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Comparing problem drug users in treatment with estimates of problem drug use — epidemiological indicators of treatment need?

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Introduction

- The EMCDDA collects estimates of the prevalence and incidence of problem drug use (PDU) and data on people entering drug treatment for problems related to drug use (TDI: treatment demand indicator) to help describe the drug problem and observe trends over time.
- A comparison of these indicators may provide information relevant for describing treatment needs, such as:
  - differences in characteristics between the PDU population and the population in treatment; and
  - differences in trends over time between the new demands for treatment and the estimated trends of true incidence.

Objective

- To discuss the potential for developing indicators of treatment need in the European Union using data from PDU and TDI.

Methods

- Simple comparison of aggregate data from PDU prevalence estimates and TDI data on clients in treatment.
- Description of time trend data in TDI and in PDU incidence estimates.
- Description of characteristics of the population in treatment and of the samples from non-treatment sources (e.g. clients of low-threshold services, chain referral).
- Data on people staying in treatment in a given year, collected in the framework of TDI for three years.
- PDU is defined as 'intravenous and/or long-term and/or frequent use of opioids, amphetamines and cocaine'.
- TDI data provide numbers and characteristics of clients presenting themselves at drug treatment facilities for the first time (first treatment demand).
- PDU data include prevalence estimates using indirect estimation methods such as the multiplier benchmark method and the capture-recapture method from treatment data, police data and other data sources. Breakdowns are available by primary drug, gender and age.
- PDU data also include estimates of time trends in (true, first use) incidence based on lag-correction methods using treatment data (observed incidence of first treatment entries).

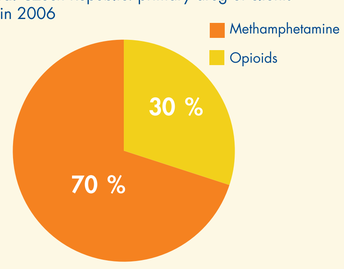
Data example

- In the Czech Republic, proportions of methamphetamines and opioid users are roughly similar between first treatment demands and total PDU estimates (Figure 1).
- In the United Kingdom, the composition of the population by gender is also roughly similar in both data sets (Figure 2).
- In both Italy, for cocaine users (Figure 3), and Spain, for heroin users (Figure 4), the comparison between incidence estimates and trends in first treatment demands suggests a time lag of around 10 years.

Discussion

- Similar characteristics of the treated and the PDU population may suggest that treatment centres are broadly targeting an unbiased subgroup of the PDU population, while significant differences may point to a group of users which is underserved.
- However, additional indicators and methods are needed to understand whether the treated population covers a high proportion of PDUs who are in need of treatment.
- The comparison of trends in first treatment demand with estimated trends in true incidence suggests that drug users who are eventually observed in treatment take many years to develop a need for treatment.
- The PDU estimates should theoretically represent the population in need of treatment, as the indirect estimates include those in contact with services (including the treated population) and those who are very similar, i.e. 'at risk' of contacting services.
- However, many countries include police arrests among the sources used to estimate PDU. This results in a PDU population that is partly defined as 'producing public nuisance' rather than needing treatment.
- Thus, for estimating treatment need, PDU estimates should only include data from health-related services.

Figure 1a: Czech Republic: primary drug of clients treated in 2006



NB: Data coverage for clients in substitution treatment is limited, therefore opioid clients might be under-represented.

Figure 1b: Czech Republic: PDU estimate composition by the drug used

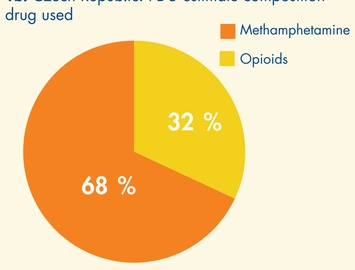
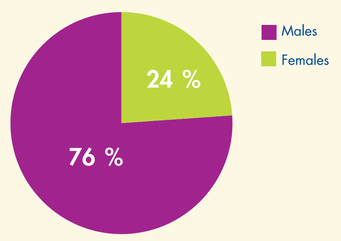


Figure 2a: United Kingdom: persons starting a treatment episode in 2006 for opioids and crack as primary drug



Source: 2006 TDI data from outpatient and inpatient treatment centres and from general practitioners.

Figure 2b: United Kingdom (England): estimated PDU population (2005/06)

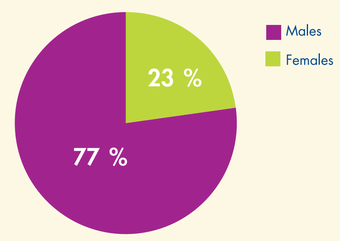


Figure 3a: Italy: new clients entering treatment with primary drug cocaine (TDI, 1996–2006)

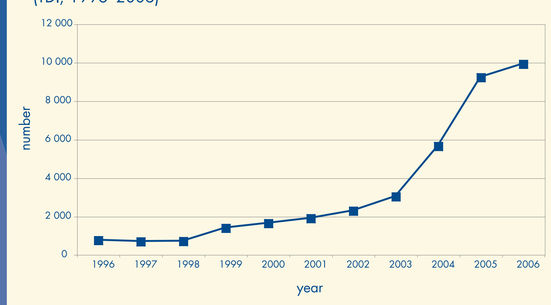


Figure 3b: Italy: Incidence of first problem use of cocaine

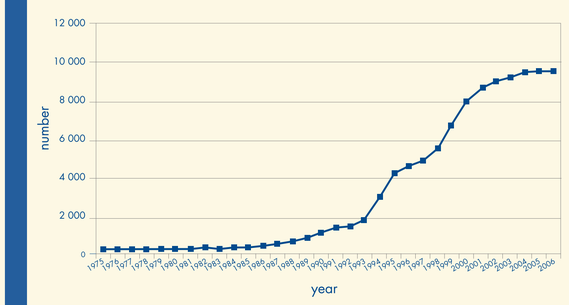


Figure 4a: Spain: new clients entering drug treatment with primary drug heroin (TDI, 1996–2006)

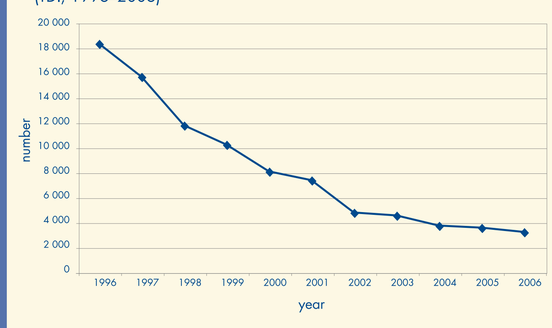
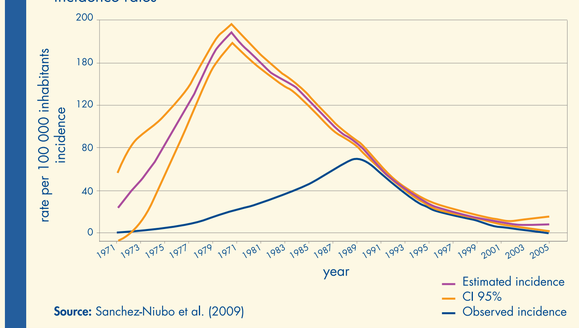


Figure 4b: Spain: Observed and estimated problematic heroin use incidence rates



Source: Sanchez-Niubo et al. (2009)

Limitations

- PDU estimates are partly based on treatment data, thus differences between both data sets are likely to be underestimated and studies in non-treatment samples of high quality are scarce.
- Many countries do not have full TDI data coverage, which results in limited or unknown representativeness.
- Some groups of drug users in need of treatment — e.g. socially integrated heavy cocaine users — may not be included in the PDU prevalence estimates.
- PDU does not cover heavy forms of drug use not included in the definition but that are represented in treatment figures — e.g. dependent cannabis users.
- Data on TDI only refer to people by their primary drug of use, whilst in PDU any use regardless of whether it is primary or secondary is recorded.
- There are still differences between countries in the way both of these EMCDDA indicators are applied.

Conclusion

The comparison of data from two key data sources of the EMCDDA — TDI and PDU — might potentially yield some useful information on treatment need.

However, there are currently many limitations that call for great caution in drawing conclusions and key data regarding coverage of existing treatment need are still missing.

Such analyses should be interpreted in a broader context of quality and coverage of TDI and PDU estimates, treatment availability, organisation, capacity, types of interventions and targeted populations.

Inclusion of other sources of data might provide a more complete picture.

For estimating treatment need, it needs to be considered whether criminal justice sources should also be included or only health-related sources.

New developments

PDU and TDI are in the process of revision in order to respond to changes in the drug-using population.

For the past three years, TDI has been collecting data not only on people entering treatment but also staying in treatment during a given year. Activities to improve data coverage have also been carried out.

In the PDU indicator, there have been efforts to stimulate estimation of the incidence of problem drug use. A separate project is looking at population prevalence of intensive forms of cannabis use.

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