or resources. A central phone number allows quicker access to detoxification services and earlier referral to other resources so the nurse has more time to spend on patient care. There is also easy access to data and patient "tracking"

There are between 1300 and 1500 calls per week with the peak demand 09:00 - 11:00 Initially most calls were placed in a queue before being answered leading to 22% of calls being abandoned due to wait in queue. After adding 1 full time equivalent position additional resources during peak times most calls are answered quickly. Continued quality improvement is possible through improved data monitoring.

Access to health care

Of the HIV negative IDUs enrolled into the VIDUS cohort only 19.7% were in addiction treatment services at baseline. A prospective analysis was done of factors associated with syringe borrowing (a high risk activity for acquiring HIV) to evaluate whether IDUs who reported inability to access addiction treatment were at elevated risk of HIV infection. Elevated rates of syringe borrowing was found in the 6 months prior to the interview among IDUs who also reported having had an unsuccessful attempt to access addiction treatment during this period. Unsuccessful attempt to access addiction treatment was independently associated with syringe borrowing during follow-up (Adjusted OR=1.29, [95% CI 1.09-1.53]; P=0.003). Factors independently associated with syringe borrowing included daily cocaine and heroin injection, difficulty accessing syringes, requiring help injecting, and binge drug use.²⁵

High rates of emergency room (ER) use among IDUs have been repeatedly attributed to lack of access to primary care and barriers to healthcare. This relationship was examined on a community sample of IDUs, following expansion of primary care services in DTES. From January 2003 to November 2003, 78% of 883 Community Health and Safety Evaluation (CHASE) project (see page 45 for more details) participants reported use of primary care clinics in DTES in the previous year, with median number of primary clinic visits of 8. During the period examined, 528 (60%) participants accessed ER, with median number of ER visits being 1. Abscess, cellulitis and other skin infections accounted for the greatest number of visits (18.3%), while substance use and overdose accounted for 7.2% of visits. Factors independently associated with ongoing frequent ER use included frequent crystal methamphetamine injection, non-fatal overdose, HIV-positive status, having been physically assaulted, and primary care use. These findings do not support the contention that high rates of ER use by IDUs are due to limited access to primary care. They can be explained by high prevalence of HIV and HCV infection among IDUs and the related need for care, detection and referral of acute medical conditions within primary care settings, and type of injuries that often cannot be adequately managed in primary care settings. These findings suggest that interventions other than primary care services, including those that promote sterile injection, are needed to offset ER visits by IDUs.²⁶

Hospitalization for drug and alcohol dependency

The rates of hospitalisation for drug and alcohol dependency has varied considerably between community health areas in Vancouver in the past. Unfortunately, due to lack of resources to extract the information, no update data on hospitalisation were available at the time of preparing this report.

Communicable diseases related to drug use and living in DTES

Homelessness, poverty, crowded housing, chronic illness and substance abuse and other risk behaviours put residents of DTES at risk for communicable diseases. Hepatitis C and HIV are discussed in detail in section E.

Immunization blitzes

The incidence of acute hepatitis B infection in Vancouver in 1997 was 8 times that of the rest of the province (<http://www.bccdc.org/downloads/pdf/epid/reports/ar98-epid.pdf>)²⁷; outbreaks of hepatitis A in single room occupancy hotel residents and IDUs, the potentially fatal risk of superinfection of hepatitis A in patients chronically infected with hepatitis B or C, and previous poor uptake of influenza and pneumococcal vaccines led to the introduction of immunization 'blitzes' in 1999. The goal was to minimize the burden of illness due to these vaccine preventable diseases in this vulnerable population. These blitzes are described in the 2003 CCENDU report and article.²⁸

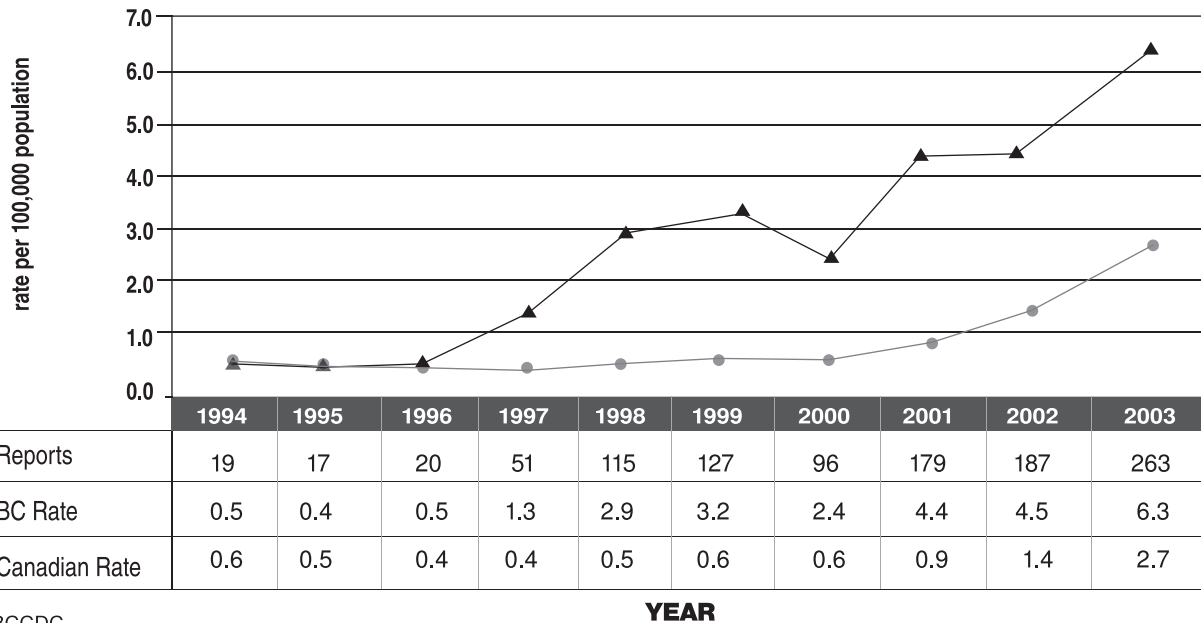
Since implementation of the blitzes, the rate of acute hepatitis B in Vancouver has declined (only 20 cases reported in 2003) and hepatitis A cases are rarely reported in residents of the DTES. Hepatitis A and B vaccines have continued to be offered in primary care clinics and by street nurses. Primary care clinics will enter immunizations given into the new Vancouver data base system. Influenza blitzes have continued annually. In 2003 4,870 doses of influenza vaccine were administered in the blitz format in the DTES with additional doses given by street nurses and at primary care clinics.²⁹

Syphilis

An outbreak of syphilis, which began in Vancouver in 1998, continues. The mean annual number of cases of syphilis in BC from 1992-96 was <20, in 1998 the number of cases rose to 115. In early 2000, a targeted mass treatment program provided oral azithromycin to at-risk residents in Vancouver. After the program, the number of syphilis reports fell significantly but rose again in 2001, and have continued to increase in 2002 and 2003. Although the Canadian rate has increased the BC rate remains 3 times higher than the national rate, see figure D5. The majority of cases (75% in 2003) continue to be identified in Vancouver, see figure D6 (http://bccdc.org/downloads/pdf/std/reports/syphilis_2003.pdf).³⁰ A social networking approach and increasing public awareness is being used to address the outbreak (http://www.bccdc.org/downloads/pdf/std/reports/STD_2002_annualreport.pdf).³¹

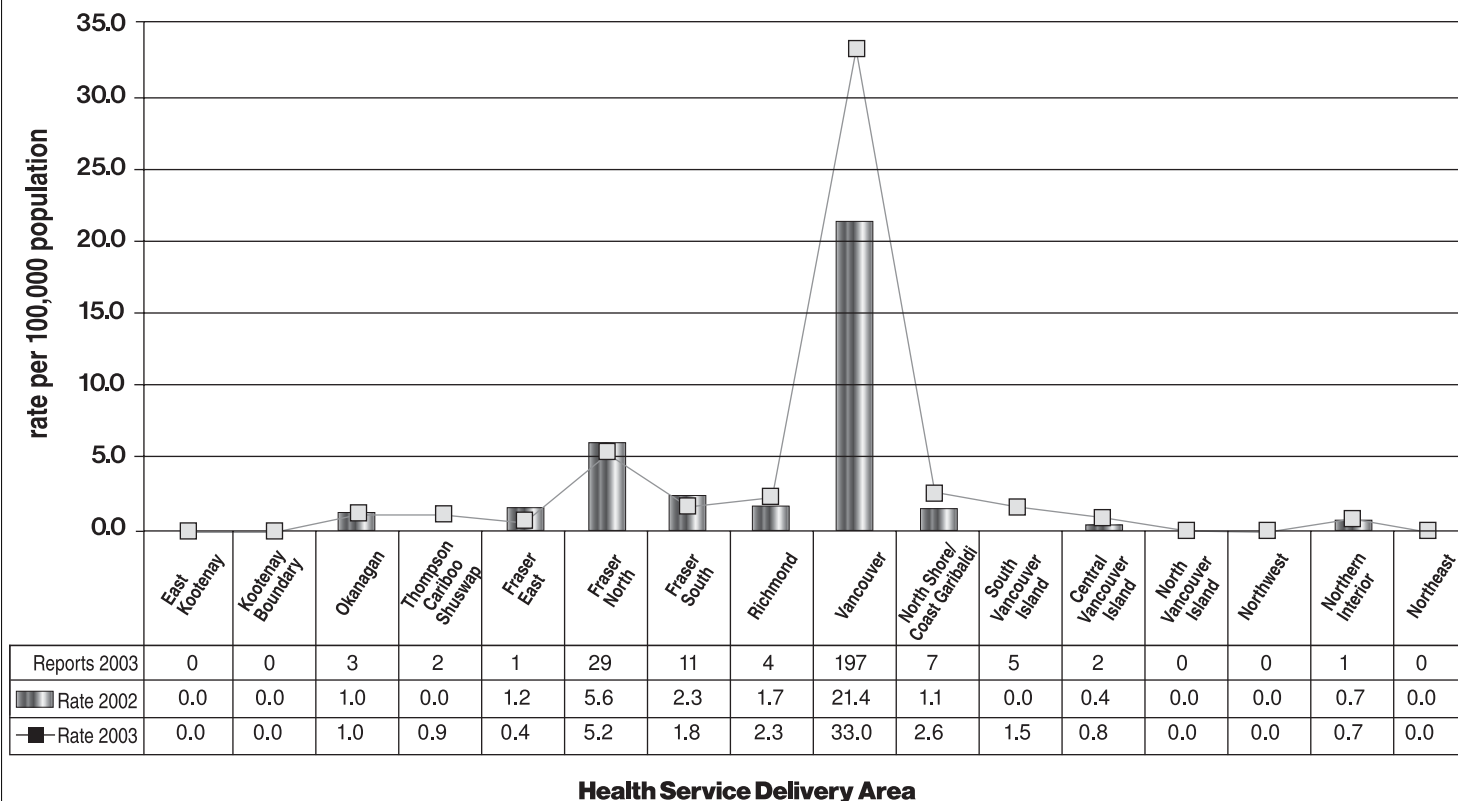
The rate in males increased more dramatically than the rate in females, reflecting the rapidly spreading outbreak in the gay community where as previously cases were mainly related to DTES and sex trade workers and their clients.

Figure D5. BC infectious syphilis disease case reports and rates, 1994 to 2003



Source: BCCDC

Figure D6. BC infectious syphilis disease case reports and rates by Health Services Delivery Area, 2002 and 2003



Health Service Delivery Area

Tuberculosis (TB)

Those living in the CHA2 are at increased risk for both primary infection with TB and reactivation of latent TB infection. The CHA2 of Vancouver is the only area in BC where TB transmission is known to occur. Substance abuse, poor nutrition, and concurrent HIV infection all increase the risk of reactivation of latent TB. As shown in the table below, the incidence of TB in the CHA2 was higher than in any other CHA of Vancouver, though the difference in incidence was statistically significant only for CHA1 and CHA4

(http://www.bccdc.org/downloads/pdf/lab/reports/annual_report_2003.pdf).³²

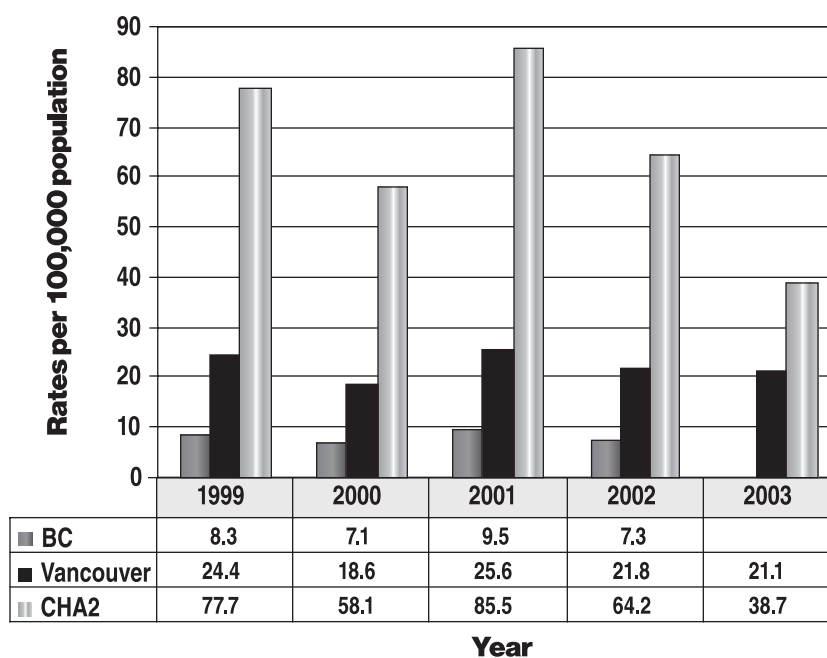
Table D6. Incidence proportion of tuberculosis in Vancouver in 2003

CHA	Number of Cases	Estimated Population	Cases/100 000
CHA1	6	97157	6.2*
CHA2	20	51679	38.7
CHA3	27	97433	27.7
CHA4	9	121148	7.4*
CHA5	27	86624	31.2
CHA6	33	123993	26.6
Vancouver Total	122	578034	21.1

* Statistically significant when compared to CHA2

The number of cases of active TB in the CHA2 has declined from 2001 to 2003, and the decline over these two years is statistically significant (figure D7).

Figure D7. TB Incidence rates in BC (per 100,000 population), 1999-2003



Source: BCCDC TB Control

The Expanded DTES TB Elimination Initiative is a coordinated effort by the BCCDC and VCH. The initiative aims to reduce the rate of new active TB to 20/100 000 by 2006, identify and offer treatment to a minimum of 75 persons with latent TB per year, and enhance awareness of TB in the DTES. One full-time nurse and outreach worker ensure that Directly Observed Therapy (DOT) for active TB is the standard of care in the DTES. Of the 21 active cases in the DTES in 2003, 8 have completed therapy, 3 are continuing therapy, 3 are deceased and 7 are incomplete. Screening of high-risk groups is an added activity. An additional full-time temporary outreach worker was hired in 2004 to help achieve these goals.

Current activities of the TB elimination initiative include outreach screening at sites identified through social network survey as possible sites of transmission, active case finding, and education. Educational materials are being developed for residents of the DTES, managers of single occupancy hotels and other service providers in the DTES. A protocol for DTES clinics is also being developed to help ensure that TB skin testing and symptom screens are part of routine primary care in the DTES. A program, based on the successful immunization blitzes, is being planned which will involve health care volunteers from the DTES community participating in active case finding. The initiative will be evaluated at the end of the current fiscal year.³⁵

E. HIV/AIDS

Human immunodeficiency virus (HIV) continues to be a problem in Vancouver. Transmission occurs when the bodily fluid of an infected person comes into contact with a person's mucous membrane, non-intact skin or through penetrating needle injury or sharing needles. It can also be transmitted in utero from mother to baby. The most frequent modes of transmission include: homosexual anal sex, sharing needles for injection drug use, and heterosexual vaginal or anal sex.³⁴

HIV testing is offered at public health clinics, general practitioner offices and hospitals throughout the province. People with known risk factors for HIV are recommended to be tested on a regular basis. People at high risk for acquiring HIV include people with a history of multiple sex partners, men who have sex with men (MSM), and users of illicit drugs. Any drug use, not only intravenous, is considered a risk factor for HIV, because it is associated with multiple sex partners and exchange of money for sex.³⁴ Testing is also recommended for all pregnant women, because if HIV is detected they can be offered drug therapy to reduce the likelihood of transmission to the fetus. Testing is also considered for anyone presenting with diseases associated with a compromised immune system. Ultimately, HIV-testing is currently available in BC for anyone who requests it.

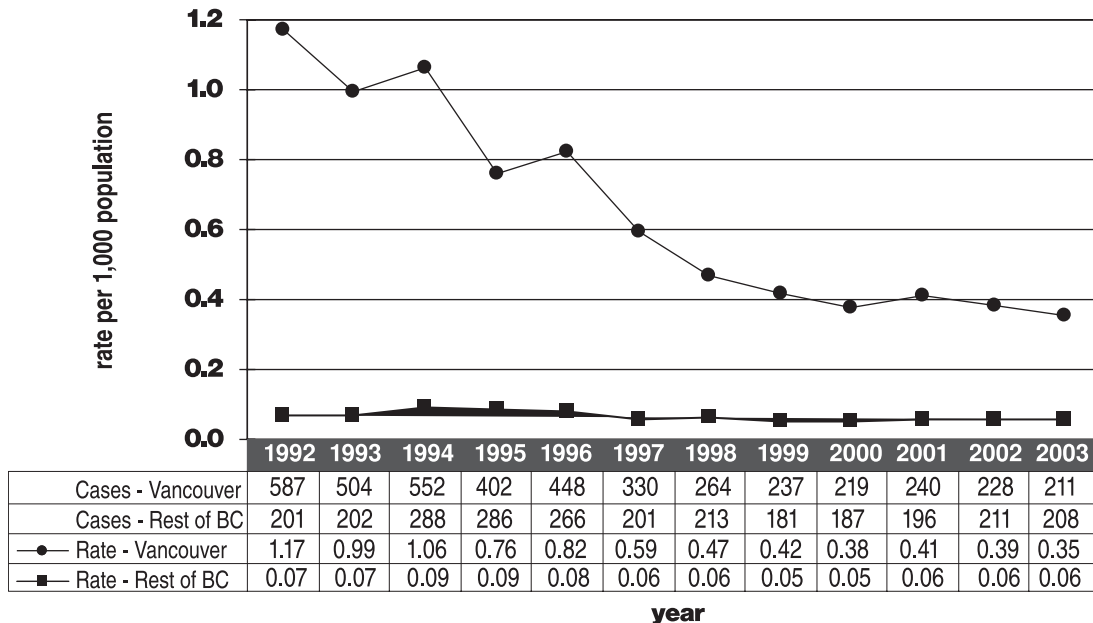
Since May 2003, BC has required mandatory reporting of HIV positive tests results. This new system allows Public Health to follow up with each individual affected. Active counseling of the infected individual and their partner(s) will hopefully result in improved testing of contacts and precautions to prevent further spread of HIV.

The BCCDC, the site of all HIV testing in the province, is the major source of information on HIV epidemiology in BC. However, variations in new positive tests may not correspond directly to disease incidence because of several factors: HIV infection may remain asymptomatic for several years and a newly positive test may reflect past infection. Many people living with HIV in BC may not have been tested, and IDUs are likely over-represented in this group.

Prevalence of HIV in the VIDUS cohort is 31%³⁵, however preliminary testing of clients at Supervised Injection Facility showed an HIV prevalence of 17%.²¹ The CHASE project is an ongoing prospective cohort study that began recruitment in January 2003 and has recruited over 2,200 residents of the DTES. In addition to the collection of self-reported information, linkages were made with the HIV and HCV provincial database at the BCCDC in order to determine the rates of infection using all previous test results accrued by the study participants. In this cohort in 2003 the incidence and prevalence of HIV was 1.5% and 17% respectively.³⁶

Figure E1 describes the number of new positive HIV tests and rates (per 1000 population), 1992 to 2003 (http://www.bccdc.org/downloads/pdf/std/reports/2003_update_report.pdf).³⁷ The rate of positive HIV testing in Vancouver reached a peak in 1992, and has since then been declining. The rate in the rest of BC has remained relatively constant over this time period. In 2003, Vancouver residents represented approximately 50% of all new positive HIV tests in the province.

Figure E1. New HIV infections – Cases and rates per 1,000 population, Vancouver and rest of BC, 1992-2003



Source: BCCDC Sexually Transmitted Disease Control

The number of newly identified cases of HIV by CHA are shown in table E1. CHA2 has less than 10% of the population of Vancouver but more than 20% of the HIV cases.

Table E1. Persons with newly positive HIV tests in Vancouver HSDA, 1995-2004, by Community Health Area

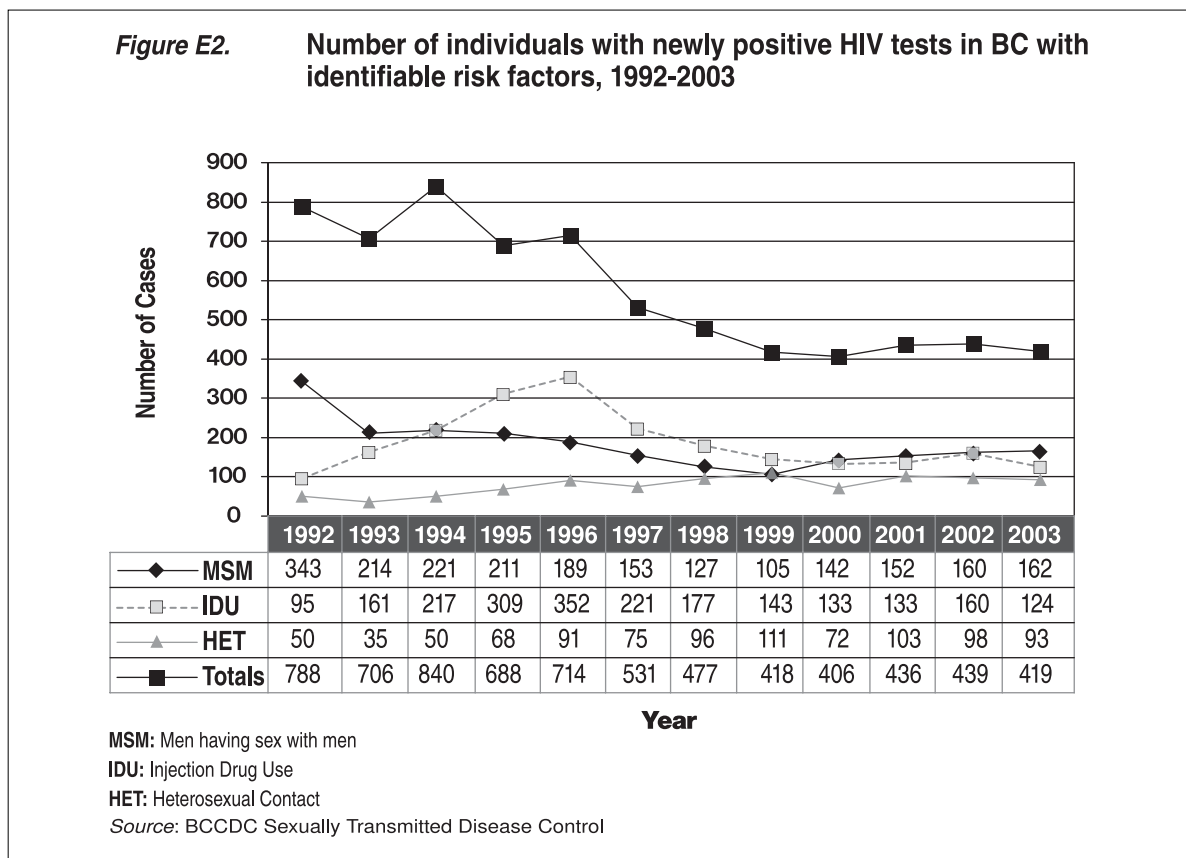
Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004*
Vancouver - City Centre	245	274	207	166	154	135	141	124	127	83
Vancouver - DTES	96	110	74	58	56	40	45	36	33	34
Vancouver - North East	15	21	16	8	9	11	8	11	7	6
Vancouver - Westside	11	22	16	10	8	10	7	16	6	5
Vancouver - Midtown	23	13	15	19	6	6	9	17	15	9
Vancouver - South	9	7	6	7	6	1	5	7	3	1
Vancouver - CHA not known	2	0	0	0	0	16	24	17	19	7
Vancouver HSDA total	401	447	334	268	239	219	239	228	210	145
% total Vancouver in DTES	23.9	24.6	22.2	21.6	23.4	18.3	18.8	15.8	15.7	23.4

*The 2004 numbers represent the period Jan 1 to Sep 30, 2004.

Source: BCCDC Sexually Transmitted Disease Control

Risk factors

Figure E2 describes the number of new positive HIV tests by risk factor group (where identifiable).³⁷ From 1994 until 1999, injection drug use was the predominantly reported mode of HIV transmission in BC. In 2000-2001, however, approximately equal numbers of newly identified HIV-infected individuals were IDUs and MSM. In 2003, the number of IDUs testing positive for HIV dropped slightly (from 160 to 124), while the numbers remained constant in MSM (from 160 to 162). Data for VCH is shown in table E2.



A recent study in Vancouver followed 940 HIV-negative participants, who had injected drugs at least once during the month before recruitment. During 31 months 109 new HIV infections were documented among this population. Risk factors associated with seroconversion, included: injecting cocaine at least weekly, borrowing used needles, incarceration, unstable housing, methadone maintenance treatment, more than 20 lifetime sex partners, and receiving payment for sex. Of all these factors, the strongest predictor for acquiring HIV was injecting cocaine.⁵⁸ The risk of becoming infected was directly associated with the frequency of cocaine injection. For many injection drug users, cocaine is used frequently and repeatedly in 'drug runs'. The researchers hypothesized that the ability to find clean needles during these intense periods of drug use may be compromised, leading to needle-sharing. There may also be increased sexual risk taking.

Table E2. Number of individuals with newly positive HIV tests in VCH by risk factors, 1999-2003 and 2004 YTD

		1999	2000	2001	2002	2003	2004*
RICHMOND	MSM	2	2	2	2	2	3
	IDU	5	2	1	2	2	2
	HET	5	1	3	5	3	1
	Other	1	0	0	0	0	1
	NIR	0	0	0	0	0	0
	Unspec	0	1	0	0	0	0
	Total	13	6	6	9	7	7
	Rate	7.8	3.6	3.5	5.2	4.0	5.3
VANCOUVER	MSM	74	104	120	116	101	63
	IDU	85	65	58	69	60	28
	HET	46	24	42	34	34	14
	Other	2	2	4	2	3	3
	NIR	0	3	2	1	0	0
	Unspec	30	21	14	6	14	40
	Total	237	219	240	228	212	148
	Pop'n	565,185	571,098	578,993	578,444	578,034	581,034
	Rate	41.9	38.3	41.5	39.4	36.7	34.0
NORTH SHORE / COAST GARIBALDI	MSM	2	3	5	4	5	1
	IDU	3	2	3	4	1	2
	HET	5	6	2	3	3	4
	Other	0	1	1	0	0	0
	NIR	0	0	0	0	0	0
	Unspec	3	1	3	1	4	3
	Total	13	13	14	12	13	10
	Pop'n	263,469	264,157	265,870	267,350	268,303	270,065
	Rate	4.9	4.9	5.3	4.5	4.8	4.9
VAN COASTAL TOTAL	MSM	78	109	127	122	108	67
	IDU	93	69	62	75	63	32
	HET	56	31	47	42	40	19
	Other	3	3	5	2	3	4
	NIR	0	3	2	1	0	0
	Unspec	33	23	17	7	18	43
	Total	263	238	260	249	232	165
	Pop'n	994,885	1,003,535	1,016,380	1,019,339	1,020,538	1,027,193
	Rate	26.4	23.7	25.6	24.4	22.7	21.4

* 2004 YTD figures represent the period 01-Jan-04 through 30-Sep-04.

The 2004 rate is an estimate for the full year.

MSM > Men having Sex with Men

IDU > Injection Drug Use

HET > Heterosexual contact

NIR > No Identified Risk

Source: BCCDC Sexually Transmitted Disease Control

The proportion of HIV resulting from unsafe sex among injection drug users in Vancouver is not well known. However, a 2002 study suggests that a significant number of infections among this population are transmitted sexually. The concentration of female sex workers, the large numbers of sexual partners, and low rates of condom use are all contributing factors.⁵⁹

Rates in the Aboriginal population

A 2003 study compared the HIV rates among Aboriginal and non-Aboriginal IDUs in Vancouver, and concluded that Aboriginal IDUs are becoming HIV positive at twice the rate of non-Aboriginal IDUs. Furthermore, Aboriginal people are overrepresented among IDUs. While they represent only 4%-5% of the total population of BC, the authors of the study estimate that they comprise approximately 25% of the IDU population in the DTES of Vancouver.⁵⁵

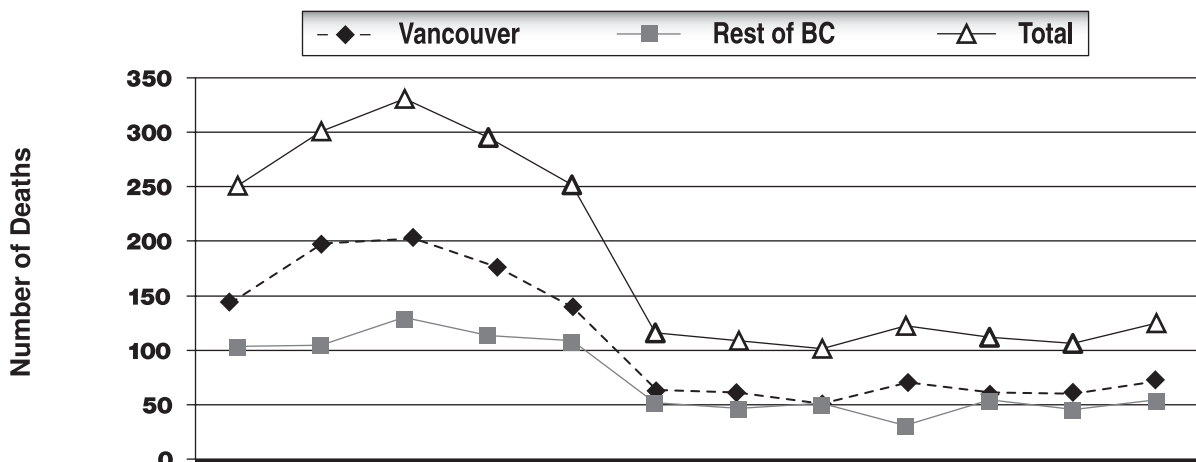
HIV Treatment

Drug therapy for HIV should be carefully initiated when appropriate. Factors which influence the decision to start anti-retroviral therapy include: past medical history, current immune function, and patient motivation. Once the medication has been started, it is intended for life-long use. If used appropriately, anti-retroviral drugs can prolong life for people infected with HIV. However, the drug regimen is very strict, and doses should not be skipped. Failing to take as few as 5% of the doses can greatly increase the probability of developing drug resistance.⁵⁴ The chaotic lifestyle of many IDU infected with HIV makes faithful adherence to an antiretroviral drug regimen extremely problematic.

The experience in Vancouver has been that while many people initiate anti-retroviral therapy, there is a high rate of treatment discontinuation.⁴⁰ As of October 2004, there were 3563 active participants of the HIV/AIDS treatment program in BC, 2007 (56%) of these were residents of Vancouver. Of these participants, 91% were male, and 7.7% were Aboriginal. Only 6.6% were identified as IDU, and 32.2% were identified as gay/bisexual.

Figure E3 describes the number of deaths due to HIV disease in BC from 1992 to 2003.¹¹ Mortality from HIV-related disease in Vancouver declined significantly from 203 deaths in 1994 to 60 in 2001. This likely reflects the effect of anti-retroviral therapy. A slight increase in mortality was recorded in 2003. This may represent the beginning of an upward trend in mortality, as those infected during the late 1980s and 1990s start to die from their disease.

Figure E3. Deaths due to HIV disease in BC, 1992-2003



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
-◆- Vancouver	149	197	203	182	145	65	64	52	73	60	62	73
—■— Rest of BC	102	104	128	113	107	51	45	49	29	52	44	52
—△— Total	251	301	331	295	252	116	109	101	122	112	106	125

YEAR

Cost of HIV in IDUs in Vancouver

A recently published study estimated the total medical costs of HIV in IDUs in Vancouver DTES to be \$215,852,613.⁴¹ This figure was calculated by multiplying the average lifetime cost per person (assumed \$150,000) by the number of persons estimated to be infected. The number of illicit drug users in DTES was estimated at 4,700 with an HIV prevalence of 31%.³⁵

HEPATITIS C

Hepatitis C is a disease of the liver caused by the hepatitis C virus (HCV). Transmission occurs through blood-to-blood contact such as by receipt of an infected blood transfusion or blood product; or through illicit drug use by sharing of injection equipment e.g. needles and syringes, and sharing snorting and smoking equipment such as straws and pipes.⁴²

The incubation of HCV is usually 6-9 weeks but can range from 2 weeks to 6 months. Less than 25% of those who are infected show symptoms such as anorexia, abdominal discomfort, nausea and/or become jaundiced. However, about 75% of persons who are infected become chronic carriers, and up to half of these may eventually develop cirrhosis or liver cancer.

A recent study by Remis estimated that in December 2002 there were 251,000 persons in Canada infected with HCV. Injection drug use (IDU) accounts for about 56% of the prevalent (existing) HCV cases, with nearly 2/3 of these being ex-IDUs.⁴⁵ An even higher proportion of incident (those recently infected) HCV cases, are related to IDU (http://www.phac-aspc.gc.ca/hcai-iamss/bbp-pts/pdf/hepc_2001_e.pdf).⁴⁴

Diagnosis

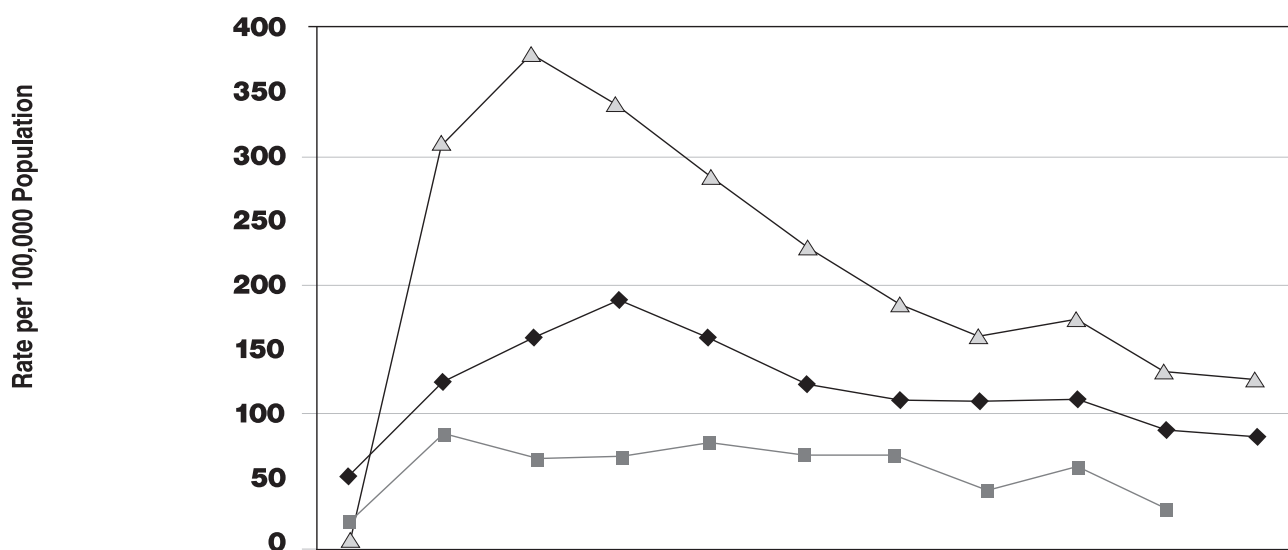
It is estimated that only 65% of HCV-infected persons in Canada have been diagnosed.⁴⁵ A positive HCV antibody (anti-HCV) result indicates that infection has occurred but cannot differentiate if the infection has been cleared or is chronic. Nucleic Acid testing (NAT) can confirm if the virus is present and thus active infection. There are two types of NAT tests, qualitative and quantitative. Qualitative gives a yes or no result and is most sensitive; the quantitative test, reports the amount of virus present- or viral load. Although not as sensitive, the quantitative test can be used to assess prognosis and treatment response.

HCV infection is reportable. A positive laboratory result is sent to public health, which reports the test with patient demographics into the confidential Integrated Public Health Information System (iPHIS). The following graphs show reported cases and rates of newly identified HCV infection. Risk factor information is not routinely collected and entered into iPHIS. However since April 2000, Vancouver Coastal Health has participated in Health Canada enhanced surveillance for newly identified hepatitis B and C. Between April 2002-November 2004; 2,226 chronic and 52 acute HCV cases have been reported, 68% of the chronic and 69% of the acute cases were male. Of those who were interviewed, 63% of acute cases and 71% of chronic cases admitted injection drug use. This may be an underestimate as 60% of the acute and only 27% of the newly identified chronic cases were located. This may reflect the transient life-style and homelessness, common among those with HCV in Vancouver.⁴⁵

There are six major genotypes of HCV. In BC, 65% are genotype 1, 33% genotype 2 and 3, 2% genotype 4, 5 and 6. The genotype is indicative of prognosis and influences treatment duration and management. There is a 75-80% cure rate for genotypes 2 and 3 with 24 weeks of treatment. However with genotype 1 the cure rate even with 48 weeks of treatment is only 45%; if after 12 weeks there has not been a 2-log (100 fold) drop in viral load, then treatment is stopped as it is unlikely to be successful.

The rate of HCV is much higher in Vancouver than BC as a whole or Canada. There were 806 and 726 cases of HCV identified in Vancouver in 2003 and 2004 respectively. In 2003, the BC rate (88/100,000) was more than twice the Canadian rate of HCV (37/100,000) and Vancouver rate (139/100,000) was nearly 4 times the Canadian rate (figure E4).

Figure E4. Hepatitis C rates by year, Vancouver, BC and Canada, 1994-2004



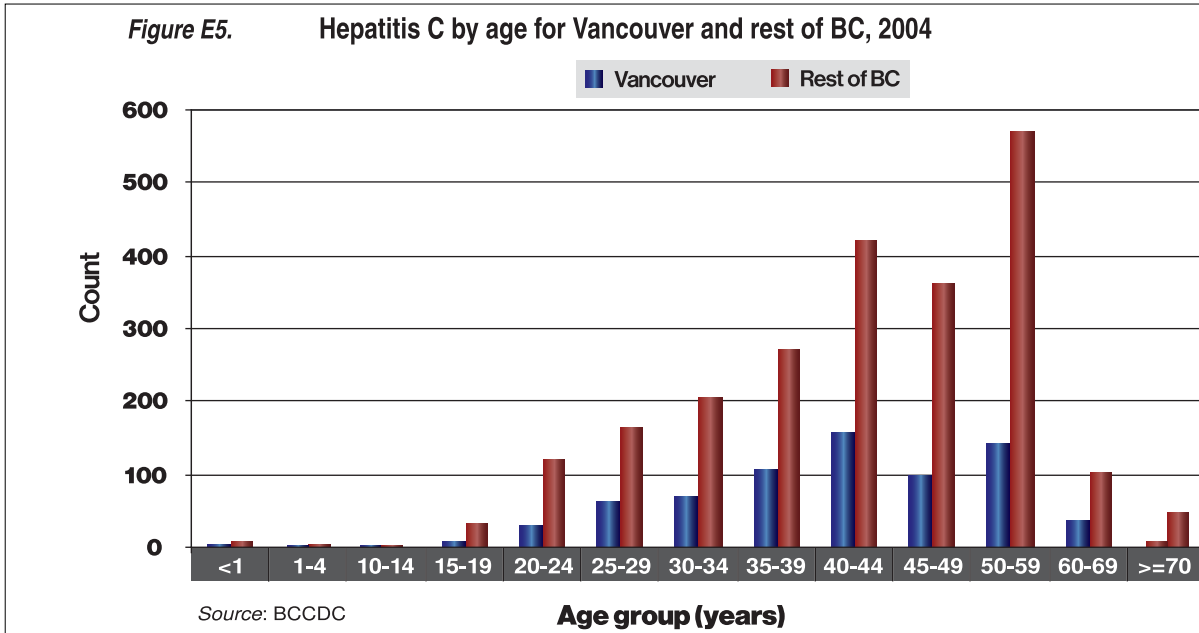
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BC Hepatitis C Reports	1905	4649	6142	7734	6294	5039	4420	4399	4563	3641	3032
Vancouver Hepatitis C Reports	10	1628	2054	1919	1588	1280	1066	902	942	806	726
◆ BC Hepatitis C Rate	52	123	159	196	158	126	109	108	111	88	72
■ Canadian Hepatitis C Rate	18	82	62	68	75	64	61	48	51	37	
△ Vancouver Hepatitis C Rate	2	307	377	347	284	227	187	156	163	139	125

YEAR

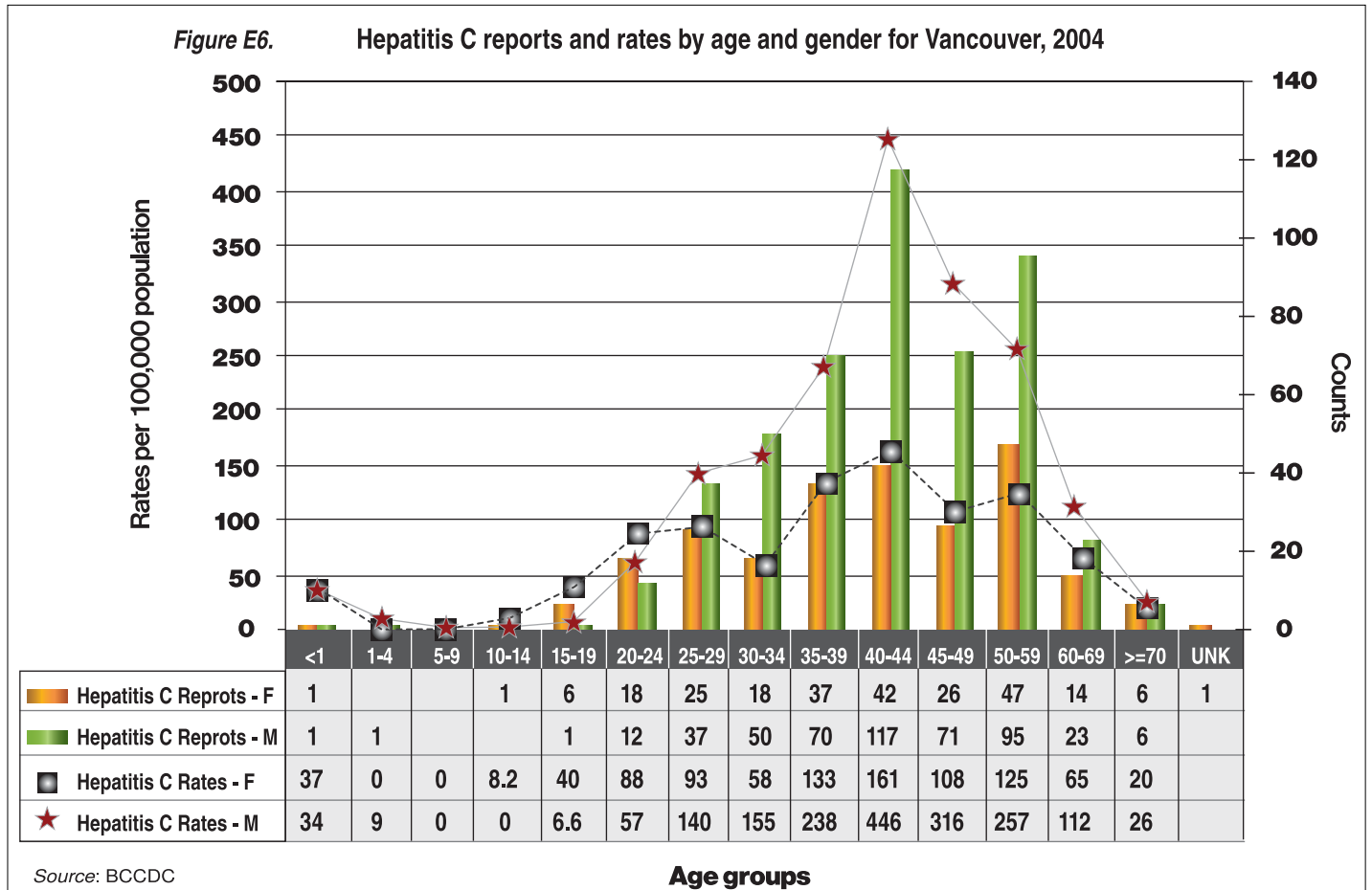
Note: Canadian rates are based on reporting provinces and territories only
 Source: BCCDC

Hepatitis C in Vancouver Coastal Health

The age distribution of newly identified HCV in Vancouver is similar to that of rest of BC (figure E5).



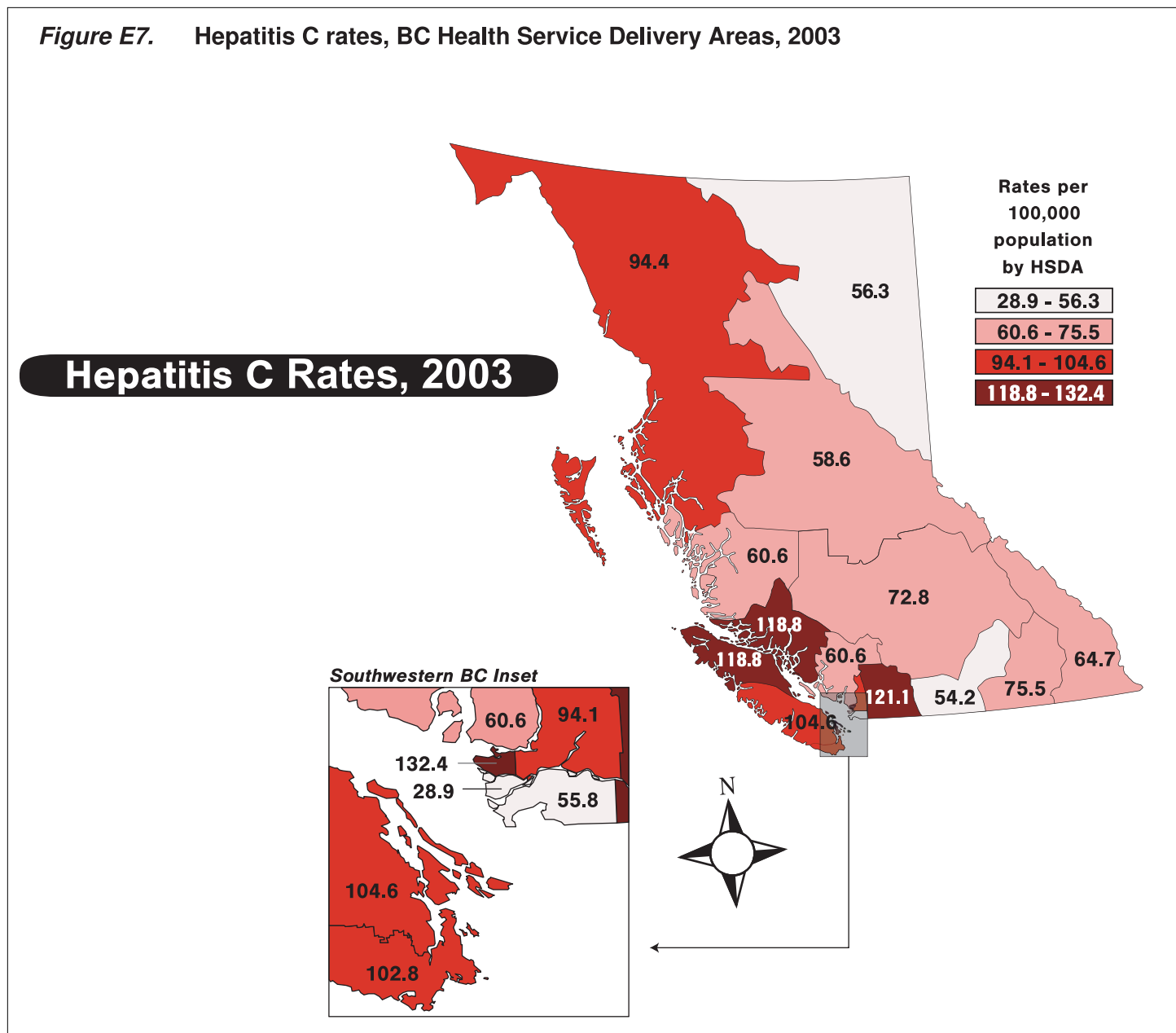
As in previous years the count of new HCV cases in Vancouver males exceed females in all age groups except 15-19 and 20-24 years (figure E6).



The prevalence of HCV in VIDUS participants overall is 92%. In a subset aged 29 years or younger the prevalence of HCV was 60%.¹⁷ Preliminary testing of clients at Supervised Injection Facility showed an HCV prevalence of 87%. The OPICAN cohort is based on a snowball recruitment of regular illicit opiate users across Canada. In 2004 in Vancouver the prevalence of HCV in this cohort was 86.6%.⁴⁶ In CHASE cohort (previously described in 'HIV/AIDS') in 2003 the incidence and prevalence of HCV was 5.8% and 63% respectively.⁵⁶

The map below shows the rates of HCV in 2003 in the BC Health Service Delivery Areas (HSDA). The highest rates were in Vancouver, North Island and Fraser East HSDA (figure E7).

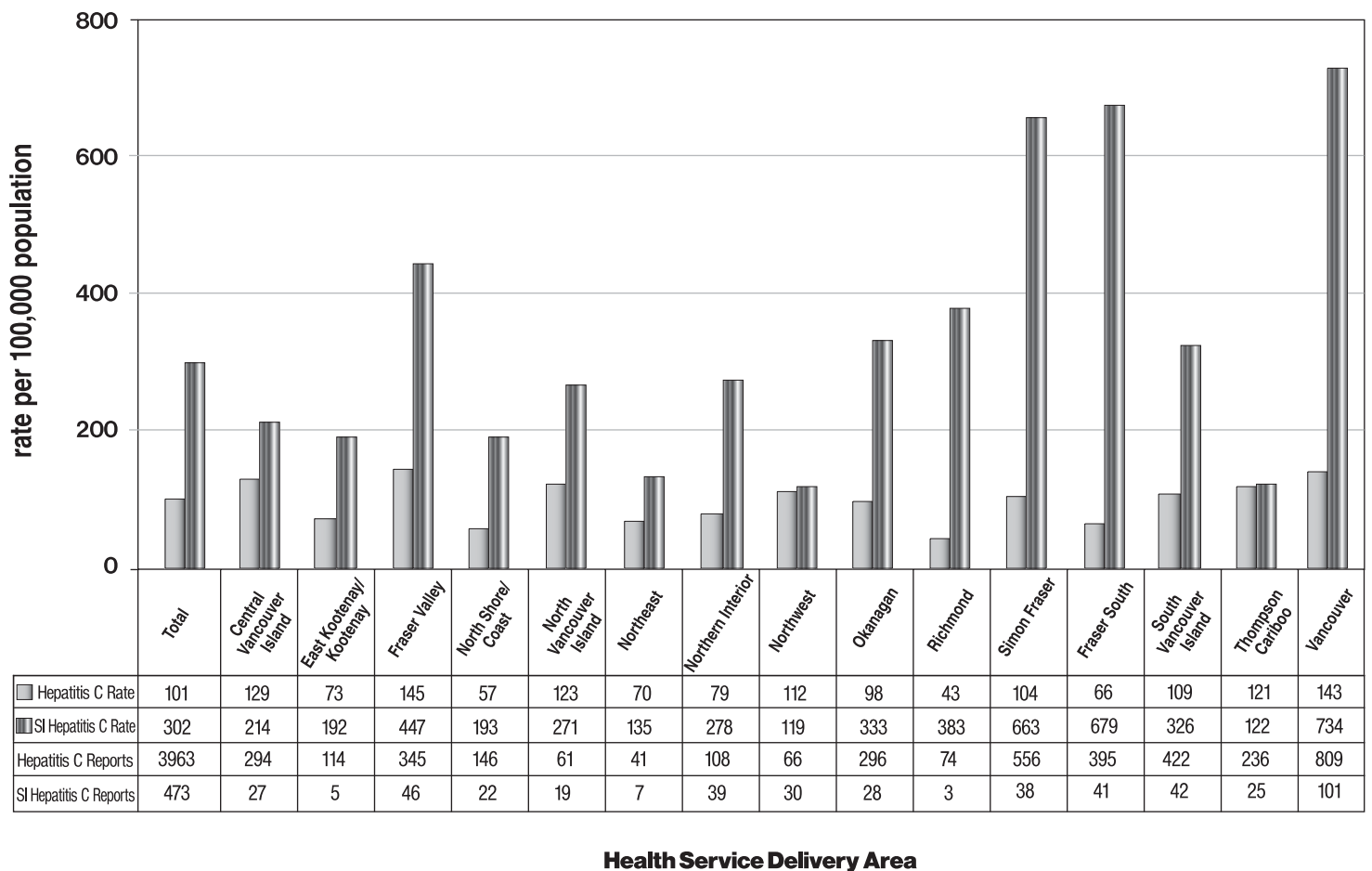
Figure E7. Hepatitis C rates, BC Health Service Delivery Areas, 2003



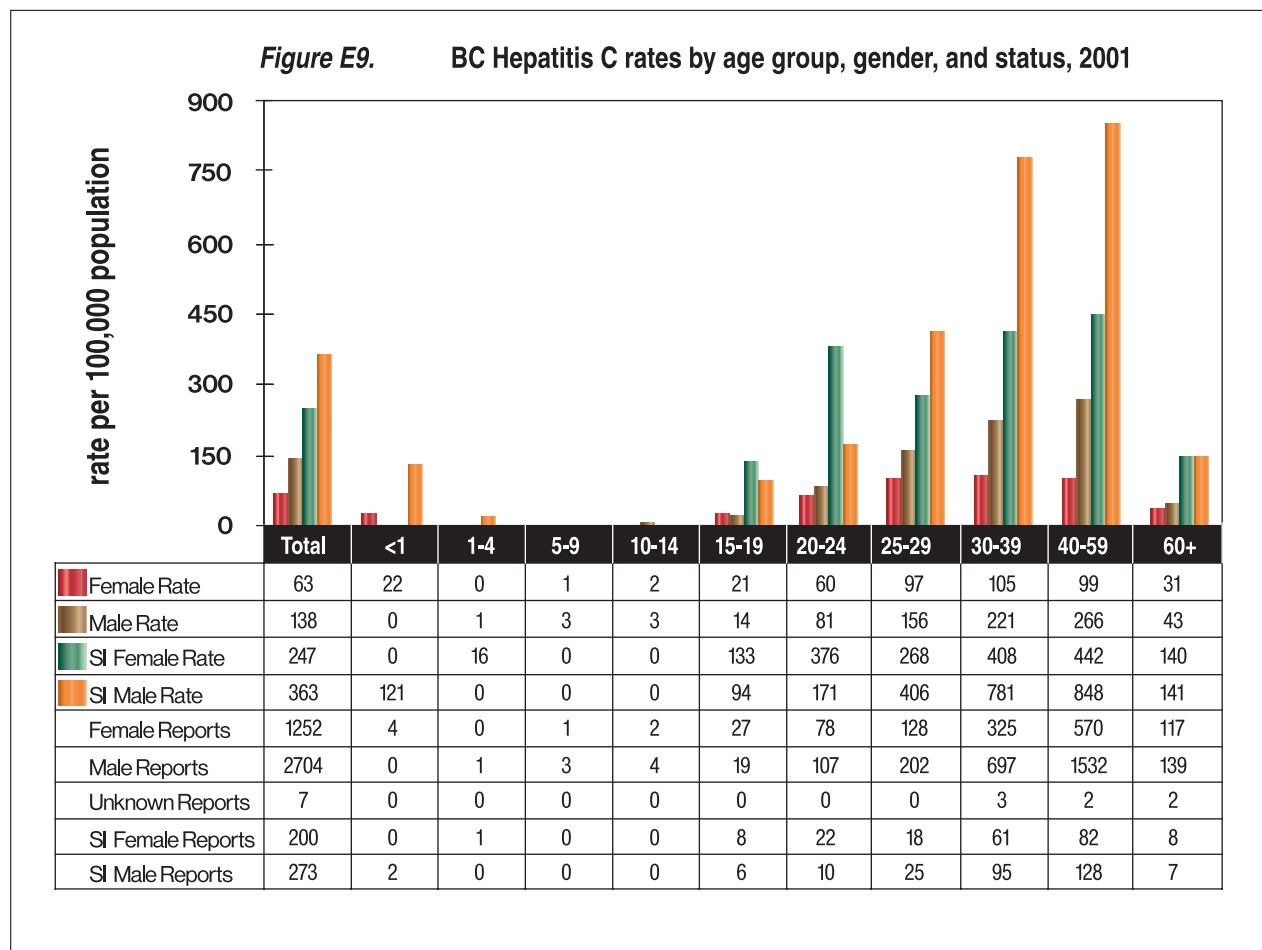
HCV - Aboriginal rates

A number of targeted studies of high-risk populations (STD Clinic attendees and IDUs) have found Aboriginal ancestry to be an independent risk factor for HCV infection.⁴⁷⁻⁴⁸ Canadian surveillance data 1998-99 found Aboriginal Canadians had a six fold higher incidence of acute hepatitis C (<http://www.vs.gov.bc.ca/stats/indian/index.html>).⁴⁹ A cross-sectional analysis was performed to determine the relative rate of reporting of HCV infections in Status Indian (SI) people compared with the general population of BC. The BC reportable communicable disease database was linked with the BC Vital Statistics Agency enhanced database of Status Indians. A total of 4436 cases of HCV infections in BC were reported in iPHIS for the year 2001; of these, 11% of cases were SI. The overall HCV infection rate/100,000 population was 302 in SI and 101 in the non-Status BC population. The highest rates of HCV in SI were noted for Vancouver, followed by South Fraser and Simon Fraser (figure E8).

Figure E8. BC Hepatitis C rates by Health Service Delivery Area, 2001



The highest rates of HCV infection were noted in the 30-39 and 40-59 age groups with SI females 4 times more likely to be infected and SI males 3 times more likely to be infected than non SI. Younger SI females (15-24) had higher Hepatitis C rates than SI male counterparts. Status Indians represent 4% of the population of BC but about 10% of HCV infections reported in 2001 (figure E9).⁵⁰



Co-infection HIV and HCV

HIV and HCV co-infection is a growing concern in BC. Persons with HIV-HCV co-infection exhibit on average a more rapid progression to liver cirrhosis and liver failure than patients with HCV mono-infection. Anti-retroviral therapy for HIV may also be associated with greater hepatotoxicity in HCV infected individuals. HCV may also act as a co-factor for HIV disease progression (http://www.phac-aspc.gc.ca/hepc/hepatitis_c/pdf/careGuideMgmt.pdf).⁵¹

Risk associations for coinfection with HIV and HCV were examined in young (<29 years) IDUs who were part of the VIDUS cohort. Of the 479 injectors, 16% were coinfecting. Baseline coinfection was independently associated with being female, Aboriginal status, age, number of years injecting and living in the IDU epicenter. Factors associated with time to secondary infection included borrowing needles and greater than once a day cocaine injection.¹⁷

F. Specific reports and prevalence of drug use

Alcohol

BC Stats provides the alcohol sales per person aged 19 and over, from April 1, 2002 and March 31st 2003 by health area (<http://www.bcstats.gov.bc.ca/data/sep/lha/LHltalc.pdf>) (table F1).⁵²

Table F1. Pattern of alcohol consumption in BC and Vancouver, 2002/03

Area	Dollars spent per capita	Litres consumed per capita	% distribution of litres sold		
			Spirits	Wine	Beer
Vancouver	588	62	12	26.1	62
BC	443	59	11	18	70.9

Vancouver residents spend >25% more on alcohol per year when compared to BC as a whole. Vancouver residents also purchase more wine and less beer than BC residents overall. BC has the highest annual wine per capita consumption in Canada at 15-20 litres.

The standardized mortality ratio (SMR) is the ratio of observed deaths/expected deaths (based on the total provincial number adjusted for the population in that CHA). Alcohol related deaths in CHA2 are more than 3 times that expected (table F2 and figure F1).

Table F2. Standardized Mortality Ratio for alcohol-related deaths, Vancouver, 1998-2003

LHA	CHA	Description	1998-2002		2003			
			Observed Deaths	SMR	Observed Deaths	SMR	95% Confidence Interval	
							Lower	Upper
161	CHA1	Vancouver- City Center	314	1.58	46	1.21	0.89	1.62
162	CHA2	Vancouver- Downtown Eastside	498	3.85	83	3.39*	2.70	4.20
163	CHA3	Vancouver- Northeast	181	0.86	26	0.64*	0.42	0.94
164	CHA4	Vancouver-Westside	140	0.52	15	0.30*	0.17	0.50
165	CHA5	Vancouver- Midtown	173	0.99	30	0.89	0.60	1.26
166	CHA6	Vancouver- South	180	0.64	26	0.48*	0.32	0.71
PROVINCIAL TOTAL			9,229	1.00	1,789	1.00	0.95	1.05

* Statistically significant

In CHA2 there were 498 alcohol related deaths over 5 years, 1998-2002 giving an SMR of 3.38. (Using a five-year period allows smoothing of variations of individual years). In 2003, there were 83 alcohol related deaths, yielding an SMR of 3.39, i.e. more than 3 times the provincial rate.

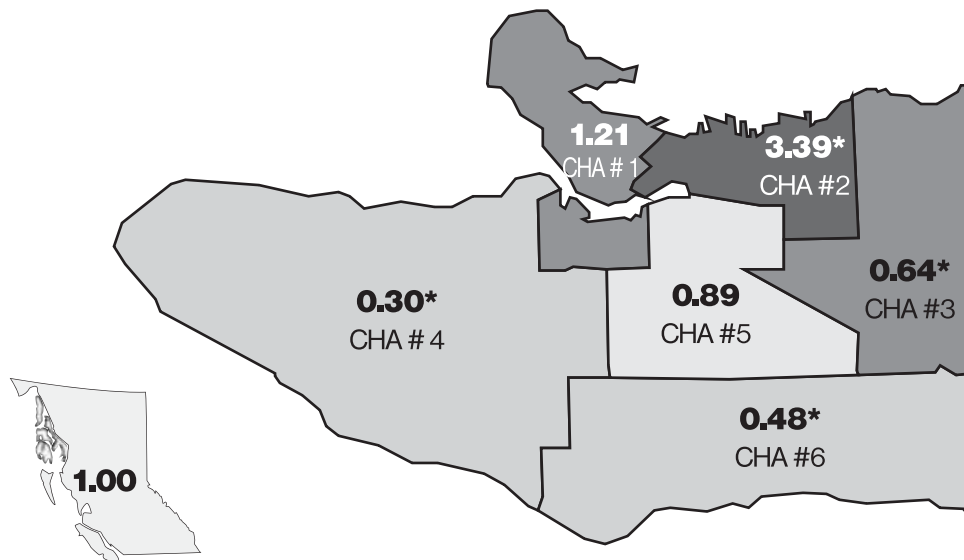
Table F3. Causes of alcohol-related deaths, Vancouver, 2000-2003

Cause of Death (ICD 10)	2000			2001			2002			2003		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Alcohol intoxication (F100)	15	2	17	5	4	9	4	1	5	3	0	3
Alcoholic psychoses and dependence (F101-F109)	4	2	6	9	1	10	11	4	15	6	3	9
Alcoholic cardiomyopathy (I426)	3	-	3	5	3	8	1	-	1	-	-	-
Alcoholic gastritis (K292)	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic liver disease (K70)	17	2	19	17	4	21	16	10	26	12	12	24
Alcohol induced chronic pancreatitis (K860)	-	-	-	1	-	1	0	1	1	-	-	-
Alcohol poisoning (X45, X65)	2	-	2	2	1	3	3	-	3	2	-	2
Direct Alcohol-Related Categories	41	6	47	39	13	52	35	16	51	23	15	38
Certain infectious and parasitic diseases (A00-B99)	10	2	12	10	1	11	13	4	17	6	2	8
Neoplasms (C00-D48)	24	2	26	25	2	27	28	10	38	18	5	23
Endocrine/Nutritional/Metabolic (E00-E243, E248-E89)	8	-	8	2	2	4	1	1	2	-	-	-
Mental disorders (F00-F09, F11-F99)	3	2	5	3	1	4	-	-	-	4	-	4
Neurological diseases (G00-G311, G318-G620, G622-G720, G722-G99)	1	1	2	3	1	4	2	1	3	3	1	4
Circulatory (I00-I425, I427-I99)	40	12	52	47	9	56	45	12	57	58	5	63
Diseases of the respiratory system (J00-J98)	14	2	16	19	4	23	18	1	19	11	2	13
Digestive system diseases (K00-K291, K293-K69, K71-K85, K861-K92)	15	3	18	8	3	11	12	7	19	10	3	13
Urinary system diseases (N00-N39, N990, N991, N995)	1	2	3	1	-	1	1	-	1	5	1	6
Unintentional injury (V01-X44, X46-X59, Y40-Y86, Y88)	33	10	43	29	5	34	27	5	32	27	2	29
Suicide (X60-X64, X66-X84, Y870)	6	4	10	5	4	9	17	1	18	9	1	10
Homicide (X85-Y09, Y871)	1	-	1	-	-	-	-	1	1	1	-	1
All other causes	2	1	3	9	3	12	-	-	-	-	-	-
Indirect Alcohol-Related Categories	158	41	199	161	35	196	164	43	207	152	22	174
TOTAL Alcohol-Related Categories	199	47	246	200	48	248	199	59	258	175	37	212

Source: BC Vital Statistics Agency - custom tabulation

There were no cases identified for any year with alcoholic neurological disorders (G312, G621, G721) or other alcohol causes (E244, O354, O993, P043, Q860, R780, T510-T512, T519).

Figure F1. Standardized Mortality Ratio (SMR) for alcohol-related deaths, Vancouver, 2003. See figure A1 for descriptions of CHA.



Note: * Statistical testing indicates that observed deaths are statistically different from the expected deaths ($p < 0.05$, two tailed). Non residents are excluded.
Source: Vital stats 2003 annual report

See also in C. Mortality - blood alcohol in Aboriginal non-intentional injury deaths, table C4.

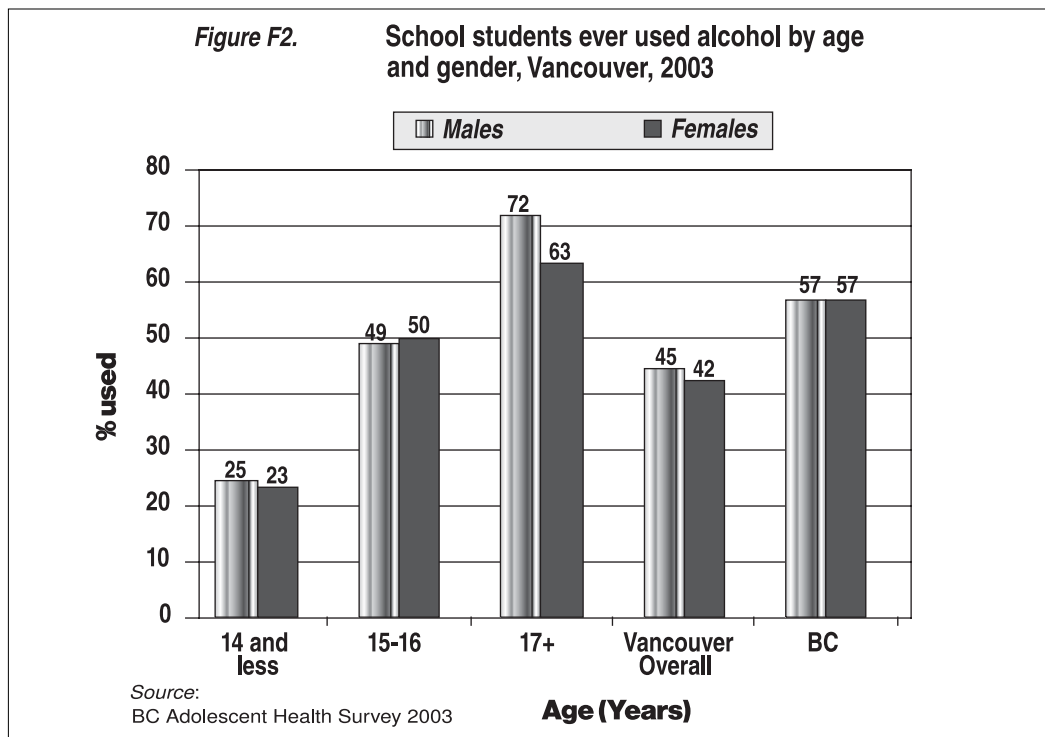
The Canadian Addiction Survey (CAS) 2004 is the first national survey dedicated to alcohol, cannabis and other drug use since Canada's Alcohol and Other Drugs Survey (CADS) in 1994. It is one of the most detailed and extensive surveys of its kind conducted in Canada. It was designed to determine, among others, the prevalence, incidence and frequency of alcohol and other drug use and the associated harms in the Canadian population aged 15 and older. The CAS sample included 13,909 Canadians, 3000 from BC, who were interviewed by telephone between December 16, 2003, and April 19, 2004 (<http://www.ccsa.ca/pdf/ccsa-004804-2004.pdf>).⁵⁵ Participants had a residence with a phone and were willing to answer the survey. They may therefore not be representative of many drug users.

The CAS reported that past-year alcohol use in BC is equal to the national average of 79.3%. About two thirds (65.7%) of the BC population are classified as light drinkers, 6.9% as abstainers, and 13.3% as heavy drinkers. BC along with Prince Edward Island, Manitoba, Saskatchewan, and Alberta are the five provinces that have the general pattern of consistently higher lifetime rates of alcohol related harms among current and former drinkers.

The third BC Adolescent Health Survey (AHS III) was conducted in 2003 by the McCreary Centre Society (http://www.mcs.bc.ca/pdf/AHS-3_provincial.pdf).⁵⁴ Nearly half of students surveyed in Vancouver (44%) had ever drunk alcohol (49% in Greater Vancouver). This is lower than BC overall (58%) and considerably less than the highest area, the Kootenays at 71%. Drinking rates in the Interior, Upper Island, Northeast and Northwest

range from 65% - 69%. The 2003 overall BC rate of ever drinking alcohol is less than in 1998 (63%) and 1992 (65%). Similar rates were seen for both genders.

Over a third of students who had ever tried alcohol in Vancouver did so before the age of 13. Fifteen percent of males and females engaged in binge drinking; defined as 5 or more drinks in a couple of hours (figure F2).



Designer drugs

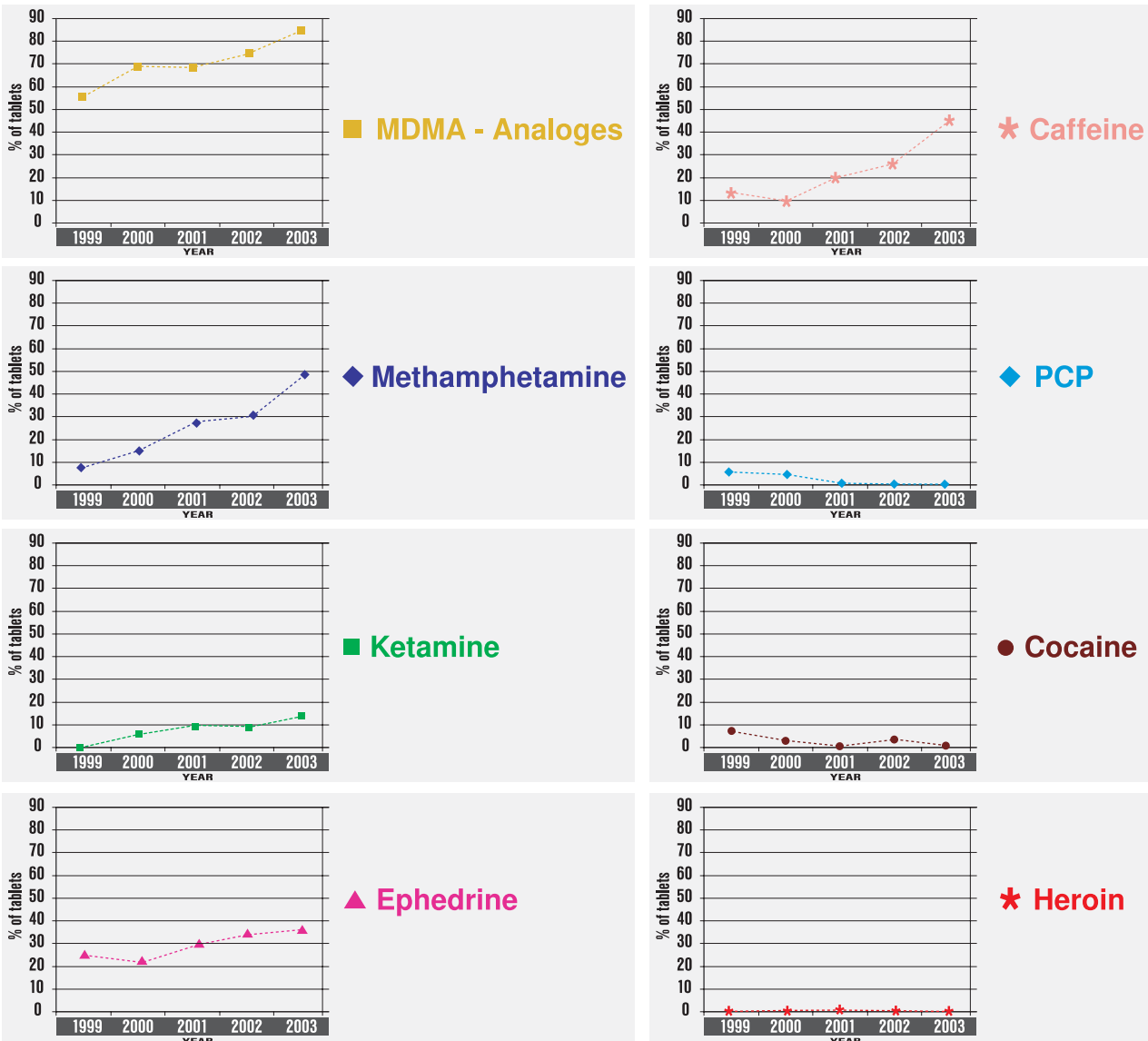
The RCMP Drug Awareness Service (Vancouver BC) continues for the 6th year to conduct its intelligence probe into the rave, night club and dance scene. Drugs seized are analysed at the University of British Columbia, Faculty of Pharmaceutical Sciences. The trend of poly drug use reported in 2003 CCENDU report has continued. Ecstasy is used in combination with methamphetamine, ketamine, alcohol, marijuana, LSD, GHB (Gamma Hydroxybutyrate) and sometimes Viagra. Using other drugs with Ecstasy is known as 'flipping'.

The samples analysed are not a random sample of drugs used, so the results may not give a true indication of prevalence of use. One sample per batch confiscated is analysed, thus the results may not reflect the quantity of each drug seized. In 2004 a further 175 samples of tablets/capsules/powders and crystals were tested; the majority were obtained in Greater Vancouver. Ninety-five of the 175 samples were pure, 46 were Ecstasy (MDMA), 10 were methamphetamine (4 powders, 4 crystal). Forty-four of 80 chemical cocktails (58%) contained methamphetamine (figure F4).⁵⁵

Methamphetamine

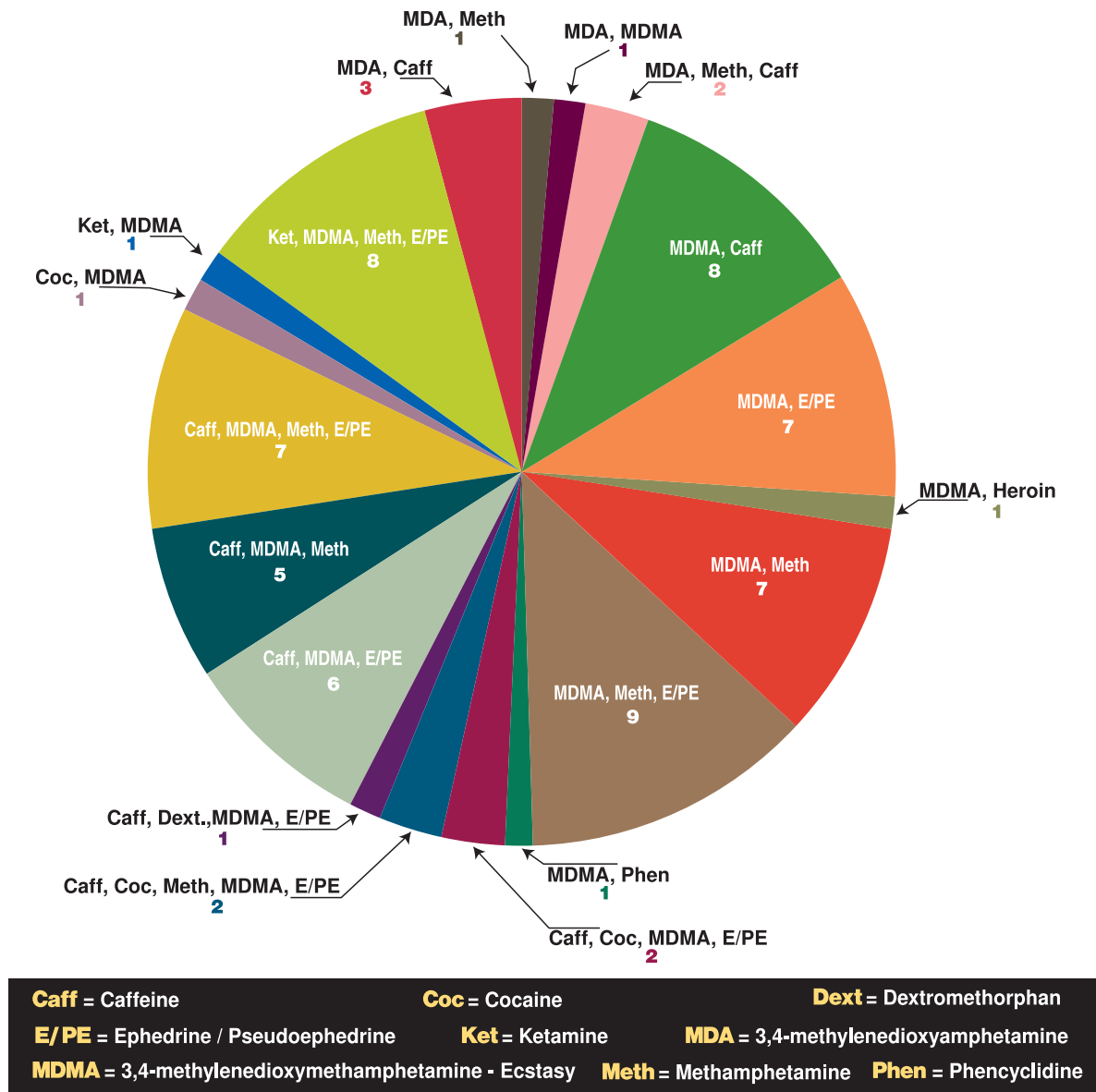
Methamphetamine (MA) use is a serious and growing problem in BC. It is cheap, (\$5 of MA can give a high for 24 hours), and readily available. MA is a highly addictive stimulant; it stimulates the release of dopamine in the brain resulting in feelings of alertness, well-being and euphoria. Many recipes and instructions for manufacturing MA using over the counter ingredients can be found on the Internet. In the 1980s, d-methamphetamine hydrochloride, a more potent smokeable form of crystallized MA was developed. MA is found on the streets in different forms- brown powder, granules, crystals and tablets, and in different strengths. MA has many street names including crystal, jib, meth, ice, speed, glass, shards, Tina and crank.

Figure F3. Trends in the content of seized "Ecstasy" tablets, BC, 1999-2003



Source: RCMP Drug Awareness division

Figure F4. Composition of chemical cocktails seized by RCMP, 2004 (n=80)



Source: RCMP Drug Awareness division

MA is known as a 'club drug' for its use at clubs, dance parties and raves. It is often used in combination with other drugs such as ecstasy. Over half of the chemical cocktails confiscated by RCMP contain MA, figures F3 and F4. Some users are well aware of what they are taking and using MA for its effects, however some may believe they are taking pure ecstasy. MA effects sought by the user include increased energy and productivity, increased sexual pleasure, and insomnia. Reduced appetite and hence weight loss, may attract teenage girls to use MA as a weight control measure.

The high can last 2 - 24 hours, which is much longer than cocaine. Once the initial euphoric effects of the drug have worn off, users may experience anxiety, depression, mental confusion, fatigue and headaches. Tolerance grows with long-term use, leading the user to take larger doses more frequently. The user binging on MA may go on a 'run' and stay awake for 8 days at a time. Such doses and lack of food and sleep may result in psychosis, including extreme paranoia, and violence. They may also lead to seizures, heart problems, stroke, and even death. Prolonged use can cause permanent psychotic symptoms and movement disorders.

Youth

The AHS III reported a decline in MA use in youth attending school in BC, from 5% in 1998 to 4%. The rate in Greater Vancouver and Vancouver itself were even lower at 3% and 2% respectively (table F8). However MA use by vulnerable populations such as street-involved youth appears more common and may be increasing. In Vancouver, 71% of the street youth interviewed had ever used 'amphetamines' and 57% had used them >10 times⁵⁶; 69% of Covenant House clients surveyed in 2001 reported they had ever used MA⁵⁷, and a recent (2003) survey of street youth in Vancouver reported a 67% lifetime prevalence of MA use.⁵⁸

In an analysis of the narratives of street youth in Toronto, drugs were spoken of as a way of forgetting the stresses of street life, forgetting the past and in general "putting the pain aside."⁵⁹ In a recent Vancouver study, street youth reported using MA as a survival strategy. MA enables youth to stay awake and avoid the risk that their possessions may be stolen while asleep. It also removes the need to obtain food. Other reasons given for use were an increased sociability and improved self-esteem.⁶⁰

When users 'come down', having been deprived of sleep they want to rest. They reported being emotionally sensitive and may react rapidly to perceived threats, such as being woken when sleeping on the street. These threats can spark violence or a psychotic episode or 'freaking out', which youth often support their peers through.

Lesbian/gay/bisexual/transgendered community also report higher use of MA. Lack of inhibitions and increased sexual pleasure may increase risky sexual behaviour. The history of MA use was described in detail in the 2003 CCENDU report¹⁹ and the Methamphetamine Environmental Scan Summit report (http://www.ccsa.ca/ccendu/pdf/methamph_summary_2003.pdf).⁶¹ The Methamphetamine Response Committee (MARC), which was formed to move the summit recommendations forward, has continued to be active and the working groups productive.

- ▼ Youth Theatre Project
- ▼ Peer education; crystal clear
- ▼ Long term response
- ▼ Developing an easy to use, interactive web site for professionals, users and their families.
- ▼ Gay Men's Crystal Meth Group

Anecdotal reports of an increase in MA use especially in girls are borne out by specialized treatment statistics. For example, program statistics at Peak House, Pacific Youth and Family Services Society (funded by VCH but taking clients from all over the province), indicate the popularity of crystal meth has increased to make it the most used substance by youth (54% of females, 13% of males). Order of drug use reported at Peak House starting with most popular

- ▼ 2001/02: cannabis, alcohol, heroin, **crystal meth**, cocaine
- ▼ 2002/03: cannabis, **crystal meth**, alcohol, cocaine, heroin
- ▼ 2003/04: **crystal meth**, cannabis, cocaine, alcohol, heroin

Another concern is the declining mean age of first use of drugs by the clients over the past 3 years from 15.2 years in 2001/02 to 12.1 in 2002/03 to 11.9 in 2003/04.⁶²

The BC Ministry of Health Services released a report in August 2004 entitled Crystal meth and other amphetamines: An integrated BC strategy, in response to an awareness of MA becoming a serious and growing concern (http://www.healthservices.gov.bc.ca/mhd/pdf/meth_final.pdf).⁶³

Addictions Information Management Systems (AIMS) BC Ministry of Health Services collates information from forms completed when clients are admitted to community addictions services.

It should be noted that due to minimum reporting requirements the numbers may be under-counted with regional differences in reporting. Also, changes in reporting are underway with the development of a new database. The information from AIMS indicates that the proportion of people admitted to community addictions services reporting amphetamine use in BC has increased from 4% in 1999 to 11% in 2003 (table F4, figure F5).

Table F4. BC admissions to community addictions services by gender for amphetamine use by year.¹

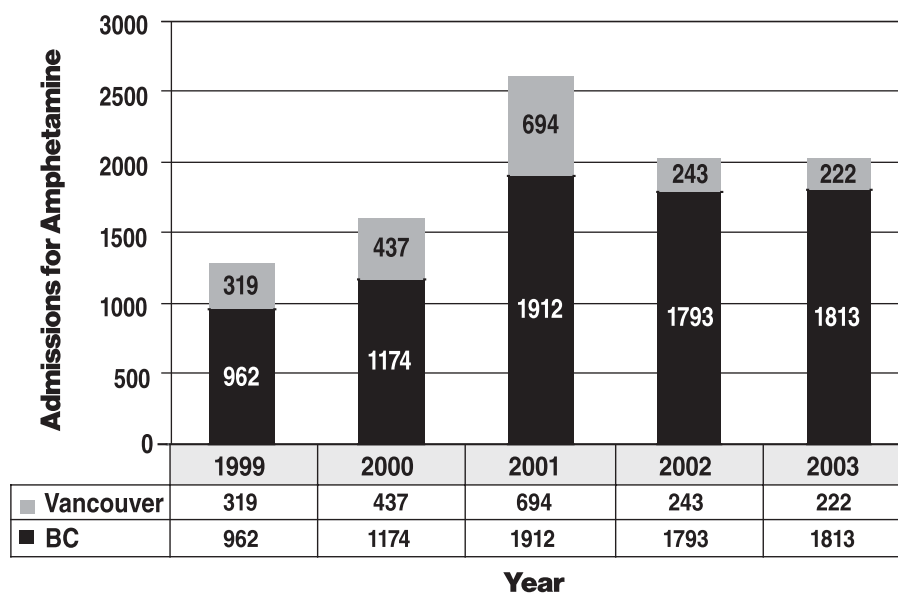
Year	Total	% addiction services	Male		Female
1999	933	4%	520	56%	413
2000	1,153	5%	678	59%	475
2001	1,849	8%	1,081	58%	768
2002	1,484	11%	793	53%	691
2003	1,687	11%	908	54%	779

¹ Clients may have >1 admission/year. 2002 data are incomplete and 2003 is provisional.

Based on completed AIMS forms where amphetamines checked and not necessarily primary drug used.

Source: Addictions Information Management Systems BC Ministry of Health Services

Figure F5. Admissions to community addiction services for amphetamine misuse Vancouver Coastal Health and rest of BC, 1999-2003



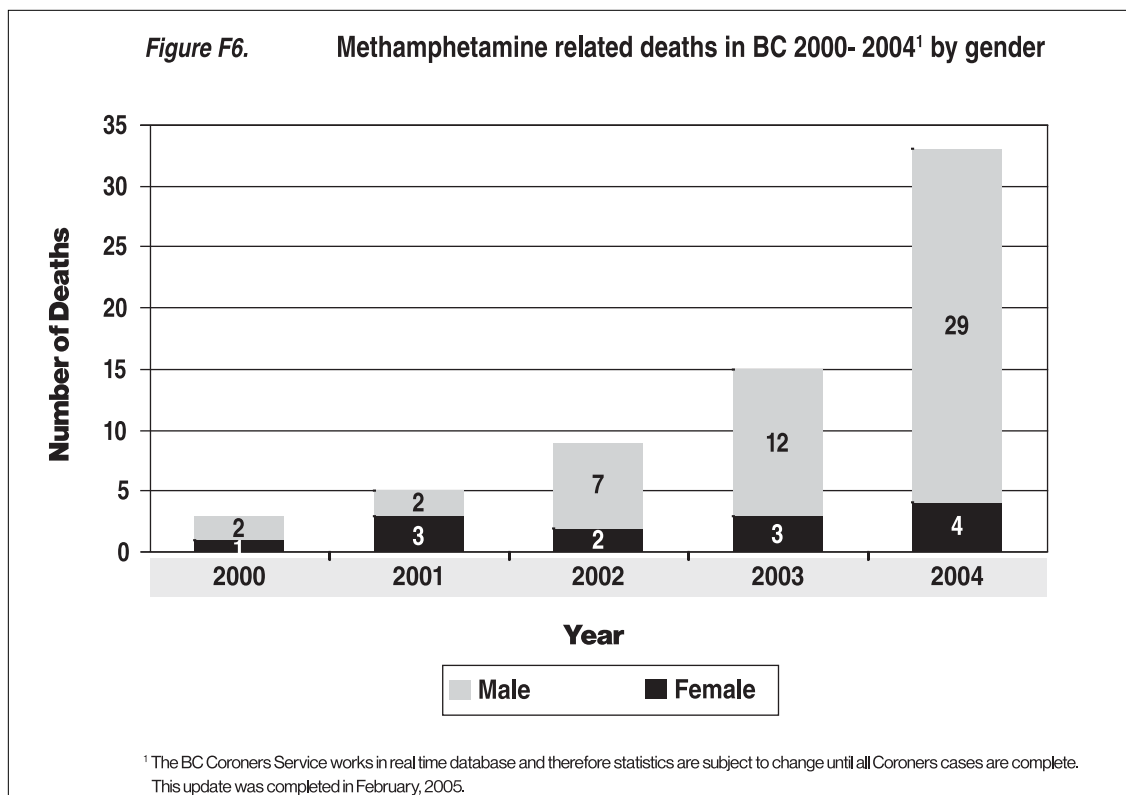
An increase in admissions for amphetamines is noted in the rest of BC. However, the number of admissions in Vancouver for 2002 and 2003 were considerably lower than in previous years, despite reports from family physicians, emergency room doctors and police of a perceived increase in methamphetamine related incidents. Admissions may reflect referral or reporting patterns and not necessarily prevalence of the problem.

Methamphetamine related deaths

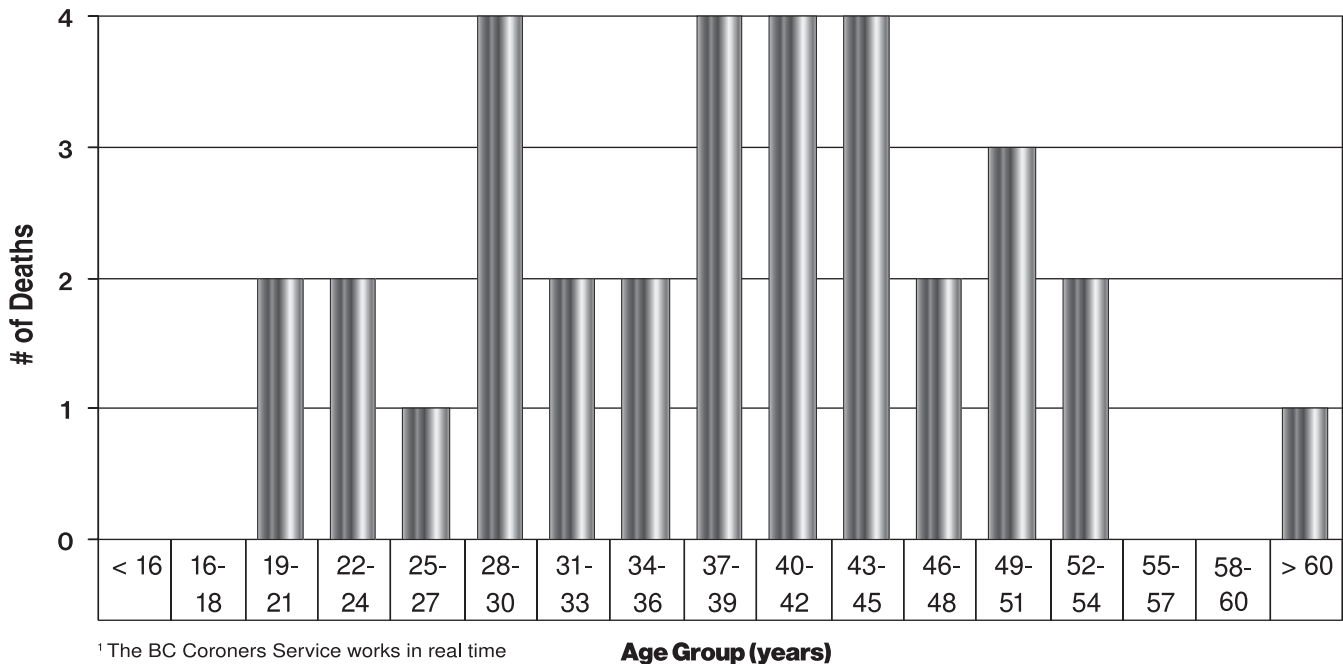
There has been an increase in MA related deaths reported by the BC Coroners Service (figure F6). There have been no major testing policy changes to account for this increase although requests are reported to have increased.⁶⁴ A highly specific assay with little cross reactivity is used to screen for amphetamines.

Amphetamines continue to be tested on a case-by-case request except drivers, who since January 2003 are routinely screened for illicit, prescription and over-the-counter drugs, (previously all drivers were screened for alcohol and drugs on a selected basis).

The presence of MA does not indicate the cause of death. Some of these deaths are included in the illicit drug deaths discussed in C. Mortality. Of the 33 deaths reported where MA was identified in 2004, 6 were classified as motor vehicle accident (driver), 6 as mixed overdose, 3 MA overdose, 11 other and 7 unknown to date. Vancouver was the town/city of residence in 12 of the deaths.



The distribution of MA related deaths in 2004 were across all ages (figure F7) and mainly males (figure F6). This is different from the ages at death in 2003 where 47% of the deaths were under 25 years of age (http://www.pssg.gov.bc.ca/coroners/statistics/pdfs/METHAMPHETAMINE_DEATHS_IN_BC.pdf).⁶⁵

Figure F7. Methamphetamine deaths in BC 2004¹ by age at death

¹ The BC Coroners Service works in real time database and therefore statistics are subject to change until all Coroners cases are complete. This update was completed in February, 2005.

Western methamphetamine summit

The Western Summit on Crystal Methamphetamine was held in Vancouver, November 2004. It brought together stakeholders from BC, Alberta, Saskatchewan and Manitoba in the areas of health, law enforcement, policy makers, academics and social service providers. Participants discussed an integrated approach to address the issues related to methamphetamine use and its production in Western Canada. A consensus panel was tasked to develop an integrated approach using evidence in the literature and presented by stakeholders at the summit including community groups. The report is pending as the panel assimilates the information.

Table F5. Percentage of VIDUS respondents reporting using methamphetamine, 2000-2004

Time of interview	% using methamphetamine
Dec 2000 - May 2001	0
May 2001- Dec 2001	0.38
Dec 2001- May 2002	0.28
May 2002 – Dec 2002	0.57
Dec 2002 – May 2003	1.23
May 2003 – Dec 2003	0
Dec 2003 – May 2004	5.25

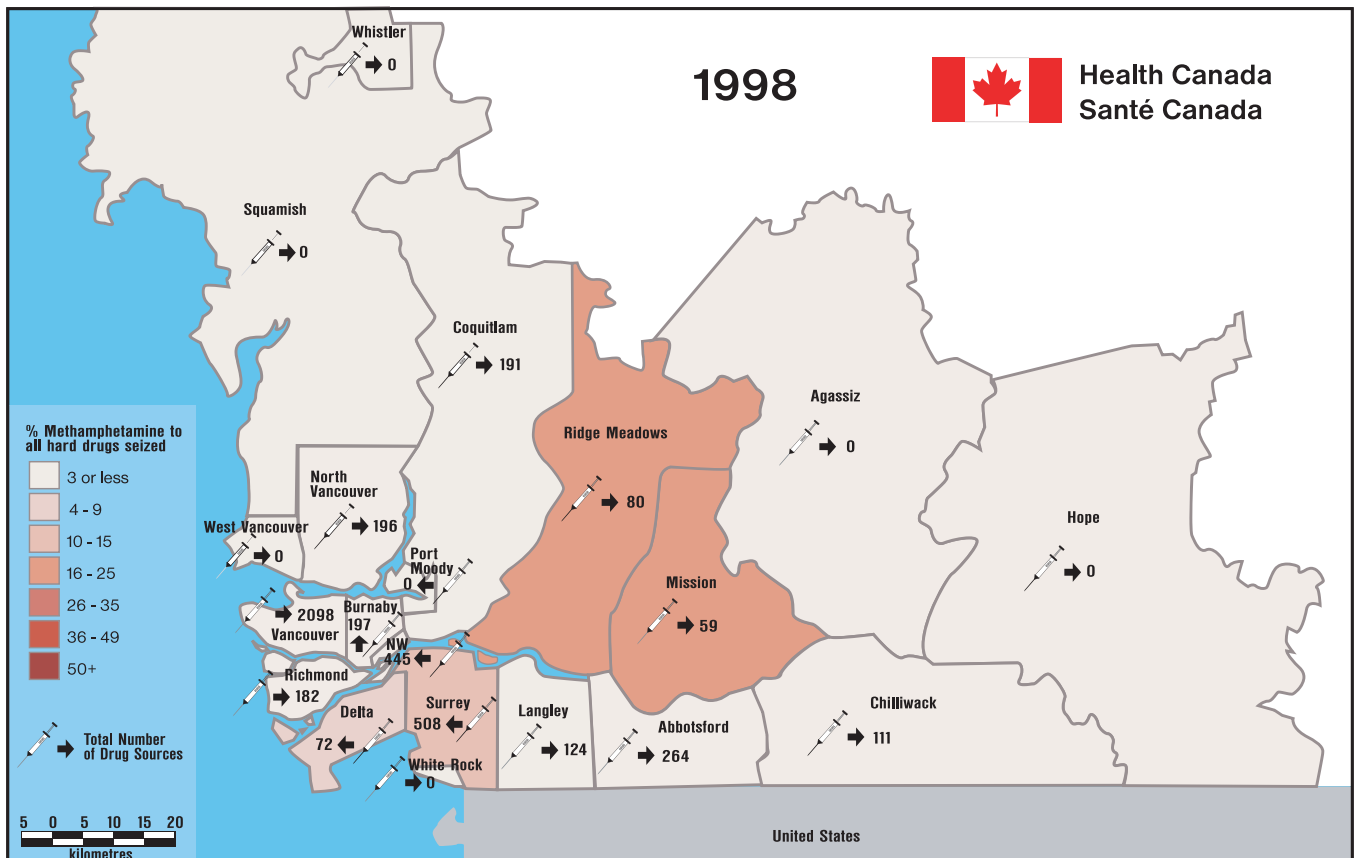
Methamphetamine use in VIDUS participants

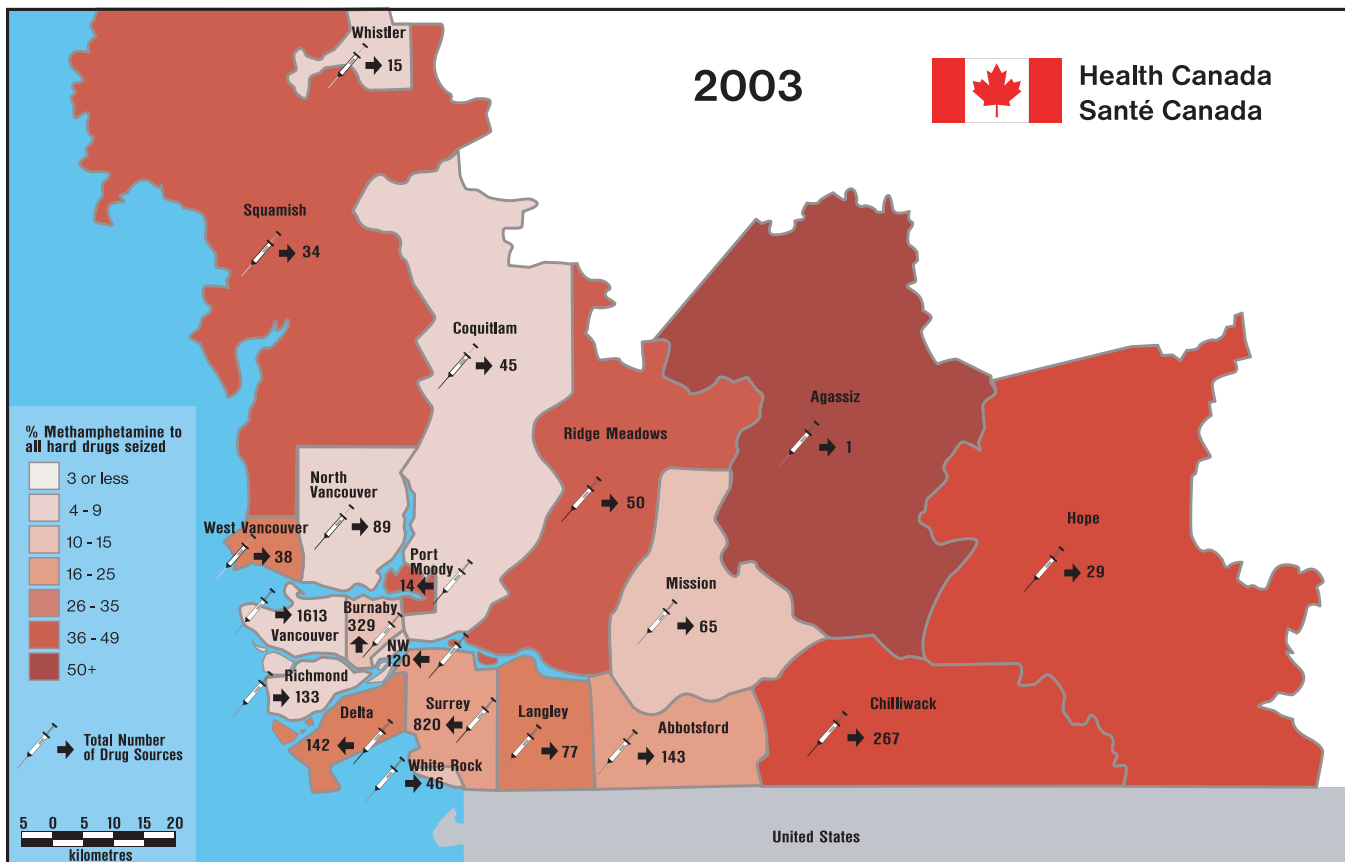
There has been an increase in reported MA use among VIDUS participants in December 2003-May 2004 (table F5). However future interview results will determine if this is a continuing trend or a 'one off' result.⁶⁶

Percent of police exhibits that are methamphetamine

The following maps show MA exhibits submitted by the police to Health Canada Drug Analysis Service, Burnaby, for the Lower Mainland. The colour gradient represents the percentage of MA compared to all other hard drugs in police exhibits for 1998, 2001 and 2003, excludes exhibits related to clan lab seizures (figure F8). The number by the syringe represents the total number of hard drugs submitted to Health Canada from that police detachment. The proportion of MA exhibits has increased since 1998, and some areas in the lower mainland have a greater proportion than others. In some regions, the number submitted from a detachment is small and the percentage not meaningful; for example the only sample from Agassiz was MA so this represents >50%. In Vancouver there were 1613 specimens so although only 4.9% of specimens were MA this corresponds to a considerable number of specimens.⁶⁷

Figure F8. Percentage of MA to all other hard drugs in police exhibits for 1998, 2001 and 2003





Club drugs in Gay Bisexual Lesbian and Transgendered (GBLT)

Anecdotal data suggest increased risk of crystal meth (CM) and other club drugs use among youth who self-identify as gay or bisexual. A recent study on a convenient sample of 607 grade 9-12 students from Vancouver and Victoria showed that the 2.5% of students who self-identified as gay or bisexual had significantly elevated risk of previous year use of CM (odds ratio, OR 26.28) ecstasy (OR 3.29), and ketamine (OR 8.26), table F6.⁶⁸

Table F6. Odds for substance use among self-identified gay or bisexual BC students, by drug and timing of its use, adjusted for age and gender

Drug	Lifetime Use of Drug OR (95% CI)	Previous Year Use of Drug OR (95% CI)
Crystal Methamphetamine	17.02 (4.83-60.01)*	26.28 (6.13-112.57)*
Ecstasy	4.89 (1.63-14.67)*	3.29(0.98-11.05)*
Ketamine	9.44 (2.62-34.06)*	8.26 (1.98-34.34)*
Gamma Hydroxybutyrate (GHB)	4.44 (0.89 – 22.18)	2.70 (0.32-23.11)

* Statistically significant ($p < 0.05$)

GBLT and unsafe sex

A cohort of 261 HIV-negative non-IDU young men who have sex with men (MSM), participants of Vanguard project, were followed from 1997 to 2002 to measure associations of unprotected anal intercourse (UAI) and substance use. Table F7 describes the proportion of individuals using each of the drugs assessed and the median weekly use reported at the last study visit. The proportion of use during sex was consistently lower than global use.

Table F7. Substance use and frequency of use among 261 young men who have sex with men in Vancouver, British Columbia, at last study visit in 2001 or 2002

Drug	Sex-situation Use	Global Use	
	Proportion* N (%)	Proportion* N (%)	Median use/wk (IQR)† among users at last visit
Alcohol	139 (54)	239 (92)	2.00 (0.90, 6.00)
Poppers	45 (18)	69 (27)	0.52 (0.10, 2.00)
Marijuana	56 (22)	132 (51)	0.23 (0.06, 2.00)
Coke	18 (7)	48 (19)	0.08 (0.04, 0.38)
Crack	1 (0.4)	5 (2)	10.70 (0.20, 23)
LSD	7 (3)	26 (10)	0.04 (0.02, 0.04)
Heroin	-	3 (1)	0.18 (0.17, 0.19)
Crystal Meth	10 (4)	29 (11)	0.11 (0.04, 0.69)
Ecstasy	13 (5)	48 (18)	0.08 (0.04, 0.23)
GHB	8 (3)	26 (10)	0.08 (0.04, 0.46)
Special K	4 (1.5)	29 (11)	0.12 (0.04, 0.46)

*Proportion of participants using drug at last visit in 2001 or 2002.

†Median global use of drug among those using the drug at last visit in 2001 or 2002.

The study showed that UAI was significantly associated with sexual situation specific use of marijuana (OR, 1.43), CM (OR, 1.75), ecstasy (OR, 1.88), and ketamine (OR, 2.17); global use associations were similar. Type of drug use measure, partner, and role are important determinants of the association of specific substances and UAI.⁶⁹

Other Vanguard project findings pertaining to CM show that the percentage of men reporting any use of CM during the previous year increased from 10% in 1997 to about 25% in 2003; about half of these men use at least once a week. In the other half frequency of use is very occasional (a few times a year). Only half of CM users report its use before or during sex. Recent follow up analyses of the survey data show that only a small proportion (10%) of HIV-negative gay men engaging in high-risk practices for sexual acquisition of HIV infection report use of CM during sex. Furthermore, use of CM was not associated with transition from only safe sex with casual partners in the previous year to having any high-risk, unsafe sex with such partners in the subsequent year; indeed its use was rare (5%) among men making such behavioural change.⁷⁰

Drug use trends

Youth in BC (the McCreary report)

Previous surveys were conducted in 1992 and 1998. Over 30,000 Grade 7-12 students in BC completed the confidential survey of 140 questions on health status, health promoting practices and risky behaviours.⁵⁴ The BC School list was stratified by geographic region with 45 of 59 school districts permitting access. The reported survey results reflect responses only from students attending public school; independent schools were excluded due to a low response rate. Students with significant drug problems may not remain in the school system and only consenting school districts and schools were surveyed.

Vancouver Region is part of Greater Vancouver area, which also includes Fraser South, North and East. Vancouver School District (#39) is the only school district in the Vancouver Region (corresponding to Vancouver HSDA). A total of 3,096 students completed the questionnaire in Vancouver, representing 27,407 Grade 7-12 students enrolled 2002/03.

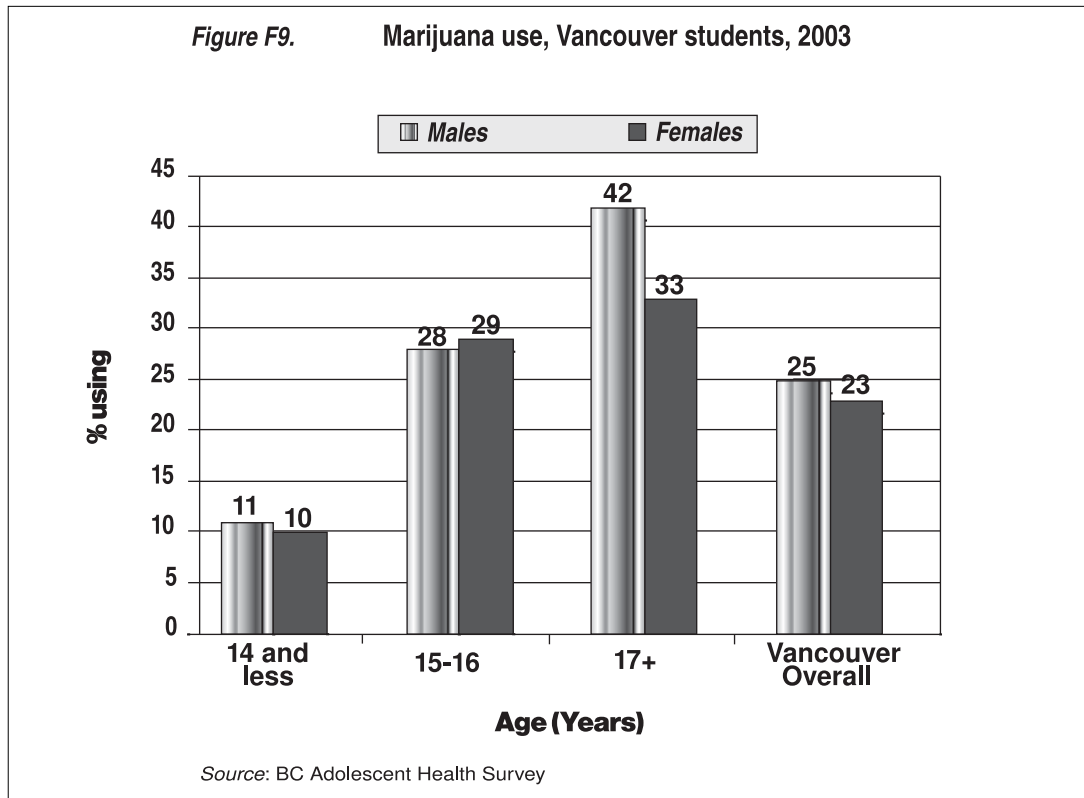
Grade 7 = 608	Grade 8 = 506
Grade 9 = 626	Grade 10 = 442
Grade 11 = 449	Grade 12 = 465

The data is weighted so that estimates represent the population as a whole. Alcohol and methamphetamine use by youth as identified in McCreary report are discussed in previous appropriate sections.

Marijuana

Marijuana use in Vancouver (24%) remains lower than in Greater Vancouver (28%) and BC overall (37%) (figure F9). As with alcohol, the proportion of boys and girls admitted ever using are similar. However, boys are more likely than girls to be heavy users (>100 times lifetime use) of marijuana; 26% and 10% respectively in Vancouver.

Marijuana use was also related to family connectedness. Responses to questions about closeness to parent and being understood by family members were combined to give a 'connectedness' score and categorised as high, medium and low. Thirty percent of youth with low connectedness score had ever used marijuana in Vancouver, 25% with medium score and 15% high.



Other illegal drugs

The survey reports an overall decrease of most other illegal drugs since 1998. The proportion of students using each substance in Vancouver is lower than their counterparts around the province. It must again be emphasized that the survey includes only youth 'in school' and responses may therefore not be generalized to all youth (table F8).

Table F8. Ever used illegal drugs, BC Adolescent Health Survey 2003

Drug	Vancouver 2003	Greater Vancouver Area 2003	BC 2003	Greater Vancouver Area 1998	BC 1998
Cocaine	5%	5%	5%	7%	7%
Hallucinogens ^a	5%	6%	7%	9%	11%
Mushrooms	6%	9%	13%	13%	16%
Inhalants	3%	3%	4%	6%	6%
Amphetamines ^b	2%	3%	4%	4%	5%
Heroin	-	1%	1%	2%	2%
Injected an illegal drug	-	1%	1%	1%	1%
Steroids	1%	1%	1%	2%	2%
Prescription pills without doctors consent	8%	8%	9%	10%	10%

^a includes ecstasy and LSD

^b includes crystal meth and speed

Canadian Addiction Survey 2004

The Canadian Addiction Survey (CAS) found, that compared with national average of 44.5%, lifetime use of cannabis is significantly higher in BC (52.1%). Also its past-year use is significantly higher in BC (16.8%) than national average (14.1%). For other illicit drugs including cocaine/crack, speed, ecstasy, hallucinogens and inhalants, BC has higher than national average rates (23.0% vs. 16.5% for any drug excluding cannabis). Hallucinogens are the most common illicit drug other than cannabis used in BC with life-time rate of 16.5% followed by cocaine/crack (16.3%). Living in BC and Alberta is associated with higher lifetime harms of illicit drug use.

Self reported rates of illicit drug use are increasing in Canada. The proportion of Canadians reporting any illicit drug use in their life time rose from 28.5% in 1994 to 45.0% in 2004, and in the past 12 months from 7.6% to 14.4% (table F9). This overall trend of increasing rates of illicit drug use does not translate into changes in reported harms among most of the variables that can be compared across surveys. The data indicate that the number of Canadians who report having used an injectable drug at some point in their life increased from 1.7 million in 1994 to a little over 4.1 million in 2004. Of those, 7.7% (132,000) reported having used a drug by injection in 1994 compared with 6.5% (269,000) in 2004.⁵⁵

Table F9. Changes in illicit drug use for comparable major indicators

Drug	NADS	CADS	CAS	CAS (BC)
	1989	1994	2004	2004
Cannabis—lifetime	23.2*	28.2*	44.5	52.1
Cannabis—past year	6.5*	7.4*	14.1	16.8
Any drug ^a (excl. cannabis)—life	N.A.	N.A.	16.5	23.0
Any drug (excl. cannabis)—past year	N.A.	N.A.	3.0	4.0
Cocaine/crack—life	3.5*	3.8*	10.6	16.3
Cocaine/crack—past year	1.4	0.7*	1.9	2.6
LSD/speed/heroin—life	4.1*	5.9*	13.2	N.A.
LSD/speed/heroin—past year	0.4 ^Q	1.1	1.3	N.A.
Inhalants—life	N.A.	0.8	1.3	1.7 ^Q
Steroids—life	N.A.	0.3 ^Q	0.6	N.A.

^a "Any illicit" category excludes ecstasy

^Q Qualified release due to high sampling variability

N.A. Not available

* Significantly different from CAS

Price

The price of street drugs has remained constant in the past 5 years. VIDUS participants report the price of a point (i.e. 0.1 gram) of cocaine costs \$10, as does a rock of crack. Heroin is \$20 for a point. Methamphetamine is much cheaper, a point is \$3 and \$30-\$40 can buy a whole gram. Although the price is stable there may be differences in purity and 'cut' added.

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