Introduction

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The aims of the project

Despite the fact that Europeans belong to the largest consumers of illicit drugs, absorbing about one fifth of the global heroin, cocaine and cannabis supply, as well as one third of ecstasy production (UNODC World Drug Report, 2008), the vast majority of Europeans have never tried any illicit substance. In popular perception, illicit drugs still represent alien cultures challenging traditional European patterns, including consumption of our favourite drugs – alcoholic beverages. Illicit drug taking, no matter what type of drug and its amount, is considered an evil in itself, a serious transgression of social norms. This perception is perpetuated and reinforced by legal norms which – in most European countries – penalize a wide range of behaviours associated with illicit drugs, including, as a rule, its possession and even consumption. Parallel to that, most European countries have established extended drug services dealing with drug-related problems in a more assimilative way.

Therefore, the general public, policy-makers, politicians and drug professionals alike demand, first of all, information on the prevalence of drug consumption. A crucial issue has been how many people transgress social and legal norms. The question of what and how much they consume seemed to be almost irrelevant. It was only a few years ago when the Global Workshop on Drug Information Systems (2002) identified the need for improved methods of estimating the quantities of illicit drugs consumed by users to complement the increasing sophistication and reliability of data on drug production and on drug seizure.

As a literature review revealed, amounts of drugs consumed at individual level is a neglected issue in drug research (Reidl/Schmied, 2008). In most countries, even where quantitative figures on consumption are available, these are gathered using various methodologies in different countries and are usually limited to "heavy drug users". The extent of consumption by individuals who are less heavy users or not in touch with treatment or criminal justice agencies is not known and often ignored. Quantities consumed are almost always neglected. This project aimed to address the lack of basic data required for the development of sound and comprehensive estimates of drug consumption including heroin, cocaine, amphetamine, ecstasy and cannabis. A major requirement was to include drug users who are outside the "hard core" samples accessed in most research.

A second important gap in the literature is the absence of reliable information on the costs of drug consumption at individual level. Several studies have considered this issue, looking at drug users' legal and illegal sources of income, and at drug users' economic behaviour as part of a wider complex of deviant behaviour, social and economic situation and lifestyle. (e.g. Johnson et al., 1985; Power et al., 1993). However, these studies again provide only a partial picture as they have been conducted mainly with samples of "hard core" or "street" users, to the neglect of less visible populations. The challenge here was to estimate the amount actually spent on the consumption of different drugs and on drug consumption in total by a sample of users defined for the purposes of this study as "marginalized" and "socially integrated" drug users (defined below).

The overall goal of this project was to contribute to the development of useful and appropriate models of estimating drug consumption through the assessment of consumption patterns of five main drugs – heroin, cocaine, amphetamines, ecstasy, cannabis – including the amounts consumed, and of the respective expense of drug consumption in two different samples of drug users in six cities in six European Union countries.

Measurement of consumption quantities

Data on consumption patterns of psychoactive substances collected from substance users in general, for various reasons, tend to underestimate the volume of per capita consumption. This has been repeatedly proven by

alcohol research (Knibbe/Bloomfield, 2001; Gmel/Rehm, 2004; Rehm et al., 2004). These kinds of data, therefore, should always be combined with other data sources. Contrary to alcohol research, studies on illicit substance use patterns cannot rely on production and sales figures for an additional calculation of per capita consumption. Another additional source had to be developed that offers a context for a better understanding of the consumption patterns of individual addicts. For this purpose, this project produced the so-called "thick city reports" that constitute Part I of this publication.

But alcohol research has proven also that there are methodologies that are more accurate in investigating volume of consumption – and presumably also expenditures – than others. So called "approaches that list all recent occasions" are superior to so-called "summary measures" especially with more infrequent consumption patterns. "The disadvantage of summary measures is that for all those people, whose drinking pattern varies with the season, day of the week, type of drinking occasion, and so on, the answer to these types of questions is likely to contain substantial error" (Knibbe/Bloomfield, 2001: 36); and since the consumption of the five selected drugs by marginalized but especially by "inconspicuous" users has to be assumed to follow a mostly infrequent pattern, "actual consumption measures" had to be preferred in the current study.

"Approaches that list all recent occasions" or "actual consumption measures" focus on consumption during the most recent consumption occasions in a detailed way instead of the respondent's summary of his or her drinking behaviour over a predefined period (Gmel/Rehm, 2004). The questionnaire developed for the current study focussed on the last consumption occasion of the five selected substances; in addition, in order to assess volume and expenditures as accurately as possible, the main derivates of the selected drugs were also considered separately, e.g. white heroin as well as "brown sugar", crack as well as cocaine, and cannabis resin as well as marihuana. Additional to the most recent consumption occasion of a wide range of illicit substances, the questionnaire asked for a "summary" of consumption days during the last month.

The questionnaire was filled out in face to face interviews with marginalized and socially integrated drug users. In other words, the interviewers supported the drug users to obtain adequate responses to the detailed and complicated questions.

Problems in investigating drug consumption patterns and expenditures of illicit substances

There are far more problems in estimating illicit drug consumption and its costs than composing an impressive list of different substances for the questionnaire and training the interviewers to support the respondents in answering the numerous questions. The difficulty of developing a model to improve estimates is also compounded, besides other things, by difficulties in conducting cross-national research. The main issues are discussed under four headings: researching users of illicit substances, choice of substances, estimates of substance purity, researching the cost of drug consumption.

Researching marginalized and socially integrated users of illicit drugs

Drug consumers are minorities involved in illegal activity; they are, therefore, "hidden populations" underrepresented in general population surveys but also under- or misrepresented in studies of subgroups of "heavy drug users" contacted for instance via the drug services or via penal organizations. The degree of under-and/or misrepresentation varies across time and locality and may depend on factors such as the extent and nature of criminal justice and treatment approaches which might encourage or present barriers to visibility. For instance, harm reduction measures, such as needle exchange schemes, may act as an incentive for users to contact and stay in touch with services – thus influencing the extent to which they will be included in prevalence figures. Official statistics, mostly based on information gathered by the police, treatment and rehabilitation facilities, are also dependent on sources and methods of data collection which often change and which miss a considerable – unknown – proportion of drug users. Who is caught within the statistical net will depend, in part, on the definitions employed, and this too, is open to considerable variation.

Organizational, procedural, situational and definitional factors that influence the collection of prevalence data vary between countries. But it is also the case that variations occur within countries and this will impact on efforts to access drug users and secure samples which are adequate for the purpose of this (and other) studies.

Reaching groups of drug users who fall outside the "official" estimates – because they are not in contact with services or are less heavy and frequent users – is equally challenging in terms of access and securing a relevant

sample. An unknown number of regular users overcome problems unaided or through informal support networks or do not develop problems at all. Studies of "recreational" drug use provide some insights into these groups that are often accessed through "snowball" techniques, peer network introductions or by attendance at "raves" and dance events. Clearly, however, samples acquired through such techniques are likely to reflect only some sections of the drug-using population.

The reliability of information obtained from drug users has often been questioned. Users are not always able to provide accurate accounts of the quantity and frequency of their use and are unlikely to be able to assess purity of drugs in other than very general terms. They are likely to describe their use in local terms and local amounts – "shot", "splif", "bolletje" – which then need to be calculated in standardized measures comparable across samples. Consumption patterns may depend on factors such as the price and purity of different drugs, and on the availability of – often locally specific – licit and illicit substances. Additionally, the increasing importance of poly-drug use is recognized as a feature of consumption in many countries, in which the consumption of legally as well as illegally acquired substitution substances plays a major role; this, too, presents difficulties in calculating amounts consumed over a specified period of time. These issues were indicative of the problems which country investigators needed to grapple with in measuring drug consumption.

Choice of substances

Five substances were chosen for inclusion in this study: heroin, cocaine, amphetamine, ecstasy and cannabis. Though they represent the most widespread illicit substances in industrialized countries at the time of the study, and though their main derivates have been considered separately, they constitute a selection from the wide range of illegal drugs consumed in different places, at different times, in different combinations and through different preparation methods. These drugs do not necessarily reflect all the main drugs and drug combinations consumed in a country nor the relative importance of any particular drug compared to other available substances. For example, in Warsaw, "polish kompot", produced from poppy straw, is a popular choice; and in some cities, as for instance Vienna, the consumption of substitution substances and psycho-pharmaceuticals prevailed at the time of investigation. Separating out the chosen drugs for measurement purposes

is complicated by the variability in choice and mix of substances and by the fact that substances prevalent in some countries (e.g. Polish kompot) were not among the main drugs under investigation.

Nevertheless, all five represent illicit drugs that are the most prevalent in EU countries according to earlier estimations and seizures statistics. Their supply is much higher than the supply of any other illicit substance, in volume as much as in value terms.

Estimates of substance purity

The available information on the purity of substances comes from different market segments and different sources. Official data – data collected by the police and by customs – mostly derive from the wholesale market. Which samples are submitted to laboratory analysis in many countries depends on legal regulations. With drugs sold in "recreational settings", pill-testing programmes provide purity data at the retail level, but generally only for selected substances (ecstasy, amphetamines). Purity figures from the street market and from the "private market segment" are mostly missing. Purity estimates derived from national and local laboratory research on drug seizures can be used alongside estimates gained from drug users, key informants and other sources; but interpretation of any similarities and differences found needs to be approached with caution since there are considerable problems relating to the variable procedures and estimation techniques used to produce these data sets.

The purity of the substances varies with general (global) market trends, but also within the different segments of local drugs markets, where they are purchased. As noted above, only rough estimates are likely to emerge from asking consumers about drug purity. There are a number of factors that make estimation difficult. For one thing, substances have a lower purity in the retail market compared to purity found in the wholesale market. Those sources closer to the wholesale market may enjoy higher-quality substances. Additionally, the retail market is diversified and purity levels may differ between consumer groups; some units purchased may be drug mixtures of dubious content and variable weights; drugs purchased at the street market by marginalized drug users are likely to have low to zero purity; substances purchased at "private" retail markets for socially integrated or less marginalized users, to have a higher purity. Purity levels are also likely to vary according to origin of the substance, market price and general

availability. While drug users may be well aware of these factors and able to report their perceptions that substances are "better" or "worse" on one occasion compared to another, they are unlikely to be able to provide more solid measures of purity.

Researching the cost of drug consumption

Clearly, apart from purity, position within the drug markets and the variability of "packaging" of different drugs, many other factors influence the drugs, the drug combinations and the amounts consumed. These factors will also influence how much consumers pay for their drugs. According to key informant drug experts, consumers tend to spend a certain amount of money daily and purchase what they can get for it. The challenge, then, was to try to measure how much each individual spent on average on the consumption of different drugs, paying heed to the complexity of interaction between the many factors – discussed above – which might determine cost.

It is not enough, however, to estimate cost of consumption of one drug only. Against a clear trend towards poly-drug use it has to be assumed that the economic burden for an individual drug consumer is much higher as it consists of expenditures on two or even more drugs.

Research design and process

Selection of cities

Six European cities were chosen to participate in the two-year study starting in autumn 2005 and lasting until winter 2007/2008. These were London, Amsterdam, Turin, Prague, Vienna, and Warsaw.

Differences in drug policies across the participating countries and cities do not comprehensively reflect converging trends within the EU. In general, however, countries with a long tradition of liberal drug policy including the Netherlands, the UK, the Czech Republic and Poland, have recently implemented more restrictive measures while Austria and Italy have made their policies more liberal.

Six cities participating in the study were selected not only because of the specificities of their drug scenes; they are different in size, ranging from London with more than four million inhabitants, to Vienna, Warsaw and

Prague with up to two million inhabitants, to Turin and Amsterdam where several hundred thousands live. Additionally, all the cities are representative of large urban environments, open to new consumption patterns and being trendsetters for smaller towns, on the one hand, and often worldwide trends also, on the other hand.

Even though by far not all EU regions are represented, the study succeeded in including quite a variation of European cultures. London and Amsterdam may be considered a sample of Western Europe; Turin, Prague and Vienna represent Central Europe, while Warsaw represents its eastern part. Geographical and cultural divergences overlap with political variations. Amsterdam and Turin are cities from countries that were founding members of the EU; the United Kingdom joined the EU in 1973, Austria in 1995 and the Czech Republic and Poland in 2004. Major political distinctions, however, lie in recent history. For almost 50 years, the Czech Republic and Poland experienced a one-party system and centrally planned economies while market economy and multi-party democracy prevailed in all the remaining countries. The impact of the political history is still visible, not only with regard to the drug scenes; for instance, per capita incomes in the Czech Republic and Poland are three to four times lower compared to incomes in other participating countries. This huge income gap should not divert attention from large discrepancies within old EU countries among which incomes in the UK are 50% higher than in Italy.

Despite a quite diversified sample of cities participating in the study, it has to be kept in mind that a significant proportion of the EU is not represented, including the Nordic countries as well as the Southern, the South-Eastern and the two most populous ones, Germany and France.

The project was designed to include a review of published information on the national and city levels of the participating countries and to collect a variety of information and evidence from key informants working within drug treatment services and specialist agencies such as the police and forensic laboratory scientists. This information was compiled into a "thick" city report presented as Part I of this publication; that provided the basis and the context for the empirical part of the project, i.e. a survey among current drug consumers.

Survey

The survey among current illicit drug using populations included 100 "marginalized" users and 100 "socially integrated" users in each city. The mar-

ginalized users were defined as frequent consumers (at least twice a week) of the following drugs: heroin and/or cocaine and/or amphetamines. Most of them were accessed through contacts with health, low-threshold services or penal (drug) services – but some from among "street" populations. The integrated consumers were defined as relatively frequent consumers of cannabis (herb or resin), ecstasy, amphetamines and cocaine. Respondents from this group were included if they used cannabis at least once a week, and the other drugs at least once a month. They were mainly accessed through semi-snowballing and "network" techniques. The samples were more opportunistic than purposive, aiming, however, to include an appropriate range of people – with respect to age, gender, drug use – rather than attempting to be representative.

The research process

City researchers met at four 3-days project meetings throughout the study. They were jointly responsible for the development of the guidelines and questionnaires for data collection, for developing measures and examining conceptual issues arising in the course of the work and for producing interim and final reports. Each city team was responsible for the collection, management and analysis of its own city data. In addition, comparative data analyses were jointly produced by team members from the different cities. Chapters were written by city teams for the "thick" city report and by colleagues from different cities for the comparative chapters.

Structure of the book

The structure of the book reflects the project chronology and consists of two parts. The first part is devoted to the detailed description of the six participating cities. The city reports include basic socio-economic information followed by a detailed presentation of the drug situation based on existing published sources at country and city level and also on fact-finding interviews with key informants at national and municipal level.

The first part of the report serves as a backdrop to its second part which describes in detail the results of a survey among drug consumers. The major findings are presented for two groups of drug users: the socially integrated and the socially marginalized. The social position and level of marginaliza-

tion of consumers is described first, followed by the presentation of drug use patterns prevailing in participating cities. Then, comparison is made between marginalized drug consumers receiving substitution treatment and those who do not. Finally, the last chapter deals with quantities of drugs consumed, with the sources and the perceived quality of the drugs and with their costs. The quantities include consumption per day; in addition, an attempt is made to estimate monthly drug consumption as well as monthly drug expenditures. Part two is concluded by a summary that, at the same time, is an attempt to summarize the findings of the whole study.

The Annex offers some statistical estimates of per capita drug consumption in a selected city, i.e. in Vienna. It confirms the rough estimates done on the basis of fieldwork, presented in part II of this publication.

References

Gmel, G./Rehm, J. (2004) 'Measuring Alcohol Consumption', *Contemporary Drug Problems* 31 (Fall): 467-540.

Johnson, B.D./Goldstein, P./Preble, E./Schmeidler, J./Lipton, D./Spunt, B./Miller, T. (1985) *Taking Care of Business: The Economics of Crime by Heroin Abusers*. USA: Lexington Books.

Knibbe, R.A./Bloomfield, K. (2001) 'Alcohol Consumption Estimates in Surveys in Europe: Comparability and Sensitivity for Gender Differences', *Substance Abuse* 22 (1): 23-38.

Power, R./Kearns, G./Jones, S.G./Smith, J./Ward, J. (1993) Lifestyles (Part One): *`Economic Behaviour of Illicit Drug Users':* Final Report to the Home Office. Charing Cross and Westminster Medical School. London: The Centre for Research on Drugs and Health Behaviour.

Rehm, J. et al. (2004) 'Alcohol Use', in: Ezzati, M./Lopez, A.D./Rodgers, A./Murray, C. J. l. (eds.), *Comparative Quantification of Health Risks*. Global and Regional Burden of Disease Attributable to Selected Major Risk Factors, Vol. 1. Geneva: WHO.

Reidl, Ch./Schmied, G. (2008) 'International/ European Literature Report', in: Eisenbach-Stangl, I./Moskalewicz, J./Thom, B. (eds.), "Multi City Study on Quantities and Financing of Illict Drug Consumption", Draft Final Report. Vienna: European Centre.