An overview of the treatment demand key indicator (TDI)

Summary

The treatment demand indicator (TDI) is one of five key epidemiological indicators which contribute to the overall EMCDDA aim of providing objective, reliable and comparable information at a European level concerning drugs, drug addiction and their consequences.

The TDI provides a common format for data reporting on clients entering specialized drug treatment centres due to their drug use and related problems during each calendar year. Its technical protocol defines which clients should be reported at European level, and represents the minimum common set of items each national monitoring system should be able to record and report to the EMCDDA.

This information is intended to provide the Community and Member States with, ‘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’.

To achieve this objective, the Centre is required to collect, analyse, compare and disseminate information at EU level, to: ‘ensure improved comparability, objectivity and reliability of data by establishing indicators and common criteria of a non-binding nature, compliance with which may be recommended by the Centre, with a view to greater uniformity of the measurement methods used by the Member States and the Community’ EMCDDA/7/01.
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About this document
This document is published by the European Monitoring Centre for Drugs and Drug Addiction on its website (www.emcdda.europa.eu). The most recent version of this document may be downloaded in PDF format from the EMCDDA website.

More information on the treatment demand key indicator (TDI) is also available at:
http://www.emcdda.europa.eu/activities/tdi

The information contained in this document may be cited provided there is a clear indication of the source.

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Introduction to the indicator

The treatment demand indicator (TDI) is one of five key epidemiological indicators which contribute to the overall EMCDDA aim of providing objective, reliable and comparable information at a European level concerning drugs, drug addiction and their consequences. This information is intended to provide the Community and Member States with, ‘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’.

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The five key epidemiological indicators

These were first described in the European Union action plan on drugs 2000–04, as:

1. Extent and pattern of drug use in the general population
2. Prevalence of problem drug use
3. Demand for treatment by drug users
4. Drug-related deaths and mortality of drug users
5. Drug-related infectious diseases (HIV, hepatitis)

The third of these has become known as the treatment demand indicator (TDI).

TDI core definition

Routine, anonymous case-reporting of standardised core data on problem drug users presenting for drug treatment, collected nationally and aggregated at a European level.

The treatment demand indicator (TDI) consists of recommendations regarding method, definitions and items to be collected about problem drug users presenting to drug treatment...
facilities. These data are collected and collated nationally, and delivered annually to the EMCDDA, who then process and report on the numbers and characteristics of clients presenting to specialised drug treatment at European level.

Purpose of TDI

The purpose is to obtain comparable, reliable information on the number and characteristics of problem drug users presenting for treatment in the EU Member States. Such information on the number and profile of treated problem drug users and their patterns of use can help in:

- providing a measure of treatment entrances
- providing an indicator of number, characteristics and trends of high risk drug users in the community
- assessing the minimum need for resources
- offering a perspective on the availability of drug treatment
- identifying patterns in the use and uptake of drug treatment
- planning and evaluating services for drug users

Much drug use, being illicit or illegal, is hidden from observation through traditional epidemiological methods (e.g. household surveys). Information on the number and characteristics of people seeking treatment for a drug problem provides insight into general trends in problem drug use and offers a perspective on the organisation and uptake of treatment.

TDI is designed to satisfy European requirements. It is envisaged that each Member State will have more specific, and frequently additional national requirements for which local or national systems will be/have been developed.

Methodology

TDI core method

The TDI provides a uniform structure for reporting on the number and the characteristics of clients referred to specialized drug treatment facilities. TDI collects information on clients at, or close to, their point of entry into treatment facilities for problems with one or more drugs. A core dataset of 24 items are collected anonymously about each presenting client concerning their social characteristics, treatment contact details and drug profile. The TDI measures the yearly uptake of treatment facilities by those entering treatment for their drug use and by
those entering treatment for the first time. A module on people who are in treatment during the year (in addition to those who are starting a treatment) has been added in 2014 and data are collected and send to the EMCDDA on a voluntary basis by countries (TDI Prevalence).

**TDI Standard Protocol 3.0**


The TDI protocol is an established European protocol providing detailed guidance on the indicator. The first institution to define a common protocol for collecting data on people entering drug treatment was the Pompidou Group (PG), established as the first European intergovernmental body for collaboration on drugs issues in 1971 and incorporated into the institutional framework of the Council of Europe in 1980. The “Pompidou Group protocol”, which is the predecessor of the TDI, was published in 1994 and implemented at city level in several Western and Southern European countries. A revision of the Pompidou Group protocol, after a feasibility assessment concerning methodology and data collection and an evaluation of national experiences of data reporting using the TDI, led to publication of the EMCDDA/Pompidou Group Treatment Demand Indicator 2.0 in 2000.

In 2012 the TDI protocol was revised and a third version of the Protocol was published (TDI Protocol Ver 3.0). The TDI Protocol ver.3.0 incorporated changes and clarifications in the methodological guidelines and in the items list, reflecting changes in drug use patterns, the expansion and diversification of drug treatment systems, and diversification of the clients' profile.

The version 3.0 of the Treatment Demand Protocol is now available on-line in 12 languages, and has become a tool for drug monitoring largely utilized in the 28 countries of the European Union, Norway and Turkey as well as in some countries of the Balkan region, of the Mediterranean area, of the North and West Africa, and some Latin American countries, although with limitations in cross country comparability.

**TDI key definitions**

The protocol provides system requirements, a classification of treatment centres, definitions of terms case definition, a core item list of 24 variables covering: treatment contact, socio-demographic characteristics, drug use profiles, injecting and needles sharing behaviours, testing practices and OST. Guidelines are provided on methods of data collection, coding, analysis and reporting of results, as well as translation rules for existing national systems, procedures for quality control and a consideration of ethical issues.
Case definition

A case is a client who starts a drug treatment episode at a treatment centre during the calendar year: 1 January to 31 December for problems created by his/her drug use.

A client should be reported only once during the calendar year: if, for any reason, the client is registered more than once at national level, the duplications should be removed as far as possible according to the existing technical tools at national level for reporting to the EMCDDA. The first treatment episode in the year should be reported.

Drug treatment

Drug treatment is defined as an activity that directly targets people who have problems with their drug use and aims at achieving defined aims with regard to the alleviation and/or elimination of these problems, provided by experienced or accredited professionals, in the framework of recognised medical, psychological or social assistance practice. This activity often takes place at specialised facilities for drug users, but may also take place in general services offering medical/psychological help to people with drug problems.

Start/End of treatment

The start of treatment is considered as the earliest formalised face-to-face contact(s) between the client and the centre. During this (these) contact(s) it should be possible to identify the client (avoidance of double counting) and to assess the client’s characteristics and needs related to drug problem.

The end of treatment is considered ended either when there is a formal conclusion (agreed or not) or when the client stops attending the treatment centre or dies. The reasons for the end of treatment may be related to dropping out of treatment, death, an explicit decision to abandon the treatment by the client or a termination of the treatment programme established by the centre.

Treatment episode

A treatment episode is defined as the ‘period of service between the beginning of treatment for a drug problem and the termination of services for the prescribed treatment plan’. Drug treatment is a complex process, and often different therapeutic activities/procedures have to be delivered in parallel or consecutively, sometimes for a long period of time (e.g. counselling,
psychotherapy, substitution treatment, other pharmacological treatments, outpatient or inpatient detoxification, longer term residential care). ‘A client may attend one or more modalities/interventions (or types) of treatment during the same episode of treatment. A client may also have more than one episode in a year’.

**Treatment centre/programme**

A drug treatment centre/programme is any facility that provides drug treatment. Treatment centres can be specialised centres, focusing on the treatment of drug users, or included in bigger centres targeting different client groups (e.g. mental health patients, alcohol users, etc.). They can also be based within centres that are medical or non-medical, governmental or non-governmental, public or private. Treatment centres included in the TDI data collection are: Outpatient treatment centres/programmes; Inpatient treatment centres/programmes; Treatment units in prison/programmes; General Practitioners; Low Threshold Agencies/programmes; and other types of treatment centres/programmes. For each of these centres a specific definition is provided in the TDI Protocol.

**Primary and Secondary drug**

The primary drug is defined as the drug that causes the client the most problems at the start of treatment. This is usually based on the request made by the clients and (or) on the diagnosis made by a therapist, commonly using international standard instruments (e.g. ICD-10; DSM-IV, ASI) or clinical assessment. This item is of central importance and it should be collected for every client.

Secondary drugs are those drugs used in addition to the primary drug, and are substances that cause problems for the client and/or change the nature of the problem as assessed by the client and the therapist.

**Polydrug use problem**

Polydrug use can be conceptualised in different ways, including use of different substances in the same timeframe (e.g. in the last 30 days) but without a relevant pharmacological interaction or it can imply simultaneous use of several substances mixed together (e.g. heroin and cocaine in the same injection) or within a short period of time. Also, it may imply a regular replacement of a substance by another depending on availability (e.g. opioids and benzodiazepines). Information on polydrug use problem is complementary and additional to the information on the primary drug, as a simple replacement of the ‘primary drug’ concept
might imply a very high risk of fundamental divergences in data collection and reporting by countries, making data not comparable and almost impossible to interpret. Existence of a polydrug use problem should be always assessed after the primary drug is determined, following the guidelines and the specific procedures as until present.

Some relevant methodological and ethical issues are described in the TDI Protocol:

Time reference period

Time reference for the whole protocol concerns the current situation of the client in the last 30 days (1 month) before entering treatment.

Patterns of drug use drug of reference

All data on patterns of drug use, except injecting of any substance, refer to the primary drug.

Double counting

In the TDI individuals are only counted once during the year. Double counting refers to the fact that a client may be registered more than once in a treatment-monitoring database in a given year. Double counting causes the total number of treated persons to be overestimated. Several techniques have been implemented, from the most common, like controlling for double counting in a register through a unique identifier given for the individuals (usually based on an algorithm which utilises the name and date of birth), to some quite sophisticated techniques, like the use of digital prints. In the last years substantial progresses have been made in data collection and processing at local and national level, due primarily to the development and implementation of information technologies, such as the introduction of software to control for double counting of patients.

Data Coverage

Information on data coverage is required in order to understand the context of TDI data in each country and its level of representativeness. When describing and interpreting data
collected through the TDI in different countries across Europe information on the national treatment system and coverage of TDI within it are essential prerequisites to understand the context of TDI data collection in each country and how the data coming through the TDI reporting system mirror the actual overall uptake of treatment services in the country. The more drug treatment facilities in a country that take part in the TDI-based treatment data collection exercise, the more it can be assumed that TDI data provide a valid description of the drug treatment availability and of drug problems in a country; otherwise only a partial view is provided and this should be considered in data interpretation.

**Ethical issues and data protection:**
Data collection and reporting, beside the clinical purposes, has the scope to obtain basic information on the epidemiological situation to support evidence-based health interventions and support effective and efficient ways of treating drug problems. For every level of information (e.g. clinical, regional, national, international, etc.) national and international rules of confidentiality and data protection must be considered, as well as rights of clients, staff and treatment centres. This is particularly the case for specific treatment settings, like treatment in prison, where high attention must be paid to ethical issues (data protection, privacy, human rights), when data are collected and reported.

**TDI implementation**
Successful implementation relies on organisational (‘top-down’) commitment, involving political/bureaucratic leadership, and practical (‘bottom-up’) commitment, involving practitioner level support. The treatment demand indicator can be introduced as a new national initiative or, more commonly, it will build on pre-existing national structures. Information systems must be relevant to local/ national needs if they are to have value for planning and evaluation of services within a country. At European level a network of TDI experts is involved in the actual implementation of the indicator in each European country and at European level. The network meets once a year for large expert meetings and periodically on ad –hoc purpose. Regular dialogue is also maintained between the EMCDDA staff responsible for the indicator and its daily management and the European experts.

**TDI organisational structure**
Each Member State has a nominated expert in the field of the treatment demand indicator through its national focal points; this expert provides data analyses for the EU project and participates in the annual expert meeting.
Data are collected at treatment centre level and collated at regional/country level. It is essential to ensure infrastructure provision for data collection at source. It is also important to provide an adequate skills base and staffing level for the collation, analysis and interpretation of data at Regional/ Country level. An ongoing training/support programme for staff at all levels is vital to ensure good practice and to maintain high quality standards. A detailed description of the 28 EU Member States + Norway and Turkey treatment Demand monitoring systems is available at: http://www.emcdda.europa.eu/activities/tdi.

TDI Data quality

Ensure a good data quality is extremely relevant in the utilisation of drug related data. Member States are expected to implement the TDI in their country according to the standard protocol 3.0, as fully and completely as possible. Validation procedures checking for scientific standards are carried out and implemented every year. It is expected that data collection, quality and analysis issues will be addressed locally and nationally. Final cleaned aggregate data are expected to be provided to the EMCDDA through the on-line data collection system FONTE by the 30 September each year, following the EMCDDA guidelines for national reporting. The tables allow opportunity for comment on relevant changes from previous years. Data go trough a validation process every year with a regular dialogue with the national treatment demand expert.

Besides the routine data quality control carried out every year, a specific system to assess the quality of all key indicators data was established in 2008 and it is implemented every five years. The system includes the assessment of process of data reporting and scientific quality of the data.

The assessment of the process include an evaluation of the following parameters: national activities conducted during the year, respect of deadlines in delivering data to the EMCDDA, available resources (staff and funding), existence of a system to assess data quality and of a legal basis for data collection and current on-going progress. The assessment of scientific quality of the data include the following criteria: data availability, harmonisation with EMCDDA guidelines, timeliness, coverage and consistency. The assessment of data quality was carried out in consultation with the NFPs and the TDI experts.
TDI ITEM LIST

The following items are included in the Protocol. Items are fully specified in the protocol, but they do not necessarily have to be collected in exactly the same form, so long as each Member State can draw these data from within their national systems. National systems frequently collect a broad range of additional information considered relevant or important for strategic planning and other purposes.

<table>
<thead>
<tr>
<th>Treatment centre type</th>
<th>Opioid substitution treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year of treatment</td>
<td>Age at first opioid substitution treatment</td>
</tr>
<tr>
<td>Ever previously treated (First in the year)</td>
<td>Ever injected or currently injecting any drug</td>
</tr>
<tr>
<td>Source of referral</td>
<td>Age at first injection</td>
</tr>
<tr>
<td>Sex</td>
<td>HIV testing</td>
</tr>
<tr>
<td>Age at treatment start</td>
<td>HCV testing</td>
</tr>
<tr>
<td>Living status (with whom)</td>
<td>Needle/syringe sharing</td>
</tr>
<tr>
<td>Drug clients with children</td>
<td></td>
</tr>
<tr>
<td>Living status (where)</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
</tr>
<tr>
<td>Labour status</td>
<td></td>
</tr>
<tr>
<td>Highest educational level completed</td>
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</tr>
<tr>
<td>Primary drug</td>
<td></td>
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<tr>
<td>Usual route of administration</td>
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</tr>
<tr>
<td>Frequency of use of primary drug</td>
<td></td>
</tr>
<tr>
<td>Age at first use of primary drug</td>
<td></td>
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<tr>
<td>Secondary drug</td>
<td></td>
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<tr>
<td>Polydrug use problem</td>
<td></td>
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</tbody>
</table>
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