

Canadian Community Epidemiology Network on Drug Use

A Feasibility Report

Prepared for the Canadian Centre on Substance Abuse

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1. INTRODUCTION

1.1 Rationale and Need for a Nationwide Network on Drug Use

Accurate, timely and multifaceted information on the nature, extent and consequences of substance abuse is essential to understanding the local drug scene and is a prerequisite to the development of effective programming and the evaluation of program impact.

Although indicators used to monitor the scope of drug use are available at the national and often provincial level, drug abuse in large urban centres can be both quantitatively and qualitatively different from national indicators. Indeed, the most recent example is the explosive increase of heroin deaths in Vancouver.

Measuring the harm that substance use causes to society's fabric is not straightforward. It is the result of the interplay among three dominant factors: the substance, the users, and the context of use. These three factors largely determine the size of the using and abusing population. Although population surveys, such as Canada's Alcohol and Other Drug Use Survey (and its predecessor the National Alcohol and Other Drug Use Survey) are valuable in determining the size of the *using* population, their weakness lies in measuring the size of the *abusing* population (especially if a significant component of the abusing population is missing from the survey). In addition, because few drug users are identified in mainstream population surveys, such techniques are rarely able to comment on the changing character of drug use.

Indicators such as treatment admissions, emergency room mentions, drug arrests and drug-related deaths are necessary to assess the overall harm caused by drug use in a community. However, such indicators of harm are not widely or consistently available in Canada. Some data on drug use and harm is collated nationally in the annual Canadian Profile published jointly by the Addiction Research Foundation and Canadian Centre on Substance Abuse (CCSA). There remain large information gaps, however, particularly regarding harm – the main focus of Canada's Drug Strategy (CDS). Moreover, there is generally a two to three year lag between the occurrence and reporting of events in national statistics.

There are growing indications that communities, and provincial and federal health officials require an on-going synthesis of the overall harm caused by substance use. The federal government, for example, requires on-going data in order to evaluate the effectiveness of the CDS. Provinces, as they disassemble addiction services, will need data to assess their situation. At the local level, communities throughout Canada have expressed a need for developing substance use intelligence. Most recently, for example, in British Columbia the Chief Coroner has recommended that the province "develop an inter-ministry, multi-agency information research capacity to gather and share data in all aspects of substance abuse" in response to an explosion of heroin deaths.

1.2 A Brief History of Substance Use Networks

In the mid-1970s the US National Institute on Drug Abuse initiated an epidemiological network to monitor illicit drug use in large urban centres. The purpose of this project was twofold: first, to provide information on drug abuse in urban centres where abuse was often highly concentrated and thus differed from national surveys, and second, to provide timely data which could be used as an early warning mechanism. Today the Community Epidemiology Work Group (CEWG) consists of 20 cities and provides valuable information for both local and national purposes.

Canada's first involvement came in 1990 when a group of agencies in Metro Toronto interested in the epidemiology of drug use in Toronto joined forces to form the Metro Toronto Research Group on Drug Use. The group, now represented by 11 municipal, provincial and federal organizations, also serves as the only Canadian site in the CEWG.

This linkage has been beneficial in many ways:

- the infrastructure of drug researchers and other professionals resulted in participating organizations adding lines of research to their work that did not exist prior to the workgroup;
- on an on-going basis, the group also works on extending its drug use indicators. It is now in the process of evaluating measures from emergency (ambulance) services and is developing focus group monitoring among police officers, treatment providers and drug users;
- the data collection activities of the group have enhanced reports prepared by partner organizations (e.g., the Coroner's Office of Ontario now uses the data reported by the Toronto workgroup for their own organizational purposes);
- the group has been active in disseminating its results, publishing five annual drug monitoring reports and holding six press conferences.

At the international level, Canada is now positioned to take part in a broad-reaching epidemiology group which is scheduled to have its first formal meeting in May, 1995, under the auspices of the UN. It is expected that this group, which already includes

Canada, the US, Mexico, an Asian network, and Europe (as well as WHO, PAHO, CICAD and the EC) will disseminate information electronically through the Internet. Its objectives include assisting other countries to develop such networks and developing means of rendering the collected data useable to key policy makers, programmers and researchers.

1.3 The Mission and Goals of CCENDU

Through a process of consultation, the following mission statement was put forth and accepted by steering committee and site representatives: the primary goal of such a network would be:

"to coordinate and facilitate the collection, organization and dissemination of surveillance information on substance abuse among the Canadian population at the local, provincial and national level."

There would be three secondary goals in this regard.

- **Networking:** to create and develop local networks of substance use workers, and to develop partnerships with international epidemiological networks;
- **Data Development and Evaluation:** to identify, develop and collect indicators of substance abuse. This includes the identification and development of a core set of data indicators standardized across all sites, on-going evaluation and refinement of data indicators, and the blending of both quantitative and qualitative data;
- **Data Surveillance:** to monitor the extent and character of drug abuse indicators and to disseminate information in order to guide programming and policy.

1.4 The Expected Benefits of CCENDU

The infusion of a drug has different effects on different communities. Crack cocaine is perhaps the most recent example of the observation that a drug has very different effects on inner city ghetto communities from those on a middle-class suburb. Yet, most communities do not have an infrastructure in place to encourage addiction professionals to meet and communicate their experience with the local drug scene. Consequently, there are many misperceptions about the nature, meaning and interplay of different substance abuse indicators. A Canadian Community Epidemiology Network on Drug Use could be expected to yield a number of benefits both locally and nationally.

Local Benefits

- CCENDU would provide accurate and timely information on the nature, extent and consequences of substance abuse, information which is essential to

understanding the local drug scene and is a pre-requisite to the development of effective programming and the evaluation of program impact, as well as policy development.

- CCENDU would serve to fill existing informational gaps. Public health officials currently have local-level access to a variety of morbidity and mortality data regarding alcohol use. However, illicit drug use indicators cannot match the case of alcohol. This would not preclude the inclusion of alcohol; on the contrary, site representatives agreed that alcohol would be a primary focus of this network. Tobacco will not be included, but appropriate studies will be cross-referenced.
- CCENDU would provide crucial information necessary for priority setting in fiscally restrained environments.
- CCENDU would contribute to the coordination of local activities across disciplines and levels of government.
- CCENDU would serve to create a local-level research infrastructure. Experiences from other networks have found that such groups increase partnerships and collaboration among agencies involved with substance use. As well, local networks build community expertise in the substance field, and encourage the sharing of data sources.

National Benefits

- In addition to improving coverage, consistency and timeliness of data, CCENDU would provide a means of corroborating information already collated at the national level. Such information could inform on-going activities, such as Canada's Alcohol and Other Drugs Survey (Health Canada) and the CCSA's Economic Cost Study.
- Because CCENDU would be monitoring drug use data at frequent intervals, information regarding changing patterns and types of drug use could inform national surveys with respect to timely content.
- Data generated through CCENDU could form the basis of comparative analyses across Canadian cities.
- CCENDU could serve as a national warning network even for communities not participating in the network.
- CCENDU can also be expected to improve and facilitate further partnerships across Canada by bringing together local representatives from law enforcement services, addiction agencies and research organizations for a common purpose.

- In addition to yielding information on the consequences of substance abuse in support of an evaluation of CDS, CCENDU would provide a network of knowledgeable individuals for the purpose of commenting on the impact of CDS and the means of improving its effectiveness.

2. PROJECT DESCRIPTION AND DEVELOPMENT

2.1 Progress to Date

A steering committee was created in the summer of 1994, consisting of Canada's Drug Strategy Secretariat, the Canadian Centre on Substance Abuse, the Canadian Public Health Association, Health Canada and the RCMP. The Canadian Association of Chiefs of Police joined the initiative in the fall.

The potential sites have fluctuated somewhat as they assessed their ability to become involved at this time. Currently, Halifax, Montreal, Toronto, Winnipeg, Calgary and Vancouver are actively taking part in the discussions. Regina, Edmonton and London are interested and hope to become part of the network in the future.

During the feasibility study, substantial groundwork was laid. In total, two meetings were held with steering committee members and local stakeholders. The first meeting, held on October 28, 1994, laid a critical foundation to the future of the project (see Appendix A1). Steering committee members and site representatives, primarily provincially-based with knowledge of local matters, set out parameters of the nature and scope of the project. Although data indicators were not discussed to a point of consensus at this meeting, a mission statement was adopted and approved by all representatives.

The second meeting, held January 27th, 1995, served to reinforce the project's local-level initiative (Appendix A2). At this meeting, attended by seven steering committee members and six local site representatives, there was a serious discussion of data needs and availability. The meeting adjourned with a general consensus on core indicators (data indicators to be collected for all sites) and a continued commitment on the part of local representatives to the utility of such a project to their locality.

2.2 The Proposed Operation of CCENDU

It is proposed that operation of the CCENDU include a national coordinating body, most likely CCSA, whose major responsibilities would include overall network management, hiring of a technical expert, coordination of meetings, ensuring standardization issues are addressed, and the production and dissemination of a national report. The network analyst would be responsible for standardization of core data indicators, the coordination of the national report, and a written summary and synthesis of drug trends across all sites.

Each CCENDU site would be responsible for data retrieval, collection of drug use indicators, the maintenance of data files, site coordination, and a written report summarizing drug use trends in the community. It is expected that each site would assign

a local coordinator, whose role would be to coordinate tasks for completion of the site report and regular CCENDU meetings. However, there may be other approaches developed, tailored to each site (e.g., sharing this role between two coordinators).

Network meetings should be held on a regular basis with attendance at the US (CEWG) or international meetings an option for discussion.. It is suggested that during the first three years of the project, meetings be held semi-annually, with one meeting devoted to trends in drug use reports and the other to data indicator development.

2.3 Resources

Local

Local sponsorship (financial and otherwise) would be a prerequisite to participation in CCENDU. The resources required within each site would largely be personnel and would depend on the site itself. Each site would probably require a local part-time coordinator whose responsibilities would be to coordinate data retrieval and collection, regular meetings, and preparation of the local drug use report. It is expected that local coordinators would be personnel from sponsoring agencies (e.g., public health departments or substance abuse agencies). The precise level of personnel required for each site is difficult to estimate since there could be a wide variation in the extent of agency partnership within a site.

It is important to note that the amount of time required to prepare reports will undoubtedly vary between sites and will decrease with time. If the responsibilities of report writing are shared, the resources required by any single partner is reduced. However, a reasonable expectation of annual personnel resources would be about 38 days full-time equivalent (FTE). This assumes the production of two reports a year with each report requiring 14 days FTE. If two organizations shared responsibility for the report, each need only contribute personnel for 14 days FTE.

National

Resources would be required for establishing and maintaining the national network as well. Activities such as developing and working out methodologies, bringing together network coordinators semi-annually (or annually), maintaining data banks, producing reports, establishing mechanisms for data access, ongoing coordination and communications generate costs that are beyond the means of CCSA to absorb. Funding should be sought from the various partners in Canada's Drug Strategy.

2.4 Developmental Phases

A project such as CCENDU would require developmental periods or phases to reach its full potential. Thus, it would be unrealistic to expect all sites to be collecting the full gambit of quantitative and qualitative indicators at the outset of the project. Indeed, it

would be important for the project to develop cautiously with a restricted number of indicators.

The first phase, occurring during the fiscal year 1995-1996, would involve the identification, development and initial collection of the core standardized indicators. It is recommended that an initial working meeting be held in late June to initiate this process. It should last two days and participants should come prepared to work on the selection of a first round of indicators, as well as on the collection standardization issue for these indicators.

A second meeting should be held in late November or early December to exchange information collected, in report format. This will give sites approximately six months to do this first critical data collection. The analyst will then prepare the first national report for early 1996.

The second phase of the project, occurring during the 1996-1997 fiscal year, would see the continuing development of core data indicators, as well as the development of qualitative indicators, such as focus group monitoring of various groups (e.g., police, treatment professionals, drug users, etc.). This element has not yet been broadly discussed and would be explored in greater detail during the first phase meetings. Site representatives would complete a site report for December 1996, which would result in a second national report by the end of March 1997. At the end of the second year of operation, the project should be evaluated.

It is difficult at this point to foresee the progress of the network during the third phase. However, it should be developed in response to the experiences of the first two years, and would likely include exploration of additional data indicators, and an emphasis on evaluation.

2.5 The CCENDU Report

The CCENDU report should be divided into three sections: an executive summary; a national summary; and site reports. The national summary would provide a descriptive synthesis profiling the data from all sites, paying particular attention to the separation of global from local trends. This section of the report would be the responsibility of the national coordinating body.

Site reports and the national report would reflect one another. Each report would likely include the following information:

1. An introduction describing the physical, economic and social character of the site. Also included should be a description of data measures used in the report, especially if data differ from other sites.

2. Eight drug summaries by type of indicator would be described:

1. Alcohol
2. Cocaine/crack
3. Heroin/morphine
4. Cannabis
5. Sedative-Hypnotics and Tranquillizers
6. Hallucinogens
7. Stimulants
8. HIV.

3. Within each drug summary, the report would be organized as follows:

1. survey data
2. enforcement data
3. treatment data
4. mortality data
5. morbidity.

It would be the responsibility of the local coordinator to ensure completion of the report, with whatever sharing of responsibility is deemed appropriate for the site.

It is intended that the CCENDU report will be as "friendly" and non-technical as possible. To this end, there should be an emphasis on graphical displays in the body of the text, with large, complicated tables in an appendix.

2.6 Data Indicators

Based on discussions with site representatives, six "domains" of substance use indicators are proposed: site, prevalence, enforcement, morbidity, mortality and HIV indicators (tables C1 to C6 in appendix).

Several general considerations and assumptions regarding data indicators should be noted.

- site readiness will differ. Thus, not all sites will have immediate access to data indicators.
- some sites will have access to more indicators than would other sites. There would be a requirement, however, that core indicators would be standardized as much as is feasible. Developmental work would be required to build and standardize indicators, especially in order to address the aggregation issues inherent in a project of national scope.
- all indicators would be evaluated on an on-going basis, and indicators would be refined and extended with time.
- all indicators will be reported in both numbers and population rates, in order to allow for site comparisons.

The **first** domain is site-based **social indicators** (table C1). Because a goal of the project is to build knowledge and understanding regarding substance use, it is important that the context in which substance use occurs is described. This information is especially critical in interpreting site differences in substance use. Most indicators proposed are available from federal sources.

The **second** domain is **prevalence indicators** (table C2). Included here are survey-derived estimates of substance use available for various mainstream (e.g., adults, students) and high risk populations (e.g., elderly, native Canadians, street youth). Most sites have such data at the local or provincial level. In addition to survey-derived estimates, per-capita alcohol consumption and related sales would also be monitored through federal sources. Such indicators should be available for all sites during phase one. Some site representatives have also expressed interest in monitoring worksite populations. Such collection could occur during phase two or three for interested sites.

Domain **three**, **enforcement indicators**, comprise enforcement activity and drug availability, and substance related offences (table C3). Seizure data would be provided by local police departments and could be reported on a quarterly basis. Most sites would likely have access to this information for phase one. Enforcement indicators also include offences such as DWI, liquor offences, drug-related offences, and pharmaceutical offences (e.g., double-doctoring, pharmacy break-ins). Several of these data are currently available from federal sources for phase one. One identified high priority was data regarding disposition of criminal offences. Plans should be devised during phase one in order to develop methods to retrieve such information. Another identified data priority was to develop means to assess the relationship between substance use and domestic violence. Plans should be established in order to meet this objective by phase three of the project.

Domain **four** represents **morbidity indicators** (table C4). Numerous standardized (primarily the International Classification of Diseases – ICD) indicators are available from provincial or federal sources, the most important of which is the most commonly

used measure of hospital utilization – hospital separations. Discussions with site representatives revealed consensus on treatment and service indicators that could be retrieved locally. Discussions with site representatives revealed developmental issues that should be addressed in phase two and phase three of the project. These issues included the measurement of polydrug use, methadone monitoring (if available), poison control data and prenatal and perinatal data. Perhaps the most outstanding need identified by site representatives is the need for emergency room data. Data collection strategies should be a high priority of the project during phase two and three of the proposed project.

Mortality indicators are represented in domain **five** (table C5). For each substance, four measures would be monitored: number of deaths in which there was a positive toxicological test for a given substance; the number of deaths in which a substance was lethally implicated in the death; the age and gender characteristics of decedents; and the type of classification of the death (e.g., accidental, suicide, other). Discussions with site representatives suggest that such measures should be available on an annual basis from the local coroner for phase one. Of course, as discussed at the January meeting, it will be essential to have rates for these numbers in order to allow meaningful comparisons from one site to another. Prior to data collection, the site representatives will need to operationalize and standardize the basis of "drug-related death" and "lethal involvement". The first step in this process will be to determine what the local policies of each site are, and assess for compatibility. However, as an alternative, the network might consider the following definitions that roughly correspond to existing networks.

It is conventional that drug-related deaths are examined among coroner cases in which one or more drugs is identified as a direct cause of death. A drug-related death typically refers to the number of deaths in which a given drug was identified (regardless of any causal relationship). Lethal involvement, on the other hand, refers to the number of deaths in which a given drug is determined to be a direct cause of death. In addition to data collected through the local coroner's office, total alcohol-related and drug-related deaths are available annually from vital statistic sources.

The recent onset of AIDS clearly shows the salient intersection of drug use patterns, HIV infection, and public health. Consequently, the proposed network should be able to monitor the changing association between drug use and HIV infection. Several indicators were discussed by site representatives in this regard (table C6).

It is also critical that a drug use intelligence network blends quantitative and qualitative information. Consequently, it is proposed that focus groups, and ethnographic sources of data, be used to collect qualitative information from police officials, treatment professionals, and users of treatment services and injection and non-injection drugs. Details of this aspect of data collection will be worked out during regular meetings of site representatives.

Finally, as noted in the summary of the January meeting, there is a great deal of data and interest in including native populations as a special population. Although requiring

further discussion, this area is seen as a top priority and should be addressed in the first phase.

2.7 Site Feasibility & Readiness

The six sites involved in discussions during the feasibility study were Vancouver (represented by L. Whynot), Calgary (N. el-Guebaly), Winnipeg (D. Kennedy), Toronto (J. Bernstein), Montreal (J. Topp) and Halifax (C. Poulin). (As mentioned earlier, Regina, Edmonton and London are also "in the wings".) At the conclusion of the January 27th meeting, all site representatives were asked to assess their interest and commitment in proceeding with the project. All representatives indicated high levels of interest and that, in addition, the project met their current informational needs. Three sites, in particular, (Montreal, Toronto and Halifax) appear to have an infrastructure already in place that would allow them to quickly develop data monitoring. It is suggested that steering committee members attempt, where appropriate and requested, to solicit the support of relevant local organizations for this network.

2.8 Proposed Timelines and Budget

Timelines have been discussed earlier in this report under "Developmental Phases". A detailed proposed budget is not provided at this time as there are a number of key variables yet to be decided on. However, it has been estimated that an approach which would include two meetings a year, a national report, coordination and administrative costs would require funding in the area of \$90,000 in fiscal year 1995-1996, \$80,000 in FY 96/97, and \$65,000 in FY 97/98, should the project continue into a third year. It is important to note that Canada's Drug Strategy sunsets in fiscal year 96/97, and funding from this source may not be available after year two.

3. RECOMMENDATIONS

In total, the feasibility study occurred during an eight month period (July 1994 – Feb. 1995), and involved the input of and discussions with steering committee members, provincial and local representatives. The following recommendations are based on these discussions and the practical experience gained through existing networks.

1. There is sufficient evidence of need, interest and commitment to a nationwide network on substance use and therefore, it is recommended that such a project be initiated in the 1995-1996 fiscal year.
2. It is recommended that the project develop cautiously in order to address the resource issues cited by site representatives and to enhance the development of quality data indicators. Consequently, it is recommended that a two-year period expire before the project is evaluated.
3. It is recommended that the proposed network transcend data monitoring, and have attached to it the goals of building empirically based conceptual models describing the

meaning of data indicators and their possible association to overall drug harm. Relatedly, the network should formally encourage methodological studies (e.g., heroin estimation using capture-recapture methods).

4. It is recommended that the network be conceived in as modern a context as possible, with the sites forming a Special Interest Group on CCSA’s electronic network, with full access to all advantages that Internet connection provides (e.g., e-mail capabilities). This should serve to reduce the costs and time involved in communicating nationwide, as well as positioning the network to interact at an international level.

5. The project should have an ethical consultant attached to it in order to develop guidelines and monitor this aspect of the network as it evolves.

4. Appendix

A1. Insert October Meeting Summary here

A2. Insert January Meeting Summary here

Table B1

Proposed Project Development

Activity	Timeline
PHASE 1	
Clarify and negotiate roles and responsibilities of partners and contracted personnel	April 1995
Contract national coordinator and other personnel	April 1995
Begin site data collection 1 (reduced number of data indicators based on site representative discussions)	April -- May 1995

Meeting: Attend June CEWG meeting in Chicago. Site representatives should be prepared for presentations and full-day discussion of data indicators	June 1995
Continued site data collection	July -- Nov 1995
Meeting (with or without CEWG): Site reports would be presented and completed written reports would be provided to national coordinator	Dec 1995
Report Preparation	Jan -- March 1995
Final report to printing	March 15 1995
PHASE 2	
Evaluation of biannual or annual reports	April 1996
Focus group development and phase 2 data indicator development	May 1996 -- Nov 1996
?? Meeting	?? June 1996
Meeting: CCENDU meeting and completed site reports	Dec 1996
Report preparation	Jan 1997 -- Feb 1997
Final report to printing	March 15 1997
Evaluation of Project	March 1997
PHASE 3	Dependent on evaluation

Table C1

Site Indicators by Type, Indicator, Source and Project Phase (P1-P3)

Type	Indicator	Source	P1	P2	P3
Population					
	■ population 15+	Stat Can	X		
	■ population density	"	X		
	■ mobility	"	X		
Family					
	■ divorce rate	"	X		
	■ families experiencing unemployment	"	X		
Labour force					
	■ unemployment rate	"	X		

	■ part-time employment	"	X		
Income					
	■ median family income	"	X		
	■ % families with low income	"	X		
Education					
	■ drop-out rate	"	X		
Justice					
	■ crime rates; violent, property, homicide	"	X		

Table C2

Prevalence Indicators by Type, Indicator, Source and Project Phase (P1-P3)

Type	Indicator	Source	P1	P2	P3
Prevalence of Substance Use		Provincial or local			
	■ adults	"	X		
	■ students	"	X		
	■ other mainstream pop	"	X		
	■ high risk pop	"	X		
Prevalence of Substance Problems (survey-derived)	as above	Provincial or local	X		
Per capita alcohol consumption	■ per capita alcohol consumption 15+	Statistics Canada	X		

Worksite Surveys		local			X

Table C3

Enforcement Indicators by Type, Indicator, Source and Project Phase (P1-P3)

Type	Indicator	Source	P1	P2	P3
Seizures					
	■ number of seizures	local	X		
	■ quantity seized	local	X		
	■ purity of seizures	Health Canada	X		

	■ price	local	X		
Offenses					
	■ number of drug-related arrests	federal		X	
	■ number of DWI Offenses	"	X		
	■ number of liquor offenses	"	X		
	■ number of pharmaceutical offenses (e.g.. double-doctoring; pharmacy break-ins)	"		X	
	■ dispositions	local?	X	X	
	■ domestic violence	local			X

Enforcement officer focus groups		local		X	

Table C4

Morbidity Indicators by Type, Indicator, Source and Project Phase (P1-P3)

Type	Indicator	Source	P1	P2	P3
General Hospital Separations (Primary & Secondary Diagnoses)		ICD HMRI			
	■ alcohol dependence	"	X		
	■ nondependent abuse of alcohol	"	X		
	■ toxic effects of alcohol	"	X		
	■ drug psychoses	"	X		

	■ drug dependence	"	X		
	■ nondependent abuse	"	X		
	■ poisonings	"	X		
Mental Hospital Separations (Primary Diagnoses)		ICD			
	■ drug psychoses	"	X		
	■ drug dependence	"	X		
	■ nondependent abuse of drugs	"	X		
Treatment & Services					
	■ total number of clients	local	X		
	■ percentage by major drug of abuse	"	X		

	■ client characteristics (e.g., age, gender)	"	X		
	■ number of available treatment slots	"	X		
	■ polydrug use?	"		X	
	■ number of methadone clients	"	X		
Poison Control		"		X	
Emergency Room		local?		X	X
Prenatal/Perinatal		"		X	
User focus groups		"		X	

Table C5

Mortality Indicators by Type, Indicator, Source and Project Phase (P1-P3)

Type	Indicator	Source	P1	P2	P3
Drug-related deaths		Local Coroner			
	■ number of positive tests	"	X		
	■ number of deaths with lethal involvement	"	X		
	■ age & gender characteristics	"	X		
	■ type of death (accidental; suicide; other)	"	X		
Total Substance Mortality	■ total alcohol-related death	HMRI	X		
	■ total drug-related deaths	"			

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Table C6

HIV Indicators by Type, Indicator, Source and Project Phase (P1-P3)

Type	Indicator	Source	P1	P2	P3
Prevalence					
	■ number of HIV cases	local	X		
	■ number of AIDS cases	"	X		
	■ seroprevalence	"	X		
	■ risk factors	"		X	
Needle Exchange	■ number of clients	"	X		

Programs					
	■ number of needles exchanged	"	X		
User focus groups and ethnographic data		"		X	
Hepatitis	■ Hep B	"	X		
	■ Hep C	"		X	