



*Global Workshop on  
Drug Information Systems*

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**Activities, Methods  
and Future Opportunities**

**December 3-5, 2001**  
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Austria



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For further information visit the GAP website at [www.undcp.org](http://www.undcp.org), email [gap@undcp.org](mailto:gap@undcp.org) or contact: Demand Reduction Section, UNDCP, P.O. Box 500, A-1400 Vienna, Austria.

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## Abbreviations

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AIDS	Acquired Immunodeficiency Syndrome
ARQ	Annual Reports Questionnaire
ATS	Amphetamine type stimulants
BBV	Blood borne virus
BRQ	Biennial Reports Questionnaire
CAN	Swedish Council for Information on Alcohol and Other Drugs
CARIDIN	Caribbean Drug Information Network
CEWG	Community Epidemiology Work Group
CICAD	Inter-American Drug Abuse Control Commission (OAS)
DIRS	Drug Information Report System
EADIS	East African Drug Information System
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ESPAD	The European School Survey Project on Alcohol and Other Drugs
EU	European Union
FHI	Family Health International
GAP	Global Assessment Programme on Drug Abuse
GHB	Gamma-hydroxybutyrate
HCV	Hepatitis C virus
HIV	Human Immunodeficiency Virus
IDRS	Illicit Drug Reporting System
IDU	Injecting Drug Users
LSD	Lysergic Acid Diethylamide
MEM	Multilateral Evaluation Mechanism (OAS/CICAD)
MENDU	Mauritian Epidemiology Network on Drug Use
NGO	Non-government Organisation
OAS	Organization of American States (CICAD)
PCP	Phencyclidine
PG	Pompidou Group
RAS/RSA	Rapid Situation Assessment
UNDCP	United Nations International Drug Control Programme
SACENDU	South African Community Epidemiology Network on Drug Use
SADC	South African Development Community
SENDU	Southern African Community Epidemiology Network on Drug Use
SIDUC	Inter-American Uniform Drug Use Data System
WHO	World Health Organisation

# Executive Summary

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## Introduction

- A workshop on global drug epidemiology was held in Vienna on the 3-5 of December 2001. This meeting was supported by the United Nations International Drug Control Programme (UNDCP) as part of its work to promote the development of a better global understanding of patterns and trends in illicit drug consumption. Discussions were based on the following three themes: i) the extent and configuration of current data collection activities, ii) situation reports on drug abuse patterns and trends, and iii) the opportunities for methodological developments, future collaboration and improved working practices.
- A summary of the conclusions from the meeting can be found below. The body of the report contains a synthesis of the situation reports and of the discussions on the opportunities for the further development of methods and information systems. This is followed by abstracts from all presentations. A copy of the recently revised Annual Reports Questionnaire (*Part II Patterns & Trends*) and a copy of the Lisbon Consensus Document (*Drug information systems, principles structures and indicators*) can be found in the Annex to this report.

## Global situation update and trends

- Despite the stabilisation of the heroin situation in European Union countries, there has been increasing heroin use in Eastern Europe and the Russian Federation, where there are severe heroin abuse problems and concerns about increasing levels of drug injection. Injecting appears to be becoming an increasingly common route of administration even among very young age groups. This has led to increased concern about the spread of blood borne viruses through the sharing of injecting equipment.
- In areas with a long history of heroin related problems, such as the EU and the USA, the situation appears somewhat stable but with concern about the possible diffusion of the behaviour to new vulnerable groups. In parts of South East Asia heroin abuse was also reported to be stable or even in decline. In parts of Africa, reports of heroin problems developing in urban areas continue to be made. Data remains poor but the potential exists in the longer term for the development of a serious problem. This emphasised the need for improved drug information and surveillance systems in Africa.
- Heroin consumption has fallen recently in Australia as a result of a shortage of supply. This “heroin drought” has been accompanied by changes patterns of drug use, notably an increase in the use of stimulants and other drugs, and a reduction in heroin overdose fatalities.
- Methamphetamine abuse appeared to have increased in South-East Asia, and appears to some extent to be displacing opioids as the drug of choice in Thailand, while the beginning of a similar trend is evident in Vietnam. Smoking was the common route of administration, and the level of use was particularly high among the youth population. An increase in the availability and use of crystal methamphetamine was also apparent in Australia over the last couple of years and there were concerns about the potential for further spread.
- Cocaine remains the primary drug of concern across the Americas and the Caribbean regions, although cocaine and crack cocaine use continue to decline in most areas of the USA. A similar decline was not evident in other areas of the Americas. In the Caribbean and Mexico, cocaine use remained widespread, and the drug of choice for many young drug users. In Europe, cocaine appears to be becoming more common in the ‘party-drug scene’. In some

major cities the number of individuals abusing the drug is reported to have increased considerably.

- The increasing use of ecstasy and related drugs continues to be a growing concern in many parts of the world, and there is little sign of this trend abating. In many countries, the use of ecstasy type drugs has become an established aspect of specific recreational settings (dance parties) among youth, combined with an increasing experimentation with other synthetic drugs. Despite lower levels of use in developing regions, there is evidence of a similar trend emerging. For example, ecstasy consumption was one of the emerging problems recently identified in the Caribbean, although prevalence rates appear to be low at present.
- Cannabis remains the illicit drug most commonly abused globally. Estimates on the extent of cannabis use in developed regions show that between one and four in ten people had used the drug in their lifetime, and up to one in five having used the drug in the past year, with the highest levels of use among young adults. The highest levels of use were noted in Australia, the United Kingdom and North America. Many countries/regions also noted evidence of increasing cannabis use (e.g., Europe, Canada, Australia), with the exception of the USA, where use appears to be stabilising.
- Although estimates on the extent of cannabis use are not available for many countries in developing regions, available information suggests that cannabis abuse is widespread and may be increasing. There is also concern about the implications of cannabis abuse for mental health in some regions, notably Africa and the Caribbean.

## **Drug information systems – update and discussion points**

The workshop was held to provide a forum for discussion on the progress that had been made in developing drug information systems, review the methodologies currently employed by different systems, and identify potentially fruitful areas for future collaborations.

One key conclusion from the meeting was the progress made in developing drug information systems. In many parts of the world information systems remained poorly developed. Despite this, when compared to the situation a few years ago, considerable progress was observable. In particular, it was noted that governments appear more aware of the value of this work, and there has been an expansion in the number of regional and national systems in operation. This shift has been matched by an increase in both the quality and quantity of work carried out, and there had been a move towards adopting broadly similar approaches and common reporting categories which has resulted in improvements in the comparability of data. A number of priority topics were identified for future activities. These included the continued development of low cost surveillance methods for developing countries, the adaptation of existing methodologies to meet the needs of developing regions, more opportunity for sharing of experiences, further progress in harmonising indicators, and the need to develop more sensitive information systems to emerging trends.

In terms of an update on regional activities, the number of networks and systems operating had increased. Common across most of these was recognition of the importance of technical expert groups, focal points for information collection, and the use of standardized indicators. Regional groupings had the advantage of bringing together countries who shared similar experiences and problems. This facilitated the development of methods that were sensitive to the local culture and conditions. The sharing of experiences and technical expertise was also often easier between countries participating in regional networking activities. However, it was noted that there was now a need to encourage communication between regional initiatives. This could produce a number of benefits, including the cost efficient sharing of technical resources and experiences, the better coordination of work in areas of joint interest, and further support the progress made in developing common approaches and standardized measures.

Considerable progress was evident in the aggregation of basic data at regional level. Improvements in regional data collection capacity had been made through a developmental process that recognised the need to configure data collection approaches to suit national circumstances, while appreciating the benefits of adopting harmonised measures and proven methodological principles. There was consensus that global harmonization of global data collection activities should occur for top-level variables (i.e., age, gender, drug type and route of administration) consistent with format of the ARQ part II. Also, there was a need to harmonize the concepts underlying data collection activities, so that there would be consensus on definitions and terms used in drug abuse epidemiology across regions and different drug information systems.

Although the focus of the workshop was the development of long-term surveillance capacity based on the adoption of common indicators of drug consumption the importance of more qualitative techniques was also noted. In particular, rapid assessment techniques (RAS) had provided information in many areas where more systematized information sources were absent or deficient. This was particularly important in the area of HIV prevention where information was quickly needed to inform the development of interventions to prevent epidemics among drug injectors. Over the past five years the number of RAS that had been conducted has increased considerably. In some areas these assessments represented the only source of information on patterns and trends in drug consumption. The need was identified to develop models for linking RAS methods with the support for ongoing capacity building activities, for example by assisting with the training of local experts and the establishment of ongoing technical networks. The importance of encouraging qualitative studies to supplement quantitative surveillance data was also widely recognized. This kind of research activity can greatly enhance the analytical capacity of networks by placing more quantitative data in context and may also make information systems more sensitive to emerging trends. Some networks routinely included more qualitative information sources in their reporting mechanisms. However, this was often not the case and there remained a need to promote this kind of approach in both developing and developed regions.

The use of multi-indicator methods was common for most information systems/networks. There was considerable commonality in respect to the indicators used although methodologies for data collection varied considerably. It is not the purpose of this report to generally review illicit drug consumption indicator methods. The Lisbon Consensus document provides an overview of approaches in this area and can be found in the annex of this report. In respect to developments in the capacity to collect information using indicator methods a number of conclusions can be drawn. Considerable progress had been made in the development and implementation of school surveys, with improved global coverage and comparability of methods. Surveys of the school population are therefore already providing considerable insight into global drug abuse patterns. There is considerable potential to increase the levels of coverage and comparability of this data source in the medium term. School survey data is therefore likely to play an increasingly important role as an indicator of population exposure for the purposes of international comparisons and trend analysis. However, it was noted that this data source performed poorly in respect to more chronic patterns of abuse (heroin injecting etc), that particularly vulnerable groups of young people were sometimes missed (excluded children, street children, persistent truants etc), and that in some developing countries school attendance was not universal or may end at an early age. A need existed to develop strategies to improve the coverage and performance of school and youth surveys in developing countries where the organization of education services put particular demands on this kind of methodological approach.

The reporting of attendance at drug treatment remained a core element of most drug information systems. The comparability and coverage of this data is complicated by the heterogeneous nature of drug treatment provision between countries. Opportunistic inclusion of medical/psychiatric services in data collection had improved coverage in many regions, while data quality and comparability was enhanced by the routine collection of this data and use of standard diagnostic

criteria. Considerable potential existed for developing treatment data collection through consensus on common definitions and methodological good practice, and adaptation of data collection to the different types of services that provide treatment for drug abusers. Another possible area identified as worthy of development was the integration of epidemiological surveillance methods with clinical case management tools. Many countries are improving their information collection in both these areas. It may therefore be resource efficient, for developing countries in particular, to look at models that provide summary data for surveillance purposes and also serve the information needs of clinicians for patient monitoring within services.

In a number of countries, there were now programmes reporting on the results of drug testing on those arrested for certain categories of offence. This represented a relatively new indicator, but one in a policy important area - the relationship between drug abuse patterns and criminal behaviour. It was also noted that considerable benefit could accrue from combining epidemiological data with forensic science data on the nature and composition of substances available on the illicit market. To date, this area has been poorly developed and where this information is collected it is not usually placed in the context of the epidemiological surveillance information. However, now some progress was being made in this area especially in respect to new synthetic drugs.

With the exception of registers of specialist drug treatment attendance, very few regions had comprehensive data on drug-related morbidity and mortality. This problem was particularly evident in developing countries where even when data was collected through general health monitoring systems it was often not collated or analysed in a way that could provide useful information on illicit drug consumption. Particular attention was being paid to the monitoring of HIV and other viral infections among injecting drug users. However, again the coverage of activities was variable and in some areas, mostly in the developing world, there was a critical need to increase capacity. There is a need to improve the surveillance of injecting drug abuse, both in terms of coverage and sensitivity of information systems to emerging populations. There is also a need to develop better procedures for assessing the level of HIV risk behaviours, as well as risk behaviours associated with other viral infections. Robust low cost methods are also needed for estimating the prevalence of drug injecting to facilitate estimates of the potential and achieved coverage of interventions targeting this group. HIV risk behaviour among non-injecting drug users also requires monitoring.

Ethical issues around drug abuse data collection were identified as one priority area for development, particularly regarding registers, biological testing and in regions where procedures for ensuring ethical standards were not institutionalised. A broader issue was the need to ensure the appropriate use of data to inform demand reduction policy and implementation, and develop the use of data to inform policy. Development of ethical guidelines for collecting information on illicit drug use, and support for utilising this information to inform policy, would assist with this process.

### **Opportunities for co-operation and the sharing of experiences**

One of the topics of discussion was the opportunity for co-operation and the sharing of experiences. A number of areas were identified where future collaboration would be fruitful. These included:

- a) *Access of research tools and data collection guidelines*: Development of a repository of tools and guidelines on drug abuse epidemiology methods, provision of access to this material, and the need to translate key texts/resources into the relevant languages.
- b) *Glossary of drug abuse epidemiology terms*: Development of a glossary of drug epidemiology terms and definitions to facilitate consensus on definitions and terms used in drug abuse epidemiology across regions and different drug information systems.



- c) *Statistical methods in prevalence estimation*: Share experiences and provide technical workshops on statistical methods for estimation techniques.
- d) *Training or guidelines for reporting on regional/inter-country drug consumption*: Development of guidelines on appropriate and effective ways of presenting aggregate data from multiple countries.
- e) *Qualitative research and community studies*: Training in the application of active data collection methods, such as surveys, to access non-institutional populations and populations of non-problematic drug users.
- f) *Improved sensitivity to new drug trends*: Development of new approaches to improve the sensitivity of drug information systems to new drug trends, including consideration of the utility of supply side information and qualitative data sources.
- g) *Using data to inform policy*: Development of guidelines and training in how to optimise the policy relevance of information from drug information systems, and support policy makers in the interpretation of data from drug information systems.
- h) *Ethical principles for collecting data on illicit drug consumption*: Development of a statement on ethical principles for collecting data on drug consumption.
- i) *HIV and data collection*: Continued collaboration between international agencies and other relevant stakeholders is needed to improve the quality and coverage of data on HIV among IDU and related risk taking behaviour.



# **1 Drug Information Systems:**

## **Activities, Methods and Future Opportunities**

## **Introduction**

In December 2001 UNDCP supported a *Global Workshop on Drug Information Systems* at the Vienna International Centre, Austria. The purpose of this meeting was to take forward the ideas discussed at Lisbon in January 2000 (see Annex), where a consensus statement was produced on the guiding principles of drug information systems. This document has been influential in guiding the revision of the monitoring mechanisms by which national governments report on trends to the Commission on Narcotic Drugs, and has provided a useful framework for better international collaboration. The *Global Workshop on Drug Information Systems* was intended to provide a collaborative forum for discussing how to improve the global information base on patterns and trends in illicit drug consumption as well as provide a forum for epidemiological discussions on the current drug abuse situation. The specific objectives of the meeting were to:

- provide an update of important developments in drug consumption trends;
- review of the range of methods used by regional epidemiological networks; and
- identify opportunities for methodological developments, future collaboration and improved working practices.

The workshop was primarily intended for regional epidemiological networks/information systems and international organizations concerned with data collection in this area. However, in accordance with the practice at earlier meetings, some participants were also invited to provide national reports. Participation was sought from countries with a particular interest in this area of work or from areas where regional coverage was poor. Global representation was relatively good with the meeting benefiting from the participation of the major drug information networks, and most of the relevant international organizations. A full list of participating entities can be found in Table 1, and details of individual participants are located at the end of this report. The meeting was intended as a technical forum for exchanging views and discussion between technical experts. The meeting did not represent a formal political forum for national or regional reporting purposes and therefore the national and other reports found here do not have any formal status nor do they necessarily represent the official position of the organizations/countries participating.

## **Drug information systems – update and discussion points**

One clear conclusion from the meeting was that in recent years considerable progress had been made in developing drug information systems and networks. This was true in a number of ways. Governments in both developed and developing countries had become more convinced of the value of this type of work and their investment in activities had correspondingly increased. Regional networks had been established or had expanded their activities, and there had been a move towards adopting broadly similar approaches often incorporating multi-indicator methods. To some extent, the similarity of the approaches found simply reflected a growing consensus on what constituted good practice in this area. Increased activities had therefore resulted in improvements in the quality as well as the quantity of work conducted. In addition, there had been a move towards adopting common reporting categories allowing data to be more internationally comparable.

**Table 1.**  
**List of participating drug information systems/networks and countries (by region) and international organisations.**

<b>Region</b>	<b>Name of system or country</b>
<b>Africa</b>	Mediterranean Network SACENDU – South African Community Epidemiology Network on Drug Use SENDU – Southern African Community Epidemiology Network on Drug Use EADIS – East African Drug Information System MENDU – Mauritian Epidemiology Network on Drug Use Morocco Nigeria
<b>Americas</b>	SIDUC – Inter-American Uniform Drug Use Data System CARIDIN – Caribbean Drug Information Network CEWG – Community Epidemiology Work Group (USA) Canada DIRS – Drug Information Report System (Mexico)
<b>Asia Pacific</b>	Central Asian Epidemiology Working Group IDRS – Illicit Drug Reporting System (Australia) Vietnam Thailand Narcotic Information System Behavioural Surveillance of HIV risk taking behaviours among drug users in South-East Asia
<b>Europe</b>	EMCDDA – European Monitoring Centre for Drugs and Drug Addiction ESPAD – The European School Survey Project on Alcohol and Other Drugs Pompidou Group Russian Federation Multi City network
<b>International Organizations</b>	UNDCP – United Nations International Drug Control Programme WHO – World Health Organisation UNAIDS – Joint United Nations Programme on HIV/AIDS FHI – Family Health International

While progress was evident, considerable challenges remained. In particular, developing low cost surveillance methods for developing countries remains a pressing need. Regular surveys of drug use among the general population had been conducted in many developed regions to assess the magnitude of drug use among the adult population. However, these types of surveys were often conducted on an ad-hoc basis, and were far less common in developing regions. General population surveys have a number of disadvantages for developing countries, not least among these being the cost involved. Increasingly other statistical estimation techniques were being utilised for prevalence estimation that were suitable for particularly marginalized populations, such as heroin abusers or drug injectors. These techniques are also likely to be more appropriate in countries where the general population is not accustomed to, or may be suspicious of taking part in, public attitude surveys – and therefore where reporting bias is likely to be a particular problem. A need was identified to share the experiences of countries that had used indirect statistical measures for estimating prevalence and to develop guidelines on applying these techniques.

One area that had seen considerable progress was the development of school surveys. Globally coverage in this area had improved. There was also a gradual move towards comparable methodological approaches. In the Americas, CICAD has made school surveys one of its priority data collection areas and expects to have data collected using a common format from all participating countries. The ESPAD project, involving European countries, has also made

considerable achievements with 30 countries participating in the last data collection round. In the Caribbean, the regional epidemiological network (CARDIN) is planning to co-ordinate school surveys in at least 10 countries during 2002. School survey data is also available from a number of countries in Asia. Surveys of the school population are therefore already providing considerable insight into global drug abuse patterns. There is considerable potential to increase the levels of coverage and comparability of this data source.

In terms of estimating problem drug use and the burden of drug use, most regions had some level of data on drug treatment admissions. Again at national level coverage was more variable and the comparability of data between countries was often difficult due to different reporting practices. Data sets derived from treatment attendance were obviously influenced by the nature of the drug treatment provision within a country and this fact further complicates the process of developing standard measures and definitions. On the positive side, most medical orientated services are accustomed to collecting routine monitoring data and their personnel understand the importance of using standard diagnostic criteria. Considerable potential therefore exists for developing this area of data collection. There remains a need to move forward on the development of common definitions and reach consensus on methodological good practice. At present, existing systems tend to reflect the needs of specialist drug treatment services, as commonly found in developed countries. Work is therefore required on methodological approaches that are cost efficient and practical and which reflect different types of drug treatment opportunities found in developing countries.

In terms of morbidity and mortality information, very few regions had comprehensive data on drug-related deaths, hospital or emergency room data or data on drug-related incidents. In some developing regions, there was a scarcity of even the most basic data from which to estimate morbidity and mortality associated with drug use, in part due to lack of services to deal with drug problems, but also because existing data was often not collated and analysed. In these regions, there was a higher reliance on ad-hoc studies of drug consumption, or studies on specific issues associated with drug consumption, to provide information on the nature and extent of drug abuse.

One of the issues facing regional data systems was the collation of comparable data from different cities or countries, and how to present aggregate data. Some systems had invested considerably in developing comparable estimates of drug measures based on different data sources while others had invested in developing standardized questionnaires and data collection formats. The difficulties in collecting standardized data are well known. It is also important to ensure that data collection procedures are relevant to the local context, and it can be difficult to maintain the validity of a standardized questionnaire or data collection format across different cultural contexts. Nonetheless, considerable progress was evident with the aggregation of basic data available at a regional level in growing number of areas. Participants discussed the balance between the need to develop methodological approaches that reflected local conditions and the benefits of adopting a standard approach. It was generally agreed that these need not be conflicting objectives. Improvements in regional data collection capacity had not been achieved by simply adopting solutions that had been applied elsewhere, but rather through a developmental process that recognised the need to configure data collection approaches to suit national circumstances, while appreciating the benefits of adopting harmonised measures and proven methodological principles. There was consensus that harmonization of global data collection activities should occur for top level variables such as age, gender, drug type and route of administration, consistent with the level of data collection represented in the ARQ. Also, a need was expressed to harmonize the concepts underlying data collection activities, so that there would be consensus on definitions and terms used in drug abuse epidemiology across regions and different drug information systems. In order to facilitate development of a common understanding of methods, terms and definitions, existing information needed to be compiled and made available at a common access point accessible to relevant stakeholders.

In a number of countries, there were now programmes reporting on the results of drug testing on those arrested for certain categories of offence. This represented a relatively new indicator, but one in a policy important area - the relationship between drug abuse patterns and criminal

behaviour. It was also noted that considerable benefit could accrue from combining epidemiological data with forensic science data on the nature and composition of substances available on the illicit market. To date, this area has been poorly developed and where this information is collected it is not usually placed in the context of the epidemiological surveillance information. However, now some progress was being made in this area especially in respect to new synthetic drugs.

In both developing and developed countries there was a need to improve the sensitivity of information systems to new drug trends. This kind of early warning role requires the development of new approaches. In some regions/countries investment had already been made to achieve this objective and lessons were beginning to be learnt. One lesson that emerged was the need for flexible systems that could combine the data from a range of sources, including supply side and forensic data and even media accounts. Another lesson was the potential role of qualitative and key informant techniques to improve the timeliness of data. The development of more sensitive information systems is clearly an important goal. It remains currently an area requiring more detailed consideration and development. Whilst most activities in this area had taken place in developed countries it is clear that in many developing regions having a timely picture of trends is of equal or more importance than having a rigorous understanding of prevalence levels. For example, the spread of drug injection or methamphetamine smoking, dictate policy responses even when good estimates of prevalence are lacking.

Ethical issues around drug abuse data collection were identified as one priority area for development. Ethical standards needed to be adopted in the development of data collection activities, particularly in regions where procedures for ensuring ethical standards in research on humans are not institutionalised. This need was particularly apparent for data collection activities that involved registries of drug users and drug testing of populations. A statement on ethical principles for collecting data on drug consumption needed to be developed and promoted, particularly in developing regions where drug information systems exist or were being developed. A broader issue on the ethics of drug information systems regarded the utility of data collected. Participants at the meeting agreed that there was need to develop the use of data from drug information systems to inform demand reduction policy and implementation. This process would be assisted by the development of guidelines and training in how to optimise the policy relevance of information from drug information systems, and provision of support for policy makers in the interpretation of data from drug information systems.

HIV infection among drug injectors has become one of the main driving forces behind the epidemic in many parts of the world. Despite this, the global mapping and measurement of injecting populations remains poor. At this point in time good information is not available in many areas where HIV infection among IDUs is a concern, and this lack of information hinders the development of appropriate responses. Drug injecting has been shown to diffuse rapidly in vulnerable populations. There is need to improve the surveillance of injecting drug abuse, both in terms of the coverage of information systems and their sensitivity to emerging problems. Achieving this goal requires ongoing activities that can report on changes over time. While collecting data on IDU has many purposes, estimating the size of the injecting population is clearly an important priority in many countries. Knowing the size of the injecting population is necessary for designing interventions of appropriate intensity. It also allows measurement of the IDU who are in contact with services, that is, service coverage. Understanding the potential and achieved coverage of interventions targeting IDUs is important for programme planning purposes. This information, combined with behavioural data, allows the potential for spread of HIV among IDU to be assessed. Prevalence estimation is not a trivial task and a clear need exists for robust low cost methods that are appropriate to the needs of developing countries. As most work in this area has been conducted in the more developed regions there is a need for information exchange, training and pilot projects to help build both the technical and human infrastructure necessary for progress elsewhere. It was also noted that because many indirect prevalence estimation methods required the generation of a community sample of injectors that sharing of experiences on best practices in this area was required. Recruiting community samples of drug injectors and successfully interviewing them was considered both methodologically and practically

challenging. It was therefore especially important for countries that lacked experience in conducting this type of survey to be able to access good guidance material. However, at present this was identified as an area in which technical resources were relatively weak. Any technical material should also give guidance on the ethical issues in conducting this sort of research exercise. This was likely to be an especially important if the surveillance exercise was intending to collect biological samples from subjects for subsequent testing.

It is not only important to know the prevalence of drug injecting but also the prevalence of HIV infection among drug injecting populations. Important here is integrating the information collected by specialist drug information networks with the wider work of HIV/AIDS surveillance networks. Again this is an area where the harmonizing of definitions and development of standard indicators is important. In respect to indicator development, some progress has been made in standardized simple categories for reporting on IDU prevalence. For example, new simple measures for this indicator have been included in the new Annual Reports Questionnaire (part II) and these broadly reflect the practice of other agencies. However, there is still a pressing need to make progress in the area of the measurement of the behavioural factors associated with drug injection and HIV risk. In particular, consensus is required on the conceptual aspects of how injecting equipment is used and cleaned to allow a set of standard reporting categories to be developed. Supporting guidance on the methodological issues in collecting this information with populations of drug injectors and how to minimize reporting biases would also be useful. Progress is being made on this agenda and international organizations, regional networks and specialist networks are currently co-operating to build the consensus necessary for the development of a comprehensive package of indicators that reflect not only epidemiological behavioural measures but also audit responses. Building up a better understanding of how different types of interventions, and different levels of intervention intensity, are associated with different levels of risk behaviour, morbidity and mortality among IDUs is of critical importance to the policy debate on how best to intervene in this area.

Whilst HIV risk behaviour remains a major issue for information collection with injecting drug users, it was also noted that the surveillance issues were also important in respect to other blood borne viruses, such as Hepatitis C. In addition, it was noted that the risk behaviour of non-injecting drug users remained both poorly understood and poorly monitored. In the Caribbean and parts of South America this issue was regarded as particularly important. Here concerns existed about HIV infection with regard to the association between some patterns of drug consumption and sexual risk behaviours.

## **Opportunities for co-operation and the sharing of experiences**

One of the topics of discussion was the opportunity for co-operation and the sharing of experiences. A number of areas were identified where collaboration would be fruitful. These included:

- a) *Access of research tools and data collection guidelines:* One of the problems that developing countries face is the lack of resources materials. This problem was not restricted to developing countries, and across the board it was felt that it was often difficult to compare approaches and benefit from existing instruments. The benefits of a repository of tools and guidelines on drug abuse epidemiology methods, and provision of access to this material through electronic media (i.e., CD-ROM, web-site) was supported as well as the need to share material between networks and to provide translations of technical materials were possible.
- b) *Glossary of drug abuse epidemiology terms:* There was consensus among participants that harmonization of global data collection activities should occur for top-level variables such as age, gender, drug type and route of administration, and there was an obvious need to harmonize the concepts underlying data collection activities. Development of a glossary of drug epidemiology terms and definitions related to these top level variable would facilitate consensus on definitions and terms used in drug abuse epidemiology across regions and different drug information systems.



- c) *Statistical methods in prevalence estimation:* There was a need to share experiences and provide technical workshops on statistical methods for estimation techniques, as these methods are relatively new and their application in developing regions was needed. This training could be provided in the form of master classes within relevant regions.
- d) *Training or format guidelines for reporting on regional/inter-country patterns and trends in drug consumption:* The varied nature and extent of data available in many countries, particularly in developing regions, presented a challenge when collating data at a regional level. A need was expressed by participants for development of guidelines on appropriate and effective ways of presenting aggregate data from multiple countries.
- e) *Qualitative research and community surveys:* Training in the application of active data collection methods, that is surveys, to access non-institutional populations and populations of non-problematic drug users.
- f) *Improved sensitivity to new drug trends:* Development of new approaches to improve the sensitivity of drug information systems to new drug trends. In particular, development of an understanding of how systems can become more flexible to accommodate different information sources; an understanding of how information from the supply side and forensic data can be used to enhance the timely detection of new drug trends; and development of the utility of qualitative data and key informant data in drug information systems.
- g) *Using data to inform policy:* Participants at the meeting agreed that there was need to develop the use of data from drug information systems to inform demand reduction policy and implementation, and develop the use of data to inform policy. This process would be assisted by the development of guidelines and training in how to optimise the policy relevance of information from drug information systems, and provision of support for policy makers in the interpretation of data from drug information systems.
- h) *Ethical principles for collecting data on illicit drug consumption:* Ethical issues around drug abuse data collection were identified as one priority area for development. Ethical standards needed to be adopted in the development of data collection activities, particularly in regions where procedures for ensuring ethical standards in research on humans are not institutionalised. To facilitate this process, a statement on ethical principles for collecting data on drug consumption needs to be developed and promoted, particularly in developing regions where drug information systems exist or are being developed.
- i) *HIV and data collection:* Continued collaboration between international agencies and other relevant stakeholders is needed to establish the current status of data collection on injecting drug use and related HIV risk behaviours, to assist with the development of core reporting categories relating to IDU populations and risk-behaviours, and to improve and promote methodologies to monitor HIV risk among high risk drug consuming groups.



## **2 Update on Trends in Drug Consumption**

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The following summary of drug trends is a synthesis of information presented at the Global Workshop on Drug Information Systems supplemented with information from recent relevant reports on drug trends. Where possible, the source of the information is cited and the citation list can be found at the end of the report.

## Heroin

Heroin problems remain at the top of the illicit drug abuse agenda for many parts of the world and the abuse of this drug is responsible for considerable damage both to individuals and communities. Heroin is commonly smoked, injected and sometimes snorted (inhaled through the nose). Injecting heroin use is particularly damaging especially when the behaviour exposes users to the risk of viral infection. Monitoring transitions in the common route of administration among heroin abusing populations is therefore important.

A simple overview of the global heroin situation would suggest that in South America and the Caribbean the drug is not widely consumed. In Africa, again heroin use is not perceived as a widespread problem; however, worrying reports of increased use are emerging from a number of large cities. This re-iterates the need for ongoing monitoring of the drug situation in Africa to detect the emergence of problematic trends in drug use. In North America problems are recorded, but abuse is seen as largely stable at present, although particular concern exists about the possible increased use among young people who may be snorting/sniffing the drug. Heroin remains the primary problem drug in Europe. Trends are reported as being broadly stable in the EU countries but increasing in Eastern Europe. In the Russian Federation, and other countries of the former Soviet Union, there are severe heroin abuse problems and concerns about increasing levels of drug injection. Heroin abuse is problematic in many of the countries in Central Asia and in South East Asia. However, in parts of South East Asia heroin abuse may be stable or even in decline, as methamphetamine becomes the major drug of abuse for many countries in the region. Heroin abuse has fallen recently in Australia as a result of a shortage of supply. To some extent this has resulted in an increase in the use of stimulant and other drugs.

Heroin use and associated problems have increased in the Eastern European countries to a level approaching that of Western European countries, where the problem appears to have stabilised. Increasing heroin use in Eastern-Europe has replaced the traditional use of home-made opiates, and there has been a corresponding increase in the number of injecting drug users, the number of new HIV infections relating to injecting drug use, and in drug-related mortality which is thought to be due primarily to opioid overdose<sup>1</sup>. In the Russian Federation heroin injection among young adults has increased notably since the mid-1990s, now accounting for the majority of treatment admissions. There have also been reports of heroin smoking among school students in European countries. Based on the 2000 ESPAD survey conducted among students in 30 European countries, lifetime experience in heroin smoking was 3 per cent on average. However, it should be noted that this figure hides considerable national variation, with lifetime prevalence of heroin smoking being particularly high among students in Latvia and Romania (7-8%) and Croatia, Italy, Lithuania, Poland and Russia (4-5%). Injecting heroin use was far less commonly reported<sup>2</sup>.

One trend noted was an increase in heroin use in developing regions where heroin abuse was not traditionally known. In particular, there was growing evidence of pockets of heroin injection in urban centres (e.g., Tanzania, Kenya, Nigeria), albeit from a very low baseline, and the continuing trend of heroin use among young adults in South Africa. There is also concern in some Eastern African countries that local heroin trafficking will impact on levels of heroin abuse<sup>3,4,5</sup>. Unlike most of its mainland counterparts, the island of Mauritius has an established population of opioid injectors, which evolved in the late 1980s to early 1990s, but abuse levels appear to have remained stable for several years<sup>6</sup>.

In Central and South Asia the heroin abuse situation remains highly problematic although an absence of good data hinders an accurate assessment of trends. Furthermore, it remains too early to gauge the impact of the current situation in Afghanistan on heroin consumption patterns in the region. Growing heroin problems are reported in the Central Asian countries of Turkmenistan,

Tajikistan, Kazakhstan and Kyrgyzstan. Of particular concern is the growth in drug injecting. In Pakistan, India and Iran large opioid abusing populations exist. Estimates vary considerably for the size of the total heroin abusing populations in these countries with some figures suggesting extremely high male prevalence rates. A 1996 survey in India estimated that there were between 0.5 and 0.6 million drug-dependant individuals and that the drug abusing population could be in the order of 3 million<sup>7</sup>. A recent assessment exercise in Pakistan highlighted a serious heroin problem and estimated the number of chronic male addicts at around half a million individuals. This study also suggested that drug injection had now become a serious problem in the country with around 15% of addicts regularly using this mode of administration<sup>8</sup>. This contrasts with the picture in the mid 1990s where this mode of use was negligible. Good prevalence data was not available for Bangladesh but rapid assessment studies carried out in 1996 suggest that the country had a significant heroin problem. Given the number of individuals that are affected, the continued diffusion of drug injecting, and the lack of resources for treatment and other services for drug abusers, the situation in Central and South Asia is of particular concern.

In South-East Asia, while heroin and other opioid use remain a significant problem, there was evidence of a decline in heroin use in some countries, particularly in Thailand, where use of heroin had been replaced by methamphetamine. Although heroin was still the second most common drug used among treatment admissions, the number of heroin admissions had plummeted to about one-third of levels seen in the mid 1990s. Heroin and opium are still the primary drugs abused in Vietnam, with about 70% of recorded cases of drug addicts using heroin and 28% using opium, with about one-third of heroin users and one-quarter of opium users injecting the drug. Over 70% of HIV cases in Vietnam are attributed to injecting drug use, and opioid use is associated with a substantial number of overdose deaths, for example, in Ho Chi Minh City there were 292 drug-related deaths from January to September 2001. In line with the recent trends in Thailand, there has been an increase in methamphetamine and ecstasy use in urban areas of Vietnam where heroin was traditionally used, although the extent of use is still low.

Australia has also seen a recent decline in heroin use, with a concomitant reduction in heroin overdoses. This has been attributed to a recent heroin shortage in Australia starting early in 2001<sup>9</sup> which was marked by increased price, decreased purity and decreased availability of heroin. While problems typically associated with heroin use, most notably heroin overdose, have declined following this shortage in heroin, there has been a concomitant increase in the injection of other drugs (e.g., cocaine and amphetamine) and new problems associated with stimulant injection. An annual national survey of injecting drug users in Australia found that only 36% reported heroin as the drug they injected most often in 2001 compared to 58% in 2000<sup>10,11</sup>. The factors associated with this shortage of heroin are currently being investigated and it will be interesting to see whether the reduction opioid use and related problems are sustained. The number of dependent heroin users in Australia was recently estimated at 74 000 or 6.9 per 1000 population, as of 1998: a steady but substantial increase on the number of heroin users estimated in the mid-1980s (around 34,000 or 3.7 per 100,000 population)<sup>12</sup>.

The USA reported stable levels of heroin abuse, although recent evidence from the CEWG suggests that heroin abuse may be spreading to suburban and rural communities and among younger populations, with indicators for heroin abuse increasing in 15 of the cities within the country. This increase in use has been accompanied by the availability of high purity heroin at low prices. Reports indicate that heroin is often being used in combination with cocaine, either concurrently or sequentially. Pharmaceutically produced narcotic drugs (i.e., oxycodone and hydrocodone) are also being used by youth and young adults in place of heroin<sup>13</sup>. In the United States the prevalence for heroin use among students in public and private secondary schools throughout the country has remained steady at around 1.5-2.5 per cent in the 1990s, although the most recent data showed an increase in the recent use of heroin among senior school students (12<sup>th</sup> graders) but a decline among younger students (8<sup>th</sup> graders)<sup>14</sup>.

Within the Caribbean, heroin abuse was not widely reported although the use of the drug is not unknown. Some heroin problems are reported among treatment attendees in Suriname and a small number (0.3%) of students reported heroin use in the last month in Haiti<sup>15, 16, 17</sup>.

## **Amphetamine type stimulants**

The term amphetamine type stimulants (ATS) has been adopted to refer to synthetic central nervous system stimulant drugs such as amphetamine, methamphetamine and the chemically related ecstasy group (MDMA and its analogues). It should be noted that the chemical similarity of these substances is not reflected in similarly homogeneous abuse patterns. Patterns of use include: chronic and dependant abuse by the socially marginalized, abuse by young often socially well integrated people in recreational settings, and the instrumental use of stimulants by certain occupational groups or in particular work settings. The morbidity and mortality associated with ATS use is also influenced by the route of administration employed. Among ATS there are drugs that can be injected smoked, snorted/sniffed or consumed orally.

The most notable trend in ATS was an apparent increase in methamphetamine abuse in South-East Asia, with methamphetamine replacing opioids as the drug of choice in some countries. In Thailand, methamphetamine abuse has been spreading in since 1970 but this increase became more intense from 1996, and its use has now dispersed throughout the country. Methamphetamine has now replaced heroin as the most common drug for which drug users sought treatment, with 61% of new treatment recipients in the country being methamphetamine users. The drug is typically smoked 2-3 times per day, and there is typically a 3-4 year delay before treatment registration. Young people and students have become the main users of methamphetamine, while drugs like ecstasy, ketamine and cocaine are most commonly used by the youth in entertainment places. There has also been an increase in methamphetamine and ecstasy use in Vietnam, especially among dancers and young people in nightclubs, and in urban areas where heroin was traditionally used, although levels of use are still low. The Australian Illicit Drug Reporting System noted a continuing increase in the use of more pure forms of methamphetamine, including "ice" and "base" methamphetamine in 2001, although it is not clear to what extent crystalline methamphetamine available in Australia is imported from South-east Asia or manufactured locally<sup>11</sup>. There is also evidence that in some regions of Australia, that the recent heroin shortage has also been associated with an increase in the injection of methamphetamine (see above)<sup>10, 11</sup>.

In areas of the USA that typically report high levels of methamphetamine abuse, there was evidence of increased use of methamphetamine during late 1999 to early 2000, despite a downward trend prior to 1999. Reports from 11 CEWG areas indicate that methamphetamine is being used along with other drugs at dance venues such as raves. There were also signs that methamphetamine use had increased in areas where it has not been a major problem in the past. Use of methamphetamine and crystal methamphetamine ("ice") had remained fairly stable among school students, with recent estimates of last year prevalence fluctuating around 1-3 % among 12<sup>th</sup> graders<sup>13,14</sup>.

Most amphetamine used in Europe is in the form of amphetamine sulphate. Methamphetamine problems have been largely restricted to the Czech republic, however, there was some evidence of sporadic methamphetamine availability in some EU countries. Given the particularly high abuse potential of this drug and its association with high levels of problematic behaviour, this is of considerable concern. Therefore, there is a strong argument for the need to monitor any potential diffusion of this drug within Europe to allow the development of early interventions should they become necessary.

In Europe the use of ecstasy type drugs has become an established aspect of specific recreational settings (dance parties) among youth, combined with increasing experimentation with other synthetic drugs. With respect to the use of ecstasy there are clear upward trends both in Western and Eastern European cities<sup>1</sup>. However, the most recent data from the European Union region shows that lifetime experience of amphetamine among the general population is still well below five per cent in most countries. Of the EU countries, the United Kingdom (England and Wales)

reports notably high rate, with 10 per cent lifetime use of amphetamine among the general population<sup>18</sup>. According to the ESPAD survey the level of ATS use (especially with respect to amphetamine) among European adolescents is, in general, at a much lower level than is the case with their peers in the USA. In Europe the average of lifetime experience both in amphetamine and ecstasy use is 2 per cent among 15 to 16 year olds<sup>2</sup>. The trend in ATS use in the EU is somewhat mixed and requires careful monitoring, but overall the situation appears to be stabilising.

Concern about the abuse of ecstasy type drugs is pronounced at present in the USA. This concern is reflected in the available data, which shows that more young Americans now use ecstasy than cocaine. MDMA use increased among all the age cohorts in the most recent Monitoring the Future study<sup>14</sup>. The CEWG surveillance network reported that MDMA (ecstasy) abuse has become more widespread, with recent increases being reported in 17 areas across the USA. Ecstasy is now being used in a variety of settings, including raves, house parties and singles bars and some evidence exists to suggest that the age groups involved appear to be getting younger. There has also been an increase in the number of emergency room attendees reporting MDMA abuse<sup>13</sup>. Ecstasy abuse is also a concern in Canada. Designer drugs such as ecstasy have emerged as popular drugs, mainly among youth. In Ontario, past-year ecstasy use among students had increased from 0.6% in 1993 to 6% in 2001<sup>19</sup>.

Although cannabis and cocaine remain the predominate drugs used in the Caribbean, there are concerns about the availability of ATS drugs and increased availability of ecstasy in particular. Ecstasy use has been reported in Aruba, Suriname, St Vincent and the Grenadines, Dominican Republic and The Bahamas. Concern about emerging ecstasy use was raised at a recent meeting of the Caribbean Regional Drug Information Network<sup>15</sup>. In a recent school survey conducted in the Cayman Islands ecstasy lifetime prevalence was reported as 2.6% for 15 year olds<sup>20</sup>. High levels of amphetamine use have also been reported among youth in the Metropolitan Area of Port-au-Prince, Haiti<sup>17</sup>.

## **Cocaine**

Cocaine remains the primary drug of concern across the Americas and the Caribbean regions, although cocaine abuse is not restricted to this area. In terms of the number of individuals affected, the Americas remains the region in which cocaine problems are most pronounced. As with other drugs, route of administration is important in understanding abuse patterns. Cocaine can be relatively easily converted between its salt and base forms. This allows sniffing/snorting, injection and smoking all to be common modes of administration. Of these, cocaine injection is usually the least commonly found behaviour. Smoking cocaine products, such as crack cocaine, is particularly associated with severe problems. Dependent and chronic patterns of abuse are common with this mode of administration and a strong association has been observed between crack cocaine smoking and socially negative behaviours, such as criminal offending. Some evidence exists that links smoking cocaine to elevated risks of HIV infection, either through an increased incidence of high-risk sexual encounters or through involvement in sex for money – or sex for drug – exchanges. This is a particular concern in many Caribbean and South American countries where drug injection is not common.

Cocaine and crack cocaine use continues to decline in most areas of the USA. This downward trend is especially striking in areas where abuse of these drugs has been highly concentrated in the past, such as the Northeast, mid-Atlantic, and northern Midwest region of the nation. The population of crack cocaine users appears to be aging, although the overall level of use remains high, as does morbidity and mortality associated with the drug, with cocaine being responsible for the most drug-related deaths in nine CEWG sites<sup>13</sup>. In Canada cocaine continues to be the drug of choice among IDU, and the injection of crack cocaine is increasing, notably in Vancouver. This is a cause for concern due to the frequency of injection and the increased risk of HIV and Hepatitis C infection if injecting equipment is shared. Shifts to the use of crack cocaine, both smoked and injected, have also been noted.

While cocaine use has decreased in the United States, there are indications of increased use in Mexico and the Caribbean. The Drug Information Report System (DIRS) in Mexico noted that cocaine use surpassed use of cannabis and inhalants in 1998 to be the most common drug abused, being used by around two-thirds of drug users. Cocaine use among school students in Mexico also increased over the last decade, with 5.2% of students reporting its use, to be the second most common illicit drug used after cannabis (5.8%). Within the Caribbean, cocaine abuse was widely reported. All 15 countries participating in the Caribbean Drug Information Network reported cocaine abuse in their countries. School survey data indicates that lifetime use of cocaine among students ranges from 1.3% to 1.7%. The newly formed surveillance network for the region was taking up the topic and focused studies and school surveys were planned for the region in the coming year<sup>15</sup>.

Whilst there is concern about rising levels of cocaine use in Europe – especially in some of the larger cities – the data on this issue remains mixed at present. In Western Europe there are no clear signs yet of a general increase in cocaine use levels either among general population or among school children in Europe. However, targeted surveys of users reveal the high level of recreational use of cocaine powder in certain social settings, and among ‘dance goers’ or ‘clubbers’. While the lifetime prevalence of cocaine among young adults from general population generally ranges from 1 to 6 per cent, the targeted surveys in the same age group have revealed rates among ‘clubbers’ as high as 42 to 62 per cent<sup>2, 18</sup>. In the UK there is increasing evidence of high levels of cocaine use among young people in some urban areas. The British Crime Survey (2000) noted that over 10% of those aged between 16-29 years living in London reported cocaine use in the last 12 months. However, figures for other areas were far lower. The study noted that there was a concern that young people may be switching from ecstasy to cocaine use, possibly in response to media attention of the harms associated with ecstasy<sup>21</sup>.

In Australia, cocaine is reported only to be readily available in Sydney, where its use has been apparent for several years. There have been reports of a recent increase in the injection of cocaine use in Sydney in response to the decreased availability of heroin in 2001, and some indication of increased cocaine availability in other areas of Australia<sup>10,11</sup>.

## **Cannabis**

Overall, cannabis remains the illicit drug most commonly abused globally. Precise estimates of the extent of cannabis abuse are restricted mostly to developed regions, although evidence from other regions also suggests that cannabis is the most common illicit drug. Even though cannabis may not be associated with acute health problems to the same extent as certain other illicit drugs, such as heroin, cocaine or ATS, the relatively greater extent of its abuse presents a challenge to many countries. In addition, certain developing countries with widespread cannabis are concerned about the association of cannabis abuse with acute mental health problems and how cannabis abuse impacts on other mental health conditions. This issue remains poorly understood, and a better understanding of the impact that cannabis consumption has on the health systems of countries in the Caribbean, Africa and elsewhere is required.

The most recent estimates provided on the extent of cannabis abuse in Western Europe show that up to one-quarter of adults had ever used the drug (range: 4-25%) while recent use of the drug was between one and nine per cent, with levels of consumption being highest among young adults. The United Kingdom had the highest prevalence rates, where one in five young adults (16-29 years) had used the drug in the last year<sup>18</sup>. Higher rates of cannabis consumption can be seen in Australia, where over one in three young adults (14-29 years) had used the drug in the last year, and the general population annual prevalence was 18 per cent<sup>22</sup>. Relatively high levels of cannabis use can also be seen in North America. In the USA annual prevalence of cannabis use was 24% among 18-25 year olds, with about one-third of the population having ever used the drug<sup>23</sup>. Prevalence rates for Ontario, Canada were extremely similar to the USA, with 35% of the general population having used cannabis and the highest levels of use being among 18-29 year olds (28%)<sup>24</sup>. In summary, the prevalence rates for cannabis use vary considerably between countries, but are generally much higher than for other more problematic drugs (i.e., heroin, cocaine and



ATS) with between one and four in ten people having used the drug in their lifetime, and up to one in five having used the drug in the past year.

Cannabis consumption was also the most common drug abused by adolescents according to most school survey data. Estimates for lifetime prevalence of cannabis use among European school students range from 8 per cent to 35 per cent, and increasing consumption was noted in most countries. The comparable figure from the United States – 41 per cent – is higher than in any of the EU Member States, even if the trend in adolescents' lifetime cannabis use had remained rather steady during late 1990s<sup>2</sup>. The 1999 school survey data from Ontario, Canada, indicated that 34.7% of school students had ever used cannabis, while the 1999 national survey of school students in Australia showed similarly high levels of use, with nearly one-third of school students (12-17 years), and nearly half (47 per cent) of 16-17 year olds, having ever used the drug<sup>18</sup>. Cannabis use was also the most common drug used among school students in Moscow, with more than one in five (22.4%) having ever used the drug.

Cannabis use was also common in the Caribbean, with lifetime prevalence estimates of 43-57% for countries where there had been general population surveys of drug abuse. School survey data from the Caribbean indicated that lifetime use of cannabis among students ranged from 8% to 27%<sup>15, 25</sup>. A study in Barbados found that 75% of drug users interviewed nominated marijuana as their primary drug of choice<sup>26</sup>. Problems associated with cannabis use are also evident in the Overseas Countries and Territories based on reports from country representatives at a recent meeting on drug problems in the Caribbean<sup>15</sup>.

While data on cannabis consumption in Africa remains scarce, evidence gathered during the development of drug information systems in Southern and Eastern Africa, together with specialised survey research conducted in Western Africa, suggest that cannabis is the most common illicit drug used in the region, and in many cases, reports suggest that cannabis abuse is increasing<sup>3, 27, 28</sup>. Survey data from selected countries in the region show that cannabis abuse is predominantly a problem among young males<sup>29, 30, 31</sup>. For example, a 1998 survey of substance abuse among students in Swaziland found that 7.5% of male students had used cannabis in the last month, compared to only 1.4% of female students<sup>29</sup>. Cannabis abuse also accounts for a substantive proportion of psychiatric admissions in several countries within Africa<sup>32, 33, 34</sup> raising concerns about the impact of cannabis abuse on mental health services.

Increased cannabis consumption was noted in many regions. The EMCDDA reported a trend toward increasing prevalence of cannabis use over the 1990s, with this increase being proportionally greater in the countries where lifetime prevalence was low in the early 1990s<sup>17</sup>. There was also increased consumption noted among school students in some European countries<sup>2</sup>. A similar trend is evident in North America. Survey data from Ontario, Canada showed an increase in the number of young cannabis users, with over one-quarter (28%) of those aged 18-29 years having used the drug in the last year in 2000 relative to 18% in 1996<sup>24</sup>. There was some evidence from the CEWG that cannabis use was stabilising in particular areas of the United States, following the previous upsurge in use seen between 1990-98. Despite this stabilisation of use, treatment demand for the drug remained high<sup>13</sup>. Use of cannabis among school students in the USA has remained stable since 1999<sup>14</sup>.

In summary, cannabis abuse is widespread globally, and is by far the most common illicit drug abused. Available evidence suggests that cannabis abuse is stable to increasing in most regions. There is concern about the health and social implications of increasing cannabis consumption, particularly with regard to its demand on mental health services in regions such as Africa and the Caribbean.

## **Other drugs**

One of the more common trends in terms of other drug use was the use of solvents and inhalants among street children in developing regions, such as in Africa and the Caribbean. Also, the use of locally grown plants with psychotropic properties was common in Africa (e.g., *Datura metel* or "zakami", paw paw leaves, nutmeg), the most extensively used being Khat in East African

countries. South Africa, and to a lesser extent its bordering southern African countries, experienced substantial methaqualone use. This trend consisted of smoking illicitly produced methaqualone, known locally as “mandrax”, often together with cannabis. Abuse of prescribed benzodiazepines or analgesics appeared to be problematic in some countries, although it was difficult to gauge the extent of this problem.

In general, there was increasing concern about poly-drug use and the extent to which this exacerbated the adverse health consequences associated with drug use. The variety designer drugs taken among recreational drug users (e.g., ecstasy, GHB, ketamine, PCP) prompted concern over the adverse acute health effects that had been associated with this pattern of drug consumption. Similarly, there was concern about overdose from the concurrent use of depressant drugs, such as alcohol and prescribed analgesic or other opioids.

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<sup>33</sup> UNDCP (2001). *Information, Needs and Resources Analysis for the Republic of Malawi*. UNODCCP Southern Africa, Pretoria.

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## **3 Europe**

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## **3.1 EMCDDA – EU and Applicant Countries**

*Richard Hartnoll*

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### **Introduction**

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) was established in Lisbon in 1994 to gather and disseminate information on:

- (i) the demand for drugs and measures to reduce that demand;
- (ii) national and European Community strategies and policies;
- (iii) international cooperation and the geopolitics of the supply of drugs;
- (iv) control of trade in narcotic drugs, psychotropic substances and precursor chemicals;
- (v) implications of the drugs phenomenon for producer, consumer and transit countries.

### **Description of current methods used to monitor drug use**

Improving the comparability of data across the Member States is a central task of the EMCDDA. The EMCDDA develops and recommends methods and instruments in order to collect and analyse harmonised, good quality data at European level. The EU action plan on drugs (2000-04) calls for Member States to provide reliable and comparable information on five key epidemiological indicators according to the EMCDDA's recommended technical tools and guidelines. These five key indicators are:

- prevalence and patterns of drug use among the general population (population surveys);
- prevalence and patterns of problem drug use (statistical estimates of prevalence/incidence supplemented by surveys among drug users);
- drug-related infectious diseases (prevalence and incidence rates of HIV, hepatitis B and C in injecting drug users);
- drug-related deaths and mortality of drug users (general population mortality registers and special registers statistics, and cohort studies among drug users of mortality and causes of death);
- demand for drug treatment (statistics from drug treatment centres on clients entering treatment)

### **General population estimates**

General population surveys are employed to estimate drug use. Twelve Member States have conducted national surveys during recent years on drug use in the general population (although in Luxembourg the sample was small) and the remaining ones (Italy, Portugal and Austria) are currently organising them. Several countries have already established series of repeated national surveys using the same methodology (for example Germany, Spain, Sweden and the United Kingdom) and in Greece, France and the Netherlands series have been initiated. Some countries have successive ad hoc surveys which are comparable to some extent (for example Denmark, Finland and France).

There are differences across countries in methods of data collection, sampling sizes and frames, which could influence the precision and validity of estimates. Until these issues are solved, direct comparisons between levels of use in Member States should be made with caution, especially where differences are small.

The EMCDDA has developed guidelines to improve quality and comparability of population surveys in the EU. These guidelines include a set of common core items that can be used to report data from existing surveys or that can be inserted into broader questionnaires and basic methodological guidelines, and they are gradually being implemented in the Member States.

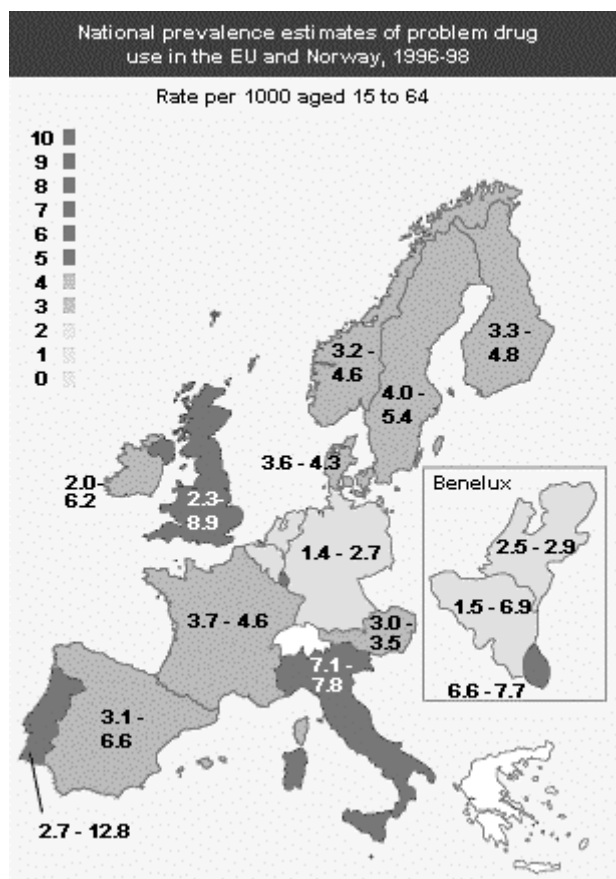
### Drug use in the school population

For under-18-year-olds, the EMCDDA draws on information from a comparable schools survey which includes data from 30 participating countries in Europe and also data from the United States. Eleven EU Member States participated in the most recent 1999 European School survey project (ESPAD), which describes tobacco, alcohol and other drug use among 15 to 16-year-old students. Belgium, Luxembourg, and Spain also conducted school surveys in 1998 or 1999 independently from the ESPAD survey and the results from these are consistent with those from ESPAD.

### Definition and Methods used to estimate problem drug use

'Problem drug use' is defined here as 'injecting drug use or long-duration/regular use of opiates, cocaine and/or amphetamines'. This definition excludes ecstasy and cannabis users and those who never - or irregularly - use opiates, cocaine or amphetamines. Opiates include prescribed opiates such as methadone.

The national estimates of problem drug use reported here for the EU and Norway (which also participated in the EMCDDA project on prevalence estimation) are for 1996 to 1998. Austria (1995) and Belgium (1995) could not provide estimates for this time period, due to lack of more recent data on which to base the calculations, while Luxembourg, Portugal and Italy provided more recent ones (1999-2000).



**NB** n.a. = data not available. Differences between countries have to be interpreted with caution due to different methods and target groups. Data for Austria and Belgium are for 1995, Italy for 1999 and Portugal for 1999-2000. The original Swedish estimate has been reduced by 8% to exclude cannabis addicts compatible with EMCDDA definition of problem drug use. Colour for a country indicates the midpoint of the range in estimates, except for Belgium (point estimates 3.0 and 95% confidence interval). The Belgian estimate refers to IDUs and thus underestimates total problem drug use.

**Sources** [Reitox national reports 2000](#). For Sweden: B. Olsson, C.A. Wahren, S. Byqvist, Det tunga narkotikamissbrukets omfattning i Sverige 1998, CAN, Stockholm 2001.

The methods used to produce these estimates are mainly based on statistical models incorporating drug-related indicators and include:

- the multivariate indicator method;
- capture-recapture;
- three multiplier methods based on police data, treatment data and mortality rates; and
- a multiplier method using back-calculated numbers of intravenous drug users (IDUs) with HIV/AIDS, in combination with HIV/AIDS rates among IDUs.

The ranges given in Figure 3 are often derived from a multiple method approach; therefore the lowest and highest figures may have been obtained by different methods, both within and between countries. These methods do not always refer to the same target group - for example, HIV/AIDS back calculation and overdose mortality multipliers target IDUs, while multipliers from treatment data could only be used for the wider group of problem opiate users.

Several countries applied multiple estimation methods - two (Spain, Luxembourg and the Netherlands), three (Germany, France, Ireland, Finland and the United Kingdom) or even four (Italy and Portugal). Other countries (Belgium, Denmark, Austria, Sweden and Norway) could only apply one method, while Greece was still unable to provide an estimate. Using multiple independent estimates may cross-validate the single figures and lead to a more reliable overall estimate for a country. Therefore, a multiple method approach, if possible on a year-by-year basis, may ideally be applied.

### **Treatment Demand**

The EMCDDA has launched several projects to develop comparable treatment reporting systems, based on the protocol of the First Treatment Demand Indicator (TDI) of the Pompidou Group of the Council of Europe. A detailed comparative analysis of existing national treatment reporting systems was carried out, with the objective of identifying a common set of core items, which were at the same time compatible with the Pompidou Group Protocol.

A joint protocol was defined (Joint Pompidou Group-EMCDDA Treatment Demand Indicator Protocol version 2.0) which describes a routine system for collecting standard data (20 variables) from each client starting treatment. It provides a classification of treatment centres, defines which clients they should notify, and gives guidelines on methods of data collection, analysis and reporting. The protocol includes procedures for minimising double-counting whilst respecting confidentiality, and for internal consistency checks to improve reliability. The items do not necessarily have to be collected in exactly the same form and using exactly the same categories as specified in the TDI Protocol, but each Member State should be able to draw these data from its national sources. National systems are free to collect any additional information they consider relevant or important at national level.

### **Drug-related morbidity**

As available data are from different sources (sometimes local), only a general impression of HIV prevalence in injecting drug users (IDUs) can be given. However, large differences are apparent between, as well as within, countries. Available data indicate levels of infection among different subgroups of IDUs that roughly vary from about 1 % in the United Kingdom to 32 % in Spain. This overall picture has not changed in recent years. However, there are indications of new increases of HIV transmission in subgroups of IDUs in some countries.

Data on prevalence of infection with hepatitis C virus (HCV) are less available and, where available, are subject to the same limitations as the HIV data. However, the overall picture is clear — HCV prevalence is extremely high in the data from all countries of the EU, with infection rates of between 40 and 90 % in different subgroups of IDUs. As far as they are available, data on prevalence in IDUs aged under 25 indicate levels of HCV infection from 20 % (Belgium, treatment, 1998) to over 74 % (Portugal, Coimbra treatment, 2000). This suggests that HCV



transmission continues at high levels in several countries, although some studies indicate that introducing prevention measures might have reduced transmission (United Kingdom).

### **Drug-related deaths**

Direct comparisons between countries can be misleading because the number of drug-related deaths depends not only on the prevalence of problem drug use and the risk patterns (such as injection) but also on national definitions and recording methods. For instance, Portugal has an inclusive definition whereas Sweden has recently changed from a broad to a more restrictive definition.

Drug-related deaths and mortality among drug users is one of the EMCDDA's epidemiological key indicators. A European standard protocol has been developed to report cases from general mortality registries (GMR) and special registries (SR) - forensic or police. This standard protocol has been tested in all Member States, and active collaboration is maintained with Eurostat and the World Health Organisation.

Where definitions, methods and quality of reporting remain consistent within a given country, the statistics can indicate trends over time and, if correctly analysed and integrated with other indicators, can be valuable in monitoring the more extreme patterns of drug use.

Deaths indirectly associated with drug use - deaths from AIDS, traffic accidents, violence or suicide - should also be taken into account when assessing the overall impact of drug abuse, but they require different sources of information and a more research-oriented methodology.

## **Description of current patterns and trends in drug use**

### **Cannabis**

- Cannabis remains the illegal drug most commonly used in all EU countries, both in terms of lifetime experience and recent use (within the last year). Lifetime experience among those aged 15 to 64 ranges from around 10% in Finland to 20–25% in Denmark, Spain, France, Ireland, the Netherlands and the UK. Recent use is reported by up to 9% while such use of other illegal substances rarely tops 1%.
- Cannabis use is higher among young adults (15–34). It has been tried by some 15% in Finland and Sweden and between 28–40% in Denmark, Spain, France, Ireland, the Netherlands and the UK.
- Lifetime experience of cannabis among 15 to 16-year-olds ranges from 8% in Portugal and Sweden to 35% in France and the UK <sup>(1)</sup>. In Greece and Sweden, lifetime use of inhalants (volatile substances) is higher than, or equals, cannabis within this group.

### **Amphetamines and ecstasy**

The spread of synthetic drug use in the European Union has generally stabilized. However, upward trends in ecstasy use are still observed in some regions where cities or holiday resorts are more likely to attract young European tourists while the establishment of youth cultures in some urban areas may continue to provide a setting for recreational drugs to anchor and develop. Consumption of such drugs seems to have spread beyond the 'techno-scene' to discotheques, nightclubs and private settings.

- Generally, up to 4% of EU adults have experimented with amphetamines, but nearer 10% in the UK. Ecstasy has been tried by similar numbers.
- Amphetamines, ecstasy and cocaine have been tried by up to 6% of 15 to 34-year-olds. But in the UK, figures for amphetamines and ecstasy are around 16% and 8% respectively. School

surveys report lifetime use of amphetamines by up to 8% of 15 to 16-year-olds, ecstasy use by up to 5%. There is rising EU concern over possible long-term effects of ecstasy. Increases in cocaine use in some settings in some countries are also under scrutiny.

- Ecstasy is the main drug of those in treatment in only a few cases, the highest proportion being Ireland's 8.9 %. There are big differences in figures for amphetamine treatment, which are highest in Finland (39%), Sweden (17%) and Belgium (15%).

### **Heroin use**

- Heroin use is reported by less than one in 100 adults – but causes most drug-related problems, including crime, infectious diseases and overdoses.
- New data suggest rises in some countries – Greece, Luxembourg, Finland, Sweden and the UK – but a stable picture in others, such as Germany, the Netherlands and Austria. Despite some local increases, heroin use is possibly still declining in Spain and France.

### **Problem drug use and demand for treatment**

- Problem drug use seems highest in Italy, Luxembourg, Portugal and the UK, with 5 to 8 in every 1,000 15 to 64-year-olds affected. Germany and the Netherlands are at the bottom end of the scale with 2 to 3 per 1,000. Injecting drug use is down in most but not all countries, and on the rise again in Ireland. Irish problem drug users may thus be at increasing risk of drug-related infections and overdoses. Estimates of problem drug use are not easily comparable and still lack precision, making trends hard to identify.
- Opiates, especially heroin, are still the main drug of between half and three-quarters of those entering treatment in the EU. But the trend is a fall in new clients demanding treatment for heroin and a rise in people affected by cannabis and cocaine.
- Those entering treatment tend to be men with an average age of 29. Women are usually younger. The ratio of men to women is higher in the south of the EU (86/14 in Italy, 85/15 in Spain and 84/16 in Greece and Portugal); more equal in the north – 70/30 in Ireland and 72/28 in Sweden. The social conditions of clients demanding treatment seems to be worsening in terms of level of education and employment.

### **Drug-related Deaths**

- Acute drug-related deaths (overdoses or poisonings) seem to have levelled at 7,000–8,000 a year EU-wide in recent years, although with divergent national trends. Reasons may include stabilisation of problem drug users; a fall in risky practices; expansion of substitution treatment; and better medical assistance. The annual number of deaths in the EU, with its 376 million inhabitants, is roughly 50% that of the USA, with a much lower population of 270 million, although such comparisons should be treated cautiously.
- The presence of other substances with heroin is common in such deaths. However, acute deaths caused by cocaine, amphetamines or ecstasy without opiates seem infrequent in Europe. Opiate users have a death rate 20 to 30 times higher than in the general population of the same age. In some countries, deaths of addicts are falling, partly due to fewer AIDS deaths.

### **Arrests and trafficking**

- Over the last three years, drug-related arrests rose in most EU countries. Biggest rises were in Greece, Ireland and Portugal. In 1999, Belgium and the UK were the only countries to see a drop in such arrests.
- Most drug offences are related to drug use or possession for use, except in Spain, Italy and the Netherlands, where they result from dealing or trafficking. As before, Luxembourg reports most arrests involving offences for both drug use and trafficking.

- Cannabis remains the most-seized drug in every EU Member State, except Portugal where heroin is most-seized. Amphetamines are the second most commonly seized drug after cannabis in Finland and Sweden. The UK accounts for most amphetamines, ecstasy and LSD seized in the EU.
- In 1999, more than 7 tonnes of heroin were seized in the EU – a third in the UK. Marked falls in quantities of heroin seized were reported in Greece, France, Ireland, the Netherlands and Austria, but big rises in quantities seized in Spain and Italy. Ecstasy seizures rose in all Member States in 1999 except Belgium and Luxembourg. Since 1997, amounts seized have been rising EU-wide except in Ireland and Austria. Biggest rises were in Germany, Greece, Portugal, Finland, Sweden and the UK.
- Spain still has the highest level of cocaine seizures. Total cocaine seizures rose steadily EU-wide from the mid-1980s but seemed to stabilise in 1999. LSD seizures are less common in the EU. In 1999, quantities fell everywhere except Greece, Austria, Portugal and the UK.

## Relevant reports

EMCDDA reports, including the *2001 Annual report* can be found online at:  
<http://annualreport.emcdda.org> or <http://emcdda.kpnqwest.pt>

## **3.2 ESPAD - The European School Survey Project on Alcohol and Other Drugs**

*Barbro Andersson*

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### **Introduction**

In Sweden school surveys on alcohol and drugs have been conducted for about 30 years (since 1971). However, as time went by, the need for comparable data on the European level became more and more obvious. In 1993 the Swedish Council for Information on Alcohol and Other Drugs (CAN) contacted a number of researchers in most European countries to propose a collaborative study, the European School Survey Project on Alcohol and Other Drugs, ESPAD. The project relates to some extent to the work of a subgroup to the Pompidou group<sup>1</sup>, which in the 1980's tried to develop a standardised questionnaire. The purpose was to produce a data collection instrument that would allow different countries to compare the alcohol and drug use in student populations. The questionnaire was piloted in eight countries. Two studies have been conducted within the ESPAD project, one in 1995 and another in 1999. The next survey is planned for the year 2003.

In 1995 the number of participating countries was 26 and in 1999 it was 30. The participating countries in the 1999 survey were: Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, FYROM<sup>2</sup>, Greece, Greenland, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, Russia (Moscow), Slovak Republic, Slovenia, Sweden, Ukraine and the United Kingdom.

### **Purpose**

The main purpose of the ESPAD project is to collect comparable data on alcohol, tobacco and drug use among 15-16 year old students in Europe. The studies are meant to be repeated at intervals, presumably every 4<sup>th</sup> year. The most important goal in the long run is to study trends in alcohol and drug use among students in Europe and to compare these trends between countries. The knowledge thus gained will be important in the future when changes in one part of Europe may serve as a forecast for countries where changes have not yet appeared. The monitoring of trends may also be important incitements for prevention initiatives.

### **Method**

Both surveys were conducted with a standardised methodology to provide as comparable data as possible. The samples were drawn in each country as random cluster samples were the clusters in most cases were school classes and in some cases schools. The samples were nationally representative. Data were collected through self-administered anonymous questionnaires in a class room setting, similar to that of a written test, under the supervision of a teacher or – if necessary – a research assistant. The supervisor was provided with a written protocol with instructions for the data collection procedure. The response rate ranged between 77 and 95 (mean 88).

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<sup>1</sup> The Pompidou Expert Committee on Drug Epidemiology, Council of Europe

<sup>2</sup> Former Yugoslav Republic of Macedonia

## Results

The 1999 study shows that most students have been drinking an alcoholic beverage during the last 12 months. The largest proportions of students who have been drinking alcohol 20 times or more during this period are found in Denmark (51%), Ireland (39%), and the United Kingdom (36%). The lowest proportions were reported from Ukraine, Ireland (10% each), Hungary and FYROM (8%). Binge drinking (defined as having 5 or more drinks in a row) at 3 times or more during the last 30 days indicates rather intense alcohol consumption. In a small group of countries this was reported by about one third of the students, including Poland, Ireland, Denmark and the United Kingdom. Less than 10% reported this in Lithuania, FYROM, Greece, Slovak Republic, Portugal and Romania. One third of the students in Denmark and one fourth in Ireland, and the United Kingdom reported having been drunk 3 times or more during the last 30 days.

The prevalence of drug use differs widely across the ESPAD countries. The concept “any illicit drug” includes marijuana or hashish, amphetamines, LSD or other hallucinogens, crack, cocaine, ecstasy and heroin (by smoking or not by smoking). The largest proportions of students having used any illicit drug were reported from the United Kingdom, Czech Republic, France and Ireland (about one third). The smallest proportions (less than 10%) were found in Finland, FYROM, Greece, Sweden, Malta, Faroe Islands and Cyprus. In general there were more boys than girls reporting this. The majority of these students had been using cannabis. The proportion of students reporting use of any other drug than cannabis was much smaller. The highest figures were found in the United Kingdom, Latvia and Poland (just above 10%). Other countries close to the top group include the Czech Republic, Estonia, Ireland, Italy, Lithuania and Russia. A closer look into these countries reveals that the drugs of preference in the Czech Republic are amphetamines and LSD or other hallucinogens, in Estonia amphetamines mainly, in Latvia and Lithuania ecstasy and heroin by smoking, in Poland amphetamines and heroin by smoking, in Romania heroin by smoking mainly, in Russia LSD or other hallucinogens and heroin by smoking, while in the United Kingdom the main drugs used are amphetamines and LSD or other hallucinogens.

## Changes 1995 – 1999

In many of the ESPAD countries the proportions reporting alcohol consumption on 20 occasions or more during the last 12 months increased, while it remained relatively unchanged in others. An increase was noticed in Denmark, Ireland, United Kingdom, Malta, Czech Republic, Poland, Slovak Republic, Slovenia, Lithuania, Estonia and Norway. Only Cyprus and Italy reported lower figures than in 1995. Binge drinking (3 times or more during the past 30 days) increased in Denmark, Poland, Ireland, United Kingdom, Slovenia, Malta, Czech Republic, Iceland, Faroe Island, Estonia and Croatia, but no country reported any decrease. Trends were about the same for having been drunk 3 times or more during the past 30 days. An increase was reported from Denmark, Ireland, Czech Republic, Norway, Slovenia, Slovak Republic and Ukraine. Italy reported somewhat decreasing figures.

Any illicit drug use increased in the majority of countries, especially in the eastern parts of Europe. However, the United Kingdom and Ireland, which were at the top in 1995 showed somewhat decreasing figures. They are still among the top countries, now together with the Czech Republic. Also the Faroe Islands reported somewhat decreasing figures. Any illicit drug other than cannabis remained unchanged in the majority of countries. However, in some countries the figures have at least doubled compared to 1995. They include the Czech Republic, Denmark, Estonia, Hungary, Lithuania, Poland, Slovak Republic and Slovenia.

## Conclusion

Drunkenness and binge drinking have increased in almost half of the countries between 1995 and 1999. Alcohol use is to some extent more prevalent in the Southern Europe, while drunkenness is more prevalent in Northern Europe. Illicit drug use has increased in a majority of the countries and the increase is largest in Eastern Europe. However, the high prevalence countries are still to be found mainly in Western Europe.

## **Relevant reports**

Hibell, B., Andersson, B., Bjarnason, T., Kokkevi, A., Morgan, M., and Narusk, A. (1997). *The 1995 ESPAD Report. Alcohol and Other Drug Use Among Students in 26 European Countries*. The Swedish Council for Information on Alcohol and Other Drugs, Stockholm Sweden.

Hibell, B., Andersson, B., Ahlström, S., Balakireva, O., Bjarnason, T., Kokkevi, A., and Morgan, M. (2000). *The 1997 ESPAD Report. Alcohol and Other Drug Use Among Students in 30 European Countries*. The Swedish Council for Information on Alcohol and Other Drugs, Stockholm Sweden.

### 3.3 *Pompidou Group: Drug Trends in European Cities*<sup>#</sup>

*Ruud Bless*

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#### **Introduction**

The Pompidou Group of the Council of Europe has collected standardised indicator data about the extent, patterns and trends in drug use in European cities since the mid 1980s. These cities are usually referred to as the Multi-city network of the Pompidou Group. It should be noted however that they do not constitute a “network” in an organisational or cooperative sense. Starting with 6 major cities in Western Europe, the network has expanded to over 40 cities in 25 countries in both Western and Eastern Europe in the late 1990s. The participating cities include the main capital cities of Europe. The cities, however, vary substantially in size and socio-economic characteristics. With regard to the drug situation in Europe the participating cities can be considered as a convenience sample of cities, in which trends are indicative of urban developments across Europe.

#### **Methods of monitoring**

##### **Data collection**

Monitoring in the PG Multi-city network is based on annual reports, which combine indicator data, data collection methodology and context information presented according to periodically revised Guidelines for City Reports. Quantitative data are collected on the following indicators:

<b>Prevalence</b>	Prevalence based on general population surveys; prevalence based on school surveys; estimates of injecting drug use; estimates of problem drug use
<b>Drug-related morbidity and mortality</b>	Prevalence of infectious diseases among drug users; drug-related non-fatal emergencies; drug-related deaths
<b>Drug treatment</b>	First and all treatment demands; opiate substitution treatment; needle and syringe distribution or exchange
<b>Law enforcement</b>	Arrests, prosecution and convictions for drug law offences
<b>Drugs market</b>	Drug seizures; price and purity of drugs at retail (street) level

Formats for indicator data are consistent with corresponding indicators of EMCDDA and UNDCP. Data collection methods have to be specified for all data. Contextual information both quantitative and qualitative is collected every three or four years about demographic, social,

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<sup>#</sup> *Based on the Multi-city reporting system of the Pompidou Group of the Council of Europe*

cultural and economic characteristics, service provision and aspects of local drug policy. Actual reporting varies over the years. Participating cities do not report each year; many cities are unable to report on all indicators or according to the required formats and contextual information is often omitted. As a result time series show many gaps and discrepancies.

In recent years the Pompidou Group has successfully experimented with the systematic collection of informed expert opinions to fill the gaps in the data collection. Starting from 2001 informed expert opinions will be incorporated in the revised Multi-city reporting system, which will be based on a simplified annual report questionnaire and a more extensive tri-annual city report including context information. Both allow electronic completion. The new reporting system is corresponds in many ways to the ARQ and Biennial Reports Questionnaire of UNDCP.

### **Presentation, interpretation and analysis**

Results of the monitoring system are presented in formats targeted at policy makers in two ways:

- Annual *Synthesis Reports* of standardised key figures (usually as rates per 100,000) and trend graphs (relative changes) per city; and
- Periodic *Multi-city Studies* covering a range of years and providing summary descriptive and key-figure profiles of individual cities and generalised trends across cities.

Conclusions are based on interpretation of surveys and discussions among the experts of the network. Key indicator figures since 1991 are stored in a database, which allows further analysis of trends and relations between indicators. This database is available for all interested researchers.

### **Current patterns and trends**

Based on the quantitative and qualitative data collected, expert opinions and interpretations the following patterns and trends across Europe's cities in the 1990s can be observed.

#### **General observations:**

- Most indicators show upward trends in most cities. If we differentiate between Western and Eastern Europe, the general upward trend is more prominent in Eastern Europe, whereas the situation in Western Europe tended to stabilise.
- The magnitude of indicators as rates per 100,000 shows great variation across cities.

### **Prevalence among the general and youth population**

Local surveys about prevalence of drug use are quite rare and the sample sizes of national surveys, which themselves are not a regular exercise in most countries, are usually too small to obtain reliable data at city level. Only one city in the network (Amsterdam) has a local monitoring system for drug prevalence among the youth. Based on expert opinions and indirect sources we can however conclude that the use of cannabis, ecstasy, cocaine and a range of new so-called designer drugs have increased in all European cities. This concerns both recreational use, largely limited to specific groups and settings, but also problematic regular use. Heroin use tended to stabilise in Western Europe but increase in Eastern Europe where it also has replaced the traditional use of homemade opiates.

### **Injecting drug use**

In general injecting drug use seemed to decrease in Western European cities and to increase in Eastern Europe. Information about injecting drug use stems almost exclusively from registration at treatment entry or surveys among treated persons and the observed trends might more reflect trends in treatment than actual trends in drug using behaviour.



## **Problem drug use**

Only a few cities make regular estimates of problem drug use. As in the case of injecting drug use trends, as far as they can be assessed, trends reflect developments in treatment: more users are being reached, clients stay longer in treatment and treatment services increasingly shift their traditional focus on heroin users to users of other drugs.

## **Drug-related morbidity**

Incidence of Hepatitis, HIV and AIDS related to drug injecting has stabilised or decreased in Western-Europe during the 1990s, but incidence has increased in Eastern Europe, in particular in the Russian Federation in the late 1990s. Again it should be remarked that drug-related incidence is usually only recorded for persons in drug treatment.

## **Drug-related mortality**

Trends in drug-related death vary across Europe. In general trends are upward in Scandinavia and Eastern Europe and down or stable in Western Europe, but there are several exceptions on this general patterns. Mortality figures do not seem to relate to the extent of drug use in the cities.

## **Drug treatment**

Service provision has extended considerably in Europe in the past decade, both in capacities and variety of treatment modalities. Substitution programmes have expanded, which also implies that people stay longer in treatment. First treatment demand has increased with only one or two exceptions. Mean age of first treatment remained stable in Eastern and Southern Europe, but increased in Western Europe, which suggests increased accessibility among users. The expansion of substitution programmes, which also implies that people stay longer in treatment, might have a great effect on the general trends in treatment.

## **New drug trends**

- In the general youth population the use of ecstasy type drugs has become an established aspect of specific recreational settings (dance parties), combined with increasing experimentation with other synthetic drugs.
- Problematic (heroin) users are getting older and becoming multi-drug users.
- The use of crack cocaine, almost unknown in the early 1990s, has in recent years spread among homeless youth in several major cities.

## **Conclusions**

### **Epidemiology**

- Drug use spreads across Europe like a triple jumper: from one major centre to another, bypassing areas in-between, resulting in substantial differences in relative indicator figures between cities, which do not seem related to differences in simple demographic, social, economic or policy context variables.
- Within “affected” cities, problem indicators (treatment, morbidity, mortality) tend to show an exponential increase for 5-10 years before reaching some level of stabilisation, most likely due to a delayed intervention response. Differences in intervention policy do seem to have an effect on the speed and the level at which stabilisation is achieved. A general decrease in problem indicators can only be observed in a few cities that were the first to manifest drug problems and which have implemented wide-scale harm reduction interventions (for example Amsterdam).

- In contrast to Eastern Europe, most Western European cities had reached a point of stabilization by the end of the 1990s, indicating a general difference in development stage and policy response, but eastern Europe is catching up with the West pretty fast.

### **Data collection and research**

- In the past decade the Multi-city network has focused on the development of data collection and not on the development of analytical models to understand general trends in the use of illicit drugs.
- Data collection about drug use is oriented to treatment. As a consequence most indicators are highly interrelated and they are biased towards problem (heroin) use and medical paradigms for explanations of trends.
- As it is realistic to accept that it will take a long time before we have perfect quantitative data, the introduction of new methods to gather and analyse information, like the expert opinions in the Multi-city reporting system and the ARQ, is a necessity to monitor the situation and to develop adequate responses.

## **3.4 Russian Federation**

*Eugenia Koshkina*

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### **Introduction**

The Russian Federation is the largest country in the world by territory being 17 075 400 sq. kilometres in size. It is located in eastern part of Europe and northern part of Asia and has a population of 144 819 100 as of 2000, but there is a continuing decrease in the size of the population.

### **Description of current methods used to monitor drug use**

#### **National/regional drug information systems/networks**

Multi City network (Moscow, St Petersburg, Krasnodar, Orenburg, Kaliningrad, Kemerovo, Novosibirsk, Yaroslavl, Ekaterinburg, Vladivostok, Samara).

#### **Registers**

- Annually updated drug treatment register on first and all treatment demands (form 37 and 11) for inpatient and outpatient treatment units, with data from all state drug treatment facilities in all the administrative territories of Russian Federation.
- Annually updated Internal Ministry register on drug related crimes in all the administrative territories of Russian Federation.

#### **Survey instruments**

Several regional and local surveys on the general population and school population, as well as specialised surveys, have been conducted using different instruments and methods.

#### **Qualitative research instruments**

Regional and local qualitative surveys are carried out for rapid situation assessment and studying prevalence of particular substance use. Исследования по изучению Общественного мнения о проблеме наркотиков.

### **Description of current patterns and trends in drug use**

#### **General population**

- The most common drug of abuse among the adult population in 2000 was heroin (treatment demand data).
- Ranking of drug-types: opiates prevail (88.8%) followed by cannabis (5.4%), poly-drug use (3.9%), stimulants (1.9%) and cocaine (0.1%).

- Recent changes in the prevalence of drug use: a very rapid increase of substance use due to heroin abuse since mid-1990s, and a decrease in the use of homemade opiates, stimulants (methamphetamine) and cannabis.

### **Youth population**

Recent changes: in 1996 in Moscow youth reported use of cannabis (90%), volatile inhalants and medication drugs. According to ESPAD 1999 in Moscow the most common drugs used among youth were cannabis (22.4%), followed by volatile inhalants (9.4%), heroin (5.8%), LSD (3.8%), and ecstasy (2.4%).

### **Injecting drug use**

The proportion of drug users who inject as their primary route of administration is 99% - 100% among those in treatment and 95% according to estimates among regular drug users.

### **Problematic drug use**

In the city of Moscow (population 8 538 248 1.1.1999) the total number of regular drug users was estimated to be 70,855 or 830 per 100,000 population (93% used heroin, definition of regular use: illicit drug use during 4 months not less than 3 days a week within the year prior to nomination, or more than 48 times during the year).

### **Treatment admissions**

The number of people receiving treatment for drug problems in 2000 was 425 740. Among treatment entries the proportion of first treatment episodes was 31.1% and the proportion of females among first treatment episodes was 13.9%.

### **Drug-related deaths**

Data or estimates of the number of deaths due to drug use were not available.

### **Emerging trends in drug use**

For the last 5 years heroin has taken the leading role among all drugs. The main mode of drug abuse among problem drug users is daily intravenous use of heroin. The main group of users is 15-25 years old. A definite decrease in the number of first treatment demands has been observed since Spring 2001.

### **Conclusion**

The main recent development in methodology was that in the past, most of surveys were based on state reporting systems and school surveys, whereas recently, qualitative and special surveys have appeared. The most important recent trends are increasing prevalence of drug use, especially among youth, the increasing role of heroin, and daily intravenous use as the main mode of use.

### **Relevant reports**

«Симптом» № 13 (104), Москва, 2000. [“Symptom” № 13 (104), Moscow, 2000 – analysis of ESPAD data for Moscow]

The 1999 ESPAD report. Alcohol and Other drug Use Among Students in 30 European Countries.

Treated Drug Users in 23 European Cities. Data 1997. Trends 1996-97. Pompidou Group project on Treatment Demand: Final Report. Council of Europe, October 1999.

E. Koshkina, K. Vyshinsky. "Pulse" Investigating prevalence of substance use, example of Moscow. Moscow, 2000.

K. Vyshinsky. Investigating prevalence of substance use, example of Moscow. Dissertation, Moscow, 1999. (Chapter on Estimating size of regular drug user's population in Moscow using nominative method)

Данные официальной статистики Минздрава Российской Федерации за 2000 год. [Official statistical data of the Russian Federation Ministry of Health, 2000 data.]

UNDCP/WHO Global Initiative on Primary Prevention of Substance Abuse, Baseline Assessment. Report to WHO. 2001.

WHO Multi-Site Project On Ecstasy Use Amongst Young People, Moscow. Report to WHO. 2001.

Attitude Of Schoolchildren, Their Parents And Teachers To Tobacco Smoking, Alcohol And Drug Use In Four Cities Of Russian Federation. Marketing Survey. Report to WHO. 1999.



## **4 Asia and the Pacific**

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## **4.1 Illicit Drug Trends in Australia**

*Craig Fry & \*Libby Topp*

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### **Setting**

Australia is located southeast of Asia. The island continent comprises six states and two territories, and has a population of approximately 19,460,000 (male 49.8%, median age 34.9yrs) residing mostly along the east coast. 95% of Australia's inhabitants are people of European descent. Most have a British or Irish heritage, with 18% of other European origins. Asians, including Middle Easterners, account for 4% of the population and Aborigines and Torres Strait Islanders 1%.

### **Summary of current patterns and trends in drug use**

#### **General population**

Recent Australian household survey data from 1998 show that cannabis is the most commonly used illicit drug (39% lifetime, 18% past year), followed by hallucinogens (10% past year) and amphetamines (9% past year). Prevalence rates of illicit drug use are highest in 20-29 year olds.

#### **Youth**

The 1999 Australian Secondary Schools Alcohol and other Drugs Survey findings show that students aged 12-17 commonly use analgesics (94% past year), marijuana (25%) and tranquilisers (11%). Drug use increased with age for all drugs except inhalants and steroids.

#### **Injecting drug use**

Australian prevalence estimation of dependent heroin users has utilised a variety of methods (eg. multiplier, back projection, capture recapture). Recent estimates show the number of heroin dependent persons between 1997-98 was 74,000 (increase since 1970s), and a population prevalence of 6.9 per 1000.

#### **Treatment admissions**

Clients of Treatment Service Agencies census data show the drug and alcohol treatment population is getting younger and includes more women and more indigenous users, with higher unemployment. Treatment groups (e.g., women, youth, non-metro and indigenous users) all show declining alcohol treatment, and increasing treatment for opiates, amphetamine, cannabis and injecting drug use.

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\* *National Drug & Alcohol Research Centre, University of New South Wales, Sydney Australia*



## Drug-related deaths

The rate of opioid overdose in Australia in 1999 was 112.5 per million persons (30% increase on 1998 rate of 87.1 per million). The rate was highest in Victoria (163.4 per million, n=347), a 65% increase from 1998. Recent Victorian Institute of Forensic Medicine figures show a sharp drop occurring in the Oct-Dec 2000 quarter, down to 52 cases from 105 in the preceding quarter.

## Key methods used to monitor drug use trends

Method	Main purpose	Information reported	Timing	Collected by
National Drug Strategy Household Surveys	Identify drug / alcohol use prevalence in general population	National patterns of drug/alcohol use: prevalence of ever used, recent use, demographics	Triennial since 1985	Population Health Division, Commonwealth Dept Health & Aged Care
Australian Secondary Schools Alcohol and other Drugs Survey	Identify drug & alcohol knowledge, attitudes, awareness and behaviours amongst secondary school students	Sex, age, education, drug-related knowledge, attitudes, awareness, behaviours	1996, 1999	Centre for Behavioural Research in Cancer; Commonwealth /State/Territory health & education authorities
Illicit Drug Reporting System	National strategic Early Warning System	Jurisdictional changes in: drug use, price, purity, availability, criminal activity, risk taking, general trends. Data sources include IDU and key informant survey and secondary indicators.	Annual since 1996	National Drug & Alcohol Research Centre
Drug Use Monitoring in Australia	Study the drug use - crime relationship	Arrestee interviews and urinalysis: recent drug & alcohol use, arrests and detentions; nature of crime; recent treatment; demographic data	Quarterly since 1999	Australian Institute of Criminology
Australian Needle & Syringe Program Survey	Monitor prevalence and incidence of HIV + HCV infection among IDU	Brief self-report interview, finger-prick blood sample.	Annual since 1995	National Centre in HIV Epidemiology and Clinical Research
Clients of Treatment Service Agencies Census	Monitoring treatment of drug and alcohol problems	Client demographics, main drug problem, recent injecting drug use, and treatment received at all specialist D&A treatment agencies	1990, 1992, 1995, 2001	National Drug & Alcohol Research Centre
Drug overdose data	Identify the number of drug-related overdose fatalities	Data on cause of death collected from death certificates submitted to State or Territory Registry of Births, Deaths and Marriages.	Annual	Australian Bureau of Statistics

*A number of new and sophisticated national indicator sources will commence in 2002. Various other jurisdiction specific sources exist at present.*

## Recent trends

Several recent trends have emerged from the 2001 IDRS study:

- Reduced heroin availability in jurisdictions where primary heroin markets have predominated. Heroin prices increased in all jurisdictions except the Northern Territory. Heroin remains cheapest in New South Wales and most expensive in the Northern Territory. There were small declines in heroin purity in New South Wales, South Australia, Victoria, the Australian Capital Territory, Western Australia and Queensland.
- Methamphetamine use continues to increase in all jurisdictions. Methamphetamine powder and other forms were cheapest in South Australia. Purity remains stable overall.
- Cocaine use is prevalent and frequent amongst IDU in New South Wales, with a strong association between reduced heroin supply and increased usage. Apparent increases in recent cocaine injection have been recorded amongst Victorian IDU, together with purity increases in Victoria, the Australian Capital Territory, Queensland and New South Wales.
- Hydroponic cannabis continued to dominate the cannabis market (with use of outdoor crop cannabis and hashish noted), and was reported as easily available in all jurisdictions.
- Continued poly-drug use amongst IDU in most jurisdictions, with injection of benzodiazepines and use of other prescribed pharmaceuticals in addition to illicit drugs. Continuing BBV injecting risk behaviour.

## Conclusions

Through triangulating across a number of data sources the Illicit Drug Reporting System (IDRS) has proven to be a reliable early warning mechanism for emergent drug trend monitoring purposes in Australia since 1997. The interruption to heroin supply between December 2000 and February 2001 has shown that the Australian illicit drug market place is sensitive to change, and appears to have created a favourable environment for consolidation of pre-existing psychostimulant markets in some jurisdictions, and emergence of new markets elsewhere. Poly-drug use also continues with evidence of increasing rates of prescribed pharmaceutical use and misuse. Australia's areas of vulnerability in this shifting environment include: a lack of formal linkage between early warning research and support for follow-up research on emergent trends (eg. psychostimulant use and sequelae); and existing injecting risk surveillance mechanisms which fail to collect data around the full range of injecting and other risk practices implicated by the hepatitis C virus.

## Relevant reports

Australian Institute of Health And Welfare (1999). 1998 National Drug Strategy Household Survey: First Results. Canberra: AIHW.

Grant, B., & Petrie, M. (2001). Alcohol and Other Drug Treatment Services: Development of a National Minimum Data Set. AIHW Cat. No. HSE 12. Canberra: AIHW.

Hall, W.D., Ross, J.E., Lynskey, M.T., Law, M.G., & Degenhardt, L.J. (2000). How many dependent heroin users are there in Australia? *MJA*, 173, 528-531.

Miller, M., & Draper, G. (2001). Statistics on drug use in Australia 2000. Australian Institute of Health and Welfare. Drug Statistics Series, No. 8. Canberra: Australian Institute of Health and Welfare. AIHW cat. no. PHE 30.

Makkai, T. (2001). Drug Use Amongst Police Detainees: Some Comparative Data. Trends and Issues in Crime and Criminal Justice, Number 191. Canberra: Australian Institute of Criminology.

National Centre in HIV Epidemiology and Clinical Research (2001). HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia. Annual Surveillance Report. National Centre in HIV Epidemiology and Clinical Research, The University of New South Wales, Sydney, NSW. <http://www.med.unsw.edu.au/ncheer>

Shand, F., & Mattick, R.P. (2002). Clients of Treatment Service Agencies: May 2001 Census Findings. Canberra: AGPS.

Topp, L., Kaye, S., Bruno, R., Hargreaves, K., Longo, M., Williams, P., O'Reilly, B., Fry, C., Rose, G. & Darke, S. (2002). Australian Drug Trends 2001: Findings from the Illicit Drug Reporting System (IDRS). NDARC Monograph No. 48. Sydney: National Drug and Alcohol Research Centre.

## 4.2 Vietnam

*Le Duc Hien*

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### Overview of Vietnam

Vietnam, situated in South East Asia, has an area of 330,991 square kilometres. It has 3,451 kilometres of coastline and 1,555 kilometres land border with Lao PDR, 1,281 kilometres with China and 982 kilometres with Cambodia. In administrative management, Vietnam is divided into 61 provinces and cities. Ho Chi Minh City, Hanoi, Haiphong, Danang are the biggest cities. The population is 76,323,173 persons. The average population growth is 2.2%.

### Method of monitoring drug abuse

At present in Vietnam, the agency that is responsible for drug control is the *National Committee for AIDS, drug and prostitution prevention*. At province, district and commune level there are steering committees for AIDS, drug and prostitution prevention. The standing office for drug control is Ministry of Public Securities. The Ministry of Labor, Invalids and Social Affairs (MOLISA) is responsible for treatment and rehabilitation for drug addicts.

Vietnam has established a case-record book system for monitoring drug addicts and periodical statistical reports from grassroots level to central level. The most important is the community-based case-record book, and the organizations at higher levels are responsible for statistics and reporting.

Surveys of drug addicts at a nationwide level are conducted every 3 - 5 years. In some provinces the surveys are organized annually. There are surveys of drug addicts in schools, state organizations and business enterprises.

In order to have information on drug abuse, Vietnam has recently carried out qualitative and quantitative surveys on risk factors of drug abuse among high-risk groups, such as:

- Students
- Un/underemployed youth
- Street children
- Commercial sex workers

The methods used for the surveys were:

- Social mapping
- Key informants
- Group discussion
- Interview by questionnaire
- In-depth interview

## **Current situation and trends of drug use**

### **Number of drug addicts**

According to statistics up until October 2001, Vietnam had 106,966 drug addicts, accounting for 0.14% of the total population. The young addict rate accounted for 72% (the age range of 18-25 accounted for 52%) - two times higher than in 1994.

Heroin and opium are the primary drugs are abused in Vietnam. About 70% drug addicts used heroin and 28% used opium. Besides opioids, cannabis and other substances also are also used. The number of ATS users continues to increases, but they are still a small group.

Ways of using: 51% opium users and 91.9% cannabis users smoke the drug, meanwhile 36.9% heroin users take the drug by sniffing.

### **Teenage drug addicts**

94.2% drug addicts under the age of 35 use heroin as their main drug. This has changed remarkably since 1994 when the number of heroin users accounted for only 1.4%. The number of unemployed youth ecstasy users accounted for 4.2%, and the number of the sex workers addicted to drug was 0.9%.

### **Injecting**

26% of opium users and 35.2% of heroin users have injected. The prevalence rate of injecting among unemployed youth is 59.5%. The proportion of sex workers injecting opium is 93.4% and 79% for heroin. (In 1994 the rate of injecting was 7.6%).

### **Consequences**

Out of the 41,030 cases of HIV infection, more than 70% were due to injecting (as of September 2001). A substantial number of drug addicts have tuberculosis, viral hepatitis, and mental disease.

### **Treatment and Rehabilitation**

Vietnam has carried out treatment and rehabilitation for drug addicts in many forms: at centres for drug treatment and rehabilitation (there are 60 treatment centres managed by the labor, invalids and social affairs sector) at community and family level, at centres managed by other sectors, organizations and the private sector. Every year there are about 25,000-30,000 admissions for drug treatment. The procedure of drug treatment is as follows: detoxification, health and behavioral recovery; labor therapy and community-based management after-care.

### **Mortality rate**

In Ho Chi Minh City there are 15,441 drug addicts and in 9 months of 2001 the number of deceased persons was 292, accounting for 1.89%. In Hanoi there are 8,781 drug addicts and in the first 9 months of 2001, the number of deceased persons was 81, accounting for 0.92%. The main reason for death is overdose.

### **New trend in drug use**

A lot of dancers and young people in nightclubs and karaoke use ecstasy and methamphetamine.

## **Conclusions**

1. a) According to the Law on Drug Control (effective from June 2001) the drug addict has to report to the local authority on his (her) drug use.  
b) Maintaining and improving management, supervision from commune level.

- c) There is a need to combine qualitative and quantitative surveys.
- 2.
- a) At present heroin is still the main drug used. There is a new trend of drug use in urban areas from heroin to ATS (i.e., ecstasy, methamphetamine etc.).

## **4.3 Drugs Situation and the Drugs Information System in Thailand**

*Aekajit Chaiyawong*

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### **Introduction**

Thailand is located in Southeast Asia with an area about 517,000 square kilometers. Thailand shares borders with Myanmar on the west and northwest, Lao PDR on the east and north, Cambodia on the southeast and Malaysia on the south. From the population and housing census conducted in 2000, there are about 60,617,200 people in Thailand. The sex ratio of males per 100 females is 97.0. The median age of the population is 29.7 years. Most of population are Thai and Buddhist, at 99.5% and 94.6% respectively.

### **Current patterns and trends in drug use**

The drugs situation in Thailand remained serious as the epidemic of drugs, particularly methamphetamine, continues. Traditional drugs like opium, heroin, and kratom plants are still widely abused in Thai society but the epidemic of these drugs has tended to decrease, or at least become stable rather than increasing, since a number of those traditional drugs abusers turned to methamphetamine instead. Young people and students have become the main users of methamphetamine for the past few years, and the drug epidemic in schools had been worse since the number of student drug dealers increased. Seizures of imported drugs like ecstasy, ketamine and cocaine by the Thai authorities are ongoing. Among these drugs, club drugs like ecstasy and ketamine were most widely spread among youth in entertainment places who attended “rave” parties. The situation for each of the main drugs is:

#### **Heroin**

Heroin has long been spread throughout Thailand, although recently this epidemic has declined. However, considering the number of treatment recipients, heroin shares the second position to methamphetamine. The following study was based on the drug situation over the last six years, to reveal the characteristics of heroin abusing group.

From 1995-2000, the number of heroin treatment recipients had plummeted to approximately one-third, from 50,183 recipients in 1995 to 14,758 recipients in 2000. The number of newcomers also decreased from 50.1 per cent to 29.9 per cent during this period. The ratio of chronic heroin abusers to new recipients in Bangkok, Chiang Mai, and Chiang Rai was 50.0 to 70.1 percent, 4.6 to 2.7 percent, and 2.3 to 9.3 per cent respectively.

Male treatment recipients always held high record of 94.1-99.0 per cent in 1995. 31.5 per cent of newcomer recipients were 20-24 years of age, while 24.5 per cent were 15-19 years of age and 17.1 per cent were 25-29 years of age. It was also found that new recipients seemed to be getting older. This could be due to a decrease in the popularity of heroin among younger drug abusers. The proportion of students had decreased from 12.7 per cent in 1995 to 6.0 per cent in 2000, a trend which was evident from 1998 onwards. Three-fifths of new treatment recipients were from various occupations, but mostly labour (23.1-28.9 per cent).

In retrospect, the first drug used by new heroin treatment recipients was mostly identified as marihuana. From 1995, the first used drug had diversified to either a single drug or a mix of

drugs. Although marijuana was still the most common first drug used, the inclination had dwindled from 53.3 per cent in 1996 to 31.5 per cent in 2000. Meanwhile, heroin had increasingly been abused as the first drug from 31.6 per cent to 44.8 percent, and Ya Bah (Methamphetamine) maintained a small percentage at (1.2%-6.5%). In the past, most treatment recipients began using drugs between 15 and 19 years of age, but the age of initiation has decreased since 1998. It was noticeable that 9.5 to 11.3 per cent of treatment recipients during the period 1995-2000 began drug use before the age of 15 years.

Heroin consuming behavior of new treatment recipients was mostly to take heroin only (82.4-91.5 percent), but this percentage had decreased noticeably since 1998 from 89.9 to 82.4 percent. Drug-consuming behavior has changed to include more types of drug use. The other drugs used by treatment recipients were marijuana, methamphetamine and volatile substances, the total use of which increased from 2.7 per cent in 1996 to the current level of 10.9 per cent. Three-fifths of drug intake was by injection, with over 90 per cent injecting more than once per day. Most abusers injected 2-3 times per day, and this modal tendency has increased over time, with more abusers reporting 2-3 injections a day, and fewer reporting injecting more than three times a day. The delay between first drug use and first drug treatment was six to eight years.

## **Opium**

Based on historical evidence, opium smoking had been recognized as a national problem since the seventeenth century and caused many crises in the country. Then in 1959, the Act on opium smoke prohibition was launched, and the severity of the drug problem abated. Regarding statistical data on treatment recipients for opium use from 1995-2000, the number did not fluctuate much from 2,378-2870 persons. 68.3-76.2 per cent were new recipients and the percentage had increased a little since 1998 from 69.1 to 76.2 per cent; meanwhile, the number of former treatment recipients decreased from 1997.

Most of new recipients who were smoking opium were from the Northern provinces, such as, Chiang Mai, Chiang Rai, Tak and Mae Hong Son and over 39 years of age, more than for other drug types. 44.9-58.0 per cent were farmers or agriculturists and 25.1-35.8 per cent were labourers.

The age of first drug use ranged from below 15 to above 39 years, but was most commonly around the age of 20-24 years. 75.7-85.4 per cent used opium as the first drug. 36 per cent used the drug for medical purpose. Four-fifths smoked opium roughly 2-3 times per day. The period from the first drug use to treatment registration was about 10-13 years.

## **Marijuana**

Originally marijuana was one of most well known drugs, yet the situation at present reveals a less severe problem, with records of drug treatment recipients each year at 1.0 percent.

From 1995-2000 there were between 388-622 marijuana treatment recipients, and most of these were new treatment recipients (92.2-97.4%), with former recipients accounting for less than 10 per cent – mostly from the Northeastern region. One-third of recipients were 20-24 years of age, but those groups of 30-34 years of age as well as those over 39 years of age had increased since 1998. More than half of the recipients were employed: mostly agriculturists, labourers and soldiers. From 1997-1999 unemployed treatment recipients represented 25.4-28.2 per cent, and there was also a higher number of students among admissions (7.4-10.2 percent).

Marijuana was the drug of initiation for 67.3 to 82.2 per cent of treatment admissions; however, this tendency decreased from 81.7 per cent in 1998 to 67.3 per cent in 2000. Three-fifths began using the drug before the age of 20 years, mostly between the ages of 15-19 years. However, based on treatment admissions between 1995 and 2000, 11.3 to 19.7 per cent initiated drug use before 15 years of age. In the last few years, two drug-consuming behaviors of new treatment recipients often found were to purely take marijuana and to take marijuana with other drugs,



such as, heroin, methamphetamine and volatile substances more than once per day. The period from the first drug use to treatment registration was about six to nine years.

### **Methamphetamine**

Methamphetamine has spread in Thailand since 1970 and become more intense since 1996 when heroin the price skyrocketed. Over the past 6 years, the number of recipients were surmounted from 1,211 in 1995 to 19,253 in 2000, 80 per cent of which were first treatment admissions. In 2000, methamphetamine was responsible for 46.27 percent of treatment admissions, and 61.40 per cent of new recipients. Methamphetamine abusing treatment recipients came from provinces throughout the country, but especially from Bangkok and Central region. In the past 6 years, the number of methamphetamine abusers soared and dispersed into all regions of Thailand, especially into the North of Thailand.

Most (90%) of treatment recipients were male. Although females only accounted for a small percent, the proportion of females had increase from 2 per cent in 1995 to 6.3 per cent in 2000. Regarding the age of methamphetamine recipients, 42.6-57.0 per cent of were 15-19 years old and 19.3-27.9 per cent were 20-24 years old. Since 1995 students remained the most vulnerable population group in terms of receiving treatment for methamphetamine abuse, although the percentage of students who received treatment decreased from 47 per cent in 1998 to 32.7 per cent in 2000. At the same time there was an increase in the number of employed workers enrolled in the treatment, notably labourers, agriculturists and merchants.

In terms of methamphetamine consumption patterns, most (90%) of new treatment recipients abused methamphetamine on its own, and the few that abused more than one drug mostly abused marijuana. Most (96%) smoked the drug 2-3 times per day. The period from the first drug use to treatment registration was about three to four years.

### **Narcotic Information System in Thailand**

The narcotic problem in Thailand has a long and continuous development. Many drugs have gradually dispersed at different times. Each of the drug types was epidemic at one time, and now remains used to varying extents in different areas of Thailand. Groups of drug abusers are diverse and include teenagers up to adults, males and females, all occupations and levels of economic status. The impact of drug abuse on people and society is complex and often subtle. Effective drug prevention and problem-solving measures must vary with each local situation and time. Therefore, to prevent and solve the drug problem we need reliable and updated information relating to each local problem situation to guide us in applying the correct drug prevention strategy.

At present, information relating to narcotic drugs is adequate and collected by many concerned agencies, for instance, agencies under the Ministry of Interior, the Royal Thai Police and the Ministry of Public Health. The Office of the Narcotics Control Board (ONCB), as a focal point of national drug control policy, is responsible for the narcotic information development bringing about benefits to the whole society.

### **Registration system of treatment recipients**

This system is designed to collect details from drug addicts who need treatment and can be categorized into 3 systems:

1. Voluntary system: this provides the opportunity for all types of drug addicts to enrol in treatment course provided by governmental treatment centres. Their ethnographic, economic and social information are be collected by the responsible agencies, e.g., Department of Medical Sciences, Ministry of Public Health and ONCB.

2. Correctional system: this system is designed for prisoners in detention/prison and juvenile observation and protection centres, and the Department of Correction, Ministry of Interior, is responsible for data collection.

3. Compulsory system: this system is aimed at culprits who have committed offences but are placed in treatment for drug dependence rather than given a detention penalty. Data collectors are the Department of Probation and the Ministry of Justice.

## **Survey System**

This system is made to survey characteristics of specific drug abuse of population groups, in particular, student groups and labour groups. Students group has been the target group most surveyed. ONCB has conducted surveys in various population groups with close cooperation and support from educational institution as follows:

- The survey for the estimation of the number of students involved with drugs in Thailand was implemented in 1999. The target population was high school students at grade 6 and undergraduates, under the supervision of the Ministry of Education and the Ministry of Interior. It was shown that from 5,365,942 students, 12.4 per cent or 663,290 students were involved with drugs. Patterns of drug involvement were: abusers (5.3%), ex-abusers (2.7 %), addicts (1.1%), abusers and pushers (0.8 %), and addicts and pushers (1%).
- The survey for the estimation of the number of persons who were involved with drugs in Thailand. This survey targeted the population throughout the country with the objective of understanding the following:
  - the number of persons involved with drugs by location, drug type, sex and age;
  - drug and alcohol dependency behavior of the population;
  - knowledge and attitude of the population to drugs and alcohol;
  - repercussions from drug abuse; and
  - economic and social status of the population will be ethnographically studied.

This research covers all population groups from diverse occupations between 12-65 years old. Abuse of both illegal drugs (e.g., heroin, marijuana, methamphetamine, volatile substances, ecstasy, cocaine etc.) as well as legal drugs (e.g., cigarettes, alcohol, cough remedies, hallucinogenic and tranquilizing pills, pain relieving pills, wine etc.) are recorded. Data collection tools are composed of a National Household Survey and Self-Report Questionnaires, which will help reveal information relating to drug and alcohol consuming behaviors from illiterate respondents by means of dictation. ONCB has implemented the research with good collaboration with major academic institutions throughout the country, e.g., Chaing Mai University, Khonkhaen University, Institute of Health Research and Institute of Social Research, Chulalongkorn University and Assumption University. Until now, the research has run to the final implementing process and will be finalized by December 2001.

## **Provincial Drug Information System**

In response to needs of Bangkok and provincial drug control centres, information should be not only updated and trustworthy, but also be integrated and analysed by categorizing the intensity of local drug problems with the same standard throughout the country. Provincial drug situation reports should be systematized and made effective by modern information technology for further implementation. Manuals of narcotic information management, data collection and the program of provincial narcotic information system should be published and distributed.

The provincial drug information system has developed from many information sources, which will supported by the implementation by four computer program systems—surveyed information system, registered information system, intelligence system on suspicious drug dealers and data integrated system for indicating drug problems.

**Surveyed information system** will process with information relating to the drug situation occurred in villages/communities, educational institutions, and workplaces. Tools used to gather the information are surveys of primary drug problems in villages/communities, surveys of the drug situation in villages/communities, surveys of the drug situation in schools and surveys of the drug situation in workplaces.

**Registered data system** deals with statistical data or narcotics implementation progress of concerned narcotic agencies in provinces including treatment and rehabilitation centers, police stations, detention/prisons, provincial probation offices and juvenile observation and protection offices. Tools consist of data from registration forms of addicts who voluntarily enter treatment, statistical data on arrests for narcotic drugs, reports of offenses relating to drugs, reports of accepted prisoners who committed offenses relating narcotic drugs in detentions/prisons, records of narcotic cases that court ordered to be under investigation, control and supervision of Provincial Probation office and records of narcotic cases that court ordered to be delivered to provincial juvenile observation and protection office.

**Intelligence system on suspicious drug dealers** will manage information and news from anonymous letters complaining about groups of individuals involved with drug offenses. Tools used in this system are intelligence and information on suspicious individuals involved with drugs.

**Data integrated system for indicating drug problems** will support the integration of the narcotic situation in villages/communities, educational institutions, workplaces, complaints from local informants, other information resources, such as, primary surveyed information system, registered information system, intelligence system on suspicious drug dealers. All data can be summarized and presented in the form of maps, graphs and tables detailing the narcotic problems in local areas, target groups and the intensity of drug problems in provinces.

### **Surveillance System**

This system is designed to monitor changes or shifts in the drug and problem/situation, fluctuation of drug demand and supply, and trends in drug problems. Information we gain from this system is as follows:

**Price and purity:** narcotics law enforcement officers are in charge of collecting drug samples, especially methamphetamine, for further scientific quantitative and qualitative examination to find out volumes of chemicals in methamphetamine tablets and the correlation between price and purity by fingerprint techniques. This can help feasibly trace back evolution of drug manufacture and its syndicates efficiently. The system is at the early stage of planning and collecting data, and its progress is expected to be reported by December 2001

**Drug abuse warning network:** ONCB has joined hands with Department of Forensic Medicine, Faculty of Medicine, Chiang Mai University to start the pioneer study of monitoring system on epidemiology of drug addicts in unnatural corpses and traffic injury victims in 2001. Its objectives are to study an outburst of drugs, psychotropic substances and alcohol epidemic in Thai people who died of unnatural causes and to make a comparative study on the severity of dangers caused by drugs, psychotropic substances or alcohol. Persons dying from unnatural causes undergo autopsy at the Department of Forensic Medicine where their blood and urine are be tested to detect narcotic drugs, such as, heroin, morphine, opium, methamphetamine, ecstasy, psychotropic substances, and alcohol. Tools used at this process are chemical methods and equipment necessary to undertake methods like radio immunoassay and GC-MS.

**Arrestee drug abuse monitoring system:** This system is a pilot project for the development of surveillance in Thailand in the future and will be undertaken by the Department of Forensic Medicine, Faculty of Medicine, Chiang Mai University in 2001 with the following objectives:

- to study drug consuming behavior from arrested offenders

- to learn drug abuse situation from the offenders
- to study the prevalence of drug abuse and related drug abuse behaviors from offender interrogation and their urine immunoassay test

## 4.4 Illicit Drug Use Trends in Central Asia

*Kamran Niaz*

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### Introduction

Central Asia is comprised of the former Soviet republics of Kyrgyzstan, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan, which gained independence in 1991. Although the countries shared a common system of government, economics and social set up during the Soviet times as well as a common religion and history, there exists diversity in culture, climate, language, and the current economic, political and social development in each of the countries. A comparison of some key demographic, health, and economic indicators for the countries is given in the table below.

	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
Size (thousand square kilometers)	2717	198.5	143.1	488.1	447.4
Population (million)	15.4	4.7	6.2	4.8	24.4
Population density (per square km)	5.9	24.2	42.8	9.9	57.1
Rural Population (as percentage of total)	44	65	73	55	63
Annual population growth rate	-1	1	1.7	1.3	1.8
Life expectancy at birth	65	67	68	66	70
GDP per capita (US\$)					
1988	2310	1240	910	1490	1000
1999	1290	300	290	660	720
UNDP HDI Rank	73	97	110	100	106
World Development Indicators Database. 2000 Washington: World Bank: 2000					

### Description of Current Methods Used to Monitor Drug Use

As a continuation of the old system all the countries have a similar format and protocol for reporting of drug use from the operational units to the national agencies. Currently the following reporting system and sources of information on drug use exist in the Central Asian Countries. This information is filled in at the Narcology Centers, the official drug treatment facilities, for the patients who come or are referred by the legal system for treatment of drug problems. The collated information is filled in special registration forms e.g., for Kyrgyzstan *Form No 11 – Report on Narcological Disorders for the Year*, and copies of the forms are sent to the next higher

body in the hierarchy i.e., from the Rayon's (district) Narcology Centre to the Oblast (region) Narcological Centre, where the Oblasts' aggregated information is sent to the Republican Centre of Narcology and Ministry of Health's Central Medical Statistics Office.

Interestingly aggregate data in all the countries is not uniform. For example in Uzbekistan the data has breakdown by age, gender and areas of residence (urban or rural), but not by type of drug or method of use. In Tajikistan the aggregate data is presented by breakdown of gender, area of residence and age under 20 and over 20 years. In Kyrgyzstan the information is by gender, age, residence and drug type but not by method of use. And in Kazakhstan the data is aggregated by drug categories only. In all the countries the aggregate data is available since 1992.

### **Information on drug seizures, arrests for drug related offences and drug prices**

The information on seizures by quantities of drugs seized is provided by the operational units and collated by the national drug control agency or the state commission, for example in Tajikistan it is maintained by the Drug Control Agency. The data on total number of people arrested for drug related offences by type of offence committed is maintained by statistical departments of Ministries of Internal Affairs, while the criminal justice system maintain information by gender of people who have committed drug related offences. In Kyrgyzstan, Tajikistan and Uzbekistan further information is available in the criminal justice system data on breakdown by "under and over 20 years of age" of number of people committing drug related offences

### **HIV/AIDS**

The national AIDS programmes in the region also maintain their data of annual number of people infected with HIV, cumulative HIV/AIDS cases and information on HIV infection among high risk groups. UNAIDS has also conducted rapid situation assessments of HIV/AIDS risk behavior including injecting drug use in selected cities within the Central Asian countries and have published information e.g., UNAIDS Assisted Response to HIV/AIDS, STIs and drug abuse in Central Asian Countries (1996 – 2000)

### **Assessment of Drug Problems in Central Asia**

Apart from these databases UNDCP's regional office in Central Asia, with technical support from the UNDCP Global Assessment Programme on Drug Abuse, has also been implementing a project to assist the national counterparts in assessing the nature and extent of drug problems in each country. The project also aims at helping set-up sustainable data collection and monitoring system at the national and regional levels. The extensive national assessment exercises conducted have utilized multi methods and data sources, i.e., key informant interviews, snowball studies, analysis of existing data, and studies of drug use in prison settings and drug use and other risk behaviour patterns among injecting drug users, to build up a picture of and a better understanding of the patterns and trends in problem drug use in the region.

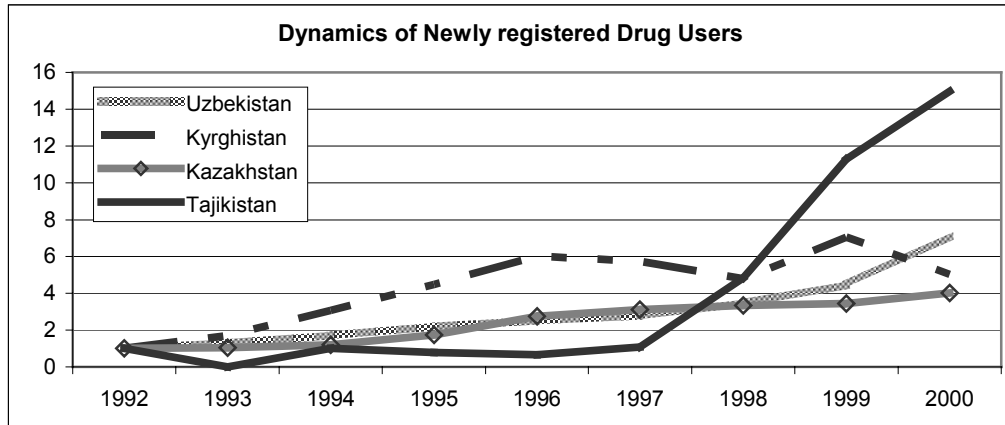
### **Current Patterns and Trends in Drug Use**

The information provided in this section on current patterns and trends in drug use has primarily been prepared from the analysis of the secondary data described above as part of the national assessment studies conducted in each of the countries except for Turkmenistan which had not participated in the initial phases of assessment. Furthermore, it is pertinent to point out that the information presented here should be treated as preliminary information.

### **Kazakhstan**

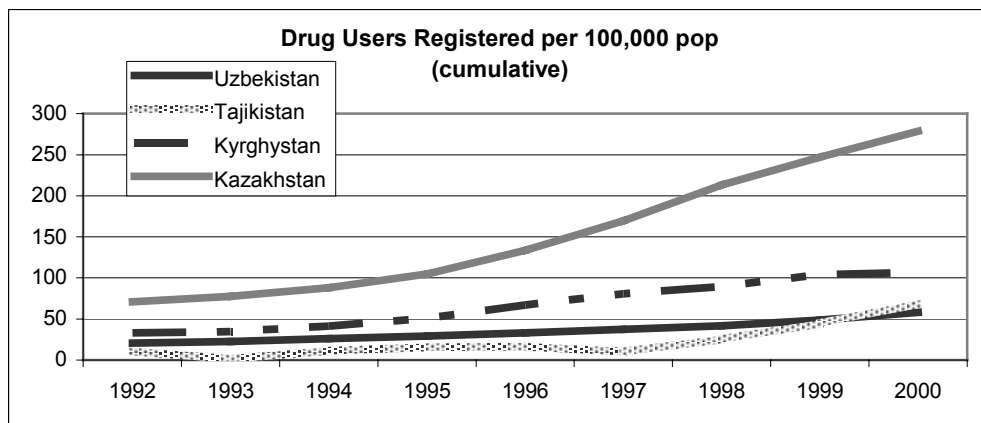
Kazakhstan has reportedly the highest rate of new drug users registered among all countries in the region. Whereas the rate of newly registered drug users was 17 per 100,000 population in 1992 this has been consistently increasing and was reported as 80 per 100,000 population in 2000. The rate of cumulative registered drug users has also been increasing in a similar way – from 70 per 100,000 to 279 per 100,000 population. More than 50 per cent of the registered users have

reportedly been using opiates. According to UNAIDS' information more than 80 per cent of people infected with HIV in Kazakhstan are injecting drug users. While the opium seizures in the country have recorded a decline, there has been a sharp increase in the seizures of heroin and steady increase in cannabis seizures since 1997. The rate of drug related crimes, the highest in the region, has also increased more than three fold since 1993 when it was 45 per 100,000 compared to 145 per 100,000 population in 2000.



### Kyrgyzstan

In Kyrgyzstan the rate of drug users registered for the first time has shown a five-fold increase since 1992 to 15 per 100,000 population in 2000. In 1992 Opiate users accounted for 10 per cent of the drug users registered while in 2000, they account for 80 per cent of newly registered drug users – the majority of them being injecting drug users and from younger age groups. Among the reported HIV infection cases in the country 60 – 80 per cent of the infection cases are among injecting drug users. While the prices of heroin (US\$ 10,500 per kg) and opium (US\$2000) have remained steady in the past few years there has been a sharp increase in the total number of opiates, especially heroin, seized in the country.



### Tajikistan

Similar trends of problem drug use are seen in Tajikistan where the rate of newly registered drug users has increased from 2 per 100,000 population in 1992 to 28 per 100,000 population. This rate of increase for Tajikistan, however, is the highest in the region. Reportedly, heroin users account for two thirds of the registered drug users in 2000, with one third of these being injecting drug users and mainly young people. Since 1998 the seizures of opiates (heroin and opium) have increased whereas the seizures of cannabis have recorded a decline. Conversely, the street prices of heroin and opium have been on decline during the same period with US\$ 4,000 per kilogram for heroin and US\$ 18 reported for Opium in 2000. The reported rate of drug related offences have also remained stable since 1993.

## **Uzbekistan**

With a seven fold increase since 1992 the rate of new drug users registered is reported as 22 per 100,000 population in 2000. An increasing number of these drug users are using opiates and especially heroin, with injecting drug use reported as the method of use for 40 to 60 per cent of these drug users. Injecting drug use is also reported as the predominant mode of transmission for HIV infection in the country. While the drug seizures for cannabis have been on decline, the reported seizures of opiates, especially heroin, have increased tremendously since 1997. The wholesale prices for heroin and opium have also decreased considerably since 1998. The rate of drug related crimes reported in the country has remained stable in the past eight years.

## **Conclusions**

All the Central Asian countries are experiencing a rapidly increasing drug use problem. The main transition is from traditional use of cannabis and opium to increasing use of heroin and injecting drug use, especially among the younger age groups. The majority of drug users are reported to be male.

While a system to report drug use in each of the countries exists there are some methodological issues that need to be addressed. One issue is the anonymity of drug users, as all the information on registered drug users has to be reported to the police and therefore drug users feel hesitant in seeking help from the state run narcology centers. The second major issue is reporting of the aggregate data. As mentioned earlier, depending upon the country, the aggregate data is not presented by gender, age, type of drug use and/or preferred method of drug use. Having this useful information would no doubt enable the policy makers and service providers monitor the patterns and trends of illicit drug use in their areas and design interventions accordingly. Finally, there is the issue of data management – its entry, analysis and sharing of information in each of the countries. The countries in the region have lacked the capacities to address these issues especially with regard to data analysis and its dissemination. The UNDCP Global Assessment Programme on Drug Abuse aims at helping the member countries in the region to adequately address these shortcomings.



## **5 Africa**

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## **5.1 Drug Use and Abuse Assessment in Morocco**

*Jallal Toufiq*

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### **Introduction**

Morocco is located in North Africa. Its population has reached 29 million inhabitants third of which is under 18. This very young population knows a rapidly increasing life-span and a consistently decreasing rate of birth. Morocco has still a high rate of illiteracy in rural areas and an unemployment rate around 13%. It has experienced a fairly good economic situation over the last ten years with quick social and economic changes. Moroccans are going through substantial cultural and identity issues related essentially to religion, language and social behaviour.

Many of the country's demographic, geographic, economic and social characteristics are relevant to drug use and abuse in many ways. The large proportion of young people in the population contributes to the increasing incidence of drug use because this consistently inflates the size of the population most at risk for drug use. Also, Morocco is a country with high population mobility due to tourism and emigration which generates exchange of "behavioural patterns" facilitated by the current cultural transition, the old tradition of liberalism and the geographic proximity to Europe. On the traffic side, the local cannabis production, the geographic proximity to Spain and to sub-Saharan countries, the very long coast and land borders, as well as the numerous points of entry (12 international airports) make it easier for smugglers with increasingly reported cases of daily drug seizures.

### **Description of methods used to monitor drug use**

The drug use monitoring system in Morocco is still poor. Since the 1970s, a National Commission on Drug Abuse was created to collect and provide, among other objectives, drug use data. The same objective is shared by the Central Service for Mental Health which is affiliated to the Ministry of Health. The latter deals with mental health epidemiological evaluation in general. Recently created was the National Center on Drug Abuse Prevention and Research. This center aims at networking resource persons in the field of epidemiology applied to drug abuse and to collect data through the design of surveys and other types of studies. The main epidemiological work to monitor drug use is still done by Mental Health Institutions especially University Psychiatric Hospitals and at a lower level by the traffic control bodies.

There are many drug abuse assessment strategy issues such as setting priorities on a local and national level and elaborating a comprehensive and well-designed national plan. Morocco lacks human and material resources: biostatisticians, epidemiologists, trained investigators and funds.

### **Description of current patterns and trends in drug use**

It is difficult to draw a clear picture of what is going on in the country in terms drug use and abuse current pattern and trends in the absence of well-designed epidemiological studies. However, data collected through several national and local cross-sectional studies and institutional data systems show interesting results such as: 1. availability of different drugs in different regions of the country: alcohol, cannabis, inhalants, psychotropic drugs, opiates,

cocaine; 2. ecstasy: rare use in night clubs in large cities; 3. high predominance of drug use in male population; 3. significant increase in tobacco, alcohol and hashish use among women; 4. cannabis and alcohol are surely the most used and abused drugs; 5. progressive introduction of heroin and cocaine in large urban cities along with consistent decrease in sale price; 6. heroin and cocaine are mostly sniffed; 7. Predominance of inhalant use among “street children”; 8. poly drug use is the most common pattern; 9. great psychiatric comorbidity with cannabis and alcohol use among psychiatric population; 10. lack of interest and great apprehension shown by health professionals.

## **Conclusion**

The recent years have seen significant changes in the drug use phenomenon in Morocco. Although there is a good political willingness and a very good civil society involvement to deal with the problem, Morocco suffers a poor research training, a lack of human and material resources, and the absence of an active specific structured body on drug use research. But most of all, there is still a poor networking of professionals working in the field and a still greater emphasis on traffic control.

## **5.2 Estimates Of Drug Use And Abuse In Nigeria**

*Isodore Obot*

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### **Introduction**

Nigeria is situated on the west coast of Africa. The country is surrounded by the Atlantic Ocean on the South, Niger and Chad on the North, Benin Republic on the West and Cameroon on the East. In terms of landmass that covers an area of 923,768 square kilometres, Nigeria is a medium-sized country in Africa. However, with an estimated population of more than a 120 million, it is by far the most populous country in the continent. Most of its population is young, with people under twenty years of age accounting for more than fifty per cent of the population. Though the urban population is increasing at the rate of 6.2% a year, a majority of Nigerians (about 65%) still live in rural areas and depend on agriculture and trade for a living.

### **Methods Used to Monitor Drug Use**

A variety of methods have been used to monitor the patterns of drug use in Nigeria. The oldest tradition of drug research has been the analysis of file data from treatment facilities. This method led (in the 1950s) to the suspected association between drug use (especially cannabis and stimulants) and psychiatric morbidity. Because the focus of drug use and drug and drug-related problems has been on youth, school surveys have been the predominant method of assessing use. More recently, a few general population surveys have been conducted and some studies of special populations are also available. However, these studies have been sporadic in nature and hardly reflect the diversity in the Nigerian population. Hence, precise estimates of drug use or drug-related problems in Nigeria are lacking. Though the National Drug Law Enforcement Agency (NDLEA) began a programme of data collection in schools and among other at-risk groups, there is no regular source of estimates based on representative samples of youth. In the past few years the United Nations International Drug Control Programme (UNDCP) has sponsored studies in different population groups as part of its rapid assessment programme. These studies have utilized various methods, including focus groups, content analysis, in-depth interviews, key informants, and analysis of hospital data.

### **Current Patterns and trends in drug use**

#### **General population**

Almost every survey in the general population and regional surveys show that alcohol is the most used substance followed by tobacco. Among the illicit and restricted substances, the estimates and order of lifetime use from a recent study by the UNDCP are as follows: cannabis (10.8%), benzodiazepines (10.6%), stimulants (3.5%), heroin (1.6%), cocaine (1.4%), and organic solvents (0.6%). An earlier survey in the general population in the 1980s showed lifetime use of illicit drugs as follows: Cannabis (2.4%), cocaine (0.8%), heroin (0.2%), and LSD (3.5%), (ICAA, 1988). In this study, both tranquillisedatives and opioid analgesics were widely used without prescription. Though there are often inconsistent findings in general population surveys, estimates of illicit drug use show a rising trend in most parts of the country.

## Youth Population

As with adults, alcohol is the most often used drug by youth in secondary schools, except in the Muslim areas of the country. In a 1991 survey by the NDLEA, the order of prevalence was as follows: alcohol (11.8%), diazepam (9.5%), cigarettes (4.1%), cocaine (2.2%), cannabis (2.1%), and heroin (2.1%). A recent survey in one large city showed lifetime use of illicit drugs in this order: Cannabis (5.8%), heroin (2.4%) and cocaine (1.9%). In this study, the lifetime use of other drugs was as follows: alcohol (31%), cigarettes (19%), solvents (14%), depressants (8%) and stimulants (7%). This pattern of drug use is supported by the results of a large national survey recently conducted by the UNDCP in the country. One notable feature of youth drug use is the increasing use of organic solvents, especially by unskilled adolescents and street children.

## Injecting Drug use

Only one major study of IDU has been conducted. The study showed that among 398 drug users in a section of Lagos, 21 % of the males (n =73) and 16% of the females (n = 9) had injected a drug at least once. Among current injectors (n = 54), 91% were males and 9% were females.

## Treatment admissions

Data from several studies of treatment admissions are available in Nigeria. All the studies consistently show that cannabis is most often associated with psychiatric hospital admission. In one of the survey covering hospitals in all parts of the country out of the 866 drug-related cases, 600 were cannabis-related. Another feature of treatment admission is the increasing contribution of cocaine and heroin since the first cases were reported in the early 1980s. Most cases of drug related admissions are between the ages of 20 and 29 years, and males account for more than 80% of the cases.

## Drugs and death

There is no clear evidence on the role of drugs in mortality even though anecdotal evidence points to a growing contribution to road traffic fatalities. In a study conducted more than ten years ago, the drugs that were associated with most casualty cases in three hospitals were analgesics (45%), tranquiliser-sedatives (41%), cannabis (16%), and alcohol (15%).

## Emerging trends in drug use

Among “street children” in urban areas, there is a growing trend in organic solvent use. In addition, these children are experimenting with locally grown plants e.g., *zakami* (*Datura metel.*) This plant has atropine-like properties and grows wild in Nigeria and other West African countries. Smoking paw-paw leaves to get high has also being reported. Though not a totally new phenomenon, there is clearly an increase in multi-drug use, especially involving a combination of cannabis, alcohol, prescription medications, and other drugs.

## Conclusion

There is urgent need for researchers to focus more attention on testing specific hypotheses. This will be aided by methods that involve the use of representative samples and well-conducted research instruments. Participation in international data collection efforts such as the WHO urbanization project and the alcohol and gender study of the Kettil Bruun Society might contribute to this. Both studies will utilize questionnaires that have been designed over periods of time with inputs from researchers in many countries.

## Relevant reports

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*Global Research Network Meeting on HIV Prevention in Drug Using Populations, Third Annual Meeting Report*, Durban South Africa.

International Council on Alcohol and Addictions (1988). *Report of a research project on substance abuse in some urban and rural areas of Nigeria*. Lausanne: Author.

National Drug Law Agency (1992). *1991 Drug Data Collection*. Lagos: Drug Demand Reduction Unit, NDLEA.

National Drug Law Agency (1993). *1992 Drug Data Collection*. Lagos: Drug Demand Reduction Unit, NDLEA.

National Drug Law Agency (1997). *1998 Drug Data Collection*. Lagos: Drug Demand Reduction Unit, NDLEA.

Obot I.S. (2001). *Assessment of drug use among secondary students and attitudes of parents in Jos, Nigeria*. Lagos: UNDCP.

Obot, I.S. (1993). *Drinking behaviours and attitudes in Nigeria: a general population survey in the middle-belt region*. Jos, Nigeria: Centre for Development Studies, University of Jos.

Obot, I.S. (1996). Drug abuse trends in urban and rural Nigeria. In National Institute on Drug Abuse, *Epidemiologic Trends in Drug Abuse*. Rockville, MD: NIDA.

United Nations International Drug Control Programme (1999). *Report of the Rapid Situation Assessment of Drug Abuse in Nigeria*. Lagos: Author.

## **5.3 Southern African Community Epidemiology Network on Drug Use (SENDU)**

*Charles Parry*

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### **Introduction**

The South African Community Epidemiology Network on Drug Use (SACENDU) is an alcohol and other drug (AOD) sentinel surveillance system comprising a network of researchers, practitioners, and policymakers from five sites in South Africa. In 2000, with funding from the Southern African Development Community (SADC) via the European Commission, the MRC was contracted to establish surveillance systems in the 13 other SADC member States. The regional network has been named the SADC Epidemiology Network on Drug Use (SENDU). SADC comprises 14 member States. The region has a population of 190 million persons, 40% of whom live in poverty. The overall goal of SENDU is to improve the information base for policy makers in SADC Member States to address the health and socio-economic burden caused by misuse of AODs.

### **Description of methods used to monitor drug use**

To date surveillance networks have been set up in 6 countries. Data are collected from a variety of sources (using a standard format), including specialist AOD treatment centres (where they exist), psychiatric hospitals, and the police (drug units, forensic science laboratories, and traffic sections), prisons, probation services, general hospitals (trauma units, general admissions), mortuaries, alcohol licensing authorities, and NGOs. These sources are complemented by general population surveys, school surveys, and key informant interviews.

### **Description of current patterns and trends in drug use**

The focus of the presentation is on the findings of Phase 10 (January-June 2000) of the SACENDU Project and preliminary data on AOD use in Botswana, Lesotho, Mauritius, Namibia, and the Seychelles and associated health and social consequences based on information gained during technical support visits to these countries during 2001 and from other written sources. See Table 1.

### **Conclusion**

2001 has seen the initiation of country-based substance abuse surveillance systems in Botswana, Lesotho, Mauritius, Namibia, and the Seychelles and the further expansion of the South African sentinel surveillance system. South Africa and Mauritius are experiencing the highest levels of substance use, the use of the greatest variety of drugs and harder drugs such as heroin and cocaine, as well as the highest levels of IDU. IDU, in particular, appears problematic in Mauritius where it is associated with HIV/AIDS. Abuse of alcohol, cannabis and over-the-counter drugs and prescription drugs (analgesics/benzodiazepines) appears widespread. The abuse of Methaqualone is mostly confined to South Africa and Namibia. Most countries report an increase in harder drug use, and a decline in the age of AOD users.

## Relevant reports

Parry, C.D.H., Plüddemann, A., & Bhana, A. (in press). Southern African Community Epidemiology Network on Drug Use (SENDU): Year 1. In National Institute on Drug Abuse (Ed.), Epidemiologic trends in drug abuse, Volume II: Proceedings of the Community Epidemiology Work Group. Washington: U.S. Department of Health & Human Services.

Parry, C.D.H., Plüddemann, A., Bhana, A., Matthyhsen, S., Potgieter, H. & Gerber, W. (November 2001). Key Alcohol and Drug Abuse Trends: January – June 2001. SACENDU Update.

Parry, C.D.H., Plüddemann, A., Bhana, A., Matthyhsen, S., Potgieter, H. & Gerber, W. (2001). Monitoring Alcohol and Drug Abuse Trends in South Africa (July 1996 – December 2000). SACENDU Research Brief, 4(1), 1-24.

Plüddemann, A., Hon, S., Parry, C.D.H., Bhana, A., Matthyhsen, S., Potgieter, H., Cerff, P., & Gerber, W. (2001) Monitoring Alcohol and Drug Abuse Trends in South Africa. Proceedings of SACENDU Report Back Meetings, April 2001: July - December 2000 (Phase 9). Parow: Medical Research Council.



**Table 1.**  
**Summary table of the drug situation in 6 SADC Member States<sup>1</sup>**

	<b>Botswana</b>	<b>Lesotho</b>	<b>Mauritius</b>	<b>Namibia</b>	<b>Seychelles</b>	<b>South Africa</b>
<b>General population</b>	Alcohol, cannabis, inhalants, analgesics, benzos: 5% of females report lifetime use of cannabis, 26% of males	Alcohol, cannabis, analgesics, benzos: 50% of males (26-30 yrs) use cannabis weekly, 79% females (40+) report occasional use of benzos	Alcohol, cannabis, heroin, analgesics, buprenorphine, benzos: 16% of males, <1% females drink heavily	Alcohol, cannabis, hashish, Mtq <sup>2</sup> , analgesics, benzos, inhalants + poly use. KAP survey results expected soon. 13% of males & 3% of females (18-24 years) smoke cannabis or hashish regularly	Alcohol, cannabis, hashish, benzos, analgesics, amphetamines, Ecstasy. 13% of males & 3% of females (18-24) smoke cannabis or hashish regularly	Alcohol, cannabis, Mtq <sup>2</sup> , analgesics, benzos, cocaine, inhalants, club drugs. Poly use high. 25%-33% of drinkers drink at risky levels over weekends
<b>Youth population</b>	4% of persons 13-16 yrs report lifetime use of cannabis. Usage is highest among persons 26-30 years old (21%)	17% of males (13-16 yrs) report occasional use of cannabis; youth in tx mainly for cannabis. National youth survey results expected in 2001	Awaiting results of National Youth Study	7% use cannabis, 2% smoke Mtq with cannabis, 2% have used Ecstasy, heroin, and/or cocaine. 1% use volatile substances	18% of males & 36% of females (10-13 yrs) reported having been drunk, 3% of females & 7% of males (10-13 yrs) have smoked cannabis or hashish	National youth survey in 2002. 1/3-1/2 m Gr 11s in CT & Dbn binge drink. In CT 32% report lifetime use of cannabis (16% inhalants, 6% mtq, 4% E, 3% cocaine)
<b>IDU</b>	Very low, but 77% of alcohol users in CDC study of TB patients engaged in unsafe sex compared to 55% of non-alcohol users	Very low	Approx 21% of HIV cases involve IDU	Very low	Little IDU	<6% of patients in tx report IDU as primary mode, but in Gauteng 31% & CT 47% of H patients report some IDU
<b>Problematic drug use</b>	AOD-related-injuries, death & crime + mental health problems	AOD-related-injuries, death & crime + mental health problems, -ve effects on work	AOD-related crime, mental health problems (70-80%), treatment demand, Hep C, HIV	AOD-related crime, mental health problems, treatment demand, alcohol-related injuries, traffic accidents	Alcohol-related hospital admissions, violence, mental health, school performance, treatment demand, interpersonal problems, crime	±60% of trauma patients alc+. Up to 44% of trauma patients cannabis+ (CT), 22% Mtq+ (CT), 9% cocaine+ (CT). ±45% of arrestees drug+ (CT, JHB, Dbn)

	<b>Botswana</b>	<b>Lesotho</b>	<b>Mauritius</b>	<b>Namibia</b>	<b>Seychelles</b>	<b>South Africa</b>
<b>Treatment admissions</b>	No specialist treatment centres. 21% of psychiatric diagnoses are alcohol-related & 3.6% of diagnoses involve cannabis psychosis	In 2000, 28% psych admissions have AOD diagnoses (mainly alcohol). 72 patients treated in 2000 in 2 specialist tx centres: males for alcohol & cannabis, & females for alcohol, cannabis & OTC or prescription meds	About 4000 patients in 8 centres seen per year. Of 102 patients in 6 specialist tx centres in 06/01, 61% heroin, 14% alc, 10% cannabis, 10% psychotropes – (1 <sup>o</sup> drug)	200-300 per year, mainly alcohol & cannabis, but also methaqualone, cocaine, E, & heroin	108 patients seen in single tx center in 2000. Patients under 25 had drug problems, & patients older than 30 had alcohol problems. 25%-33% of psych admissions have alcohol diagnosis, 2%-5% have diagnosis related to other psychoactive substances	11500 patients seen in ±55 tx centres annually (= ±2/3rds of all tx centres). Main drugs of abuse are alcohol, cannabis, white pipes (cannabis +M/tq), cocaine
<b>Drug-related deaths</b>	60%-65% have BACs >0.08 g/100ml (mostly transport deaths)	Mainly alcohol-related	160 alcohol-related deaths/year (down). Deaths from heroin & buprenorphine (?)	Recent heroin-related deaths	Mainly alcohol-related	37%-64% of deaths have BAC > 0.05 g/100ml. In CT (2001) 37% of non-nat deaths drug +ve (33% +ve for cannabis, 12% for M/tq, 9% for opiates). Some Ecstasy-deaths
<b>Emerging trends in drug use</b>	Increase in teen psych admissions for AOD-rel. probs, increase in cannabis psychosis diagnosis in 2000, increase % BrAC > 0.08 (traffic police), increase in cocaine use/problems & glue sniffing	Decline in age of AOD users (in general + in treatment)	Increase in proportion of heroin arrests since 1999-2001 (36% to 57%), decline in age of AOD users, increase in alcohol dependence	Decrease in age of persons abusing alcohol, seizures of Ecstasy, cannabis, and cocaine powder more than doubled btw 2000 & 2001	Decline in age of problematic alcohol use to as young as 9-10 years old	Increase in cocaine & heroin use in larger urban areas. Some increase in white pipe use. Increase in poly-substance abuse. Decrease in age of persons in tx. Spread of crack to poorer areas.

<sup>1</sup> - SENDU system only operational in South Africa; Lesotho, Mauritius, Seychelles started data collection July 2001; Botswana & Namibia start in January 2002; <sup>2</sup>-methaqualone

## **5.4 Brief overview of the East African Drug Information System (EADIS)**

*Matthew Warner-Smith*

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### **Introduction**

The eastern African region straddles the equator and is comprised of 13 countries, extending from Eritrea in the north to Tanzania in the south and as far west as Rwanda. Included in this region are four island states in the Indian Ocean. The per capita GDP for the region is USD827 per annum (range 480 to 10,600). This places the region among the poorest countries in the world, with 50% of countries in the region ranked among the 20 least developed countries in the world, as measured by the UNDP Human Development Index. Correspondingly, life expectancy is low and infant mortality is high, at 47 years and 94 per thousand live births respectively (population adjusted, range 40 – 71 years; 14 – 111 per thousand). Fifty-eight per cent of the adult population of the region are literate, and 9% of the adult population are HIV positive (including AIDS cases) (UNDP, 2000). Conflict in a number of countries in the region exacerbates the socio-economic stresses associated with living in an underdeveloped country.

### **Description of current methods used to monitor drug use**

Information on drug use patterns and trends in the region is sparse. In response to this the United Nations International Drug Control Programme (UNDCP), through the Global Assessment Programme on Drug Abuse (GAP), has initiated a project to assist countries in the region to develop integrated drug information systems to monitor drug use.

The national drug information systems being initiated under GAP are predominantly based on indicator data, such as from law enforcement agencies, psychiatric hospitals and specialised drug treatment centres. However, the number and variety of data sources vary from country to country. The least developed countries, such as the Comoros, lack treatment centres, psychiatric hospitals and universities, and thus rely heavily on law enforcement data supplemented by qualitative information from key informants.

In the most developed countries, such as the middle income countries of Mauritius and the Seychelles, a range of indicator data sources exist, including drug treatment centres, mortality registers, psychiatric hospitals as well as law enforcement agencies. Routinely collected indicator data in these countries is supplemented by survey data and specialised research, such as focussed studies and rapid assessments.

The 13 national drug information systems supported by GAP feed into a regional drug information system- the East African Drug Information System (EADIS). This system is in a very early stage of development, hence the data that is available for the region remains limited.

### **Description of current patterns and trends in drug use**

Data on drug use patterns and trends in the region is generally not yet sufficiently sophisticated to allow the breakdown of drug use by age group. Similarly, no reliable estimates of prevalence are

available for the region. A number of general comments can however, be made, based on indicator data and the limited number of specialized studies conducted thus far.

### **General population**

Overwhelmingly the most commonly used illicit drug in the region is cannabis, predominantly in herbal form. A herbal stimulant (*khat*), unique to north-east Africa and the middle east, is also commonly used. However, the legal status of this drug make ranking prevalence of use or estimating trends in use difficult, since law enforcement and treatment data are likely to under represent the use of this socially condoned drug. Mauritius has had significant use of heroin since the 1980s. Recently the use of heroin has also been observed in other countries in the region, such as Kenya. Cocaine use still appears to be rare, although there are fears that an increasing trend in cocaine use in the neighbouring countries of the southern African region may spread to the eastern countries.

### **Youth population**

As with the adult population, cannabis appears to be the dominant illicit drug of abuse. Significant solvent abuse among street children has also been noted.

### **Injecting drug use**

Injecting drug use is still relatively uncommon in the region. The well recognized problem of heroin use in Mauritius is an exception, where injecting is the preferred route of administration. There is some evidence of an increase in the use of heroin in the region (albeit from a very low baseline), which has been accompanied by an increase in IDU. A recent RSA in Nairobi estimated the total population of heroin users in Kenya to be approximately 13,000, 50% of whom inject as their preferred route of administration (WHO, 2001). There are also reports of heroin use in other countries in the region, such as Burundi.

### **Treatment admissions and drug-related deaths**

The relatively early stage of development of the majority of national drug systems in the region means that quantitative data remains scarce. It is therefore not yet possible to estimate prevalence, nor provide estimates of the incidence of drug-related death. Similarly, treatment services within the region remain scarce and inaccessible, therefore the size of the treatment population probably greatly under-represents drug use.

### **Emerging trends in drug use**

At the first EADIS Report Back Meeting a number of countries in the region indicated an increase in the use of cannabis. As previously mentioned heroin use appears to be increasing in a number of countries within the region, albeit from a very low baseline.

### **Conclusion**

Drug use information in the region is scarce. However, national and regional drug information systems based on indicator data are currently being developed to rectify this. From available evidence it appears that cannabis is overwhelmingly the most prevalent illicit drug in the region. Heroin and, to a lesser extent, cocaine, appears to be present, although uncommon relative to developed countries. There is as yet no evidence of the use of amphetamine or amphetamine-type stimulants, despite there being a well-established ecstasy market in some neighbouring southern African countries.

### **Relevant reports**

UNDP. 2000. *Human Development Report*. United Nations Development Programme. New York. Oxford University Press.

WHO. 2001. *World Health Organization Phase II Drug Injecting Study. Rapid Assessment and Response Report. Nairobi, Kenya. July 9, 2001.*

UNDCP. 2001. *EADIS Training Workshop 5-7 February 2001.* United Nations International Drug Control Programme Global Assessment Programme on Drug Abuse. Pretoria.

## **5.5 Mauritius and the Mauritian Epidemiology Network on Drug Use**

*Fayzal Sulliman*

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### **Country Information**

The Republic of Mauritius is situated in the south-west of the Indian Ocean, 2,400 km east of Africa. The island is 67 km long and 46 km wide. The Republic includes Rodrigues, 563 km to the east, the Cargados Carajos Archipelago, and the two uninhabited Agalega islands.

The population of 1.2 million makes a peaceful multiracial society. English is the official language, although most Mauritians speak French or Creole. Politically stable, good infrastructure, excellent communication networks, relatively low unemployment and high literacy (>81%) are the main features. The main industries are agriculture (mainly sugar cane), tourism and manufacturing (mainly textiles). Health care and education (primary, secondary and tertiary) are free.

The main perceived illicit drug problem in Mauritius is cannabis (called “gandia”), followed by heroin (called “brown sugar”). The problem of heroin injection was recognized since the mid-1980s, when several treatment centres were established to treat heroin abusers. Unofficial reports indicate that cocaine use is scarce and amphetamine-type substances have recently appeared in Mauritius.

### **Current Methods to Monitor Drug use**

#### **Survey Data**

National data are available on smoking and alcohol consumption, but not illicit drug consumption, from the Mauritius Non-Communicable Diseases (NCD) Survey. This survey is conducted every five years by the Ministry of Health and Quality of Life, in collaboration with international institutions. A 1998 survey of 6294 adults (age range:25-74 years) found that 20.2% were current tobacco smokers, a reduction in prevalence compared to 1987 and 1992 surveys (30.7% and 24.3% respectively). Smoking occurred mostly among men. Alcohol was consumed by 67% of men and 28% of women in the sample, with 16% of men and less than 1% of women drinking heavily (at least 2 days/week and at least 3 drinks/day).

#### **Youth Study**

Results of a study of drug abuse among youth in the general population were disseminated in February 2001. This survey sampled 12-24 years old youth who were interviewed face-to-face using a structured survey questionnaire. The questionnaire includes questions on use of alcohol, tobacco and illicit drugs. The results were as follows:

Tobacco: 54.6% of youth ever used cigarettes in their lifetime, 40.9% were current smokers, 13.3% being heavy smokers. 29% of respondents considered occasional cigarette smoking not harmful.

Alcohol: Alcohol use was reported as the most common psychoactive substance among youth, with a lifetime prevalence rate of 61.5%, compared to 36.9% who were current drinkers with 22.8% drinking heavily ( 5 or more drinks on the same occasion on 5 or more days in a month). Beer, rum and wine were the favourite drinks. 2.4% were initiated to alcohol use before age 8.

Illicit substances: The age of initiation to illicit drug use was 15-16 years. 18.2% reported ever using an illicit drug in their lifetime and 11.1% were current users. 87.5% of youth perceived substance abuse among young people as a national problem.

### **Treatment Data**

Client data is collected by eight treatment agencies (seven non-government organizations, NGOs) and one government organization. Clients statistics are submitted monthly to NATReSA. The contents and format of data collected vary and are decided by the treatment agency, but usually includes demographic variables, type of drug abused, and referral source.

Treatment professionals reported that most clients sought treatment for “brown sugar” dependence (brown heroin). Brown sugar was typically injected twice a day. Sharing of injecting equipment was common, although many clients would clean their needles with household disinfectants between use. Other drugs commonly used by treatment clients included “gandia” (cannabis) and alcohol. Treatment professionals reported the emergence of Subutex ® (buprenorphine) use, a prescription opioid used for substitution therapy, which is not legally available in Mauritius.

### **General Hospital Data**

There are eight general hospitals in Mauritius. Data on alcohol-related disorders treated at general hospitals are systematically collected by the Ministry of Health and Quality of Life and collated into four categories of alcohol-related disorders according to cause of admission: alcoholic psychosis, alcohol dependence syndrome, non-dependent abuse of alcohol, and alcoholic cirrhosis of the liver. The number of cases treated for alcohol dependence and alcohol abuse has increased through the 1990s (see Figure 3), and related mostly to males (94% in 1999). Hospital admissions data relating to illicit drugs are not routinely reported due to their infrequent occurrence and lack of physicians’ interest.

### **Mortality Data**

The number of deaths caused by alcohol-related illnesses were registered with the Ministry of Health and Quality of Life. In 1999, these show that most are due to cirrhosis of the liver, and that number of deaths has remained reasonably stable through the 1990s, in contrast to the increasing number of hospital admissions discussed previously. Consistent with hospital admission data, most deaths relating to alcohol were among men (94.4% in 1999).

Data on deaths due to other drugs are not routinely documented by the Ministry of Health and Quality of Life. However, toxicology data on deaths are available, a police medical officer determines the cause of death. In 1998, 532 tests for dangerous drugs and psychotropic substances revealed two cases of amitriptyline, one of phenobarbitol, and one of melleril. These toxicology data may under-represent the number of deaths associated with drug use because tests for specific drugs, such as heroin, are only done at the request of the referring medical officer.

### **Psychiatric Hospital Data**

The Brown Sequard Psychiatric Hospital serves the entire country of Mauritius, treating approximately 5000 in-patients a year. 1998 data show that half (49.1%) of the in-patient cases were due to alcohol dependence syndrome (I. C. D. 1975 Revised), and a further 2.1% were due to alcohol psychosis. Only 1.6% of cases were attributed to drug dependence, although this represents a substantial increase on previous years. Information on the type of drugs used by these

patients is not routinely documented. Of the 125 drug-related cases since 1999, eleven were due to opioid use (9 heroin, one opium and one buprenorphine), and three to cannabis use.

## **Conclusion**

The Mauritian Epidemiology Network on Drug Use (MENDU) started by SADC and UNDCP is an important milestone in the setting up of a standardized data collection system and data by a central body. Results of the 6-month first phase of MENDU will be available in February 2002.

A Rapid Situation Analysis (RSA) with UNDCP technical assistance is in the pipeline.

## **Relevant reports**

Information, Needs and Resources Analysis for the Republic of Mauritius, UNDCP GAP, April 2001.

Knowledge, Attitudes, Beliefs and Practice of Substance Abuse Among Youth (12-24 Years) in Mauritius, Mauritius Institute of Health (MIH), National Agency for the Treatment of Substance Abusers (NATReSA), February 2001.

Report on the SENDU Technical Support Visit to Mauritius, March 2001.



## **6 Americas**

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## **6.1 Mexico**

*Guillermina Natera Rey*

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### **Introduction**

Mexico is the second largest country in Latin America, being 2 square million kilometers in area. Mexico is immersed in a continuous dynamic of change and transformation in every health and labour aspect due to massive migration from the countryside to the city, and due to continuous temporal trips of migrants to the United States. A decrease in infant mortality as well as a high and constant birth rate brought a large youth population, Mexico is a country with a young population. In the last census of 2000, 97.3 million people were registered. The urban population reached 72, 759, 822, corresponding to 74.7% inhabitants; while the rural and Indian population represent 25.6% of the inhabitants.

Mexico City has had, since the 1950s, an exaggerated overgrowth, so that nowadays it is the second largest mega city in the world. From 1970 to 1990 population grew from 9,036, 843 inhabitants to 14, 502, 052. Its growth has not been strictly regulated, so the development of peripheral urban settings has been regular – this is known as the "urban spot".

The creation of population settlements on common lands has led to misery belts. These settlements have brought, as a consequence, soil use problems, housing shortages, malnutrition, reproduction and general health problems, lack of services and organization forms. Unemployment and poverty have also brought socio-cultural disadvantages: weakening of identity cohesion, loss of expectations and confidence on progress and social mobility, uncertainty about the future, high growth rate of informal commerce as well as violence and delinquency (Carcía Canclini, 1998). All this made family rituals and habits change, physical and symbolic barriers are raised, and enormous areas are over-watched due to insecurity. These factors support the risk for drug use. Female population (50.9%) is slightly higher than male population, they all live in 20 million homes.

According to the indicators of the United Nations Development Program, Mexico is considered a country with a medium level of human development, ranked 52 among 162 countries members of the United Nations.

Mexico, an heterogeneous country, has 62 recognized linguistic groups from which Indian people are identified, sharing languages and traditions throughout the Mexican Republic. According to INEGI ([www.inegi.com.mx](http://www.inegi.com.mx)) surveys of 2000, life expectancy is 71.0 years for men and 77.1 years for women. 34.8% of the population was younger than 15 years, 60% were at working age, from 16 to 64 years, and only 5.8% were 65 years or older. Catholic religion is 83%, and protestant groups are growing daily.

### **Current Methods to Monitor Drug use**

Epidemiology surveillance on addictions in Mexico began, systematically, in the 1970s. There have been national and international household and schools surveys; there have been studies applied on hard to access populations; likewise, we have a record of cases attended in expert units; moreover, there are epidemiology surveillance systems operating in selected cities of the country.

In spite of these efforts, the dynamics and multifactorial nature of the problem with which we are concerned still presents great challenges. Therefore, now exists the proposition to establish an Epidemiology Observatory on Drugs allowing us to:

- I. coordinate efforts of different institutions, in gathering the available information and making it available for decision makers;
- II. unify measures and report basis, and
- iii. facilitate new development and methodology tests, as well as the study of emerging phenomena.

This paper constitutes the first report of an expert team's work, which is in charge of the epidemiological records and studies carried out by diverse institutions. In this case the situational diagnosis about the use of illegal and medical substances out of prescription is presented. Later publications will include reports on use and abuse of legal substances (tobacco and alcohol).

### **Current patterns and trends in drug abuse**

Through household surveys we know that drug use is increasing, and as a result, the drug dependent population is growing. In 1988, 0.34% reported three or four dependence symptoms, ten years later, the proportion increased to 0.7%. On the other hand, the use of cocaine increased considerably, and there is evidence that heroin use has also increased in the Northwestern area of the country.

Unfortunately, the proportion of people seeking help is small, only 14% of those who suffer three or more drug related problems reported having asked for treatment. Along with household studies there are surveys of the student population. The one made with students of secondary and high school education, in Mexico City, corroborated an increase in drug use; it also allowed us to know the differential development of the phenomenon within every administrative circumscription. It has been observed that the preference in use (by type of drug) has changed in such a way that, nowadays, marijuana and cocaine are those most used. Between 1957 and 1978, the most used substances among students were marijuana, inhalants and amphetamines, however, since 1978, inhalants became the most used drug; and in 1997 cocaine surpassed them in this category.

Marijuana use increased from 1991 to 2000, from 2.8 to 5.8%, cocaine use also showed a considerable increase (from 1 to 5.2%), while the use of inhalants decreased from 5 to 4%, from 1991 to 1997, although reached a 4.3% in 2000. Besides these studies, which allow us to know the prevalent use in different populations, we rely on a data collection system that allows us to know the trends in a more or less continuous way.

The Drug Information Report System (DIRS), a mechanism that obtains data coming from different health and justice proxy institutions located in Mexico City, shows that the increase in cocaine use has surpassed marijuana and inhalant use, which in 1998 used to be in the first place. From this year on, cocaine use has been in first place, with around 67 of every 100 drug users have used this substance.

According to the records of individuals who seek help at specialized treatment centres in the whole country between 1990 and 2000, they show that, first, cocaine including crack use increased from 12.2 to 71.4% over this decade (used at least once). On the contrary, solvent inhalants use registered a decrease, from 61.8% in 1991 (the highest year of prevalence) to 35.2% in 2000.

During the early 90s, marijuana use remained relatively stable, then for the last four years there was a decrease that settled at 63.4% in 2000. Depressant use with out medical utility fluctuates between 20 and 25 percent, while hallucinogens, heroin and methamphetamines showed lower rates, it is important to mention the growing trends in the use of these last three types of drugs.

The rate of cases who used ice or crystal once in their lives practically trebled between 1996 and 2000, reaching higher levels among the treatment population in the Northwestern zone (Tijuana 81.7%, Mexicali 74.3%, San Luis Río Colorado 57.4%) and the Pacific slope (Colima 16.6%, Culiacán 19.3% & Guasave and Durango near 27%).

Heroin use surpassed the national average in the treatment population (5.2%) in centers in the North of the Republic. The situation is similar in centres located in cities with high migration levels. It is also important to say that higher use rates were registered in patients treated in the Northwestern region (Chihuahua 23.6%, Ciudad Juárez 26%, Mexicali 32.9%, San Luis Río Colorado 46.8% and Tijuana 28.3%).

Besides governmental treatment centres, our country has a considerable number of centres run by non-governmental organisms (NGOs). The Epidemiology Surveillance System of Addictions incorporates, among other indicators, information from this source. These centres treat a higher percentage of heroin users than the governmental ones (2.9% and 0.2% respectively), the same occurs with crystal users (2.6 and 0.6%) The proportion is lower for inhalant users in NGOs: 7.2 versus 14%, cocaine situation is similar: 5.8 versus 12.7%. The rate of women seeking help at the NGOs is comparatively higher. Information gathered from people using these services have lower schooling and are more involved in drug use.

## **Conclusion**

The available information shows the magnitude of the problem, and its geographical distribution, which is also useful to describe its trends. It also informs us about outbreaks of epidemic use, as well as changes in use practices –the latter reveals treated and non-treated cases. Sometimes, the diversity of criteria and study methods used make it difficult to compare data. Therefore, creation of a system to gather the important mass of existing data is needed.

## **Relevant reports**

Observatorio Epidemiológico en Drogas. El Fenómeno de las Adicciones en México. Secretaría de Salud. Consejo Nacional contra la Adicciones, Subsecretaría de Prevención y Control de Enfermedades, Dirección General de Epidemiología; Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz; Instituto Mexicano del Seguro Social; Centros de Integración Juvenil, A.C.; Instituto de Educación Preventiva y Atención a Riesgos, AC.

## **6.2 Inter-American Uniform Drug Use Data System (SIDUC)**

*Julia Hasbun*

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### **Introduction**

The Inter-American Uniform Drug Use Data System (SIDUC) is an information system that gathers both cross-sectional data reflecting the characteristics of users in specific communities and longitudinal data that make it possible to describe the evolution of user characteristics in these same groups over time. The system also compares data from different settings over time. Thirty-one countries from the Americas participate in the SIDUC system. Central to SIDUC is fulfilling the reporting requirements of the Multilateral Evaluation Mechanism (MEM). The MEM is a mechanism established to evaluate the efforts of governments to reduce production, trafficking and consumption of drugs in participant countries.

### **Methodology**

There are two types of drug consumption indicators used by the SIDUC system: 1) ongoing analysis of existing data, such as data from emergency rooms, treatment admissions, forensic medicine, and juvenile offenders; and 2) periodic surveys conducted on particular populations, such as, surveys among secondary or university students, household surveys among the general population, studies on drug prices and other qualitative studies. Each of these data collection activities provides information toward a core common set of indicators that each country is required collect under the MEM. Common minimum indicators include the annual prevalence and incidence of new drug consumers and the age of first drug use. These indicators have strict technical criteria that must be maintained over time.

### **Results**

SIDUC is currently in the process of revising its data collection system to reflect the needs of MEM, particularly that for surveys of secondary school students, emergency room data and treatment admissions data, while the configuration of other studies will also need to be considered. It is anticipated that this standardization of data collection systems under MEM will yield more comparable data across countries in the Americas. Linking the SIDUC system to the MEM has been advantageous in implementing new policies and ensuring the utility of information gathered for the benefit of the SIDUC countries. This link has provoked political interest in statistical data, has resulted in the expansion of activities and growth of resources, and has brought about a need to provide complete and reliable data in a timely manner.

### **Conclusion**

Overcoming the problem of drug abuse is very complex, but it is clear that there is a need to objectively evaluate the implementation of drug control strategies, and this requires reliable statistics that are based on standardized methodologies. Although not perfect, the SIDUC system has come a long way in developing new methods, procedures and approaches to understand the drug use issue. The system has empowered human resources in countries, facilitated the undertaking of cost-effective data collection methods and improved techniques for investigating drug consumption in the Americas.

## **6.3 The Caribbean situation**

*Ken-Garfield Douglas*

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### **Features of the Sector**

The geographic Caribbean region with a combined land area of 700,000 sq. km comprises a number of islands stretching between North and South America. It is a multi-lingual, multi-ethnic, multi-cultural region reflecting influences of several major powers. There are considerable variations spanning this region of 37 million people: four major different languages, across the British, Dutch, French and American territories and the independent English, Spanish and French states, a variety of judicial systems and diverse religious and political units.

Given their geographic location between the main drug producing regions and South America and the large consumer markets in North America and Europe, the islands are vulnerable to drug trafficking. It is now estimated that 40% of all cocaine entering the US market comes through the Caribbean.

Law enforcement sources have calculated that from the total illicit drugs transiting the region, an increasing portion is being left behind for local consumption. This action is fast becoming practice and traffickers are paying in kind with drugs for services rendered. This facilitates easy access into the daily lives of Caribbean people and, consequently, drug use, abuse and trafficking are continuously increasing.

The obvious consequences of this is that the governments are experiencing burdens on the health system which include provision of services to address the psychological and physical manifestations of intoxication, drug withdrawal and chronic addiction. In addition, the incidence of violence and crime associated with armed drug dealers and drug abusers needing to maintain their habit is on the increase. Consequently, the police and judiciary across the region are not only dealing with petty crimes, but also more serious crimes, such as wounding and murder associated with drug abuse.

### **Current methods use to monitor drug use**

Most all countries in the region have established a national council on drug abuse. Their roles are primarily to advise governments on policy. Some councils also implement projects, particularly in the area of primary prevention.

On recommendations set out in the Barbados Plan of Action and reiterated in the Santo Domingo Declaration, the regional governments have approved a Drug Abuse Abatement and Control strategy of which one component is the establishment of a regional drug information system. This formalized the region's effort at structured and standardized data collection since Member States of the region are convinced that the absence of a comprehensive and comparable database on drug abuse patterns and trends despite the increasing exposure to, and abuse of illicit drugs by the population, is inhibiting national capacities to plan and implement proper rehabilitation, prevention and control programmes. This network is called the Caribbean Drug Information Network (CARIDIN).

For the most part, most countries in the region have done at least a school survey (national or cross-sectional). These had been the key data source used to provide information on drug consumption patterns and trends throughout the region. For the few countries where treatment facilities exist they are without regulatory control in terms of government policy or statutory requirements for operation and reporting. The challenges have been to gather data among these institutions – this has been problematic since there is no national register for data from these treatment centres feed into. There was previously no structured methodology for collecting data nationally or regionally that allowed for comparability of drug consumption patterns and trends. The collection of data from key data sources (school surveys, treatment centres, general population, etc.) is presently being standardized across the region under the umbrella of CARIDIN.

The rapid assessment methodology has been used extensively across the region especially in relation to initiatives by the UNDCP. Some amounts of qualitative research have been done but mostly by social science or masters in public health students, but again using varying methodologies. The other important aspect to this is that the results of these assessments/research are for the most part not properly documented and unpublished.

## **Current Patterns and Trends in Drug Use**

### **General Population**

Not many national household surveys have been done in the region. Alcohol and tobacco continues to be the drug of choice for the adult population. This has been the pattern reported generally throughout the region. For countries where studies have been done levels ranging between 64–95% for alcohol use and 36-74% for tobacco (cigarette) use have been reported. Marijuana use ranks next with levels of 43-57% lifetime use reported in the general population in Jamaica. Crack cocaine use has increased significantly over the last three to four years in the region. This is evident in the increase diagnosis of cocaine-induced psychosis among patients admitted to medical and psychiatric wards throughout the region.

### **Youth Population**

Surveys to determine consumption patterns among the youth population have been consistently conducted on in-school youths between the ages of 12-19 years and sometimes up to 21 years old. National school surveys among this population have been recently done (within the last two years) only in two countries, (Haiti and the Dominican Republic). An extensive national school survey in Jamaica reported lifetime use of 27%, 71%, 27% and 2% for cigarettes, alcohol, marijuana and crack cocaine use respectively. The current (30-day prevalence) reported was 5%, 29%, 8% and 0.7% for cigarettes, alcohol, marijuana and crack cocaine use respectively.

### **Injecting drug Use**

For many years it was reported that the Caribbean was not affected by intravenous drug use. With the reality of our present HIV/AIDS situation, it is now recognized that an important part of transmission has been through injecting drug use. This information is only now being collected at some treatment centres, for example Jamaica reports less than 1% injecting drug use but perusal of the medical records of HIV/AIDS patients in Trinidad and Tobago have revealed about 3% of injecting drug use. Suriname have started reporting increasing problems with heroin injecting among its general population.

### **Problematic Drug Use**

Although not reported as such in the region, chronic alcohol abuse continues to be the main problem in the region (estimated at 10% of males in the region). Some amount of chronic heroin use has been reported among users in Suriname. This area has not been sufficiently studied and reported on in this region.

## **Treatment Admissions**

The inherent problem here lies in the fact that only the larger islands (7 of 24) have any structured approach to treatment at dedicated centres. For the most part, treatment is initiated at the hospital wards for acute episodes and patients are then sent home. Some amount of detoxification is done and some patients that can afford to pay for the service are sent to treatment and rehabilitation centres. In Jamaica during 1993 and 1996, 9% of admissions to treatment centres were less than 20 years of age.

The record keeping, data gathering and compilation among these institutions have been problematic since most operate without any statutory control. The other problem is the issue of psychiatric co-morbidity. Most of our drug abusers in treatment have underlying psychiatric conditions and are evaluated and recorded for the psychiatric condition and not the drug abuse problem. There has been a notable absence of females among treatment centres in the region. This is mainly due to the fact that there are no dedicated centres for females and there is a certain amount of stigmatization attached to female drug abusers in our societies.

## **Drug Related Deaths**

Except for the acute cases related to drug trafficking there are no data available on drug related deaths for the region. Even with road traffic accidents being the leading cause of deaths in Belize we are unable to quantify how much is directly related to drug use.

## **Emerging Trends**

Countries have expressed concerns about the emergence of ecstasy in the region (at least four countries share this concern). Inhalant use among in-school youths has been causing some concerns (Jamaica reported 16% lifetime and 10% current use in their 1997 survey). Some countries are also concerned about the increased use of amphetamines and tranquilizers among the general and school population.

## **Conclusions**

The region is now well on its way to collect standardized and comparable data through the establishment of CARIDIN and the use of the SIDUC system. This effort will provide information exchange, training and data collection from key data sources throughout the region. A standard school survey instrument will be used together with a standard format for collecting data at treatment centres, emergency rooms, and for doing qualitative assessment among problematic drug users.

## **Relevant reports**

Drug Abuse Epidemiological and Surveillance System Project. *First Stakeholders Meeting of the Drug Abuse Epidemiological and Surveillance System Project (DAESSP)*, 23-25 July, Trinidad. Meeting Highlights.



## 6.4 Drug use in the United States

*Zili Sloboda & \*Nicholas Kozel*

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### Introduction

The 2000 Census estimated that there were 281.4 million residents in the United States, an increase over the 1990 figure of 248.8 million. Slightly over one-quarter of the population in 2000 was under 18 years of age. Over 80 per cent lived in metropolitan areas with 35.6 per cent living in the South, 19 per cent in the Northeast, 22.9 per cent in the Midwest and 22.5 per cent living in the West. This distribution has not changed since the 1990 census. There was an average of 2.61 persons per household in 2000 compared to 2.63 in 1990 and the birthrate was 14.5 per 1,000 people compared to the 1990 rate of 16.7 per 1,000. The racial composition of the U.S. population also has changed since 1990. In 2000, 77 per cent of the population were white compared to 80 per cent in 1990; 12.9 per cent were Black or African American compared to 12 per cent in 1990; 12.5 per cent were Hispanic/Latino compared to 9 per cent in 1990, and 4.2 per cent were Asian compared to 2.8 per cent in 1990.

### Description of Current Methods Used to Monitor Drug Use

There are a number of sources of ongoing national information on drug use in the United States. These include surveys of general populations as well as data information systems. The primary general population surveys are:

#### The National Household Survey on Drug Abuse

This survey collects information from respondents aged 12 and older who are residents of representative samples of households across the country. In recent years, this sample was expanded to include residents of college dormitories, homeless shelters and rooming houses. The survey had been administered biennially or triennially from 1971 until 1991 when it became an annual survey. In 1999 survey changed from paper and pencil interviewer administration to computer assisted. For this reason, trends in data use must be separated from 1971 through 1998 and then from 1999 on. Reports and data from the National Household Survey on Drug Abuse are available on the Substance Abuse and Mental Health Services Administration website: <http://www.samhsa.gov>.

#### Monitoring the Future Study

This survey, conducted by the University of Michigan with a grant from the National Institute on Drug Abuse, collects information on 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grade students from representative samples of public and private schools. In-classroom surveys were administered to the 12<sup>th</sup> grade samples starting in 1975 and to the 8<sup>th</sup> and 10<sup>th</sup> grade students starting in 1991. The survey is conducted every May and the data are available in December of the same year. Reports and data from the Monitoring the Future Study are available on the National Institute on Drug Abuse website: <http://www.drugabuse.gov>.

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\* *National Institute on Drug Abuse, National Institutes of Health, Bethesda, Maryland*

### **Partnership Attitude Tracking Study**

This survey conducted by the Partnership for a Drug-Free America, a private, not-for-profit, media group, monitors the drug-related behavior and attitudes of children (starting with age 8 and 9), teens and parents. The survey, conducted by Audits and Surveys Worldwide, Inc., began in 1996 and is an annual nationwide survey. Information from this survey is available at the Partnership for a Drug-Free America website: <http://www.drugfreeamerica.org>.

### **National Longitudinal Study of Adolescent Health**

This study is conducted by the University of North Carolina with funding from the National Institute on Child Health and Human Development. A nationally representative sample of adolescents in grades 7-12 in 1994-1995 from 80 communities has been surveyed in class-rooms and in-home in 1994-1995, 1996 and 2000. The focus of the survey is on physical, mental, emotional and reproductive health and includes questions on substance use. Information from this survey is available at the National Institute on Child Health and Human Development website: [http://www.nichd.nih.gov/cpr/dbs/res\\_add.htm](http://www.nichd.nih.gov/cpr/dbs/res_add.htm).

### **Youth Risk Behavior Survey**

This survey is conducted biennially by individual states with funding from the Centers for Disease Control and Prevention. The focus is on high school students. Information from this survey for the years 1991, 1993, 1995, 1997 and 1999 are available on the Centers for Disease Control and Prevention website: <http://www.cdc.gov/nccdphp/dash/yrbs>.

## **National data information systems that are available:**

### **Drug Abuse Warning Network**

This information system has two components: emergency room episodes and deaths. The emergency room component includes reports from a representative sample of emergency departments across the country and a panel of 21 metropolitan areas. Logs and medical records are abstracted and completed data entry forms are submitted to the Substance Abuse and Mental Health Services Administration. These data are aggregated quarterly. The second component, deaths, consists of information reported by a non-representative group of 139 medical examiners located in 40 metropolitan areas. A consistent panel composed of 134 of these medical examiners has provided data over time and provides sufficient information so that trends in deaths can be estimated. Reports and additional information about the Drug Abuse Warning Network can be found on the Substance and Mental Health Services Administration website: <http://www.samhsa.gov/dawn>.

### **Arrestee Drug Abuse Monitoring system (ADAM)**

This information system was established as the Drug Use Forecasting (DUF) system by the National Institute of Justice several years ago. DUF was created to determine drug use among the arrestee population in several sites across the country. ADAM grew out of DUF to be more representative of the arrestee population and includes 35 sites today. An international arm of ADAM, I-ADAM, has recently been initiated and data are available from several other countries. Reports and information regarding ADAM is available on its own website: <http://www.adam-nij.net>.

### **Drug and Alcohol Services Information System (DASIS)**

This information system established by the Substance Abuse and Mental Health Services Administration has several components. It includes the Treatment Episode Data Set (TEDS) as well as information on treatment facilities; the Uniform Facility Data Set (UFDS) and the National Survey of Substance Abuse Treatment Services (N-SSATS). Reports from these data

sets and additional information are available on the Substance Abuse and Mental Health Services Administration website (see above).

### **Community Epidemiology Work Group (CEWG)**

Finally, a comprehensive system of all of these data sets for 21 cities across the country had been created by the National Institute on Drug Abuse, the **Community Epidemiology Work Group**. Representatives from the cities gather information from local surveys, from local ADAM sites and other law enforcement sources, DAWN, and from a variety of other existing data bases and report at meetings held in June and December each year. The sites that are currently reporting to this group are: Atlanta, Baltimore, Boston, Chicago, Denver, Detroit, Honolulu, Los Angeles, New Orleans, Newark, New York, Miami, Minneapolis, Philadelphia, Phoenix, San Diego, San Francisco, St. Louis, Seattle, Texas, and Washington, D.C.

### **Description of Current Patterns and Trends in Drug Abuse**

The following information primarily comes from five data sources: (1) the National Household Survey on Drug Abuse (for the years 1975 to 1998 and 1999 and 2000), (2) the Monitoring the Future Study (for the years 1975 to 2000), (3) the Drug and Alcohol Services Information System (for the years 1993 to 1999), (4) the Drug Abuse Warning Network (for the year 2000) and (5) the Community Epidemiology Work Group (for the period June 2000 to June 2001).

#### **General Population Trends**

Information on general population trends comes from the National Household Survey on Drug Abuse. In 2000, an estimated 14 million Americans (or 6.3 percent) aged 12 and older had used an illicit drug within the month prior to survey. Approximately 59 per cent of those using an illicit drug used marijuana alone, 17 per cent had used marijuana in combination with another illicit drug and 24 per cent had used illicit drugs other than marijuana. There were no statistically significant changes between the results of the 1999 and 2000 surveys. Males tend to have higher rates of drug use than females. There have been some differences in trends by ethnicity over time. Blacks have the highest past month prevalence rates of illicit drug use among all groups and these rates are increasing over time. Past month prevalence rates for Whites and Hispanics tend to be similar and appear to be declining. Data from prior years also shows little change in use for all ages. Most of the up and down trends of illicit drug use are explained by those aged 12 to 17 and those 18 to 25. This latter group continue to have the highest rates of illicit drug use than any other age group, 15.9 per cent compared to 4.2 per cent for those 26 and older. The ranking of drugs for those 18 to 25 and those 26 and older is comparable: marijuana, psychotherapeutic drugs, cocaine, hallucinogens and inhalants.

#### **Youth Population Trends**

Information on youth populations, i.e., under 18 years of age, tends to be different across data sets. Comparisons of prevalence trends for those aged 12 to 17 from the National Household Survey on Drug Abuse to those for 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grades show lower rates for the National Household Survey. It has been suggested that lower reporting is a result of the methods of collecting the information. Up to 1999, the Household Survey was conducted, face-to-face within the respondents' homes whereas the Monitoring the Future study was conducted within a classroom using self-administered survey forms. One reason for introducing computer-assisted administration of surveys in the Household Survey was to improve the estimation of prevalence rates for those under 18. A comparison of the data from Monitoring the Future Study and the National Household on Drug Abuse for similar age groups however, shows that the differences between the two surveys remains for years 1999 and 2000 as it has for prior years. For this reason, the data from Monitoring the Future Study is presented as it is more precise for youth in the United States.

The 2000 prevalence of past month use of any illicit drugs for 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders was 11.9 percent, 22.5 per cent and 24.9 percent, respectively. There was no statistically significant change between 1999 and 2000. Past month prevalence of illicit drug use for 12<sup>th</sup> graders peaked in 1978 and 1979 at 38.9 per cent and then decreased to a low of 14.4 per cent in 1992. Subsequent to 1992, rates of use increased for all grades and recently began levelling off for 10<sup>th</sup> graders and began to decrease for 8<sup>th</sup> and 12<sup>th</sup> graders. Marijuana is the most prevalent drug used by all grades in 2000. However, the ranking of the prevalence for illicit drugs by grade differs after that. For the 8<sup>th</sup> grade, after marijuana the next most prevalent drugs are: inhalants (4.5 percent), amphetamines (3.4 percent), MDMA and tranquilizers (both 1.4 percent) and cocaine (1.2 percent). For the 10<sup>th</sup> grade, they are: amphetamines (5.4 percent), inhalants and MDMA (both 2.6 percent), tranquilizers (2.5 percent), hallucinogens (2.3 percent) and methamphetamines (2.0 percent). Finally, for the 12<sup>th</sup> grade: amphetamines (5 percent), MDMA (3.6 percent), barbiturates (3.0 percent), tranquilizers (2.6 percent), inhalants (2.2 percent), cocaine (2.1 percent) and methamphetamines (1.9 percent). Increases over 1999 rates were noted for MDMA for both 8<sup>th</sup> and 10<sup>th</sup> graders, and hallucinogens, mainly LSD, for 10<sup>th</sup> and 12<sup>th</sup> graders. For the first time, past year use of heroin by 12<sup>th</sup> graders increased significantly from 1.1 per cent in 1999 to 1.5 per cent in 2000.

### **Injecting Drug Use**

Information on use of needles for the administration of illicit drugs is available from both the National Household Survey on Drug Abuse and from Monitoring the Future Study. The most recent rates reported from the Household Survey are for the year 1998. For that year, it was estimated that 0.4 per cent of those aged 18 to 25 had injected drugs, while 0.1 per cent of those aged 26 to 34 and 35 and older reported injecting. Which drugs were used in this fashion are not available.

In the Monitoring the Future Study, students were asked about needle use only for heroin. This information is available only for 12<sup>th</sup> graders beginning in 1995. At that time 0.5 per cent of 12<sup>th</sup> graders reported they had injected heroin within the past year. This rate remained stable over time until 1998 when it began to decrease to 0.4 per cent for 1998 though 2000.

### **Problematic Drug Use**

For purposes of this report, problematic drug use is defined by having problems associated with the use of drugs. In the Household Survey, questions had been developed reflecting the Diagnostic Statistical Manual IIR and IV criteria for dependency. The most recent data available come from the 1997 survey. In that survey the number of dependent past year substance users was estimated using reports of three or more problem areas. There were an estimated 23 million dependent cigarette smokers, 3 million dependent marijuana users, 650 thousand dependent cocaine users and 10 million dependent alcohol users. Marijuana and alcohol users most often reported the problems of taking a “great deal of time getting or using drugs”, “getting over their effects” and “using drugs more often and in larger amounts than intended.” Those dependent on cigarettes most often reported “wanting or trying to quit or cut down but not being able to do so” and those dependent on cocaine reported psychological problems.

### **Treatment Admissions**

Data on treatment admissions come primarily from the Treatment Episode Data Set (TEDS). Primary, secondary and tertiary drug problems and route of administration as well as demographic characteristics, source of referral, number of prior treatment episodes and services type are reported from individual states into this system. The latest information that is available on treatment admissions is for the year 1998. In that year 1.5 million people were admitted to treatment. Ninety per cent of the admissions mentioned alcohol (47 percent), opiates (15 percent), cocaine (15 percent), and marijuana (13 percent). Forty-three per cent of those with an alcohol problem reported the use of other drugs. About 70 per cent of admissions are male, 60 per cent are white, and 45.7 per cent are 35 years old or older.

## **Drug Related Deaths**

The most recent information on drug deaths for the country is from the 1999 Drug Abuse Warning Network (DAWN) report. Although not a representative sample of medical examiners, the report is based on data from 139 medical examiners located in 40 metropolitan areas. Trend data are derived from a consistent panel made up of 134 of these medical examiners who have reported into the system for several years. In 1999 11, 651 deaths were reported to DAWN. Approximately 2.5 drugs were associated with these deaths (29,106 mentions of drugs). Sixty-two per cent of these deaths were directly induced by drugs and for 35 per cent of the deaths, drugs were considered contributory. Fifty-five per cent were accidental deaths, 16 per cent were suicides and 29 per cent could not be classified. Cocaine was the most frequently mentioned drug (4,864) followed closely by heroin/morphine (4,820) and alcohol-in-combination with other drugs (3,916). For accidental deaths, heroin and cocaine were mentioned in 51 per cent and 50 per cent of the deaths, respectively, followed by alcohol-in-combination, 34 percent. Alcohol-in-combination accounted for 34 per cent of the suicide deaths followed by cocaine, 24 percent. The most often paired drugs were cocaine with heroin/morphine (1,973), alcohol in combination with heroin/morphine (1,832) and alcohol in combination with cocaine (1,758). Over 73 per cent of the deaths were male, 72 per cent were aged 35 and older, 18 per cent were aged 26 to 34, 9 per cent were aged 18 to 25 and 1 per cent were aged 6 to 17. Whites accounted for 60 per cent while Blacks and Hispanics accounted for 26 per cent and 11 percent, respectively. Information from the consistent panel indicates that there was a 15 per cent increase in the number of drug deaths reported between 1998 and 1999. Increases were noted for codeine and marijuana, 13 percent; heroin/morphine, 11 per cent and cocaine, 6 percent. Within drug categories the largest increases in reported deaths occurred with meperidine HCL or Demerol (59 percent), oxycodone, e.g., Percodan (53 percent), diphenylhydantoin sodium or Dilantin (51 percent), fluoxetine or Prozac (38 percent), methamphetamines (38 percent) and phenobarbital (36 percent).

## **Emerging Trends in Drug Use**

Historically, emergent drug use patterns had been observed initially in law enforcement and emergency room data. Often these systems note trends, generally within the drug using population, one to two years prior to them being observed in the general population through household or school surveys. The Community Epidemiology Work Group (CEWG) was formed to integrate available data and information derived from ongoing reporting systems and research within a defined geographic area, mostly cities. The concept of emergent trends has several dimensions: new drugs of abuse, new ways to administer drugs, and new demographic groups using drugs. Since the CEWG began, several emergent patterns had been detected. New drugs that had been noted include methaqualone (Quaalude) in the late 1970s, crack cocaine in the early 1980s, Rohypnol in the early 1990s and most recently, GHB and Oxycotin. New methods to administer drugs that were first reported to the CEWG include blunts (i.e., filling cigars with marijuana) in the early 1990s, snorting heroin also in the early 1990s and injecting crack cocaine in the mid-1990s. Finally, new demographic groups getting involved with drugs to include the use of heroin among suburban youth, crack use among Hispanic populations and the use of methamphetamines in the central parts of the United States. In the most recent CEWG meeting (June 2001), there were a number of important observations. First, although cocaine and crack remain at high levels, use is continuing to decrease in all areas. On the other hand, heroin indicators continue to increase in 15 of the 21 CEWG cities, with evidence of more widespread use in the suburbs and rural areas. Prices of heroin are low and the availability of peak levels of purity is high. Pharmaceutically produced narcotic drugs such as oxycodone and hydrocodone are being used in place of heroin particularly by youth and young adults. The increased use of marijuana that was noted over the past few years seems to be stable although there are pockets where young marijuana users are getting into contact with the criminal justice system. Methamphetamine use remains high in several areas and seems to be spreading. Other drugs that were noted were MDMA, GHB, ketamine and PCP. Increases were reported in the use of MDMA in 13 of the CEWG areas and GHB and ketamine in 9 areas. The use of PCP has peaked and waned over the years and it appears that in some areas there is a resurgence of use. Finally, the use of several drugs or polydrug use is becoming the norm for all areas. Drug distributors sell multiple drugs. In one neighborhood, for example, heroin, crack and marijuana are being sold in

\$10 bags. One of the issues that the CEWG is tackling is how best to notify communities of emergent drug patterns. The National Institute on Drug Abuse prepares and distributes Community Alert Bulletins on emergent drug patterns. Part of the difficulty in addressing this issue is determining when an emergent drug pattern is truly emergent and if it will become problematic. Time, space and severity of drug effects are important dimensions of the emergent nature of a problem. The rapidity of spread and the degree of negative health impact are difficult to predict. The issue, however, remains one open to more discussion.

## **Conclusions**

Clearly, drug use in the United States remains a significant problem in the general population. The 'usual suspects' of marijuana, psychotherapeutics, cocaine and hallucinogens dominate the scene. However, there seems to be several new drugs that have become popular particularly among young people. These include MDMA, oxycontin and methamphetamines. Furthermore, polydrug use as noted on the Household Survey, among deaths and in the reporting systems reviewed by the CEWG is becoming more and more prevalent. Is this a result of the drug distribution system or fads, is an issue worth exploring. If the drug using population is using multiple drugs, what impact will this have on short- and long-term health outcomes? Also, without biological assays, will it be possible to detect what drugs people are using?

One major methodological change in data collection in the national systems that are in place mentioned above has been the move from pencil-and-paper to computer assisted interviews used in the National Household Survey on Drug Abuse. One of the reasons to use this new methodology was to improve reporting of drug use among those 12 to 17. Estimated prevalence rates derived for this age group from the 1999 and 2000 Household Survey remain lower than those derived from the Monitoring the Future Study for the same time periods. More methodological studies of reporting would help overcome barriers to reporting.

There is another interesting data set that is available from the National Institute on Drug Abuse: The Evaluation of the National Youth Anti-drug Media Campaign. The major component of the evaluation is a National Survey of Parents and Youth. The Campaign itself is an effort of the Office of National Drug Control Policy to "educate and enable America's youth to reject illegal drugs as well as alcohol and tobacco." The campaign ads and public service communications incorporate the findings from etiologic and epidemiologic studies and addresses the dangers of drugs, alcohol and tobacco; convincing occasional users to stop use, enhancing adult perceptions of youth use of marijuana and inhalants, and emphasizing the important role of parents and influential adults in preventing youth use of drugs. Interview data are available for a panel of 2,293 parents in 2,282 households among which dyadic interviews were completed for 2,228 households in which both parents and youth, aged 9 to 18 were completed. For additional information on this study, go to the following website: [http://165.112.78.61/DESPR/Westat/Eval\\_Natl\\_Youth\\_Antidrug.pdf](http://165.112.78.61/DESPR/Westat/Eval_Natl_Youth_Antidrug.pdf)

## **Relevant reports**

National Household Survey on Drug Abuse: Substance Abuse and Mental Health Services Administration: Summary of Findings from the 2000 National Household Survey on Drug Abuse. <http://www.health.org/govstudy/BKD405/chapter1.htm>.

National Household Survey on Drug Abuse: Main Findings reports for years 1975 through 1998.

Monitoring the Future Study: National Institute on Drug Abuse: National Survey Results in Drug Use from The Monitoring the Future Study, 1975-1997. Volume I. Secondary Students.

Monitoring the Future Study; 1998-2000: National Institute on Drug Abuse website: <http://www.drugabuse.gov>.

Drug Abuse Warning Network Annual Medical Examiner Data, 1999:  
[http://www.samhsa.gov/oas/DAWN/99me\\_annual.pdf](http://www.samhsa.gov/oas/DAWN/99me_annual.pdf).

National Admissions to Substance Abuse Treatment, Treatment Episode Data Set 1993-1998.  
<http://www.dasis.samhsa.gov/teds98>

Community Epidemiology Work Group: CEWG Advance Report, June 2001.  
[http://165.112.78.61/CEWG/Advanced\\_Rep/601ADV/601adv.html](http://165.112.78.61/CEWG/Advanced_Rep/601ADV/601adv.html).

Community Epidemiology Work Group: Sloboda, Z. and Kozel, N. J. Frontline Surveillance: The Community Epidemiology Work Group on Drug Abuse in Glantz, M.D. and Hartel, C.R. (Eds.) Drug Abuse Origins and Interventions, American Psychological Association, Washington, D.C., 1999.

## 6.5 Drug use in Canada

*Chris Archibald*

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### Introduction

Canada is the world's second-largest country with a population of 31 million. It is divided into 10 provinces and 3 territories, with each province and territory having jurisdiction over its own health system. The reporting of notifiable diseases is mandatory at the provincial/territorial level, but voluntary at the national level and Health Canada collates provincial/territorial surveillance data for general scientific and public dissemination.

### Methods

In Canada, drug use surveillance is conducted through national networks, registers and surveys, and quantitative and qualitative research. At the national level, there are a number of organizations that monitor drug use statistics: the Office of Canada's Drug Strategy, the Canadian Centre for Substance Abuse (CCSA), the Canadian Substance Abuse Information Network (CSAIN), the Canadian Community Epidemiology Network on Drug Use (CCENDU), and the Health Enforcement Partnership Network (HEP).

Each province has a registry of drug treatment facilities, but often the data do not include reason for admission (i.e. type of drug used). Morbidity and mortality statistics are reported by hospitals and overdose deaths and deaths due to illicit drugs are reported to the Office of the Chief Coroner.

Surveys have been conducted to assess the status of drug use in Canada. The last national survey was Canada's Alcohol and Other Drugs Survey in 1994, and the Canada Health Monitor Survey (injection drug use questions only) in 1997. Provincially, drug use is monitored more frequently, especially among youth. The province of Ontario's Student Drug Use Survey (OSDUS, ages 13-18) is conducted every 2 years, most recently 2001. The substance abuse survey among the province of Manitoba's high school students follows a similar pattern.

There is a wealth of epidemiological research into drug use in Canada, but it has mainly focused on injection drug use (IDU) and HIV transmission, with very little quantitative or qualitative work done on the other types of drug use.

### Results

Cannabis is the most commonly used illicit drug. National surveys and epidemiological research have shown that anywhere from 23 to 35% of Canadians, depending on province of residence, have ever used cannabis, with 7 to 11% having used in the past year. The next most common illicit drug used among the general population is cocaine, with 3.8% reporting lifetime use in the last national survey in 1994.

Among youth, cannabis remains the favoured illicit drug as well, with rates rising in the last decade. Among grade 10 students surveyed nationally, those reporting lifetime cannabis use rose from 25% in 1990 to 43% in 1998. The OSDUS and the Substance Abuse Survey Among Manitoba High School Students found 30-38% of students had used cannabis use in the past year.



According to these surveys, the next most popular illicit drugs among youth are hallucinogens and non-medical stimulants.

Little data are available on the number of injection drug users in the general population, but the most reliable estimates place the number at approximately 125,000 IDUs in Canada, with an estimated 10,000-15,000 in each of Canada's three largest cities (Toronto, Montreal and Vancouver). The most common drug injected according to epidemiological research from across the country is cocaine, followed by heroin, although Aboriginal populations in western Canada show a greater preference for a mixture of the prescription drugs pentazocine and methylphenidate. The smoking of crack cocaine is also becoming more popular among IDUs, especially in Vancouver.

With respect to information on drug dependence, a survey of Ontario adults in 2001 found that 0.5% of respondents showed evidence of cannabis dependence. Among Ontario students, 5.6% were unable to stop using drugs when they wanted to, and 1.3% had sought help for their drug use.

In 1995, 6,940 hospital admissions (0.2% of total) across Canada were directly attributable to illicit drug use. Data obtained from individual treatment centres is usually not separated by drug type, but approximately 50% of admissions are for alcohol abuse. Patients admitted to treatment centres are on average 35 years old and women make up approximately 34% of admissions. There are approximately 17,000 IDUs on methadone maintenance in Canada, and these numbers have increased dramatically in the last five years, due mainly to expanded availability of methadone.

In Canada in 1995, 805 deaths (0.4% of total) were directly attributable to illicit drug use. This comprises approximately 2.6 deaths per 100,000 population. In Vancouver, between 1993 and 1999, drug overdose deaths were reduced by almost 50%. In Toronto, heroin-related deaths have also reached decade-long lows, thanks in part to active needle exchange programs and expanded methadone maintenance treatment.

Designer drugs such as Ecstasy have emerged as popular drugs, mainly among youth. In Ontario, past-year Ecstasy use among students has increased from 0.6% in 1993 to 6% in 2001. Crack injection is also increasing among IDUs, notably in Vancouver. Aboriginal populations are over-represented among injecting drug users, especially in western Canada. Although Aboriginal persons comprise only 2.8% of the general population in Canada, they comprise anywhere from 11-75% of clientele at inner-city needle exchange sites. The IDU exposure category is more common among Aboriginal AIDS or HIV cases compared to non-Aboriginal cases (34% vs 6% and 60% vs 33%, respectively).

## **Conclusions**

Among IDUs in Canada, cocaine continues to be the drug of choice, which is a cause for concern due to the frequency of injection and the increased risk of HIV and Hepatitis C infection if injecting equipment is shared. Shifts to crack cocaine use, both smoked and injected, have also been noted. One positive note is that heroin-related deaths have decreased as the availability of methadone maintenance therapy has increased. However, the overall availability of methadone maintenance therapy remains inadequate as only approximately 15-25% of opiate users in Canada are currently on methadone.

There are concerns over the increase in drug use among youth. The increase in popularity of designer drugs such as Ecstasy, along with a growing tolerance of cannabis use, have caused youth drug use statistics to rise to their highest level since 1979. Drug use among Aboriginal populations is also a concern. Adequate prevention programs are needed to address these problems.

It is clear that while illicit drug use remains relatively infrequent in the general population, there are significant health and social problems caused by illicit drug use in Canada. There is a clear

need to strengthen national information collection to monitor trends in illicit drug use and to use the resulting information to guide and evaluate prevention and care programs and policies.

## **7 Global reporting mechanisms and HIV data collection**

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## **7.1 Measuring behaviour change among injecting drug users: methods and issues**

*Elizabeth Pisani*

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### **Background**

For years, the only information associated with HIV-related risk among injecting drug users in developing countries was HIV prevalence itself. In recent years, countries implementing HIV prevention programmes for IDUs have become more systematic in trying to measure the success of their prevention efforts. Since most programmes try to reduce the spread of HIV by reducing the sharing of needles and injecting equipment among IDUs, systematic ways of measuring this behaviour, as well as related risks, are being developed. While rapid assessments and ad-hoc surveys are common, the pressure to demonstrate the success of controversial harm-reduction techniques is intense. This means that reliable methods of comparing behaviour over time are needed. To demonstrate success, trend data are paramount.

The most common existing method of measuring trends over time is repeated cross-section surveys of behaviour in a sample that is as nearly as possible a random sample of the population of injectors in a location, city or country. This methodology, known as Behavioural Surveillance Surveys or BSS, is most developed in the Asian region. Since it was introduced in Bangladesh four years ago, it has spread to at least five countries in the region.

### **Methods**

BSS methodology often takes rapid assessment of the situation as a starting point, both for sample frame development and to ensure appropriate questionnaire design. Formative research is followed by mapping and the construction of a sample frame, from which respondents are selected at random. Trained interviewers, often drug users or ex drug users, ask those respondents a series of standardised, pre-coded questions. After analysis of levels of injecting and sexual risk and examination of trends over time if appropriate, the data ought to be packaged for different users. Survey results should be discussed with drug injecting communities and prevention programmes as well as with politicians, the law-enforcement community and others who may contribute to reducing the dangers associated with injecting drug use.

### **Lessons learned**

In the course of implementation, several lessons have been learned. Major lessons can be grouped into two areas: the need for clarity about who is included in the surveys, and the need for clarity about how to ask right questions and interpret the answers.

Whose behaviour are we measuring? This will depend partly on inclusion criteria and partly on sampling methods. These will, in turn, depend on the goals of national prevention efforts and the structure of the local drug scene. If harm reduction programmes aim to reduce demand for injected drugs among all drug users, and want to measure switching from injecting to other types of drug-taking, then BSS would have to include drug users other than injectors. Since virtually all prevention efforts aim to reduce needle sharing and injecting risk, there must be a high enough fraction of injectors in the sample to measure injecting risk. This means that the overall sample

size may have to be quite large, which can be logistically and financially difficult. Even if surveillance officials settle on a sample of IDUs alone, they need to decide who qualifies as an injector. Are occasional injectors to be included, or only “active” injectors, who are likely to have the highest risk of exposure to HIV? The answer to this question may to an extent be answered by the choice of sampling strategy. If the sample frame is derived from a physical mapping of sites where drug injectors buy drugs, administer them, and/or come for injecting related services such as needle exchange, then the sample will by definition consist of current injectors, and is likely to be overwhelmingly dominated by very regular injectors. If, on the other hand, a “systematic wave” sampling is adopted, with a pre-determined number of individuals (contacted at injecting related, treatment and other sites) each referring another defined number of individuals, who in turn each refer their own defined number of contacts, then the sample may tap into a wider cross-section of the injecting population. While in surveillance orthodoxy “probability” or random sampling methods are held to be most representative of a defined population, experience with IDU BSS is beginning to show that “systematic wave” sampling yields a sample more representative of the overall drug injecting population.

The other group of lessons learned concern what is being asked. Obvious as it may seem, it is necessary to be absolutely crystal clear in phrasing questions and arranging their sequence, if data are to be interpretable. An important example is the definition of “shared” equipment – probably the single most important item on a questionnaire when exploring HIV-related risk.

Simple questions such as “did you share injecting equipment last time you injected?” are rarely suitable because of the complex constructions of what constitutes “sharing” in different injecting settings. Many people would not consider an injection from a professional injector as sharing, even though the equipment is likely to be used serially on several clients with minimal cleaning. Equally, people view sharing differently according to whether they receive or pass on syringes, and the two carry different risks.

Consistency of safe behaviour is an issue, and the appropriate time frame over which to measure consistency is much debated. It is worth remembering that BSS is not social research but is a surveillance tool, designed principally to measure trends over time at the population level. Asking about the single act of last injection still gives the most robust data on trends in safe behaviour in all populations except those which report exceptionally high levels of safe injecting practices, and these have so far rarely been seen in developing countries.

HIV epidemics among drug users are not self-contained. Drug injectors may be exposed to HIV through sexual partnerships, and may also expose other non-injectors to the virus through sex. Investigating sexual risk is therefore important. As with all investigation of sexual risk, there should be a clear distinction between partner types, and information on condom use by partner type. If drug injectors sell sex or frequently buy it from sex workers and rarely use condoms, they may seed a widespread national epidemic in a way that injectors having casual sex with other injectors will not.

## **Conclusion**

Methodologies for the measurement of trends in risk behaviour among drug users are constantly improving. It has become clear that a great deal of attention must be paid to formative research in these populations before standardised quantitative methods of behavioural measurement can reliably be used.

## **7.2 Global Monitoring for HIV Prevention among Injecting Drug Users**

*Gundo Weiler & Chris Archibald*

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Traditionally, international HIV/AIDS surveillance has focused on monitoring the epidemiological course of the epidemic in and between countries, differentiated as to mode of HIV transmission and distribution across different population groups. At the same time, little effort has been undertaken to match the epidemiology of HIV with a systematic description of public health responses to counteract the spread of HIV.

Against the background of a still unfolding global epidemic, a systematic monitoring of public health responses to HIV appears to be critical for the following reasons:

- to assess the nature and status of HIV prevention strategies and service delivery;
- to relate public health responses to the epidemiology of HIV/AIDS in order determine their appropriateness and effectiveness;
- to provide technical information for planning and resources allocation at the local, national and international level, including target setting and progress assessment.

At this stage of the epidemic, the description and comparative analysis of public health responses to HIV/AIDS are of particular relevance. This is particularly true with regard to concentrated HIV epidemics among injecting drug users (IDUs) since they constitute the most dynamic epidemics and significantly fuel the spread of HIV in most of the world's regions. Despite the well established effectiveness of chosen public health interventions at the local level, countries are in need of data supporting the planning and implementation process at the national level, particularly with regard to the appropriate combination and coverage of services. To this end, the following health service areas appear to be of particular relevance:

- Treatment and care for IDUs: Substance dependence treatment (both abstinence-based and drug-substitution treatment), HIV-related and other treatment (both anti-retroviral treatment and primary health care);
- Sterile injecting equipment: Needle/syringe exchange programmes, pharmacy based programmes, needle/syringe availability in the general community, bleach programmes;
- Community based information, education and communication programmes: Voluntary testing and counselling (VCT), outreach programmes, condom promotion.

Information on the types of services provided, as well as an assessment of population and setting coverage of such services will need to be complemented by contextual and health indicators such as:

- Context of HIV among IDUs: Size of IDU population, types of drug injected, sharing and sexual behaviours, policy and legal framework, knowledge of HIV among IDUs;
- Health indicators: Prevalence and incidence of HIV/AIDS among IDUs, possibly also on hepatitis and drug related mortality.

A review of existing data collection efforts reveals a wealth of ongoing initiatives at the local, national and international level, lead by different organizations. Their particular emphasis and

complementary potential can be best described on a grid with technical and geographical dimensions:

	Health	Context	Services
Inter- National	WHO/UNAIDS estimates Regional Networks	Annual Reports	Biennial UNDCP Survey EMCDDA survey on coverage
National	National AIDS programmes	WHO/UNAIDS country reports	
Sub- National			
Local	UNAIDS/WHO 2 <sup>nd</sup> generation surveillance FHI Imp: CDC GAP Project RAR & other studies		

The resulting picture illustrates both the coverage of, and gaps in, existing data collection exercises. Accordingly, a number of major issues can be identified that will determine to what extent data collection can be integrated into a meaningful and comprehensive information system:

- How to complement missing information and harmonize data collection?
- How to link data generation and collection at different levels and across the various domains?
- How to make data accessible for evaluation, policy planning and advocacy?

Recognizing the critical need for monitoring HIV prevention efforts targeting IDUs, the *Global Research Network on HIV Prevention in Drug-Using Populations (GRN)* initiated steps towards the establishment of a global database in 1999. This process resulted in the presentation of a report on HIV-prevention efforts in more than 40 countries during the 3<sup>rd</sup> annual meeting of GRN in Durban, July 2000. Whilst the report clearly demonstrated the potential of such a data collection for policy planning and prioritization, it was still limited in its scale and lacked the necessary standardization that would allow for meaningful cross-countries comparisons and meta-analyses. Therefore, the GRN members called for the further harmonization of data collection efforts.

Subsequently, the WHO Department of HIV/AIDS and Health Canada prepared a discussion paper on the development of a core set of indicators on the above outlined areas, and possible mechanisms for data sharing, analysis and dissemination, which was presented during the 4<sup>th</sup> annual GRN meeting in Melbourne, Oct 2001. As a result of the presentation of this paper, it was decided to establish a smaller informal working group of interested organizations to further develop a global monitoring system on HIV prevention among injecting drug users.

For further information, please contact the authors.

## **7.3 Global reporting mechanisms – the ARQ and the BRQ**

*Paul Griffiths*

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Getting a comprehensive picture of the global patterns and trends in illicit drug consumption is not an easy task. However two reporting mechanisms do exist that are designed to assemble an overview of the world drug abuse situation. The Annual Reports Questionnaire (ARQ) and the Biennial Reports Questionnaire (BRQ) are ways in which Member States meet the obligations of the Drug Control Treaties and associated resolutions, by reporting on various aspects of the illicit drug problem to the Commission on Narcotic Drugs (CND). These instruments cover all issues related to drug control including epidemiological information.

### **Reporting Cycles and Content**

As their names indicate the ARQ is an annual reporting exercise, whilst Member states submit the BRQ to the Commission every other year. The ARQ is the longer established of the two mechanisms, having its basis in declarations designed to strengthen the Commissions work in support of the drug control Conventions. The information in the ARQ is also used as a basis for an annual report made to the Commission on the global drug situation. The BRQ was established as an additional reporting mechanism to facilitate the follow-up and review activities arising from the United Nations Special Session of the General Assembly Devoted to Countering the World Drug Problem Together (8-10 June 1998, UNGASS). In the Political Declaration and the Declaration on the Guiding Principles of Drug Demand Reduction, which were agreed at the UNGASS, targets are set for putting into place responses to the drug problems and for reducing the demand for illicit drugs. Whilst some of the information necessary for reviewing what progress has been made in respect to these targets is contained in the ARQ, this questionnaire did not cover all the relevant areas. Combining the data from the ARQ and the BRQ therefore provides a comprehensive instrument to monitor the progress made in meeting the challenges set at the UNGASS. Further information on these reporting mechanisms can be found at [www.undcp.org](http://www.undcp.org).

In the accompanying table an overview is provided of the contents and structure of the two instruments. The ARQ is divided into three parts, the first addressing legislative and administrative issues, the second collecting information on drug demand issues and the third information on supply side issues. The BRQ is divided into a number of parts, which reflect the detail of the Action Plan that accompanied the UNGASS. In simple terms, the ARQ tends to collect statistical information on the drug situation such as statistics on interdiction activities or statistics on drug prevalence, whilst the BRQ is more focused on monitoring responses to drug problems, such as the existence of coordinating bodies, information systems, legislative responses and treatment provision. As both questionnaires cover a considerable number of topics those wishing an exhaustive list of the content of the forms are directed to the questionnaires themselves, these can be found at the INTERNET address listed above.

### **Epidemiological aspects of the ARQ and BRQ**

In respect to drug epidemiological questions subsections of both questionnaires are relevant. In the BRQ, Part VIII addresses demand reduction issues. Whilst this section does not focus on the extent or nature of the drug abuse situation in does provide useful information for placing such information in context. Questions address the extent of epidemiological activity, what routine



indicators are collected, and what kinds of interventions are available for those with drug problems.

In January 2002, a revised ARQ (part II) was introduced, this part of the questionnaire focuses exclusively on patterns and trends in drug abuse. The revised ARQ (part II) was the result of a long consultation and review process that had been instigated to address some of the failings noted in the previous version of the form. In particular, the old ARQ (part II) did not reflect common or good practices, was not sufficiently versatile to be appropriate for countries with different levels of data collection capacity, did not cover all the core areas necessary for the routine reporting on the drug abuse situation and the form was poorly designed and difficult to fill in. These factors adversely affected both the response rate and the quality of the data collected. In arriving at the new format the technical working group took guidance from the Lisbon Consensus document – *drug information systems, principles, structures and indicators* (see Annex). This consensus statement outlines the core indicators that are appropriate for inclusion in a routine reporting system. For each indicator agreement was sought across the different epidemiological networks collecting data in this area so as to produce a form that reflected common practice. The core indicators found in the ARQ are therefore intended to form a simple global standard for the summary reporting of data on drug abuse patterns and trends.

One of the difficulties in designing a questionnaire like the ARQ is that it has to be appropriate for use in countries with differing levels of capacity to collect information on the drug situation. The format therefore has to be appropriate for both countries with very little data and those with sophisticated information systems. In the revised ARQ this problem is dealt with by allowing three distinct levels of data to be provided. These are: summary expert opinions, unstandardised or partial quantitative data, and standardised quantitative indicators. Summary expert opinions allow countries to provide a qualitative overview of the drug situation and identify rank order prevalence and trends. This allows a simple picture to be built up of the overall drug situation even when there is an absence of quantitative data. Although the ARQ is intended to encourage standardized reporting it is recognised that many countries simply are not able to provide data in this format. Therefore, the new form allows non-standard or partial quantitative estimates to be entered, for example, a country may have prevalence data for a major city but not the country or alternatively only information based on a sub-section of the age strata. The revised ARQ is therefore efficient in the sense that it allows countries to report any information they have available. It is hoped that over time more countries will be able to report using the core reporting categories which provide a simple format for summarizing data on general population prevalence, youth prevalence, injecting rates, HIV and HCV infection among drug injectors, and drug related mortality. In this way the ARQ also has a normative function as it encourages the adoption of agreed reporting standards.

## Annual Reports Questionnaire ARQ

**Part 1**  
Legislative and administrative measures

**Part 2**  
Drug abuse - Extent, patterns, and trends of drug abuse

**Part 3**  
Illicit supply of drugs - Extent, patterns, and trends in illicit drug cultivation, manufacture and trafficking

**Part 2 Extent, patterns and trends of drug abuse:**

**Types of data collected:**

- 1) Summary Expert Opinions (qualitative)
- 2) Non- standard or partial estimates
- 3) Core standard indicators

**Topics:** prevalence (population & youth), trends, injecting, drug related deaths, drug related HIV/HCV and treatment attendance.

## Biennial Reports Questionnaire BRQ

**Part I**  
Notes

**Part II**  
General

**Part III**  
Control of precursors

**Part IV**  
Measures to promote judicial cooperation

**Part V**  
Countering money-laundering

**Part VI**  
Action Plan on International Cooperation on the Eradication of Illicit Drug Crops and on Alternative Development

**Part VII**  
Action Plan against Illicit Manufacture, Trafficking and Abuse of ATS and Their Precursors

**Part VIII**  
Drug demand reduction

**Contents and structure of reporting mechanisms used to assess the global drug situation**

## **8 List of Participants**

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Ms. Barbro Andersson  
Research Associate  
The Swedish Council for Information  
On Alcohol and Other Drugs (CAN)  
BOX 70 412  
S-107 25  
Sweden  
Tel.: +46 8 412 46 11  
Fax: +46 8 10 46 41  
Email: [barbro.andersson@can.se](mailto:barbro.andersson@can.se)

Mr. Karl Dehne  
Coordinator  
UNAIDS Vienna Team  
Vienna International Centre  
Wagramer Strasse 5  
A-1400 Vienna  
Austria  
Tel.: (+43 1) 260 60 4662  
Fax: (+43 1) 213464564 or 26060 5865  
Email: [Karl-Lorenz.Dehne@unvienna.org](mailto:Karl-Lorenz.Dehne@unvienna.org)

Dr. Chris P. Archibald  
Chief  
Division of HIV/AIDS Epidemiology and  
Surveillance  
Bureau of HIV/AIDS, STD and TB  
Centre for Infectious Disease Prevention and  
Control  
Health Canada  
Room 0108B, Brooke Claxton Building  
Tunney's Pasture 0900B1  
Ottawa, Canada K1A 0L2  
Tel: (+613) 941-3155  
Fax: (+613) 946-8695  
E-mail: [chris\\_archibald@hc-sc.gc.ca](mailto:chris_archibald@hc-sc.gc.ca)

Dr. Ken-Garfield Douglas  
Project Director  
Drug Abuse Epidemiological Surveillance  
System  
CAREC  
16-18 Jamaica Boulevard, Federation Park  
P.O. Box 164, Port of Spain  
Trinidad  
Tel.: (+1 868) 622 2152/3618  
Fax: (+1 868) 622 1008  
Email: [douglake@carec.paho.org](mailto:douglake@carec.paho.org)

Mr. Ruud Bless  
Epidemiological adviser of the Pompidou  
Group  
Quinx Research  
In de Pldermolen 3  
1115 GR Duivendrecht  
The Netherlands  
Tel.: (+31 20) 6008760  
Fax: (+31 20) 6006521  
Email: [bless@quinx.nl](mailto:bless@quinx.nl)

Mr. Craig Fry  
Research Fellow  
Turning Point Alcohol & Drug Centre Inc.  
54 - 62 Gertrude Street  
FITZROY VIC 3065  
Australia  
Tel – (+61 3) 8413 8411  
Fax – (+61 3) 9416 3420  
Email - [craigf@turningpoint.org.au](mailto:craigf@turningpoint.org.au)

Mr. Aekajit Chaiyawong  
Policy and planning officer  
Office of the Narcotics Control Board  
Drug Demand Reduction Bureau  
Information Systems Development Division  
5 Din Daeng Road  
Phayathai  
Bangkok 10240  
Thailand  
Tel.: (+662) 2470901-20 ext. 235,335 or  
Mobile. 01 6926733  
Fax: (+662) 2459984  
Email. [aekajit@oncb.go.th](mailto:aekajit@oncb.go.th)

Dr. Richard Hartnoll  
Head of Epidemiology Department  
EMCDDA  
Rua Cruz de Santa Apolonia 23-25  
1149-045 Lisboa  
Portugal  
Tel.: (+35 1) 21 811 3000  
Fax: (+35 1) 21 813 7943  
Email: [Richard.Hartnoll@emcdda.org](mailto:Richard.Hartnoll@emcdda.org)

Mr. Le Duc Hien  
Department for Social Evils Prevention  
Ministry of Labor, Invalids and Social  
Affairs  
12 Ngo Quyen Hanoi  
Viet Nam  
Tel.: (+84 4) 824 6113  
Fax: (+84 4) 826 7099  
Email: [dsep@hn.vnn.vn](mailto:dsep@hn.vnn.vn) or  
[pctnxh@netnam.vn](mailto:pctnxh@netnam.vn)

Dr. Julia Hasbún  
Directora de Información e Investigaciones  
Consejo Nacional de Drogas  
Ave. Mexico, Edificio Gubernamental "C"  
Primera Planta  
Santo Domingo, Republica  
Dominicana  
Tel.: (+1 809) 221 4747 x 253  
Fax: (+1 809) 221 8019  
Email: [husbun@tricom.net](mailto:husbun@tricom.net)

Dr. Eugenia Koshkina  
Head of Department of Epidemiology  
Research Institute on Addictions  
Ministry of Health of the Russian Federation  
Malyi Mogiltsevsky Per., 3  
121921 Moscow  
Russia  
Tel.: (+70 ) 95 241 2511  
Fax: (+70) 95241 0981  
Email: [epid@umail.ru](mailto:epid@umail.ru)

Dr. Guillermina Natera  
Instituto Nacional de Psiquiatria  
Calzada Mexico Xochimilco 101  
Col. San Lorenzo Huipulco  
14370 Mexico, D.F.  
Mexico  
Tel.: (+55) 73-11-78  
Fax: (+55) 13 34 46  
Email: [naterar@imp.edu.mx](mailto:naterar@imp.edu.mx)

Dr. Isidore S. Obot  
Director  
Centre for Research and Information  
On Substance Abuse (CRISA)  
5A Rock Haven Street  
P.O Box 10331  
Jos, Nigeria  
Tel.: (+234) 73 610 298  
Fax: (+234) 73 456 469  
Email: [isobot@hisen.org](mailto:isobot@hisen.org)

Mr. Kamran Niaz  
Ataturk bulvari no. 197  
Kavaklidere, 06680  
Ankara  
Turkey  
Tel.: (+90 312) 466 1691  
Fax: (+90 312) 426 1372  
Email: [kamran.niaz@un.org.tr](mailto:kamran.niaz@un.org.tr)

Dr. Charles D.H. Parry  
Director: Alcohol & Drug Abuse Research  
Group  
Medical Research Council (Cape Town)  
P.O. Box 19070  
7505 Tygerberg  
South Africa  
Tel.: (+27) 21 938 0419  
Fax: (+27) 21 938 0342  
Email: [charles.parry@mrc.ac.za](mailto:charles.parry@mrc.ac.za)

Ms. Elizabeth Pisani  
Senior Technical Officer, Surveillance  
Family Health International/Asia Regional  
Office  
Program ASA  
Komplek Dit Jen PPM & PL  
JI Percetakan Negra 29  
Jakarta 10560  
Indonesia  
Tel.: (+62 21) 422 3463 or Mob: (62 811)  
873 384  
Fax: (+62 21) 422 3455  
Email: [episani@fhi.or.id](mailto:episani@fhi.or.id)

Dr. Zili Sloboda  
Senior Research Associate  
Center for Health and Social Policy  
University of Akron  
Akron, OH 44 325-1915  
USA  
Tel.: (+1 330) 972 8327  
Fax: (+1 330) 972 8675  
Email: [Zsloboda@aol.com](mailto:Zsloboda@aol.com)

Dr. Fayzal Sulliman  
Dr Idrice Goomany Centre for Prevention  
and Treatment of Alcoholism and Drug  
Addiction  
Sir Edgar Laurent Street  
Port-Louis  
Republic of Mauritius  
Tel.: (+230) 242 3016  
Fax: (+230) 242 6098  
Email: [goomany@bow.intnet.mu](mailto:goomany@bow.intnet.mu)

Mr. Matthew Warmer-Smith  
ODDCP Regional Office, South Africa  
P.O. Box 26088  
5<sup>th</sup> Floor MBA Building  
527 Church Street  
Arcadia, Pretoria  
South Africa  
Tel.: (+27 12) 341 8971/2  
Fax: (+27 12) 341 8969  
Email: [mwarner-smith@un.org.za](mailto:mwarner-smith@un.org.za)

Dr. Karin Schulze  
Suchtprävention und Koordination der  
Suchtkrankenhilfe  
Information & Dokumentation  
Friedrich Schmidt-Platz 3  
1082 Wien  
Tel.: (43 1) 4000 87311  
Fax: (43 1) 4000 7270  
Email: [karin.schulze@fsw.wien.at](mailto:karin.schulze@fsw.wien.at)  
Prof. Jallal Toufiq  
Hopital Universitaire ARRAZI  
Centre National de Prevention et de  
Recherche  
En Toxicomanies  
Rue Ibnou Rochd  
Sale  
11005 Maroc  
Morocco  
Tel.: (+212) 37 864936  
Fax: (+212) 37 863908  
Email: [jtoufiq@logisoft.net.ma](mailto:jtoufiq@logisoft.net.ma)

Dr.Gundo Aurel Weiler  
Targeted Interventions  
HIV/AIDS Prevention  
World Health Organization  
20 Av. Appia  
CH-1211 Geneva 27  
Phone: (41-22)7911226  
FAX: (41-22)791 4834  
Email: [weilerg@who.int](mailto:weilerg@who.int)

Mr. Konstantin Vyshinsky  
Department of Epidemiology  
Research Institute on Addictions  
Ministry of Health of the Russian Federation  
Malyi Mogiltsevsky Per., 3  
121921 Moscow  
Russia  
Tel.: (+70 ) 95 241 2511  
Fax: (+70) 95241 0981  
Email: [epid@umail.ru](mailto:epid@umail.ru)

### *Secretariat*

Christina Gynnå Oguz  
Chief  
Demand Reduction Section  
Technical Services Branch  
Division of Operations and Analysis  
UNDCP  
Vienna International Centre  
P.O. Box 500  
A-1400 Vienna  
Austria  
Tel.: (+43 1) 260 60 4133  
Fax: (+43 1) 260 60 5866  
Email: [christina.oguz@undcp.org](mailto:christina.oguz@undcp.org)

Rebecca McKetin  
Epidemiologist  
Demand Reduction Section  
Technical Services Branch  
Division of Operations and Analysis  
UNDCP  
Vienna International Centre  
P.O. Box 500  
A-1400 Vienna  
Austria  
Tel.: (+43 1) 260 60 4110  
Fax: (+43 1) 260 60 5866  
Email: [rebecca.mcketin@undcp.org](mailto:rebecca.mcketin@undcp.org)

Paul Griffiths  
Senior Epidemiologist  
Demand Reduction Section  
Technical Services Branch  
Division of Operations and Analysis  
UNDCP  
Vienna International Centre  
P.O. Box 500  
A-1400 Vienna  
Austria  
Tel.: (+43 1) 260 60 4434  
Fax: (+43 1) 260 60 5866  
Email: [paul.griffiths@undcp.org](mailto:paul.griffiths@undcp.org)

Riku Lehtovuori  
Associate Expert  
Demand Reduction Section  
Technical Services Branch  
Division of Operations and Analysis  
UNDCP  
Vienna International Centre  
P.O. Box 500  
A-1400 Vienna  
Austria  
Tel.: (+43 1) 260 60 4692  
Fax: (+43 1) 260 60 5866  
Email: [riku.lehtovuori@undcp.org](mailto:riku.lehtovuori@undcp.org)





## **9 Annex**

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