









CRYSTAL METH AND OTHER AMPHETAMINES:

An Integrated BC Strategy

AUGUST 2004



Copies of this report are available from:

British Columbia Ministry of Health Services, Mental Health and Addictions website: http://www.healthservices.gov.bc.ca/mhd

Library and Archives Canada Cataloguing in Publication Data British Columbia.

Crystal meth and other amphetamines: an integrated BC strategy.

Issued by: Minister of State for Mental Health and Addiction Services. Also available on the Internet.
ISBN 0-7726-5217-1

- 1. Methamphetamine abuse British Columbia. 2. Amphetamine abuse British Columbia.
- 3. Drug abuse Government policy British Columbia. 4. Drug abuse British Columbia
- Prevention. 5. Substance abuse British Columbia. 6. Mental health policy British Columbia. I. British Columbia. Minister of State for Mental Health and Addiction Services. II. Title.

HV5822.A5B74 2004 362.29'17'09711

C2004-960115-6

Contents

Message from the Minister of State	1
Executive Summary	3
A History of Methamphetamine Use	4
Current Research and Information	7
Our Collective Action	10
BC's Methamphetamine Strategy: An Integrated Response	12
Response to Methamphetamine Use	13
Priorities for Action	14
Conclusion	19
Appendix I – State of the Knowledge Report: Methamphetamine	20
Appendix II – Methamphetamine Fact Sheet	31
Appendix III – Principles of an Effective Methamphetamine Strategy	34
Appendix IV – Current Services and Systems in BC	35
References	38

Message from the minister of state



In BC, as well as other Canadian provinces, there has been an increase in awareness and concern about the illicit drug crystal meth and its impact on its users, particularly youth, and the community.

As the minister responsible for addiction services, I convened a meeting of government representatives on March 31st of this year with the purpose to set about developing an integrated response to the apparent, growing challenge of the use of methamphetamines and other illicit drugs in our communities. The comprehensive strategy outlined here reflects the efforts and inputs of provincial ministries, health authorities and community partners. It is a result of consultation with six ministries and six health authorities, and it spans sectors such as the health care system, education, social services,

community agencies, and the justice and corrections systems. This report flows out of the provincial addictions planning strategy, *Every Door is the Right Door: A British Columbia Planning Framework to Address Problematic Substance Use and Addiction*, which was released on June 11, 2004.

I wish to particularly thank my colleague ministers, Clark, Christensen, Coell, Coleman, Hansen and Hagen for their continued support, as well as that of their deputies and senior advisors, to making a positive difference on this file. In addition, Vancouver Burrard MLA Lorne Mayencourt has been an able contributor to this task.

A collaborative approach to collecting, assessing, sharing and distributing research to the people who provide the services and interventions will make a real, positive difference on the front lines. All of us working together, government, professionals, communities, individuals and families, can improve the overall effectiveness of all sectors to prevent and reduce the harmful health, social, and economic impacts of crystal meth and other amphetamines.

Honourable Susan Brice

Minister of State for Mental Health and Addiction Services

Susan Brie

Executive SUMMARY

Methamphetamine is known by many names in our communities. Crystal meth, meth, jib, speed, crank and crystal are only some of them. This addictive central nervous system stimulant is raising concerns among British Columbians across the province.

Methamphetamine use is a serious and growing problem in British Columbia. While the rates of methamphetamine use are much lower than those for tobacco or alcohol misuse, the use and related deaths from this substance have been increasing. Methamphetamine use, once initiated, can rapidly lead to dependence. Moreover, this substance is rarely used in isolation from other harmful substances. Crystal meth and other forms of methamphetamine are easily available and made with over-the-counter ingredients by individuals in their homes or by organized crime groups. These factors combine to make methamphetamine a cheap drug with high potential for misuse and harmful effects on youth and young adults.

Methamphetamine is often used with other substances, such as cocaine or crack, heroin or alcohol, increasing the risk of injury or death related to overdoses, accidents or violence. Side effects can include irritability, heart palpitations, confusion, severe anxiety, paranoia, violence or psychosis. Long-term use may possibly cause structural changes to the brain, memory loss, difficulty completing complex tasks and permanent psychotic symptoms.

For the first time, BC's integrated strategy provides a coordinated approach to prevent and reduce the use and supply of methamphetamine and other illicit drugs – and their harmful effects on youth and other high-risk groups.

BC's Methamphetamine Strategy identifies five priorities for action:

- 1. Informing the public;
- 2. Building safer communities;
- 3. Identifying high-risk populations;
- 4. Increasing the skills of service providers; and
- 5. Reducing harm to individuals.

This new strategy, Crystal Meth and Other Amphetamines: An Integrated BC Strategy, complements the recently-released provincial framework on addictions, Every Door is the Right Door: British Columbia's Planning Framework to Address Problematic Substance Use and Addiction.

Partners throughout the province will continue to work together to address the use of crystal meth and other amphetamines, including BC ministries, health authorities, service providers, community organizations and agencies. In addition, the public has an important role in raising awareness and supporting individuals and families in addressing problematic substance use.

A History of METHAMPHETAMINE USE

Ephedrine, a natural stimulant and organic substance found in plants, is a compound used to manufacture methamphetamine and is also a common ingredient found in prescription and over-the-counter medications, particularly cold medications.

Amphetamines are synthesized from ephedrine. Amphetamines were introduced in the 1930s to combat nasal congestion. Later, they were found to be useful in the treatment of attention deficit hyperactivity disorder (ADHD), narcolepsy or sleep disorder, obesity and depression. These central nervous system stimulants were also used by armed forces in World War II and subsequently by truck drivers, students and athletes.

The use of methamphetamine dates back to 1887 when it was first synthesized from ephedrine and used as medicine in China for hundreds of years. Methamphetamine is a chemical widely known for its stimulant properties. It is often confused with other drugs that have similar effects, such as ephedrine, amphetamines, caffeine, other chemicals, and both legal and illicit drugs.

Crystal meth and other forms of methamphetamine are easily available and made with over-the-counter ingredients by individuals in their homes or by organized crime groups. These factors combine to make methamphetamine a cheap drug with high potential for misuse and harmful effects on youth and young adults. Methamphetamine use, once initiated, can rapidly lead to dependence, resulting in serious health and social consequences. The number of deaths related to methamphetamine use is increasing, although the total rate of deaths due to illicit drug overdose is decreasing.

Methamphetamine is also called crystal meth, meth, jib, speed, crank, crystal, teck, zip, glass, ice and shards. This substance can be swallowed, smoked, injected or snorted. Its appearance varies depending on how it is used. Typically, it is a white, odorless, bitter tasting powder that easily dissolves in water. However, much of methamphetamine is homemade, and therefore the color and appearance can vary depending on the person making it and the raw materials used.

Methamphetamine is a central nervous system stimulant that causes harmful health effects. Its use may be deliberate or unknowing as methamphetamine is commonly contained in many "club drugs". Methamphetamine produces intoxication through increased stimulation of dopamine, serotonin and norepinephrine receptors in the brain. These effects can last anywhere from two to 16 hours, depending on the purity and form used. Side effects can include irritability, nervousness, insomnia, nausea, hot flashes, dry mouth, sweating, heart palpitations and hypertension. Excessive doses can cause mental confusion, severe anxiety, paranoia, violence and psychosis. In extreme instances, methamphetamine can cause hyperthermia, cardiovascular system collapse and stroke. There is little information on the long-term, harmful effects of methamphetamine use on an individual's health. However, available information suggests that possible long-term effects may include structural changes to the brain, memory loss, difficulty completing complex tasks and permanent psychotic symptoms. For more information, please see Appendices I and II.

A History of METHAMPHETAMINE USE

Methamphetamine is rarely used in isolation. In fact, methamphetamine use may occur together with other illicit drugs or prescription amphetamine misuse, including in dangerous combination with other substances: cocaine or crack, marijuana, heroin and alcohol. In particular, spiking cocaine with methamphetamine allows dealers to increase their profit margin by maintaining retail sales prices, while reducing their production costs. Therefore, it is imperative that efforts to target methamphetamine use be part of a total response or strategy to address problematic substance use and addictions in British Columbia.

Methamphetamine use is a serious and growing problem in the province. British Columbia experienced high amphetamine usage in the 1960s, 1970s and 1980s. In 1997, the Controlled Drugs and Substances Act replaced the Narcotic Control Act and certain provisions of the Food and Drugs Act for regulating methamphetamine production and use. Since 2002, methamphetamine use has again become a concern for British Columbia, Alberta and Washington State, US.

While the rates are much lower than tobacco or alcohol misuse, there is clearly a need to address methamphetamine use. This illicit drug is inexpensive, easily accessible and potentially dangerous – with little information available on effective treatment approaches. In addition, much work is required to determine the effectiveness of enforcement strategies to help reduce or prevent problematic substance use.

A diverse population uses methamphetamine and for various reasons. Methamphetamine use can result in increased energy, performance enhancement, loss of appetite, weight loss and heightened sexual drive. Methamphetamine use seems prevalent among street youth, youth involved in the rave dance scene, and gay men. Serving these populations requires that effective responses be developed for these groups.

The testing of drugs seized at rave dance scenes shows about 65 per cent of drugs sold as ecstasy (in which buyers are presuming to receive the drug MDMA) actually contain varying amounts of methamphetamine. That is an increase over the last three years.

Problematic substance use presents a significant public health and social challenge in British Columbia. It has also resulted in substantial financial costs estimated at 2.3 billion in 1992. Problematic substance use of methamphetamine and other illicit drugs affects a large proportion of the population both directly and indirectly. These harmful impacts may include loss of productivity and wages, disability and death due to overdose, as well as enforcement, social and health costs. These detrimental effects to the health and well-being of individuals, families and communities can be prevented and reduced.

A History of METHAMPHETAMINE USE

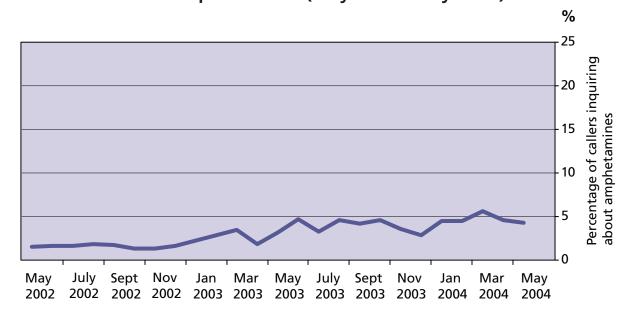
Most recent epidemiological data suggest that approximately 33,000 British Columbians have a dependence on illicit drugs. The 2003 Adolescent Health Survey by the McCreary Centre Society sampled about 30,500 BC students. Researchers found that only four per cent had ever used amphetamines – a decrease of one per cent from five per cent in 1998. This survey, based on a large sample of youth in school, indicates that amphetamine use is not extensive among BC youth who attend school. Methamphetamine use has become a serious and growing problem for a small group of youth. Individuals addicted to methamphetamine are experiencing longer than average treatment stays in the forensic system.

A Methamphetamine Environmental Scan Summit was hosted by the Canadian Community Epidemiology Network on Drug Use in Vancouver in November 2002. Recommendations proposed by participants at the summit focused both on better utilization of available resources and development of new strategies. The summit resulted in the creation of the Methamphetamine Response Committee (MARC) and working groups to implement the recommendations. The committee has focused on prevention and treatment, professional education, first responders, and justice-related issues particularly in the Lower Mainland.

Current RESEARCH AND INFORMATION

Calls to the BC Alcohol and Drug Information and Referral Service related to amphetamines appear to have increased over the past two years (See Figure 1). An increase in callers does not necessarily mean an increase in demand for services. Other variables may include a greater need for information as a result of recent media attention to crystal meth use, its effects and the dismantling of clandestine methamphetamine labs in BC and Washington State, US.

Figure 1: Calls to BC Alcohol and Drug Information and Referral Service – Amphetamines (May 2002 - May 2004)



Source: BC Alcohol and Drug Information and Referral Service

Current RESEARCH AND INFORMATION

BC data indicates that the number of people who seek community addictions services and report amphetamine misuse has increased from four per cent to 11 per cent over five years, as a proportion of all community addictions services. There appears to be no change in percentage between 2002 and 2003, remaining at 11 per cent. The use of amphetamine is higher in males than in females, and higher in urban areas than in the north (See Tables 1 and 2).

Table 1: BC Admissions to Community Addictions Services by Gender for Amphetamine Misuse (1999-2003)

		U	nique Pati	ent Count		
Year	Total	Percentage of Addictions Services	of Male Fema Addictions Services		nale	
1999	933	4%	520	56%	413	44%
2000	1,153	5%	678	59%	475	41%
2001	1,849	8%	1,081	58%	768	42%
2002	1,484	11%	793	53%	691	47%
2003	1,687	11%	908	54%	779	46%

Notes:

- 1. Clients may have more than one admission in the indicated year. All ages are included.
- 2. 2002 data are incomplete and 2003 data may change with subsequent queries.
- 3. The count of amphetamine admissions was based on completed AIMS forms where amphetamines were checked and may not always be the primary drug used.

Source: BC Ministry of Health Services, Addictions Information Management System (AIMS)

Table 2: Admissions to Community Addictions Services for Amphetamine Misuse by Health Authority in BC (1999-2003)

Year	Fraser	Interior	Northern	Vancouver Coastal	Vancouver Island
1999	498	194	87	319	183
2000	541	259	112	437	262
2001	934	417	199	694	362
2002	825	432	217	243	319
2003	766	459	232	222	356

Notes:

- 1. Clients may have more than one admission in the indicated year. All ages are included.
- 2. 2002 data are incomplete and 2003 data may change with subsequent queries. Data is as of May 13, 2004.
- 3. Thompson and Cariboo patient counts are placed in Interior Health, although some patients may have accessed services in the Northern Health due to the split for the Cariboo patients.
- 4. Client admissions that cannot be assigned to a known health authority are not included.
- 5. The count of amphetamine admissions was based on completed AIMS forms where amphetamines were checked and may not always be the primary drug used.

Source: BC Ministry of Health Services, Addictions Information Management System (AIMS)

The BC Coroners Service has reported a decrease in the total number of deaths due to illicit drug overdoses in the past six years. However, within this group, there is an increase in the number of methamphetamine-related deaths in BC (See Table 3).

Table 3: Reported Overdose Deaths by Drug Type (1998-2004)

Drug Type	1998	1999	2000	2001	2002	2003	2004 (YTD)
Alcohol	30	25	17	27	20	21	2
Alcohol/Drugs	27	27	35	27	30	22	6
Illicit Drugs	417	277	248	245	170	173	49
Non-Illicit Drugs	153	133	138	166	180	117	18
Methamphetamine			2	4	7	12	6
TOTAL	627	462	440	469	407	345	81

Source: BC Coroners Service, June 21, 2004

Our Collective ACTION

BC's Methamphetamine Strategy aims to improve health and to reduce the negative impacts of problematic substance use. By working towards our objectives and actions, and by using a comprehensive, sustainable, collaborative and adaptable approach, we will see real results where:

- Collaborative working relationships with partners in all levels of government and the community are fostered to ensure the most effective methamphetamine strategy for the province.
- 2. The public understands harms caused by methamphetamine use.
 - Every child and youth participates in effective substance use prevention programs in the school or community;
 - Families have access to a range of information, services and supports to seek early treatment for family members;
 - Persons using methamphetamine have access to a range of information, services and supports to reduce use and seek early treatment; and
 - Persons engaged in methamphetamine use and polydrug use understand the harm and negative impacts, and they take action to reduce use and harm to self and others.
- **3.** There are regulatory controls on the supply and availability of methamphetamine, including the sale of ingredients used to make crystal meth and other forms of the illicit drug.
- **4.** Ongoing research enables education, prevention, treatment and enforcement strategies to be monitored, evaluated and improved.

BC's Methamphetamine Strategy is being implemented through six provincial ministries, six health authorities, community organizations, municipalities and many other partners. These include:

BC Government Ministries

The provincial government and ministries have an important role in providing strategic direction, leadership, support and services to address methamphetamine use in British Columbia. These ministries coordinate efforts to provide an integrated and consistent response based on best practices and evidence-based research.

- Ministry of Community, Aboriginal and Women's Services (MCAWS)
- Ministry of Children and Family Development (MCFD)
- Ministry of Human Resources (MHR)
- Ministry of Education (MOE)
- Ministry of Health Services (MOHS)
- Ministry of Public Safety and Solicitor General (MPSSG)

Our Collective ACTION

Health Authorities

The Ministry of Health Services provides funding to BC's health authorities for health services. Health authorities have a direct role to play in addressing methamphetamine use in local communities and throughout the province. Health authorities are responsible for planning, delivering and evaluating health services and programs that focus on prevention, early intervention and treatment. Health authorities implement best practices to provide effective care to meet the needs of their diverse communities.

- Fraser Health (FH)
- Interior Health (IH)
- Northern Health (NH)
- Vancouver Coastal Health (VCH)
- Vancouver Island Health Authority (VIHA)
- Provincial Health Services Authority (PHSA)

Community Organizations and Service Providers

Community organizations receive funding and support from BC's health authorities and government ministries to provide addictions services and supports to individuals, families and communities. BC has a network of organizations and service providers that deliver services and programs on preventing, reducing and responding to methamphetamine use in local communities.

Municipalities

Municipalities have a critical role in providing leadership and supporting efforts to build healthy and safer communities. They work with various partners to create supportive infrastructures to address issues of methamphetamine use and other illicit drugs in local communities.

Educational Institutions

Schools and other educational institutions have an essential role in providing factual information to children, youth and young adults on methamphetamine and other illicit drugs, including their harmful effects. They also have a vital role in promoting healthy living and effective coping skills.

BC's Methamphetamine STRATEGY:

AN INTEGRATED RESPONSE

There is a pressing need to work together to strengthen, expand and coordinate initiatives that address methamphetamine use across all sectors in BC, including government, health authorities, community organizations and other partners. Preventing and reducing methamphetamine use and its harmful effects on British Columbians clearly require an integrated response and a provincial strategy.

BC's Methamphetamine Strategy is comprehensive, collaborative, integrated, sustainable and adaptable (See Appendix III – Principles of an Effective Methamphetamine Strategy). In addition, the strategy builds on current strengths and systems in the province to address methamphetamine use and problematic substance use (See Appendix IV – Current Services and Systems in BC).

BC's strategy aims to create an informed public, safer communities, and a responsive service system that identifies high-risk groups and reduces harm to both individuals and communities. By implementing the strategy and actions, BC can achieve improved health, fewer deaths and disabilities, and reduced costs to health care and social service systems, corrections and justice systems, and society as a whole.

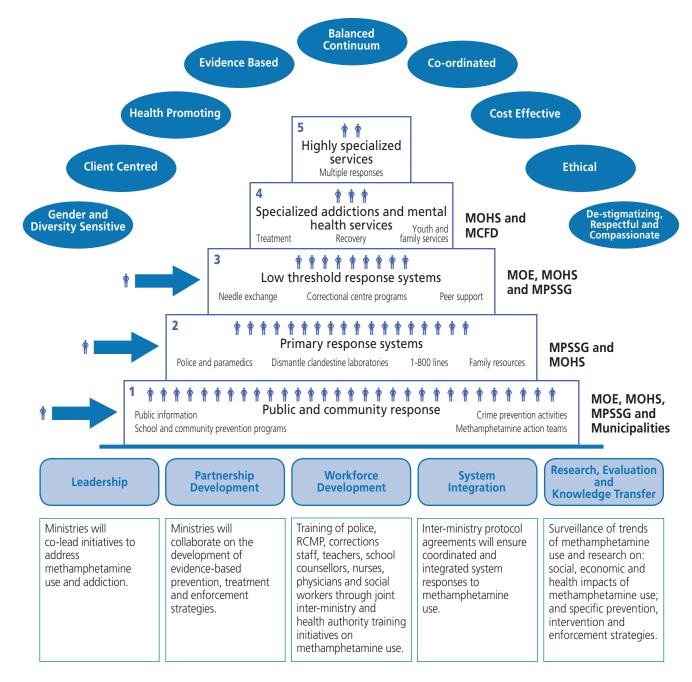
BC's Methamphetamine Strategy aims to achieve four main objectives:

- 1. Prevent individuals from ever starting methamphetamine use;
- 2. Reduce methamphetamine use by current users;
- 3. Reduce harm and overdose deaths; and
- **4.** Reduce the supply of methamphetamine and improve community safety.

BC's Methamphetamine Strategy is consistent with the best practices and principles of the provincial framework *Every Door is the Right Door: British Columbia's Planning Framework to Address Problematic Substance Use and Addiction* (May 2004). This strategy can also be used to address other similar types of drug use and emerging concerns.

We will continue with this comprehensive approach, build on our successes, and target priorities for action for responding to methamphetamine use.

Response to methamphetamine use



Adapted from: Every Door is the Right Door: British Columbia's Planning Framework to Address Problematic Substance Use and Addiction (May 2004)

The collective vision and outcomes for BC's Methamphetamine Strategy will be achieved through the following priority actions.

ACTION 1: INFORM THE PUBLIC

BC will use resources efficiently across ministries, health authorities and communities to create evidence-based, shared information initiatives. There will be a focused public information campaign to increase awareness among the public and high-risk populations about methamphetamine use, its harmful impacts, prevention, early intervention and treatment. Messaging will be accurate, factual and consistent to increase public awareness of the risks of methamphetamine use and addiction.

We will continue to focus on resources that prevent children, youth and young adults from ever starting to use methamphetamine. By ensuring they never start and by intervening early, we can minimize the harm resulting from methamphetamine use. In addition, this approach can minimize the harm to individual and community health and reduce health care and social costs in years to come.

BC's Methamphetamine Strategy will increase public awareness and assist individuals and families with accessing services and supports in local communities.

- BC's educational institutions will:
 - Include learning outcomes and achievement indicators for substance misuse prevention in prescribed provincial K-12 curriculum and provide assessments of health enhancing decisions. Learning resources in support of the curriculum will be evaluated and recommended as appropriate (MOE);
 - Promote the use of evidence-based prevention programs and supports for children and youth in K-12 schools (MOE and MPSSG); and
 - Promote the fostering of peer education and peer support initiatives for children and youth in K-12 schools (MOE and MPSSG).
- Information will be made available at correctional centres, youth custody centres, community policing centres and community organizations. (MPSSG and MCFD)
- Information will be made available at organizations serving at risk and high-risk youth such as ministry Youth Services offices and agencies, youth custody and youth forensic psychiatric centres, and child and youth mental health services. (MCFD)
- Web-based, video and print materials will be available at needle exchanges, pharmacies, methadone clinics, physicians' offices, community health centres, emergency rooms, drop-in centres and through community outreach workers. (MOHS)

- Advocacy groups will help develop and disseminate information to at risk groups.
 (MCAWS and MOHS)
- BC NurseLine and BC Alcohol and Drug Information and Referral Service will continue to be promoted as provincial resources available 24-hours, seven days a week. (MOHS)
- BC's Provincial Health Officer will be consulted to provide updates on emerging concerns related to methamphetamine use and addiction. (MOHS)
- Information will be available to individuals who receive BC Employment and Assistance. (MHR)
- All partners will work with news media to increase public awareness of methamphetamine, its use and where to seek help.

ACTION 2: BUILD SAFER COMMUNITIES

We will continue to work with our partners and every British Columbian to support efforts to prevent crime and build safer communities. This will require the involvement of all partners and sectors in our communities, including the police, school districts, businesses and other community organizations.

To build the safest communities possible in BC, we will:

- Work with the federal government, the College of Pharmacists of British Columbia and the British Columbia Pharmacy Association to control access to ingredients readily available in retail pharmacies and other retail outlets to reduce the production and sale of methamphetamine. (MPSSG, College of Pharmacists of British Columbia)
- Support continued investigation by police of methamphetamine production and trafficking by criminals, especially those involved in organized production and trafficking operations. (MPSSG)
- Support municipalities in planning and building healthy and safer communities.
 (MPSSG and Municipalities)
- Encourage the development of regional action teams, including the police, corrections, justice, health care, social services, local businesses, community organizations, individuals who have used methamphetamine and their families, to address local needs and coordinate efforts. (MPSSG)
- Build neighbourhood capacity to increase awareness and prevent criminal activity.
 (MPSSG and Municipalities)

ACTION 3: IDENTIFY KEY AT RISK GROUPS

In British Columbia, we are coordinating efforts among partners and integrating services in communities to address methamphetamine use and its harmful impacts on health and our society. A responsive service system will ensure that at risk groups are identified and people involved in service systems have the specific skills to prevent, treat and reduce methamphetamine use in these target populations.

BC will continue to focus on health promotion, prevention and reduction measures that target individuals and groups at highest risk and with the greatest needs. We will continue to monitor and respond effectively to current trends in the use of methamphetamine, including factors that drive its use, harmful effects of usage, and costs associated with methamphetamine use and addiction.

BC's Methamphetamine Strategy focuses on the following six groups:

- 1. Women of child-bearing age using methamphetamine.
- 2. Children at risk in homes where parents or other family members engage in methamphetamine use or production.
- **3.** Youth and young adults, ages 14-29, at high-risk of engaging in methamphetamine use such as street youth, youth attending rave dance scenes, youth using methamphetamine to control weight, athletes and super achievers.
- **4.** Gay men and other vulnerable populations engaged in methamphetamine use.
- **5.** Sex trade workers who use methamphetamine.
- **6.** Persons in rural and remote communities using methamphetamine as the primary illicit drug of choice.

Our efforts will:

- Educate women of child-bearing age about the risks of methamphetamine and other drug use, such as alcohol, during pregnancy, and their harmful effects on the mother and developing child. (MOHS and MCFD)
- Respond to the protection needs of children brought about by methamphetamine use in homes, as well as from toxic substances from clandestine methamphetamine laboratories. (MCFD)
- Develop and implement best practices to assist young girls who use methamphetamine.
 (MOHS)
- Support advocacy groups to educate individuals at risk of the harmful effects of methamphetamine use and addiction. (MOHS and MCFD)

- Support individuals and families to make healthy choices and develop effective coping skills. (MOHS)
- Support children and youth in K-12 schools in making health enhancing decisions by including learning outcomes and suggested assessment strategies in provincially prescribed curriculum. (MOE)
- Continue to provide access to information and services for rural and remote areas and Aboriginal communities. (MCAWS, MOHS and MPSSG)
- Educate inmates and youth in custody centres about the harmful effects of methamphetamine use and other illicit drugs and how to manage their addictions. (MPSSG and MCFD)
- Support employers to educate employees about methamphetamine use and its harmful effects and provide access to early treatment through the Employee Assistance Program (EAP). (MOHS and MHR)

ACTION 4: INCREASE SKILLS OF SERVICE PROVIDERS

BC's Methamphetamine Strategy will ensure service providers will have the skills to support and respond effectively to the needs of individuals, families and communities.

We will:

- Develop assessment and treatment protocols for methamphetamine use, including acute intoxication, methamphetamine-induced psychosis, and overdose. (MOHS)
- Provide on-line resources and training for service providers, including:
 - School counsellors;
 - Child and youth workers;
 - Addictions counsellors;
 - Corrections staff and police;
 - Ambulance workers;
 - Physicians and nurses; and
 - Private service providers.

(MOHS and MPSSG)

- Facilitate the development of and access to resources and training opportunities for those working in the areas of victim services and crime prevention. (MPSSG)
- Facilitate education and training opportunities for police and corrections staff, including youth custody centre staff, on issues related to methamphetamine use. (MPSSG and MCFD)
- Improve access to training for service providers through province-wide tele-centres.(MOHS)

ACTION 5: REDUCE INDIVIDUAL HARM

BC's Methamphetamine Strategy provides practical solutions for addressing the harm associated with methamphetamine use and other illicit drug use. Harm reduction recognizes the necessity of helping people stay as safe and healthy as possible, and supporting them in informed decision-making.

To increase safety and reduce individual harm, we will:

- Provide information to the public about methamphetamine use and its harmful health, social and economic impacts. (MOHS and MPSSG)
- Increase availability of first responders, as well as access to water and fluid stations at events. (MOHS and Community Organizations)
- Make available safe paraphernalia, such as needle exchanges, at locations where there are methamphetamine users. (MOHS)

Conclusion

Methamphetamine use in British Columbia is becoming a serious and growing concern, and represents a significant public health and social challenge. It affects a diverse population, particularly youth and young adults ages 14 to 29 years. Methamphetamine use, if not prevented, could have harmful health, social and economic consequences.

Problematic substance use, including methamphetamine use, requires a coordinated and integrated response from all sectors, including the police, corrections, health, social services, justice system, community organizations and others. BC's Methamphetamine Strategy provides an integrated response and five priority actions: informing the public, building safer communities, identifying at risk populations, increasing skills of service providers, and reducing harm to individuals. The outcomes of this strategy will be improved health, fewer deaths and disabilities related to methamphetamine use, as well as reduced costs to individuals, families and society as a whole.

BC's Methamphetamine Strategy is consistent with best practices, principles and components described in the Every Door is the Right Door: British Columbia's Planning Framework to Address Problematic Substance Use and Addiction. We will continue working with our partners on this comprehensive approach, build on our successes, and target priorities for action for addressing methamphetamine use and improving the health of British Columbians.

Appendix I

STATE OF THE KNOWLEDGE REPORT: METHAMPHETAMINE

This State of the Knowledge Paper (2004) has been produced by the Kaiser Foundation for the BC Partners for Mental Health and Addictions Information, with funding from the BC Ministry of Health Services. It is one of a series describing the knowledge currently available on various key topics. The most current and accurate evidence available has been distilled into an easily digestible format designed to inform from a balanced perspective.

Introduction

Methamphetamine is a dangerous drug, and using it can have very negative consequences. It has also become the most demonized drug in recent years, with the media regularly reporting heart-wrenching stories and experts quoting alarming statistics. It is extremely difficult in this context to develop evidence-informed policies and programs. This document seeks to summarize the state of the knowledge on methamphetamine use and its consequences. The international literature is utilized, but special attention is given to the situation in British Columbia.

What is methamphetamine?

Methamphetamine is a drug that stimulates central systems in the brain, similar in function to cocaine and caffeine. Methamphetamine is a synthetic (man-made) chemical that is classified as an amphetamine-type stimulant (ATS). There are two major subgroups of ATS:

- Amphetamines: amphetamine, dexamphetamine, methamphetamine
- Ecstasy-type substances: MDMA, MDA, MDE.

Methamphetamine Street names:

- crystal meth
- ice

speed

crystal

• meth

• crank

• jib

- glass
- poor man's cocaine
- chalk

There is considerable confusion in the popular, and even official, literature about this class of drugs. According to a 2003 United Nations global survey, the term "ecstasy" is often used to refer to any type of ATS marketed in tablet form. Additionally, the term "amphetamine" is often used to refer to methamphetamine (the N-methyl derivative of amphetamine) or to the broader category of ATS. The situation is

further complicated by the frequently complex composition of substances sold as ATS, the many fake or counterfeit products available, and the lack of distinction between products that have different active ingredients. This is especially the case for tablets sold as ecstasy.¹⁷

A white, odourless, bitter-tasting crystalline powder, methamphetamine dissolves easily in water or alcohol. It is also commonly available in a clear, chunky form that looks like ice crystals and can be found in pill form. It can be snorted, injected, smoked, or ingested orally. It is usually manufactured in small operations in private homes, using relatively inexpensive over-the-counter precursor ingredients.⁵

A Brief History

Amphetamine was first produced in 1887, and methamphetamine was first synthesized in 1893 in Japan. Amphetamines were not released as legitimate medications until the 1930s. They were soon being prescribed for a wide range of conditions, including asthma, epilepsy, obesity, schizophrenia, narcolepsy, and hyperactivity disorders in children. ATSs were commonly utilized by military and support personnel during World War II to enhance fighting spirit, maintain wakefulness, and increase productivity. Non-medical use became common in some countries (including the US) where amphetamines were used, for example, by night-shift workers, long-haul truck drivers, students preparing for examinations, and individuals seeking to lose weight.

In Japan, amphetamine and methamphetamine use reached epidemic proportions immediately after World War II when supplies stored for military use became available on the black market and pharmaceutical companies promoted their products containing methamphetamine. When the legal supply was severely tightened in the 1950s, users turned to illicit methamphetamine manufactured in clandestine laboratories. This led to the first real awareness of the dependence-producing property of amphetamines.¹⁸

The World Health Organization became aware of problem use in the early 1950s. Increasing availability of injectible methamphetamine in the 1960s led to dramatic increases in its use, and severe restrictions were placed on its legal production in the early 1970s. This provided the impetus for an illicit market fed by theft, diversion, and the clandestine manufacture of ATS.²⁰

There are few accepted medical uses for these drugs today, mainly the treatment of narcolepsy, attention deficit disorder, and – for short-term use – obesity.

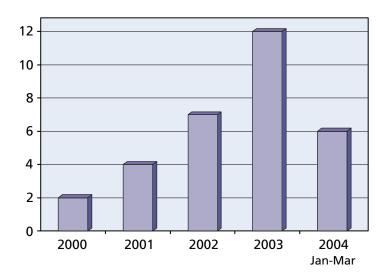
How widespread is methamphetamine use?

Globally, ATS use is dramatically on the upswing. A recent report documents a 40% increase in amphetamine and methamphetamine users between 1995/97 and 2000/01. ATS use is estimated to affect about 1% of the world's population. While this figure is nowhere near the number of cannabis or alcohol users, it exceeds the number of cocaine and heroin users combined.²⁰

Unlike cocaine, opiates, and cannabis, which are plant-based drugs, ATS can be produced wherever there is access to precursor chemicals, a strong market, and low risk involved. On a global scale, Europe is the major producer of amphetamine, while Asia and North America are the primary methamphetamine producers. Ecstasy is now produced all over the world. In North America, methamphetamine is the most commonly used drug in the ATS class.¹⁷

The evidence regarding methamphetamine use in British Columbia is confusing. While service providers around the province report increased methamphetamine use particularly by youth - youth survey results are less clear. School-based surveys in Squamish³ and the East Kootenay⁶ in 2002 showed lifetime use at 1.4% and 3.3% respectively. A Lower Mainland 16 survey conducted the same year in non-school settings, reported a lifetime prevalence of 19%; and a survey of street youth in Vancouver in 2000 indicated lifetime prevalence of 71%.² The latest province-wide report based on school survey data indicates that lifetime use of amphetamines, including methamphetamine, has dropped from 5% in 1998 to 4% in 2003.6 Though the differences in sample groups and survey tools do not allow for comparison between the results, it seems reasonable to conclude that methamphetamine use among the general youth population is stable or declining slightly. However, use among certain high-risk populations is much higher and may be increasing significantly. This is consistent with the BC Coroner's Service report that shows methamphetamine-related deaths have been increasing each year since 2000, and that deaths related to methamphetamine (see bar graph below) in the first quarter of 2004 were almost equal to the entire year in 2002. While the numbers are small in both real and relative terms, the trend is indeed worrisome.

Methamphetamine Deaths in BC



Source: BC Coroners Service (2004)

Who uses methamphetamine?

In the North American context, the people who historically used this drug were white, male, blue-collar workers who used it for its stimulant effects. Current trends, however, indicate a broadening of usage. The drug has become increasingly popular in the youth party scene where it provides seemingly endless energy for all-night dancing. Teenage girls in particular are vulnerable to the use of methamphetamine as a weight control measure. Homeless and runaway youth are another population attracted to methamphetamine. For this group, the drug's characteristics of suppressing appetite and the need for sleep resolves two pressing problems: lack of food and the lack of shelter. Methamphetamine has also become popular among sex trade workers because it suppresses the need to sleep, but also because it is comparatively cheap next to cocaine. Finally, some segments of the gay community appear to have higher rates of methamphetamine use. Due to its aphrodisiac characteristics, the drug is often associated with particular environments where sexual contact among gay men is promoted, such as sex clubs and large-scale dance parties.

What is the methamphetamine user's experience?

Methamphetamine has a dramatic stimulant effect on the central nervous system. Both the effect and the time required for the drug to take effect depend on the method of ingestion. Injection and smoking produce very rapid effects, consisting of an initial pleasurable 'rush' or 'flash' that lasts just a few moments, followed by prolonged euphoria. After the initial rush subsides, the user continues to experience increased levels of self-confidence, energy, wakefulness, libido (sex drive), alertness and well-being. This state is a very positive one for the user (and may be in stark contrast to the user's experience of life once the drug has worn off). At the same time, the user experiences an extended state of high agitation: increased heart rate, blood pressure and breathing rate, sweating, restlessness, tooth grinding, incessant talking, and reduced appetite. Snorting produces effects within 3 to 5 minutes, and oral ingestion takes 15 to 30 minutes to produce effects. These methods produce a euphoric effect, but not the intense rush of the rapid-onset methods. The duration of the effect can vary and depends on the quantity ingested, but can last up to 12 hours. By contrast, the body processes cocaine much more quickly, with 50% of the substance removed in the first hour after consumption. Users can develop tolerance to the pleasurable effects of methamphetamine quickly, even while they continue to experience the physical stimulant effects. Thus, some users may take the drug successively in a 'binging' pattern, injecting (the most frequent method) every 2 to 3 hours over several days until the supply of the drug is exhausted or the user becomes too disorganized to continue.

With this pattern of use, severe loss of sleep and the build up of toxic levels of methamphetamine can produce the more extreme symptoms. These may include paranoia, auditory hallucinations, hysteria, mood disturbances, violence, and delusions such as having the sensation of insects crawling under the skin.¹⁵

Why do people use methamphetamine?

Surveys of users indicate that people begin using methamphetamine for a variety of reasons. One of the most common is energy and performance enhancement. This is what drove the wave of use during the 1950s and is a significant factor for many working-class users employed in occupations requiring intensive or prolonged labour. Over-stressed single mothers may find it provides the energy to cope and deal with the never-ending demands on their time.

For others, methamphetamine eliminates the boredom associated with tedious or mundane jobs. Unfortunately, increased and prolonged use has the opposite effect for many users. They become increasingly dysfunctional and find it more difficult to function appropriately.

Another common reason for beginning to use is to enhance social interaction. Users report that methamphetamine makes it easier for them to bond with their social network. Again, the paradox is that what for many begins as a social drug can lead to solitude (in which users may stay isolated for prolonged periods) and paranoia. For males in particular, the paranoia can progressively lead to irritability, anger and violence.

Methamphetamine's reputation in enhancing sexuality and sexual performance attracts many users. Users report that the drug provides the ability to release inhibitions. For some, the euphoria enhances sexual climax while others are attracted by the ability to engage in prolonged sexual activity. Eventually, prolonged and heavy use tends to eliminate or impede sexual desire. Males especially are vulnerable to inhibition of orgasm and erectile difficulties.

A significant minority of users report histories of either asthma or hyperactivity, and find methamphetamine has a calming or centering effect on their mood and behaviour. These users uniformly report feeling greater clarity and less 'speediness' with methamphetamine than with other stimulants. Some users with histories of depression also report a therapeutic benefit, at least during the period of initial use. Many users say that methamphetamine helped them to feel emotionally detached from the pain and struggle of their daily existence. However, a large percentage of users indicate that depression is a serious consequence of prolonged, heavy use.

The paradoxical effects that frame the experience of many users, particularly those who come into contact with treatment programs, is not uniform or universal. A substantial proportion of methamphetamine users eventually manage to stabilize their use to maximize benefits and minimize problems. Users employ a range of strategies and rules designed to protect those areas of their lives they individually regard as important. Women are more likely to maintain control over their lives and use than men, but are also more likely to hold on to the illusion of control long after they have lost it.¹²

What are the health concerns related to using methamphetamine?

Methamphetamine is not a safe drug in terms of acute toxicity. Overdose deaths are rare but do occur when users chase euphoria by repeatedly injecting or because of discrepancy in purity levels. Symptoms of acute intoxication include nervousness, anxiety, hypersensitivity to light and sound stimuli, irritability, and aggressiveness. Acute psychotic reactions – such as hallucinations, paranoid reactions, or confusion and delirium – may occur. In extreme cases, coma may develop and lead to cardiovascular shock, with a fall in blood pressure. On the other hand, elevated blood pressure may cause cerebral hemorrhage. Danger also stems from evidence that suggests that methamphetamine is a highly addictive substance. So even though there are no known serious health effects from methamphetamine use at a low dose, use can quickly increase and lead to serious consequences. Past waves of use have made it clear that drug dependence is one of the major problems associated with chronic use of methamphetamine. This has also been confirmed in laboratory tests. Dependence develops more rapidly with intravenous injection because of quicker onset of action and effects that are more intensive.

Another serious consequence of chronic use is what is often labelled methamphetamine psychosis. This is characterized by schizophrenia-like hallucinations (mainly visual and auditory) and paranoid delusions which can lead to sudden aggressive behaviour. Hallucinations and paranoid delusions usually disappear within a month of discontinuing drug use. However, there are cases of residual psychotic symptoms lasting more than six months. For those who have experienced a psychosis, it may recur more easily, even after a long period of abstinence, if they return to using, use other psychoactive substances, or even when exposed to non-specific stimuli.²¹

Many concerns are a product of the illicit nature of the drug and the contexts in which it is manufactured, distributed and used. The purity and quality of the drug ingested fluctuate when obtained from illicit markets. The seriousness of health consequences is impacted by this inconsistent source and by individual variations in terms of reactions to psychoactive substances. The illicit context of drug use contributes to issues like needle sharing and crime, which in turn have major health consequences. More recently, the dangers posed by the manufacturing process have been recognized. Methamphetamine is most commonly manufactured in small in-home settings where the occupants (including children) are exposed to toxic chemicals. These clandestine labs are usually designed for ease of concealment and not for safety. Often the individuals involved have little or no formal education in chemistry. These factors combine to present very real hazards to both health and safety. However, it should be noted that many of the media reports are overly dramatic in discussing these dangers.

Interventions for Methamphetamine

Prevention

Interventions aimed at preventing or reducing use of methamphetamine are critical. Drug users appear to believe that methamphetamine is less dangerous than cocaine and heroin. The evidence suggests that methamphetamine can be just as dangerous as these other drugs. Prevention initiatives based on accurate, credible and neutral information that will empower individuals to make informed decisions are the recommended strategy. There appears to be a need for evidence-based corrective information about the effects and potential harms arising from methamphetamine use, delivered within a comprehensive health promotion strategy.

Supply Reduction Interventions

The primary supply reduction strategies available are restricting access to the precursor chemicals (mostly pseudoephedrine, ephedrine, and phenylpropanolamine) and disrupting production and distribution. Local supplies are usually produced in small home laboratories within Canada. Although Health Canada has proposed a framework to restrict such precursor chemicals, the plan is only being phased in gradually.

Withdrawal

The withdrawal from all drugs of dependence results in mood disturbance. Stimulant withdrawal has not been researched as much and is not as well understood as opioid withdrawal. Methamphetamine withdrawal appears to have symptoms similar to cocaine withdrawal. During the initial stages of withdrawal, the chronic user can experience intense cravings causing him or her to go to great lengths (such as committing impulsive crimes) to obtain more of the drug. Other symptoms include extreme irritability (sometimes aggression), loss of energy, extreme depression, boredom, inability to experience pleasure, fearfulness, sleep problems, shaking, nausea, palpitations, sweating, hyperventilation, and increased appetite. These symptoms can last for 10 days to two weeks, and the feeling of low energy, as well as cravings, may wax and wane for many weeks.¹³

Treatment Interventions

There are no readily available substitution therapies for stimulant dependence. As a result, the withdrawal phase may be particularly difficult, and short-term use of medication to stabilize mood may be required. The currently available evidence about treatments for methamphetamine dependence comes mostly from studies with cocaine users. Both substances are stimulants, and cocaine and methamphetamine users appear to respond similarly to certain interventions.¹⁰

At this time, cognitive-behavioural approaches are considered the most promising strategy to address methamphetamine use. These encompass a range of interventions such as cognitive restructuring, contingency management, and motivational interviewing, which may be supplemented by strategies such as community reinforcement or support groups. 8,9 Generally, the aim is to help modify the client's thinking, expectancies and behaviours and to increase skills in coping with various stresses. Few programs give sufficient attention to the reasons an individual user may have started using methamphetamine. Effective cognitive-behavioural therapy will need to recognize these differences and seek appropriate solutions.

Conclusion

The current trend in methamphetamine deaths requires attention. Prevalence data indicates that BC is not facing a massive increase in use despite media stories to the contrary. Nonetheless, heavy and long-term use appears to be prevalent in certain high-risk populations. The harmful health impacts of such use are well documented. We need more data to fully understand the user populations and the risk factors that might indicate vulnerability to problem use. It is essential that public policy recognizes and reflects the diversity of influences that lead individuals to use. It is also essential that public policy be informed by solid evidence and not be driven by media trends.

An effective response to methamphetamine involves a comprehensive health promotion strategy that integrates targeted prevention programs, a range of treatment options, supply-reduction strategies, and measures to reduce the harms arising from methamphetamine use.

Sources

- **1.** BC Coroners Service. (2004). *Methamphetamine Deaths in BC*. Available at www.pssg.gov.bc.ca/coroners/statistics/pdfs/METHAMPHETAMINE_DEATHS_IN_BC.pdf.
- 2. Buxton, J. (2003). *Vancouver Drug Use Epidemiology*. Site report for the Canadian Community Epidemiology Network on Drug Use. Vancouver, BC: CCENDU Vancouver Site Committee.
- 3. Channing Bete Company Inc. (2002). Youth Survey Report. Squamish, BC.
- **4.** Derlet R., Albertson T. (2002). *Toxicity, Methamphetamine*. Available at www.emedicine.com/EMERG/topic859.htm.
- **5.** Drug Enforcement Administration. (2002). *The Forms of Methamphetamine*. Available at www.usdoj.gov/dea/pubs/ intel/01020/index.html.
- **6.** East Kootenay Alcohol and Drug Counselling Services. (2002). *East Kootenay Adolescent Drug Use Survey*.
- 7. Halkitis P.N., Parsons J.T., Stirratt M.J. (2001). A Double Epidemic: Crystal Methamphetamine Drug Use in Relation to HIV Transmission Among Gay Men. *Journal of Homosexuality* 41(2): 17-35.
- **8.** Higgins S., Budney A., Bickel W., Foerg F., Donham R., Badger G. (1994). Incentives to improve outcome in outpatient behavioral treatment of cocaine dependence. *Archives of General Psychiatry* 51: 568-576.
- **9.** Higgins S., Budney A., Bickel W, Hughes J., Foerg F., Badger G. (1993). Achieving cocaine abstinence with a behavioral approach. *American Journal of Psychiatry* 150: 736-769.
- **10.** Huber A., Ling W., Shoptaw S., Gulati V., Brethen P., Rawson R. (1997). Integrating treatments for methamphetamine abuse: A psychosocial perspective. *Journal of Addictive Diseases* 16(4): 41-50.
- **11.** McCreary Centre Society. (2003). Healthy Youth Development: Highlights from the 2003 Adolescent Health Survey III. Available at www.mcs.bc.ca.
- **12.** Morgan, P., and Beck, J.E. (1997). The Legacy and the Paradox: Hidden Contexts of Methamphetamine Use in the United States. *Amphetamine Misuse: International Perspectives on Current Trends*. Edited by H. Klee.

- **13.** Myles, J. (1997). Treatment for Amphetamine Misuse in the United Kingdom. *Amphetamine Misuse: International Perspectives on Current Trends*. Edited by H. Klee.
- **14.** National Institute on Drug Abuse. *Community Drug Alert Bulletin Methamphetamine*. Available at www.drugabuse.gov/MethAlert/MethAlert.html.
- **15.** National Institute on Drug Abuse. (2002). *Research Report Series: Methamphetamine Abuse and Addiction*. Available at www.drugabuse.gov/ResearchReports/Methamph/Methamph.html.
- **16.** Pacific Community Resources. (2002). *Lower Mainland Youth Drug Use Survey.* Available at www.pcrs.ca.
- **17.** Senate Special Committee on Illegal Drugs. (2002). *Cannabis: Our Position for a Canadian Public Policy*. Ottawa.
- **18.** Suwaki, H. et al. (1997). Methamphetamine Abuse in Japan: Its 45 Year History and the Current Situation. *Amphetamine Misuse: International Perspectives on Current Trends*. Edited by H. Klee.
- **19.** Turnipseed S.D., Richards J.R., Kirk J.D., Diercks D.B., Amsterdam E.A. (2003). Frequency of acute coronary syndrome in patients presenting to the Emergency Department with chest pain after methamphetamine use. *Journal of Emergency Medicine* 24(4): 369-73.
- **20.** United Nations. (2003). *Ecstasy and Amphetamines: Global Survey*. Vienna: Office on Drugs and Crime.
- **21.** Yoshida, T. (1997). Use and Misuse of Amphetamines: An International Overview. *Amphetamine Misuse: International Perspectives on Current Trends*. Edited by H. Klee.

The BC Partners for Mental Health and Addictions Information seek to provide people with reliable and practical information. Facts and findings from well-conducted studies have been summarized to present the best available material on topics of interest. Special attention is given to ensuring that sources are credible, accurate, current, and relevant. The information provided through the BC Partners is intended for educational use and general information and is not intended to provide, nor should it be considered to be a substitute for, professional medical advice or other professional services.

For More Information:

1-800 661-2121 604 669-7600 www.heretohelp.bc.ca bcpartners@heretohelp.bc.ca

Appendix II

METHAMPHETAMINE FACT SHEET

The Methamphetamine Fact Sheet (2004) has been produced by the Kaiser Foundation, with funding from the BC Ministry of Health Services.

What is methamphetamine?

Methamphetamine is a drug that stimulates central systems in the brain, similar in function to cocaine or caffeine. Methamphetamine is a synthetic (man-made) amphetamine drug often made in small in-house laboratories using common over-the-counter ingredients. As a result, there is no quality control on the manufacture of methamphetamine. It is one of a group of off-market substances often classified as "club drugs" because of its use at dance parties and clubs. Methamphetamine is a white, odorless, bitter tasting crystalline powder that dissolves easily in alcohol or water.

Who uses methamphetamine?

Globally, methamphetamine use is becoming more common. It is estimated that 1% of the world's population use amphetamine-type stimulants, including methamphetamine and ecstasy. Historically, white, male, blue-collar workers used the drug, but it has now become popular in the youth party scene. A recent study of youth in BC schools suggests that methamphetamine use is stable in the general youth population. However, other evidence, including a sharp rise in methamphetamine-related deaths, indicates that use among certain high-risk populations is increasing dramatically. Street-involved young people report high rates of use. Teenage girls are vulnerable to the use of methamphetamine as a weight control measure, and the lesbian/gay/bisexual/ transgendered community appears to have higher rates of use.

Why do people choose to use methamphetamine?

People begin using methamphetamine for a variety of reasons. One of the most common is energy and performance enhancement. Another common reason for beginning to use is to enhance social interaction. Methamphetamine's reputation in enhancing sexuality and sexual performance attracts some users. Finally, some people with asthma or hyperactivity find methamphetamine has a calming or centering effect on their mood and behaviour.

Appendix II METHAMPHETAMINE FACT SHEET

What happens if I use methamphetamine?

Methamphetamine can be taken orally, snorted, injected intravenously, or smoked. Initial use, even in small doses, can increase wakefulness and physical activity, while decreasing appetite. When methamphetamine is taken orally or by snorting, users experience a high, with an ongoing euphoria that can last for hours. If smoked or injected, users experience an intense pleasurable sensation called a "rush" which lasts for a few minutes, followed by a prolonged euphoria. The duration of the effect can vary and depends on the quantity ingested, but tends to last between 4 and 12 hours. Because of the duration of its effect, methamphetamine is significantly cheaper to use than cocaine.

Methamphetamine users may also experience:

- Increased sense of confidence and a heightened libido
- Increased respiration, heart rate, and blood pressure
- Irritability, anxiety, or paranoia
- Sweating and restlessness
- Incessant talking
- Hyperthermia
- Insomnia
- Confusion
- Tremors or convulsions
- Aggressiveness

What are the effects of heavy or long-term use?

Users can develop tolerance to the pleasurable effects of methamphetamine relatively quickly, even while they continue to experience the physical stimulant effects. This can lead to a binging pattern of use, during which the user will continue to take methamphetamine every few hours over the course of days, until the supply of the drug is exhausted, or the user becomes too disorganized to continue using.

With this pattern of use, severe loss of sleep and the build up of toxic levels of methamphetamine can produce the more extreme symptoms of psychosis. These may include paranoia, hallucinations, hysteria, mood disturbances, violence, and delusions such as having the sensation of insects crawling under the skin. Additionally, because users don't tend to eat while using, they can experience rapid weight loss. In extreme cases, this pattern of use can lead to death due to brain hemorrhage or cardiovascular shock.

Evidence suggests that methamphetamine is a highly addictive substance. So even though there are no known serious health effects from methamphetamine use at a low dose, use can quickly increase and lead to serious consequences. A serious consequence of long-term use is methamphetamine psychosis, involving schizophrenia-like hallucinations (mainly visual and auditory) and paranoid delusions that can lead to sudden aggressive

Appendix II METHAMPHETAMINE FACT SHEET

behaviour. Unlike the symptoms associated with binge use, which disappear quickly, residual psychotic symptoms can persist for more than six months after long-term use has been stopped. For those who have experienced a psychosis, it may recur more easily should use resume in the future or as a result of other factors.

The purity and quality of drugs obtained from illicit markets vary considerably, and when people use these substances, they expose themselves to unknown risks. Other risks include disease transmission through needle sharing or the impact of criminal involvement.

What happens if I stop using?

In general, when people are withdrawing from methamphetamine, they will experience the opposite of the effects of the drug. The severity of withdrawal depends on how long and how much methamphetamine was used.

Withdrawal symptoms may last for a couple of weeks or even months, and typically include several of the following:

- Extreme tiredness
- Disturbed sleeping patterns
- Shakiness or nausea
- Dry mouth and headaches
- Palpitations and sweating
- Increased appetite
- Intense craving for the drug
- Extreme depression
- Anxiety, paranoia, or hallucinations
- Loss of energy
- Boredom and an inability to experience pleasure

Many users do find ways to moderate or discontinue their use of methamphetamine. Only you can decide, but you do not need to do it on your own. Help is available.

Where To Go for Additional Help

For immediate help, visit a physician or call the BC NurseLine at 604-215-4700 in the Lower Mainland, or toll-free 1-866-215-4700 elsewhere in British Columbia, or toll-free 1-866-889-4700 for deaf and hearing-impaired. Translation services are available in over 130 languages upon request.

For more information, visit: www.heretohelp.bc.ca.

To find out about available services, call the BC Alcohol and Drug Information and Referral Service at 604-660-9382 in the Lower Mainland, or 1-800-663-1441 elsewhere in British Columbia.

Appendix III

PRINCIPLES OF AN EFFECTIVE METHAMPHETAMINE STRATEGY

To address the harmful impacts of methamphetamine use, partners will work together on an effective methamphetamine strategy that builds on current strengths and systems. The strategy will be:

- Comprehensive A comprehensive approach, focusing legislation, public education, health promotion, prevention and treatment programs to reduce methamphetamine use in BC.
- 2. Collaborative and Complementary All levels of government need to ensure they work together to address prevention and reduction of methamphetamine use and to ensure laws and policies complement each other.
- 3. A Population Health Perspective A population health perspective considers the influence of living and working conditions, social environments, culture, and access to health and social support services to prevent and reduce methamphetamine use and its harmful health effects.
- 4. Integrated All levels of service providers, including first responders and ambulance workers, police, physicians, nurses, social workers and community organizations, need to ensure programs and services are developed in partnership and consider the overall impact of these in local communities.
- **5. Effective** The effectiveness of the overall strategy and its programs depends on using evidence-based best practices, monitoring outcomes, conducting research and evaluation, and making the best use of finite resources.
- **6. Sustainable and Adaptable** To be effective, programs must be sustainable and adaptable to meet the specific needs of those using methamphetamine, as well as other illicit drugs.
- Communicated Public education efforts are required to increase awareness and action, and to create a supportive environment for the prevention and reduction of methamphetamine use.

Appendix IV

CURRENT SERVICES AND SYSTEMS IN BC

LEGEND OF ABBREVIATIONS IN TABLES 4 AND 5:

BC Government Ministries

MCAWS - Ministry of Community, Aboriginal and Women's Services

MCFD - Ministry of Children and Family Development

MHR - Ministry of Human Resources

MOE - Ministry of Education

MOHS - Ministry of Health Services

MPSSG – Ministry of Public Safety and Solicitor General

Health Authorities (HAs)

FH - Fraser Health

IH - Interior Health

NH - Northern Health

VCH - Vancouver Coastal Health

VIHA - Vancouver Island Health Authority

PHSA - Provincial Health Services Authority

Other

BCHMC – BC Housing Management Commission

CYMH - Child and Youth Mental Health Plan

Plan

CYMHS – Child and Youth Mental Health Services, Ministry of Children and

Family Development

HARH - Homeless/At Risk Housing

HRDC - Human Resources Development Canada

MARC - Methamphetamine Response Committee

NPCP - National Crime Prevention Centre

SILP – Supported Independent Living Program

Appendix IV CURRENT SERVICES AND SYSTEMS IN BC

Table 4: Current Partner Services for Supporting Individuals and Families to deal with Methamphetamine Use*

Health Promotion 8	Health Promotion & Primary Prevention	Secondary Prevention (Early Intervention) Early detection and treatment of disease, interventions targeting the early signs/symptoms of a disorder and/or experiencing first episor to cure disease, slow progression, limit disability & promote communional contractions.	Secondary Prevention (Early Intervention) Early detection and treatment of disease, interventions targeting those displaying early signs/symptoms of a disorder and/or experiencing first episode – intended to cure disease, slow progression, limit disability & promote community functioning	Tertiary Prevention Alleviation-limitation of disability resulting from disease, reduction of co-morbidity and rehabilitation/restoration of effective functioning	evention sulting from disease, reduction of storation of effective functioning
Universal Prevention	Selective Prevention	Indicated Prevention	Treatment, Monitoring and Relapse Prevention	nd Relapse Prevention	Intensive Treatment,
rrovladt to general public or whole population not identified on basis of individual risk	angretad on makindals or subgroup or population with increased risk of developing a disorder in order to prevent disease by alterning the susceptibility or reducing the exposure for susceptible individuals	angeed to nign-tisk indoktuals showing minimal signs and symptoms of a disorder or whose biological markers indicate predisposition	Identification and Early Treatment	Standard Treatment and Self-Management with Selected Supports	Long-lerm Kehabilitation and Support
School Boards - Safe Schools Strategy (MOE)	Methamphetamine Task Forces (Hr, VCH)	Women's Mental Health – Prevention services and early identification for women	Correctional centres (MPSSG): - Screening, Needs & Risk Assessment,	Correctional centres (MPSSG): - Drug and Alcohol counselors	Correctional centres (MPSSG): - Creating a New Beginning program
BC Safe Schools and Communities Centre (MPSSG)	"Reduce Speed" video (VHAVNPSSG) "Crystal Meth" video (National Film Board)	with concurrent liness, substance misuse, victims of violence, etc. (MCAWS, MPSSG) Addictions Services for Youth in	early identification - Substance Abuse Management Program - Psychotherapeutic groups - Mental health services	- rsychornerapeutic groups - Psychologists services - Inmate Self-Management program - Creating a New Beginning program	 Addictions treatment and relapse prevention Mental health services (MPSSG/Corrections Canada)
Career and Personal Planning (CAPP) Training (developed by VIHA)	Supply reduction strategies in correctional centres	Correctional Setting (MCFD) School-Based Education/Identification	(MPSSG/Corrections Canada) Police (MPSSG)	 Addictions treatment and relapse prevention Mental health services 	Child and Youth Mental Health Services non-methamphetamine specific (MCFD):
Drug Awareness Service (DAS) province-wide (MPSSG)	Child and Youth Services: Targeted Community Support (MCFD)	Services (MCFDMOE/MOHS) Education - School Retention (MCFD/MOE)	RCMP Training and Justice Institute Addictions Services for Youth in	(MPSSG/Corrections Canada) Police (MPSSG)	- Intake, screening, referral, assessment, case management, clinical consultation
Pamphlets and online resources on methamphetamine use (MPSSG)	Municipal Programs including Safe, Secure and Affordable Public Housing, Recreation	- Personal Development and Well-Being (MOE)	Correctional Setting (MCFD)	Addictions Services for Youth in	- Youth Agreements - Family support programs (MCFD/MPSSG)
"Nancouver Methamphetamine Education Campaign" – led by MARC through VCHA, with funding from National Crime Prevention Centre (NCPC)	wadporting prverany	Child and Youth Services (MCFD): - Outreach and Support Services - Child and Youth Mental Health Case Management Services Courteach Arronin	Services (MFDM/OBMOH) Education - School Retention (MCFDM/OE) Personal Development and Well-Being Amon	Connection as Secting Winchey) Residential Addictions Treatment for Youth (Youth Justice, MCPD) - Education - Education	Employment (MHRAHDC) Income Assistance/Disability Assistance, Hardship Assistance or Supplements (MHR) Addictions Redebrial Supportive Recovery foor clean curronch (MHR)
Child and Youth Services: Targeted Community Support (MCFD)		day programs)	Child and Youth Mental Health Services	- Personal Development and Well-Being (MOE)	Financial supplement for alcohol or drug treatment (MHR)
		Multiple in Vigorian in Housing, Recreation & Supporting Diversity	unitate, screening, referral, assessment, case management, clinical consultation, case management, clinical consultation tearly Psychosis Intervention (EPI) program for children and youth Parent Conflict Resolution programs - Outreach and Support Services - Child and Youth Mental Health Case Management Street Youth services (outreach, drop-in, day programs)	Child and Youth Mental Health Services non-methamphetamine specific (MCFD): Intake, screening, referral assessment, case management, clinical consultation - Early Bsychosis Intervention (EP) program for children and youth - Parent Conflict Resolution programs - Family support programs (MCFD/MFSSG) Employment (MHRARDC)	Housing - transition, emergency shelters, second-stage housing, special ineeds, Supported Independent Living (SLIP), Homeless/At Risk Housing (HARH), housing for Lower Income Urban Singles subsidized (ECHMCMCAWS) - Child Care Subsidy (McAWS)
There are not unique services for people who use methamphetamine. The	le who iine. The		Municipal Programs including Safe, Secure and Affordable Public Housing, Recreation & Supporting Diversity Employment (MHPHRDC)	Hardship Assistance of Supplements (MHR) mercal supplement for alcohol or drug treatment (MHR) Addictions Residential Supportive Recovery (per diem support) (MHR)	
approach in the province is to incorporate supports for	vince is		Hardship Assistance or Supplements (MHR) Housing	Housing - transition, emergency shelters, second-stage housing, special needs,	
methamphetamine users within the total addictions services programming.	users lictions ng.		- transition, emergency shelters, second-stage housing, special needs, Supported independent Living (SLP), Homelessylt Risk Housing (HARH), housing for Lower Income Urban Singles subsidized (BCHMCMCAMS)	Supported Independent Living (SILP), Homeless/At Risk Housing (HARH), housing for Lower Income Urban Singles subsidized (BCHM/C/MCAWS) -5 afe Houses (for crisis management) (MCFD)	
			- Safe Houses (for crisis management) (MCFD)		

* This is not an exhaustive list of Addictions Programs.

Appendix IV CURRENT SERVICES AND SYSTEMS IN BC

Table 5: Current Health Care Services for Methamphetamine/Problematic Substance Use and Substance Use Disorders*

Health Promotion & Primary Pr	Health Promotion & Primary Prevention of Methamphetamine	Secondary Prevention (Early Intervention) Early detection and treatment of disease, interventions targeting those displaying early signs/symptoms of a disorder and/or experiencing first episode – intended to cure disease, slow progression, limit disability & promote community functioning.	Secondary Prevention (Early Intervention) Early detection and treatment of disease, interventions targeting those displaying early signs/symptoms of a disorder and/or experiencing first episode – intended to cure disease, slow progression, limit disability & promote community functioning	Tertiary Prevention Alleviation-limitation of disability resulting from disease, reduction of co-morbidity and rehabilitation/restoration of effective functioning	evention suling from disease, reduction of storation of effective functioning
Universal Prevention		Indicated Prevention	Treatment, Monitoring and Relapse Prevention	and Relapse Prevention	Intensive Treatment,
Provided to general public of whole population not identified on basis of individual risk	argitete to individuals or suggroup or population with increased risk of developing a disorder in order to prevent disease by alterning the susceptibility or reducing the exposure for susceptible individuals.	iarigeted un ingil-risk individuals showing minimal signs and symptoms of a disorder or whose biological markers indicate predisposition	Identification and Early Treatment	Standard Treatment and Self-Management with Selected Supports	Long-lerm Kehabilitation and Support
BC Partners Mental Health and Addictions Information, e.g., State of the Knowledge: Methamphetamine; public information brochure	BC Partners Mental Health and Addictions Information, e.g. State of the Knowledge: Methamphetamine; public information brochure	BC Partners Mental Health and Addictions Information, e.g. Mental Health Toolkit; 1-800 Alcohol and Drug Information and Referral Service	BC Partners Mental Health and Addictions Information, e.g. Family Resource Toolkit, From Grief to Action, e.g. Family Resource Toolkit	BC Partners Mental Health and Addictions, e.g. Self-Management Tools on depression, anxiety disorders, and addictions	
VESTOR	Methamphetamine Task Forces (FH, VCH)	Awareness Weeks/Events on: Mental Health, Mental Illness, Drug Awareness and Eating Disorders	Awareness Weeks/Events on: Mental Health, Mental Illness, Drug Awareness and Eating Disorders	Primary Care: GPs, Psychiatrists	Primary Care: GPs, Psychiatrists
Videos (FH)	reduce speed video (VIHA) Video on MA (NH)	Primary Care: GPs, Psychiatrists	Primary Care: GPs, Psychiatrists	nta Community-based services for methamphetamine: - Home/outpatient Detox (adult and	HA Community-based services for methamphetamine: - Case Assessment Co-ordination and
	Peer Education Project for street youth (VCH)	Community/School-Based Prevention Program	HA Community-Based Services for methamphetamine: - Home/outpatient Detox (adult and	youth) - Detox (adult and youth) - Self-Management Supports	Treatment - Counseling - Residential Addictions Treatment
	Community/School-Based Prevention Program	Reproductive Health and Addictions Services: - Aurora Centre - if Square and She way programs - Youth Substance Use Disorders Clinic (BC's Women's Hospital and Health Centre)	youth) - Detox (adult and youth) - Counseling - Case Assessment, Coordination and Treatment - Outreach Services	- Case Assessment, Co-ordination and Treatment Treatment - Outreach Services - Concurrent Disorders Services - Family Education - Family Caregiver Respite - Peer Support (limited)	- Residential Supportive Recovery (adult, youth, aboriginal) - Mental Health Residential Services - Outreach Services - Concurrent Disorders Services - Family Education - Peer Support (limited)
		Supervised Injection Site Needle Exchange	- Concurrent Disducers services - Family Education - Peer Support (limited) - Street Youth services (nutreach	- Address - Address - Address - Address - Address - Street Youth services (outreach, drop-in and day programs)	- 10uti atu ratiniy services - Addictions Counseling – Aboriginal youth - Street Youth services (outreach
i		Bridging with other health services: - hepatitis, PAP, STD-testing	drop-in and day programs) - Child and youth crisis response	- Child and youth crisis response - Counseling	drop-in and day programs) - Sessional Services – GPs and
Services for people who	e who inc. The	- vacuites - referrals - wound care and other health-related issues	- Todin Substante Ose Disorder Ciffic Outpatient services – GPs and Psychiatrists (MSP)	necture Extransige - Residential Addictions Treatment - Residential Supportive Recovery (adult, youth, aboriquial)	Teychlattists (WaSr) Tertiary Addictions Services (BC's Women's Hospital and Health Centre)
approach in the province is to incorporate supports for methamphetamine users	vince is orts for users			- Youth Substance Use Disorder clinic/ outpatient services - Youth and Family Services - Sessional Services - GPs and Psychiatrists (MSP)	Forensic Hospital and Community Services (includes individuals who use methamphetamine)
within the total addictions services programming.	lictions ng.			- Meth Anonymous Support Group (VCH) - Gay Men's Crystal Meth Group (VCH)	- Meth Anonymous Support Group (VCH) - Gay Men's Crystal Meth Group (VCH)
			Acute Care Services (Secondary and Emergency services)	Acute Care Services (Secondary and Emergency services)	
			Fair Pharmacare: Plans B, C and G	Fair Pharmacare: Plans B, C and G	Fair Pharmacare: Plans B, C and G
	Utilization of Data to Assess Qua	ality and Cost-effectiveness of Ser	Quality and Cost-effectiveness of Services/Outcomes; Support Evidence-based Research and Evaluation	-based Research and Evaluation	
•		Public	Public Policy		
•		COMMUNITY A	COMMUNITY ASSET BUILDING		A

* This is not an exhaustive list of Addictions Programs.

References

BC Ministry of Health Services. (May 2004). Every Door is the Right Door: British Columbia's Planning Framework to Address Problematic Substance Use and Addiction. Victoria: BC Ministry of Health Services. Available online at: http://www.healthservices.gov.bc.ca/mhd/.

BC Ministry of Health Services. (2004). *BC's Tobacco Control Strategy: Targeting Our Efforts*. Victoria: BC Ministry of Health Services. Available online at: http://www.tobaccofacts.org/pdf/bc_strategy.pdf.

BC Ministry of Health Services. (May 2004). Addictions Information Management System (AIMS).

BC Coroners Service. (June 21, 2004). Reported Overdose Deaths by Drug Type: 1998-2004 (YTD).

Brands, B., Sproule, B., & Marshman, J. (1998). *Drugs and drug abuse* (3rd edition). Toronto: Centre on Addiction and Mental Health.

Single, E., Robson, L., Xie, X., & Rehm, J. (1992). The costs of substance abuse in Canada: A cost estimation study. Ottawa: Canadian Centre on Substance Abuse.

The McCreary Centre Society. (2003-2004). *Healthy Youth Development: Highlights from the 2003 Adolescent Health Survey III*. Vancouver. Available online at: http://www.mcs.bc.ca/rs_ahs.htm.

Statistics Canada. (2003). Canadian Community Health Survey. Ottawa: Statistics Canada. Available online at: http://cansim2.statcan.ca.

