An overview of the general populations survey (GPS) key indicator

Summary

Prevalence and patterns of drug use among the general population, measured by probabilistic surveys of the adult and school population, is one of five EMCDDA key indicators that assess the drugs situation and allow monitoring of progress towards EU and Member State drug policy targets. Data from general and school population drug surveys provides basic information to help to understand patterns of use, risk perceptions, social and health correlates, and consequences of use of illicit drugs and other psychoactive substances.

To achieve their real value in policy terms, surveys should be repeated at regular intervals with a similar methodology in order to allow identification of changes in prevalence and patterns of use, with sample sizes large enough to allow analysis of main sub-groups of the population. Member States should aim to conduct a series of consistent nationally representative surveys of the adult, and school populations, with standard age groups. At a minimum, data should be reported on period prevalence (lifetime, last year and last month) of different drugs. Surveys of good quality and sufficient sample size can give rich information on patterns of use in different subgroups, but may underestimate drug use in certain hidden and/or vulnerable populations, and complementary methods will be necessary (targeted surveys, indirect methods).

For surveys conducted among the adult population in households, the EMCDDA Handbook for surveys among the general population reviews and discusses key methodological issues regarding drug population surveys and provides guidelines for reporting of information to the EMCDDA. The Handbook provides a list of core items, called the European model questionnaire (EMQ), for inclusion in questionnaires of national surveys, or for reporting equivalent data from existing surveys. The EMQ can be used to collect data on the period prevalence of a range of drugs, as well as information on age of first use and frequency of use.

Methods for representative school surveys may be found in internationally coordinated school survey projects, and several national projects in Europe and the United States. School surveys typically collect data in classrooms through anonymous questionnaires on the use of alcohol and a range of drugs. In school populations, the target age of students surveyed can substantially influence the results.
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Introduction to the GPS key indicator

The aim of this key indicator (KI) is to provide valid, reliable and comparable information on the extent, the distribution and the patterns of drug use in the general population (adults, young people, and school children), the characteristics of drug users and their perceptions. This key indicator provides data on several domains:

- prevalence and distribution of the consumption of different drugs in the general population, and in relevant subgroups of the population (e.g. young people, urban areas);
- socio-demographic characteristics and patterns of drug use among those using drugs at present or in the past, including initiation and cessation of use, intensity of use, and others;
- correlates of drug use such as lifestyles, other health factors, health status, mental health, social function;
- the attitudes and perceptions of different population groups with respect to drug use, (perception of risks or availability);
- and importantly, changes over time and across countries in these parameters.
Changes in drug use are likely to be a result of a complex interaction of factors such as national and international drug policy, evidence-based interventions, production, availability and access to drugs, economic factors (disposable income), risk perceptions, social networks, and broader social phenomena such as fashions and lifestyles, and the role that certain drugs may play in them.

The guidelines for the key indicators were adopted by the EMCDDA Scientific Committee (December 2000) and Management Board (September 2001), with the nature of non-binding recommendations, according to the Centre's regulation. A Council Resolution of December 2001 urged Member States to support the five key indicators.

**Purpose of the key indicator**

**European level**

At European level, the EU drugs strategy (2005–12) calls for ‘A better understanding of the drugs problem and the development of an optimal response to it through a measurable and sustainable improvement in the knowledge base and knowledge infrastructure’. This is to be achieved through the provision of reliable and comparable information by Member States on five key epidemiological indicators that taken together and analysed with other sources of information, will help to understand the social harm and health damage caused by the use of and trade in illicit drugs. The EU action plan on drugs (2009–12) urges the Member States and the EMCDDA to further improve and fully implement the five key epidemiological indicators.

**National and regional levels**

At national and regional levels, quality information on changes of prevalence, distribution and patterns of drug use provide a solid basis for understanding and assessing the drugs situation, identifying priorities, and planning and evaluating responses and policies. Most Member State national drug strategies include requirements for monitoring the national drugs situation and accurate data on drug prevalence allows monitoring of progress towards targets.

In addition, if national surveys produce reliable and valid information, they will also allow an informed comparative analysis on the prevalence and patterns of use in different countries, providing broader perspectives for policy responses in different social and cultural contexts. High-quality prevalence data generated at national level also fulfils EMCDDA reporting requirements for harmonised and comparable data.
Methodology

EMCDDA monitoring standards

The EMCDDA monitoring standards require the collection, at national level, of information on prevalence and patterns of drug use in the general population (adults, including youth, and schoolchildren). Information should be self-reported and collected through probabilistic and representative surveys of the population. These surveys should be conducted on a regular basis with a consistent methodology to allow identification of trends.

The EMCDDA has published several reports describing the development of the key indicator and methodological issues, compiled in a Handbook (Handbook for surveys among the general population) (EMCDDA, 2002a). This Handbook focuses on household surveys to be conducted among adult population aged 15 to 64 years. The core component of the guidelines included in the Handbook consist of a list of common items, called the European Model Questionnaire (EMQ). These core items should be included in questionnaires of national surveys, or used for extracting and reporting equivalent data from existing surveys. National questionnaires can be limited to the items in the EMQ (operationalised into practical questions), although usually they include additional items and questions.

The information is reported annually by Member States to the EMCDDA through harmonised data collection forms. At present, the survey information is delivered through an online interface. Only a very limited amount of the information defined by the EMQ is actually collected through the EMCDDA harmonised reporting form, but it is hoped that information reported by Member States will continue to improve progressively and allow cooperative ad-hoc analysis. In the case of school surveys, in addition to data from national surveys, data from international projects (e.g. ESPAD and HBSC) are submitted to the EMCDDA by survey coordinators.

The main factors to help obtain a high level of implementation of the indicator include:

- repetition of the surveys at regular intervals using a consistent design (mode and questionnaire). Although there is not a formal requirement in the guidelines adopted, surveys should be repeated at least every four years, otherwise the information will be outdated and of limited policy value. As a desirable goal, surveys should be repeated every two years, as is already achieved in some countries;
- use of a probabilistic sample with consistent coverage of the population;
- use of a sample of sufficient size to allow analysis of the main sub-groups of interest for policy formulation and evaluation.
Methodological approach and information domains covered

As with other forms of research on illegal drugs, data protection and sharing protocols should be robust and strictly adhered to. The survey respondent should be assured that their responses remain confidential, and interviewers and facilitators should be objective and non-judgmental in their approach. This should also be reflected in the wording of paper and computerised data collection instruments. This is not just ethical but will increase the accuracy of answers provided. When reporting, participants should not be identifiable through personal data or the types of behaviours reported.

The EMCDDA Handbook focuses on representative household surveys amongst the general population of 15–64 year olds and presents a set of common core survey items (EMQ) and methodological guidelines.

The EMQ specifies core items for national surveys, which includes use in the previous month (previous 30 days), in the previous year (previous 12 months), and lifetime experience of a selected number of substances (cannabis; ecstasy; amphetamines; cocaine; heroin and LSD). This is considered a minimum set, but other drugs (or further breakdowns of a substance, e.g. into herbal cannabis or resin, or powder cocaine and crack) can be included according to national needs. For each drug, two basic items (age of first use, and frequency of use in the last 30 days) are included to investigate patterns of use, which can give valuable insight into incidence and intensity of use and their correlates. General questions on alcohol, tobacco, and prescription medicines are included in the EMQ to help understand illegal drug use in the context of polysubstance use.

The EMQ also includes questions about attitudes about drug use and perception of risks, and finally it includes also items assessing basic socio-demographic characteristics of respondents.

The key indicator may have further developments in order to fulfil important information needs, for all, or some, Member States and at European level. In principle, it is assumed that these modules will be applied on a voluntary basis, based on national expert consensus. An example of developments is the module to assess perceived drug availability. More recently, several countries in coordination with the EMCDDA are working actively in the development of brief scales to assess more intensive forms (dependence and abuse/harmful use) of drug use among the general population, in particular regarding cannabis.

In addition to the set of common core items of the indicator, the Handbook also reviews and discusses key methodological issues regarding drug population surveys. Implications and advantages of different procedures are discussed. There are different methodological options (e.g. sampling methods) of obtaining valid and reliable prevalence data, although further harmonisation and validation of methods will improve quality comparability across Member States. National experts can refer to these recommendations when deciding upon an appropriate methodology for their particular Member State.
Assessing drug use in schoolchildren is important as behaviours in this period of development can have long-term effects, including educational and employment outcomes. Early initiation of drug use may be associated with later problematic drug use, and social and family problems. Therefore, reporting data on prevalence and patterns of drug use among schoolchildren are considered part of the key indicator.

Drug use among children is assessed by representative school surveys, which should proceed to the same high standard as adult surveys and use robust, repeatable methodologies. Usually school surveys collect data in classrooms through written anonymous questionnaires on the use of alcohol and a range of drugs as well as on age of first use and frequency of use. The quality and comparability of school surveys within each country and between countries, require that data should be based particularly on standardised age groups, in addition to standardised questionnaires, sampling, data-collection methods in schools, anonymity and the time of year that data collection takes place.

The EMCDDA Handbook does not elaborate on the methodology of representative school surveys as there are other examples and projects dealing with this methodology, for example, international projects such as the European school survey project on alcohol and other drugs (ESPAD; www.espad.org), the Health behaviour in school aged children (HBSC; www.hbsc.org), and other national projects, in Europe (e.g. England’s Young people, drinking, smoking and drug use survey and the United States (Monitoring the future; www.monitoringthefuture.org).

**Strengths and limitations of general population surveys**

Population surveys of drug use in the general population allows direct measurement of drug use and patterns of use such as frequency of use for each individual under study. Also, in each individual respondent, factors related to use, both potential determinants and eventual consequences of use (health or social) can be measured directly. Other behavioural aspects can be measured simultaneously, such as use of other substances, lifestyles, health situation, along with opinions, attitudes and risk perceptions of persons interviewed. Essentially, representative surveys provide direct population estimations of drug use and other parameters. A number of factors may be investigated retrospectively, taking into account limitations that concealment and memory biases have on recall of past events. However, self report is generally considered a reasonably accurate way to measure drug use and there is usually a clear correlation between self reported drug use and forensically validated use if the survey is carried out in a sensitive and professional manner, ensuring privacy and anonymity. In addition, it is likely that any biases will remain constant over time if surveys are conducted in the same manner, so that trend data will be reliable even if the absolute levels may be slightly biased.

Users of drugs such as heroin or crack cocaine, or injectors, may comprise ‘hidden populations’ (e.g. individuals with no fixed address) and may consequently be excluded from some sampling frames. Other complementary methodologies should therefore be considered for obtaining estimates of prevalence and
patterns of use for these groups, such as indirect statistical estimation methods, prevalence surveys in targeted samples, or ethnographic methods.

Population surveys are usually cross sectional studies, collecting data at one point in time, and therefore they do not allow strict causal inference to be derived (e.g. social deprivation causes drug use). To obtain data on such relationships longitudinal surveys may be considered, although these require greater resources than cross sectional surveys.

Although some surveys include very detailed questions to users, usually there are limitations on the number of questions that can be asked in a general survey (amounts used, details on polydrug use, risk assessment and management, etc). Targeted surveys among selected groups with high prevalence of use (e.g. in music clubs), using specific sampling and data collection methods, can provide detailed information from users, valuable for the development and evaluation of specific interventions.

**Reporting of results from a prevalence survey**

At a minimum, reports presenting the survey results should provide information on period prevalence of different drugs and this data should be stratified by age and gender as both of these are important determinants of levels of use. In addition stratification of results for other key variables should be considered (urbanisation, educational level, socioeconomic strata, lifestyles). Users of several substances should be analysed (e.g. in the last year or last month), with attention also paid to use of alcohol and psychoactive medicines. Analysis of patterns of use (frequency of use, discontinuation) and incidence of use (age of first use) will have clear policy value. Accompanying text should clearly indicate the direction of any change in use of all illicit drugs and then for specific substances, which sub population(s) this may apply to, and whether the change is statistically significant. The standard tables developed by the EMCDDA provide a harmonised format for presenting the basic results of adult population surveys.

Methodological reports should also be prepared to allow independent assessment of the robustness of the work. Detailed information should be given, in particular, on the sampling frame and sampling procedures, methods of data collection, on procedures of field work (including whether replacements were made), response rate and assessment of non-response (including characteristics of non respondents), data manipulation including imputation and missing values, and analytical techniques used.

Inclusion of additional items in the survey allows more advanced analysis and reporting on topics such as investigation of drug using careers (e.g. progression from experimental to problematic drug use) or social determinants of use. Research projects embedded into national surveys should be encouraged, although increasing survey length will increase costs and may reduce completion rates.
Key references


European Monitoring Centre for Drugs and Drug Addiction, Handbook for surveys on drug use among the general population, EMCDDA project CT.99.EP.08 B, Lisbon, EMCDDA, August 2002a.

European Monitoring Centre for Drugs and Drug Addiction, ‘Technical implementation and update of the European Union databank on national population surveys on drug use and carrying out a joint analysis of data collected’, EMCDDA project CT.00.EP.14, Lisbon, EMCDDA, December 2002b.

