Drugs in focus

Measuring prevalence and incidence of drug use

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Indicators for drug-prevention policy in the EU

Reducing the prevalence of drug use through prevention is a key feature of many policies at local, national and international levels. The first target of the European Union drugs strategy (2000–04) is to reduce significantly over five years the prevalence of drug use, as well as the recruitment of new users — especially among those aged under 18.

The EU action plan on drugs, which translates this strategy into practical steps, identifies priorities in achieving this target. These include: comprehensive prevention programmes for both licit and illicit drugs, notably through schools and assistance to parents; wider action on social exclusion and delinquency; positive alternatives to drugs for young people; and innovative approaches to preventing use of synthetic drugs.

The action plan also calls on the EMCDDA to help measure progress in meeting targets and objectives. For this first target, the agency is using indicators of drug-use prevalence — a set of standards allowing countries to measure the phenomenon in a comparable way. This is part of a package of five harmonised epidemiological indicators developed

by the EMCDDA and now being implemented by the EU Member States.

This policy briefing aims to elucidate two interrelated questions on the use of epidemiological indicators to monitor drug-use prevalence:

- What are the best indicators to measure and monitor progress towards the first EU target of reducing drug-use prevalence?

- What can such indicators tell us that is relevant to policy — in particular to the prevention activities mentioned in the EU action plan?

The EU drugs strategy and action plan, and how the EMCDDA can help monitor the objectives they set out, are detailed in *Making the most of the EMCDDA*, a background briefing paper targeted at policy-makers working in the drugs field [1].

Definitions:

Prevalence **is a measure of how many drug users there are in a country or community and how they are distributed across the population. This measure is useful in assessing whether existing responses match the scale of the problem and whether they are directed at the relevant sections of the population.**

Incidence **is a measure of the rate at which people use drugs for the first time. It is useful for targeting prevention activities and monitoring recruitment of new users, as required by the EU drugs strategy and action plan. Information on circumstances associated with incidence, and changes in it, are particularly relevant to prevention work.**

Key policy issues at a glance

1. **What is the most useful indicator for monitoring the prevalence of drug use in the general population?**

2. **What is the value of using school surveys to monitor drug use among young people?**

3. **Is 'under 18' an appropriate cut-off point for monitoring prevalence and recruitment of new users among young people?**

4. **Can prevalence indicators tell us how many people who try drugs continue to use them?**

5. **Are some people at a higher risk of continued, or more intensive, drug use than others?**

6. **How do such questions relate to drug-prevention policy?**

'Information and its evaluation lie at the core of an effective EU drugs strategy. Indicators of prevalence and incidence of drug use are vital if policy-makers are to frame action that will really make a difference, especially in protecting our vulnerable young people against drug-related harms.'

MIKE TRACE, CHAIRMAN,
EMCDDA MANAGEMENT BOARD
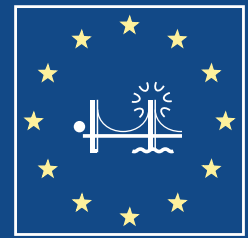
Indicators of prevalence and incidence — overview

1. Current use, the best indicator

Lifetime prevalence is a cumulative indicator of the total number of people who have ever tried drugs, including many in the distant past. By definition, such use cannot be reversed. This means that lifetime prevalence in the general population cannot fall quickly, no matter how many people stop using drugs or are prevented from starting. So any sharp fall is likely to be due to methodological factors — such as changes in social attitudes or different survey questions — rather than a fall in prevalence.

Rather than decline, lifetime prevalence tends to rise year on year, regardless of trends in current use. Older people, who were young before the growth in drug use over the last 30 years, pass the upper age limit of the defined population, say 15–64, and are replaced by younger generations with higher rates of use.

Therefore, while valuable for other purposes, lifetime prevalence should not be used to monitor the target of reducing drug-use prevalence in the general population. A more appropriate indicator is one that more closely reflects current levels of use — for example, in the last year or month.

Population surveys suggest that roughly 50 million people in the EU have tried an illicit drug at some point in their lives. This is equivalent to a lifetime prevalence of about 20 % of the EU population aged 15–64 — one in five of us. However, only about 7 % have used an illicit drug in the past year, and even fewer, perhaps 4 % or about 10 million people, are current users (in the last month) [2] (see Figure 1).

2. School surveys, a valuable indicator

School surveys are commonly used for a specific picture of drug use and related factors among children [3]. A typical survey might conclude that 25 % of schoolchildren aged 15–16 had tried illegal drugs. At first glance, this is not so different from the population as a whole. But, at this age, drugs are more likely to have been experienced recently.

Furthermore, surveys covering a wider age range usually show minimal levels of drug experience at around age 11 or 12, which can rise to over 40 % by 18. This means that monitoring adolescent drug use is very sensitive to age: over a 12-month period up to around 10 % may use drugs, mainly cannabis, for the first time. In this group, lifetime prevalence *can* be a useful measure, since the age gradient reflects the rate at which drug experience increases during adolescence (see Figure 2). But, even here, current prevalence is still lower than lifetime experience, and only a minority report regular or frequent use.

A further caveat is that, after 15 or 16, a diminishing proportion of students are covered by school surveys. This makes it harder to measure reliably what happens during the period of transition from adolescence to adulthood.
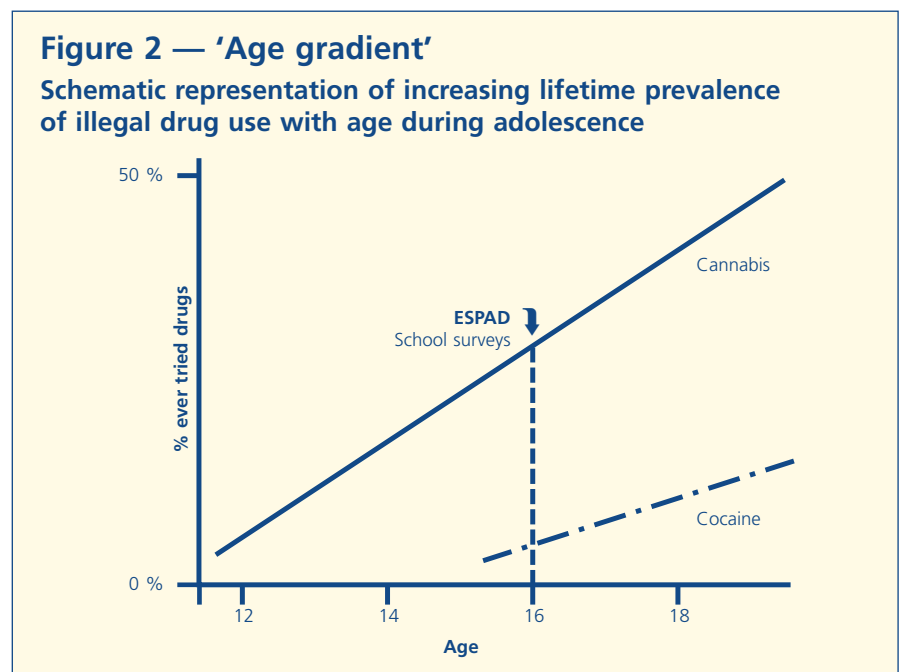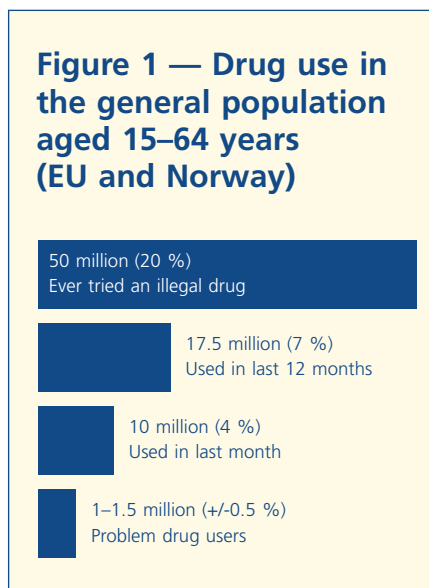
3. Young people need to be surveyed beyond 18

As noted above, school surveys show rapid rises in drug experience during adolescence. They may also indicate an average age of 15 — or younger — at which schoolchildren first use drugs. This appears to confirm the youthfulness of drug users and suggests that the priority should be to reduce prevalence and incidence in the under-18s.

But appearances can be misleading. By limiting the age range, school surveys by definition exclude any drug use or initiation outside this range. Inevitably, this gives an artificially low age for when recruitment of new users typically occurs. Surveys of the wider population show that the average age of first use, even of cannabis, is usually around 18, and that the highest prevalence rates are often *after* young people leave school — for example, among 20 to 24-year-olds. This is especially true of drugs other than

Figure 1 — Drug use in the general population aged 15–64 years (EU and Norway)

50 million (20 %)
Ever tried an illegal drug

17.5 million (7 %)
Used in last 12 months

10 million (4 %)
Used in last month

1–1.5 million (+/-0.5 %)
Problem drug users

Figure 2 — 'Age gradient'
Schematic representation of increasing lifetime prevalence of illegal drug use with age during adolescence

cannabis — for example, ecstasy, cocaine or heroin.

This suggests that, however useful school surveys may be, the under-18 cut-off point is too low for monitoring trends in prevalence and incidence of drug use among young people in the EU. A cut-off point of under 25 would be more appropriate.

4. Monitoring the minority who persist with drugs later in life

High levels of drug use in young people prompt the question: how far is this a passing phase, and to what extent do people continue to use drugs or not? This is answered best by monitoring groups of young people over several years, but a very rough indication can be obtained by comparing current use of different drugs in a population with the total who have ever used them in their lifetime (i.e. the continuation rate).

All drug-use surveys find current levels of use much lower than those of lifetime experience. Some studies [4] suggest the highest continuation rates are for cigarettes — over half who ever smoke continue — and especially alcohol where the figure is over three-quarters. Continuation rates for illegal drugs are considerably lower — for example, 20 % or less.

This means that most of those who use illegal drugs are either experimenting or doing it for a limited period when young. They discontinue for various reasons linked to 'growing up' — a regular job, marriage, children, financial responsibilities, etc. However, if their social circumstances remain conducive to drug use, and with ready availability, use may be prolonged. But the proportion that persists in regular or intensive drug use is relatively small. The prevalence of severe, problem drug use is not easily measured by surveys, so special estimation techniques are needed [5].

5. Do some people face higher risk with drugs?

Many studies [6] have sought to discover if some people are at higher risk of continued or more intensive drug use than others. Unsurprisingly, the picture is complex and not entirely consistent. However, the indications are that much experimental and intermittent drug use in young people is linked closely to curiosity,

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Table: Risk factors for problem drug use — different from those for drug use per se

Risk factors associated with drug use

- Age — increasing use until mid-20s, then decreasing
- Gender — usually higher in males, though not always much difference
- Outgoing lifestyles — bars, discos, parties
- Precocity — younger-than-average initiation into 'adult' behaviour in general: sex, smoking, drinking and drugs
- Higher disposable income (in some studies, unemployment is also a risk factor)
- Urban settings — higher for illegal drugs but not for alcohol, tobacco, medicines, solvents; less so for cannabis in countries with longer histories of use
- High-prevalence areas and drug availability
- Positive images of drug use among peers
- Alcohol or tobacco use
- Parental substance use

Risk factors associated with problem drug use

- Individual characteristics — including genetic, metabolic and personality
- Disrupted/dysfunctional upbringing/family
- Low socioeconomic status/social marginalisation/unemployment
- Other social and psychological problems — early school difficulties, low self-esteem, depression
- Early age of first use — especially in conjunction with other school problems
- Repeated exposure to drug availability — especially in vulnerable groups with other risk factors
- Lack of clear and relevant information on health risks

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peer-group behaviour and lifestyles, as well as availability and opportunity (see table). Drug use could be seen as part of 'normal' growing-up — and, like other youthful behaviour, mostly attenuating or disappearing over time.

More intensive problem drug use tends to be associated with individual or family difficulties and adverse social and economic circumstances. These are similar to factors often found linked to other social problems such as mental illness or criminality. It can also be argued that if drug use becomes more common in the general population, the more likely it is that people with these other problems will become heavily involved in drugs.

6. Implications for drug-prevention policy

The foregoing reflects two broad strategic options for drug-prevention policy. A parallel is found with alcohol policy. This is either to try to cut consumption

per person across the board — or to target heavy drinkers or specific risks such as drink-driving.

One approach on drugs is to aim to reduce drug use across the entire population, in particular among young people. The rationale is to cut the number of people at risk of more intensive use and/or problems. The other option is to place less emphasis on prevention of drug use per se — since most is of limited intensity and duration and, in any case, declines with age — and concentrate on high-risk groups and environments. This would imply greater priority to innovative approaches to young people at risk and to tackling social exclusion, delinquency and reintegration of drug users into society.

The balance between these elements depends on local or national circumstances, but, clearly, different indicators reflect different aspects of what is meant by 'drug-use prevalence'.

Conclusions

Indicators of prevalence and incidence — policy considerations

This briefing summarises some current thinking on the use of indicators of prevalence and incidence to aid EU drug-prevention policy-making, and suggests some further sources for those who wish to know more. The following conclusions could influence future policy considerations.

1. Recent or current use should be employed to monitor levels of drug use in the general population, rather than lifetime prevalence.

2. School surveys are useful for monitoring the development of the prevalence of drug-use experience among schoolchildren — provided they take into account that drug use increases sharply with age and that, after the age of 15 or 16, such surveys no longer cover important sections of the young population.

3. It is more appropriate to focus on young people under 25 rather than limit surveys to the under-18s. The highest levels of drug use, as well as important rates of first use, are often observed after a person's 18th birthday.

4. Only a minority continue to use drugs regularly later in life. Most people who try drugs do so either experimentally or intermittently — or for a limited period of time.

5. The relatively small proportion of drug users who continue to more intensive, problem use often manifest other personal or social problems that place them at higher risk.

6. Drug-prevention strategies and action depend on whether priority is given to reducing drug use across the board or focusing on the risk factors for continued and potential problem use.

Key sources

[1] European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2001), *Making the most of the EMCDDA*, EMCDDA, Lisbon, 2001 (http://www.emcdda.org/multimedia/ publications/Policy_briefings/pb00_en.pdf).

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[5] European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2000), 'Prevalence and patterns of problem drug use' (http://www.emcdda.org/situation/themes/ problem_drug_use.shtml).

[6] Lloyd, C. (1998), 'Risk, vulnerability and problem drug use: identifying high-risk groups', *Drugs: education, prevention and policy,* 5, pp. 217–232.

Web information

EU drugs strategy and action plan (2000–04)
http://www.emcdda.org/ policy_law/eu/eu_actionplan.shtml

EMCDDA key epidemiological indicators
http://www.emcdda.org/situation/ methods_tools/key_indicators.shtml

Drug demand and drug supply, *Annual report 2001* (Chapter 1)
http://annualreport.emcdda.org/ en/chap1/index.html

Data on prevalence (EMCDDA 2001 *Annual report* data library)
http://annualreport.emcdda.org/ en/sources/index.html

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