

Prevalence and patterns of drug use among the general population – estimated through population surveys

Methods and definitions

Drug use in the general population is estimated through population surveys, based on representative probabilistic samples of the whole population under study.

This methodology allows to measure directly drug use, patterns of use, and related factors (both potential determinants and consequences of use of drugs) for each individual under study. As in cross-sectional studies, some factors can be investigated retrospectively (e.g. age and circumstances of initiation to drug use, and eventually to quit of drug use, etc), although with the limitations that self-report and memory biases have on recall of past events.

When necessary, precision of estimates can be improved by increasing sample sizes, for instance when policy evaluation requires reliable estimations broken down by gender, age groups or regions, or when it is necessary to increase the reliability of estimates for substances with low prevalence. On the other hand, it should be considered the limitations of surveys in estimating the more marginalised forms of drug use (e.g. heroin injection) due to not probabilistic errors (exclusion from the sampling frame, absence, non-response).

Certain sampling strategies may help to improve reliability of estimations among groups of particular interest; for instance oversampling of young people, ethnic minorities, or inner city areas.

Surveys provide estimates of the proportion of the population who have used different drugs during certain periods of time. For illegal drugs, the more usual measures are:

- any use during the person's life (lifetime prevalence), often called 'lifetime experience' with drugs,
- any use during the previous year (last-12-months prevalence), often called 'recent use' of drugs; and
- any use during the previous month (last-30-days prevalence), often called 'current use' of drugs.

'Lifetime experience' always produces higher figures than recent or current use. It is useful as a framework concept and measurement, and for filtering further questions to the interviewee. Lifetime experience alone may not capture well the current drug situation, as it includes all those who have ever tried drugs, but it gives a first rough estimation of the extent of drug experience in the population, in particular for those drugs of lower prevalence. Also Lifetime experience is a prerequisite for estimating drug incidence (year of first use among ever users), and its analysis by age group or birth cohort can give insight into the generational dynamics of drug use. Combination of lifetime experience and recent use will allow the computing of continuation and discontinuation rates (and possible related factors) among those who have used drugs.

'Recent use' produces lower figures, but reflects better the current situation, although does not necessarily indicate regular use. The combination of lifetime experience and recent use can give basic information on drug use patterns (e.g. continuation rates).

'Current use' would give some indication of more regular use (in some publications last 30 days use is also considered as an approximation to 'regular use'), but the figures are generally low when the whole adult population is considered (15–64 years olds both males and females), except for cannabis.

However estimates of 'recent' or 'current' use could be substantially higher if analysis is focused on young people (15-24 or 15-34 years olds) particularly among males. Prevalence rates could be even higher if estimates can be established for urban areas. These estimates could be particularly useful for formulation and evaluation of specific policy targets, and highlight the need for sample sizes allowing this stratification.

Many countries collect information on 'age of first use' of drugs, which allows analysis of incidence, again with significant research and policy implications. Also intensity of use can be assessed, which allows higher risk groups to be identified. Age of first use and frequency of use are included in the EMCDDA guidelines (European Model Questionnaire – EMQ).

Intensity of use can be estimated through frequency scales – for instance, the number of days of use in a given period of time (last 12 months or last 30 days). In the EMQ, measuring the number of days of use in the last 30 days assesses the intensity of use.

The concept of 'intensive drug use' has often been used, although with different scales of what 'intensive use' means. Many experts use this term as equivalent of 'daily drug use' or 'daily or almost daily use' (use 20 times or more in the last 30 days), at least in the case of cannabis. In the Selected issue on Cannabis of the EMCDDA [2004 Annual report](#), the use of 20 times or more in the last 30 days has been adopted to make operative survey measurement of 'intensive cannabis use'.

The age ranges used to report results can influence the results of prevalence estimates. In adolescents or school surveys, even small divergences will influence estimates (e.g. 15–16 versus 16–17). Among adults, influence will be more limited when groups are relatively similar (e.g. 15–34 versus 15–39). Any comparative analysis should take carefully into account the age ranges used and their potential influence. The EMCDDA recommends the range 15–64 years for the whole adult population and 15–34 years for young adults. If wider age groups are used (e.g. 12–75 years) prevalence estimates will tend to be lower because illegal drug use is quite low at higher ages. If narrower groups are used (e.g. 18–49) estimates will tend to be higher because drug use concentrates among young adults.

Information provided by surveys is particularly useful when they are repeated at regular intervals, using the same questionnaires and methodology (a survey series), which allow tracking of trends over time that cannot be identified by a single survey or two consecutive surveys without further continuation. This requires a long-term commitment from public institutions and research institutions.

Most Member States have conducted representative national surveys during recent years, although in some cases sample sizes are too small or the compatibility with the EMQ limited. On the other hand, several countries have recently conducted their first national surveys, in all cases with full or very high compatibility with the EMQ.

Austria is organising its first national drug survey, Belgium has conducted community level surveys with small samples (and a few drug questions have been included in a general health survey), and Luxembourg has conducted small studies.

Of the new Member States or candidate countries, five have conducted a national population survey, whereas the other eight have not conducted such surveys, or have not reported results.

Several countries have established series of national surveys or are starting them (Germany, Greece, Spain, France, Netherlands, Sweden, the United Kingdom and Norway). Finland has several consecutive surveys with relatively comparable methodology. However, only a few countries have consolidated series, with enough sample sizes, and in general only for a limited number of years.

There are differences across countries in survey context, data collection methods and sampling procedures. Response rates can also influence results, if non-response is correlated with use of drugs and non-response research should be encouraged. In addition to methodological questions, several factors can contribute to differences in overall national figures. Relative proportion of urban and rural population in each country may explain in part some overall national figures. Also national figures may be explained in part by generational factors, including the different rates of convergence between the lifestyles of young males and females. Social context can influence also self-reporting of drug use. Comparative analysis across countries should be made with caution, in particular where differences are small (see [Survey Handbook](#) pages 97-101), and formulation and evaluation of drugs policy should take carefully into consideration concrete age groups, birth cohorts, gender and urbanisation, among other criteria.

The EMCDDA has developed guidelines to improve comparability of population surveys in the EU. These guidelines include a set of common core items ('European model questionnaire – EMQ') and basic methodological recommendations. The set of items can be used to report data from existing surveys, or can be inserted into broader questionnaires. The set includes basic prevalence measures and use patterns of certain illegal and legal substances, basic socio-demographic characteristics and opinion and risk perception questions. The questions about drug policies are considered optional. The guidelines have been compiled in an [EMCDDA Handbook](#).

The EMCDDA has also developed a EU Databank on population surveys on drugs. This databank collates, on a voluntary basis, databases from existing national surveys already analysed and exploited at national level, in order to obtain an added value by further methodological and content understanding of drug patterns. The databases have been harmonised following the European Model Questionnaire (ex-post harmonisation). (More information on this project is available on the [EMCDDA website](#)).