European Monitoring Centre
for Drugs and Drug Addiction

Drug-Related Deaths (DRD)
Standard Protocol, version 3.2
2009

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EMCDDA standard protocol for the EU Member States

to collect data and report figures for the Key indicator DRD

by the Standard Reitox templates

EMCDDA project CT.02.P1.05

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Drug-related deaths and mortality EMCDDA web page:

Methodology (Key indicator gateway)

http://www.emcdda.europa.eu/themes/key-indicators/drd

Results (Statistical bulletin)

http://www.emcdda.europa.eu/stats09/drd

DRD restricted access area for information exchange between national experts and national focal points:

http://projects.emcdda.europa.eu/areaDRD

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Abbreviations

DRD	drug-related death
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
GMR	General Mortality Register
ICD-9	International Classification of Diseases 9th edition
ICD-10	International Classification of Diseases 10th edition
ICD-10 updates	Updates of ICD-10 adopted by WHO after the adoption of the completed ICD 10th Edition ([1]).
NFP	national focal point
SR	Special Register
WHO	World Health Organization
E-codes	External causes as underlying causes of death in the ICD-9
X-and Y-codes	Equivalent of E-codes (external causes) in the ICD-10
F-codes	Mental and behavioural diseases as underlying causes of death in ICD-10
N-codes	Codes for 'nature of injury' in the ICD-9 classification (e.g. specific drugs)
T-codes	Equivalent of N-codes in the ICD-10

Updates of the protocol

The update (version 3.1) of the protocol (version 3.0), consisted of the addition of an Annex (Annex 5 in version 3.0, now in the main text of the protocol) 'Broad groups of DRD cases by type of substance'. This was based on the discussion at the EMCDDA expert meeting on the Key indicator 'DRD and mortality among drug users' of November 2004.

This update (version 3.2) includes the ICD-10 updates (2002-03) classification of DRD, and the new features of the Fonte web-based interface for reporting to the EMCDDA. It was prepared by Isabelle Giraudon and Julian Vicente with comments from National experts: John Corkery (UK), Kathleen England (Malta), Suzi Lyons and Ena Lynn (Ireland), Viktor Mravcik (Czech Republic), Eric Janssen (France) and Gregorio Barrio Anta (Spain).

It should be underlined that the 'case definition' has not been modified in the different versions (see page 8).

([1]) In 2002 and 2003 there were updates relevant for codification instruction of drug-related deaths, to be implemented in 2006 by the countries. For convenience, in this protocol, they are referred to as IDC-10 updates (2002/03).

Executive summary

The EMCDDA is one of the decentralised agencies of the European Union and has for its mandate the provision of sound, reliable, and comparable information on drugs and drug addictions and their consequences. The reporting of information by the Centre covers: the epidemiological situation; responses; and drug strategies and policies.

One of the key epidemiological indicators developed to monitor the situation is 'drug-related death (DRD) and mortality among drug users'. This protocol focuses on the first component (DRD), other documents being dedicated to 'mortality among drug users'. For the purpose of this protocol, the EMCDDA focuses on deaths directly related to drug use with the following case definition: 'a death happening shortly after consumption of one or more illicit psychoactive drugs, and directly related to this consumption'. Often these deaths are referred to as 'overdoses', or 'poisonings' or 'drug-induced deaths' ([2]).

Monitoring of DRD gives insight into health impact of more risky forms of drug use, helps to better understand the more dangerous patterns of use and risk factors, the characteristics of victims and eventual new dangerous substances. In addition, and together with other indicators, it helps estimate the trends in prevalence of 'problem drug use'; together with other sources and further analysis, it can help to inform policies and interventions.

Considerable progress has been obtained in the last 10 years, but there are still differences in the structures, processes and availability of information at various steps of the chain of information, from the death scene to the final national statistics of 'drug-induced deaths'. Therefore, comparisons across countries should be done with considerable caution and avoid simple conclusions based on small differences.

The protocol establishes harmonised criteria to extract process and report cases, based on the information available, at the end point of the chain of certification/ascertainment procedures, at different mortality registries: General Mortality Registries (GMR) and Special Mortality Registers (SR) often held by specialised institutes. The EMCDDA definition of DRD is implemented in practice by two sets of criteria agreed between experts of the Member States and the Centre referred to as 'Selection B' for the GMR and 'Selection D' for the SR. This standard protocol provides National focal points and experts with a guide for extracting and collating data from their mortality registries and for reporting condensed summarised figures of 'DRD' to the EMCDDA.

This version 3.2 of the protocol is based to a large extent in the original version 3.0 and consolidates ad-hoc updates of this version, including (a) the consequences of the ICD-10 updates (2002–03) on DRD codification using the WHO ICD-10, which entered into force in January 2006, (b) the new features of the Fonte web-based interface which, from 2007, allow the Member States to report their DRD data to the EMCDDA; and (c) the 'sub table 5', on more detailed toxicology findings in post-mortem investigations.

([2]) The term 'drug-induced death' has been introduced in a general form in the EMCDDA 2008 Annual report. It is more specific of deaths included in the EMCDDA definition than the broader term 'drug-related deaths'.

1. Rationale and introduction

1.1 Epidemiological indicators

The EMCDDA is one of the decentralised technical agencies of the European Union (EU). Since it was established in 1993, its mandate is to provide sound, reliable and comparable information on drugs and drug addictions and their consequences. The reporting of information covers: the epidemiological situation; responses; and drug strategies and policies. The Centre currently works with 30 European countries including all 27 Member States, the candidate countries Croatia and Turkey, and Norway who participates in EMCDDA activities under special agreement. The Centre works with national focal points located in all participating countries to develop standard and comparable methods, measures, and reporting tools [Griffiths 2008].

Among the most established of the EMCDDA monitoring systems, are the Key Epidemiological Indicators, although other important core data are collected to monitor the situation. The European Council Recommendation endorsed the key indicators in 2001 ([3]). Subsequently, the key indicators were endorsed by the EU action plan on drugs (2004–08) and more recently by the new EU action plan (2009–12), which calls for increased compliance of Member States with implementation criteria for key indicators ([4]). Key indicators include: 'general population surveys (GPS)', 'problem drug use (PDU)', 'treatment demand indicator (TDI)', 'drug-related deaths (DRD) and mortality among drug users (DRD), and 'drug-related infectious diseases (DRID) [see key dates and steps of the development of the DRD indicator in Annex 1].

The rationale to develop the 'DRD and mortality among drug users' indicator is that drug-related mortality is one of the major causes of death among young people in Europe. Every year between 6 500 to 8 500 overdose deaths are recorded in Europe, and in some countries overdoses accounts for more than 10 % of the mortality of young adults. Drug users (in Europe, particularly opiate users) suffer a very high overall mortality (in general 10 to 20 times higher) compared to the general population [Bargali, 2006; Bloor, 2008, Brugal 2005: Davoli 2007].

1.2 Components of the key indicator 'DRD and mortality among drug users'

Data on DRD and mortality among drug users can fulfil several complementary purposes, in particular when they are interpreted along other drug indicators. Deaths directly related to drug use (called as well overdoses or drug-induced deaths) can help to assess the more serious acute consequences of some forms of drug use and identify what are the more dangerous patterns of use, the characteristics of people with a higher risk of dying, and the more risky circumstances of use, helping to design interventions on these risk factors ([5]). They can be useful as a basis for indirect prevalence estimation techniques and, together with other sources and analysis, help to assess the health impact of drug use.

([3]) Council Resolution on the implementation of the five key epidemiological indicators on drugs, developed by the European Monitoring Centre for Drugs and Drug Addiction, Brussels, November 2001
http://www.emcdda.europa.eu/themes/key-indicators
([4]) EU drugs action plan for 2009–12.
http://ec.europa.eu/justice_home/fsj/drugs/fsj_drugs_intro_en.htm
([5]) More information available from: http://www.emcdda.europa.eu/?nnodeid=1419

In addition, data on drug-induced deaths can help to identify risks of substances that may happen unexpectedly and infrequently but have serious policy and public health implications. Also they may help to identify high risks, new patterns of use and combinations of substances. In this case their usefulness is not to monitor prevalence, but to identify and assess risks.
Some patterns of death and victims have remained fairly consistent across Europe, but some divergences (e.g. in mortality rates, type of substances causing deaths or age of victims) should prompt investigation and can give basis to generate hypothesis regarding changes in drug markets, prevalence of use, risk patterns and, to some extent, eventual impact of the interventions.

The concept of 'DRD and mortality among drug users' as well as 'drug-related mortality' are complex and can be used with different meanings which may cause difficulties in interpretation and in drawing conclusions.

Drug-related mortality includes two broad components:

1. Deaths directly attributable to the pharmacological action of the drugs, alone or in combination, happening shortly after the consumption of the substances. Most population based national statistics refer to these deaths and figures are reported by Member States to the EMCDDA annually basis. They can be called 'overdoses' or 'poisonings'.
The term 'drug-induced deaths' often used in publications from other regions [Najman 2008, Cone 2004] has been adopted in the EMCDDA 2008 report as less ambiguous than 'drug-related deaths'.

2. Deaths indirectly related to the use of drugs usually caused by concurrent factors (e.g. AIDS where the infection was acquired through injection) or to external circumstances (e.g. traffic accidents where drug use was one of the determinant factors). They contribute to the overall health impact of drug use, but their assessment requires careful interpretation. It is often difficult to establish causal relation between drug use and the death, for factors due to a long time-lag between drug use and the death, concurrent factors, (e.g. cardiovascular problems, road safety issues…) and eventual interventions on the concurrent factors (e.g. HAART). A complex but relevant issue is the role of drug use, within the broader context of mental health, in suicide mortality, in particular among young people. Finally, some deaths could be indirectly attributed to drugs through violence (e.g. acquisitive crime, organised crime). It should be noted that sources and methods of data collection for deaths indirectly related to use of drugs are different to those used for 'drug-induced deaths', presenting considerable complexity.

A different perspective for looking at mortality related to drugs is to assess the overall mortality (both direct and indirect) either among selected groups of users, or among the whole population of a community (country, region, or city).

3. Mortality among drug users (usually problem drug users (PDU)) ([6])**.** PDU suffer many health problems and suffer from a very high overall mortality, directly induced by drugs (overdoses) and indirectly related due to concurrent factors. Some factors are well identified as related to drug use (such as blood-borne viruses) but others are less recognised (e.g. violence, accidents, suicide, cardiovascular problems — e.g. related to cocaine). Establishment of overall and cause-specific mortality rates and risk factors requires follow-up studies of groups of drug users (e.g. cohort studies of patients in drug treatment).

([6]) EMCDDA defines 'Problem drug use' as 'injecting drug use or long duration/regular use of opioids, cocaine and/or amphetamines'. This definition specifically includes regular or long-term use of prescribed opioids such as methadone, but does not include their rare or irregular use, or the use of ecstasy or cannabis. Note that this definition is in the process of being revised.

4. Total burden mortality ([7]) **related to drug use in a community** is an additional and more innovative perspective, assessing the overall mortality at a population level. It relates to two components; the prevalence of PDU in a community, and mortality risk among PDUs — overall and due to specific causes ([8]). It could be estimated by the combination of mortality rates of PDUs together with estimations of prevalence, bearing in mind that some deaths related to drugs may not be related to PDU as defined in the PDU indicator, for instance deaths related to recreational ecstasy or cocaine use (both, deaths directly caused by the substances and indirectly, e.g. accidents). An alternative method would be to assess the proportion of different causes of deaths in the population that can be attributed to drugs, adding up the results.

As an additional perspective, the numbers of deaths **where drugs are found in the post-mortem toxicological analysis** are sometimes reported. Substances may cause these deaths directly (drug-induced deaths), or indirectly (e.g. a traffic accident while intoxicated). In some cases, the death may not be related to the substances (e.g. incidental finding of very low levels on post-mortem analysis, dead from an illness, e.g. AIDS, while in substitution treatment, findings in passengers in road accidents without any responsibility for the accident).

Finally, it should be noted that many countries collect and report at national level **deaths due only to psychoactive medicines** (with or without alcohol). These deaths are indeed important, both in numbers and from a public health perspective, but many could be related not to substance abuse, but more to mental health issues (e.g. depression and its treatment availability and quality). Although it is not the primary focus in the mandate of the EMCDDA (and it is not included in its case definition), basic information about these deaths will be important as contextual and interpretative information.

All these components and analytical perspectives are important as they cover different aspects of health risks (risks of users, population impact) and their surveillance requires specific methods. To avoid misinterpretation and facilitate further data improvement and across-countries analysis, it is essential to specify the 'case definition' of DRD used (i.e. inclusion and exclusion criteria), as well as the sources of information.

This protocol refers specifically to the first above-mentioned component of the key indicator: 'drug-related death' (called as well 'overdoses', 'poisonings,' or 'drug-induced deaths').

The EMCDDA case definition of drug-related death includes the 'deaths happening shortly after consumption of one or more illicit psychoactive drugs, and directly related to this consumption' although they often may happen in combinations with other substances such as alcohol or psychoactive medicines.

The EMCDDA Standard protocol transforms this conceptual definition in practical codes and criteria to extract and report cases in a similar way across countries and over time, producing the closest possible set of cases to the conceptual definition. The protocol gives guidance to apply in practice the definition in existing information systems and registries reporting mortality.

([7]) The EMCDDA Report CT.00.RTX.22 presents methodological options to estimate the 'total burden of mortality' related to drug use that includes both deaths directly and indirectly related to drugs. In addition, a methodological project in 2008 has explored further this topic and the different alternatives: 'Assistance to EMCDDA to assess methods to estimate the total mortality attributable to problem drug use in European Union countries, 2008'. http://www.emcdda.europa.eu/themes/key-indicators/drd

([8]) See EMCDDA 2008 Annual report section on drug-related mortality.

The monitoring of this indicator aims to provide reliable and comparable descriptive epidemiology (time, place and persons) and the characteristics (age-band, sex, country, and substances that caused the death) of the victims. Its implementation at European level aims to identify, follow, and compare trends, to analyse with caution broad levels of mortality accounting for methodological issues, to better understand the risk factors and the impact of public policies on DRD, and to inform, at national and at European level prevention, interventions, and policies to limit the number of victims.

The EMCDDA monitoring standards for DRD have as their objective the collection at national level of all cases of death attributed directly to the use of illicit psychoactive drugs.

Considerable progress has been obtained in many Member States in quality, completeness and reliability of drug-induced deaths information. However, there are still indications in some countries of possible underreporting. Provided methodology is maintained consistently, analysis of trends can be particularly meaningful even if there is underreporting in some countries. Comparative cross-country analysis of actual levels of deaths should be done with caution, accounting for differences in data quality, and avoiding firm conclusions from small differences.

In addition there are procedural differences occurring at different steps in the flow of information from the death scene to the final national statistics (i.e. General Mortality Registries (GMR), coded according to the International Classification of Diseases[9] (ICD) of the World Health organisation (WHO), or the Special Registries (SR). Some of these differences are common to other external causes of death (e.g. suicide, violence, accidents) more than an exclusive characteristic of drug-induced deaths. Possibly not all differences can be avoided as they are based on broader legal-institutional national peculiarities, but increasing quality, reliability and validity of information within each country will contribute to improve comparability across countries. In order to better assess reliability and validity of information, conduction of proper validation studies, existence of more than one source of information (e.g. GMR and SR simultaneously), or other forms of concurrent validity assessment (e.g. plausible distribution of causes of death in cohort studies) will be of considerable help.

The ultimate goal of the EMCDDA is to establish objective figures that are comparable between Member States. Comparability will be reached if, in all Members States, similar procedures are followed. Priorities have been set at the end point of the chain of procedures by harmonising data filter and extraction [Annex 2] and classification from different mortality registers. The two mortality registries used to inform DRD are detailed below.

1.3 Sources of information on DRD

DRD figures are extracted from existing routine statistical systems:

- General Mortality Registries (GMR) maintained usually by the national statistical offices or Health Departments,

- Special Registries (SR) ideally developed specifically for drug mortality monitoring by combination of different sources (e.g. forensic, police and others) which allow a high detection rate of cases. Alternatively, in some countries these registries are included in and maintained by existing information systems of police or medico-legal institutions (i.e. forensics institutes, coroners) for all deaths that have required investigation due to their unnatural or unexpected occurrence.

([9]) Available from: http://www.who.int/classifications/icd/en/

The coverage of these sources is in principle the whole population, either at national or at regional level. If quality and completeness is ensured (i.e. confirmed by validation study) one source would be enough for monitoring, considering the GMR as the general method due to their standardisation and universal coverage. However, despite some differences in organisation of the SRs, the existence of both sources of information (as it is the case in most Member States and participating countries) helps considerably to cross check their information.

For this purpose, the EMCDDA recommends that, when available, data from both GMR and SR are reported. Reporting and cross analysis of both sources will contribute to improve their quality and will improve also the understanding and interpretation of trends (in numbers and characteristics of victims).

Advantages and disadvantages of both registries:

	General Mortality Registries (GMR)	Special Registries (SR)
Advantages	Solid indicator of the population impact of health problems Complete coverage (strong legal basis, death certification) International standards for procedures and classification (ICD) Guarantee of continuity	High detection rate (if good quality) More information per case, including toxicology Clearer causal relationship between drug use and death More timely
Disadvantages	Important underreporting/low detection rate in some countries Limited information in death certificate per case (e.g. toxicology, circumstances of death) Divergence across countries in some procedures and application of ICD Slow process and delay	Limited coverage in many countries No standard international classification or procedures Less guarantee of continuity Some cases may not be detected (e.g. dying in hospitals, non-marginalised populations)

This protocol explains how to operationalise the EMCDDA case definition by listing which cases (i.e. ICD codes) have to be selected and extracted from the national registries for reporting to the EMCDDA.

The core component of the guidelines consists of a set of categories of deaths that provide the best possible estimation for the conceptual case definition.

Several combinations of codes were tested (some more specific, or inclusive than others) and, eventually the sets to be selected were called 'Selection B' for the GMR and 'Selection D' for the SR. These sets were decided following discussions with the national experts of the Members States and EMCDDA, consultation with experts collaborating with WHO and Eurostat, and careful field-testing by an external contractor ([10]).

For the ICD-10 coded GMR, cases are included when the underlying cause of death was mental and behavioural disorders due to psychoactive substance use (harmful use, dependence, and other mental and behavioural disorders — F-codes) due to a number of drugs of abuse, or the underlying cause of death was poisoning (accidental, intentional or of undetermined intent — X- and Y-codes) due to a number of drugs of abuse. T-codes (coding for substances mentioned in the death certificate) are to be selected in combination with the respective X-codes and Y-codes.

([10]) See reports CT.99.RTX.04 and CT.00.RTX.22 coordinated by the Trimbos Institute (Utrecht).

For the SR, cases are included when the death was due to poisoning by a set of illegal drugs of abuse, by accident, suicide, or undetermined intent.

1.4 Reporting to the EMCDDA and data protection

The protocol foresees that National focal points report their data annually to the EMCDDA. Figures reported are a condensed summary, matching the EMCDDA definitions, called 'key figures'. These are a sub set of the more comprehensive dataset available at national level called here after 'detailed dataset'.
Initially, the key figures were reported through Standard tables 5 (Acute/direct drug-related death) and 6 (Evolution of acute/direct drug-related death) based on MS® Excel spreadsheets [Annex 3]. From 2007, online templates (Fonte templates) that contain the same information have replaced these tables [Annex 4 and 5] ([11]).

Detailed datasets as well as key figures are aggregated and anonymised. The Fonte data warehouse of national aggregated figures is password-protected and only accessible to the responsible persons in the NFP and in the EMCDDA.

Every three years, the EMCDDA asks the Member States to report the complete detailed datasets extracted initially from the sources ('detailed data collection or detailed dataset'), for quality assurance and for further broader analysis [Royuela 2004] ([12]).

DRD key figures are broken down by age-band, sex, and group of substance that caused the death (i.e. opiates, without opiates, other-mixed-unknown). The ICD-10 updates (2002–03) on DRD classification are expected to improve these classifications [Annex 7 and 8].

1.5 Objective of the DRD Standard Protocol V3.2

This protocol describes the procedures to extract initially a wide range of cases from the existing registries ('Detailed datasets'), and then the procedures to select the information from those cases that are relevant for the EMCDDA DRD indicator ('Key figures'). It provides to the national focal points of the Member States (namely national experts and data programmers in charge of the mortality registries) a protocol for extracting, collating and reporting key figures.

This version 3.2 replaces standard version 3.0 [EMCDDA 2002], and version 3.1 [EMCDDA 2005]. It completes and updates the previous versions on the practical implications on the DRD codification, of the ICD-updates (2002–03) issued by WHO which entered into force in January 2006, and the new reporting scheme to the EMCDDA through the Fonte system.

([11]) More available from: https://fonte.emcdda.europa.eu/fonte/common/home.do;jsessionid=da112b4169dc0053578076a13f3e4

([12]) Luis Royuela Morales. Assistance to the EMCDDA in data collection on drug-related deaths following the EMCDDA Protocol for the Key Indicator. EMCDDA Project CT.03.P1.214.,December 2004.

2. Methods

2.1 Introduction

The structure of the DRD Standard protocol is as follows:

- EMCDDA definitions with ICD-9 ([13]), ICD-10 and updates, and corresponding codes
- Part I applies to General Mortality Registries (GMR)
- Part IA applies to ICD-9 coded GMRs
- Part IB applies to ICD-10 coded GMRs
- Part II applies to Special Mortality Registries (SR).

Issues about reporting to the EMCDDA DRD data obtained through application of this protocol at national level: some definitions

Why the terminology 'Selection B' and 'Selection D'?
These terms were coined in the process of development and testing of different alternative options to apply in operative terms the general EMCDDA case definition to the GMR and SR (See report: Project 1999_CT.99.RTX.04).

'Detailed data set'
Database with all the detailed information on DRD covered/expected by this protocol both for GMR and SR. This is not raw individual data, but aggregated detailed data that allow a considerable number of breakdowns. It does not include only cases that fulfil EMCDDA case definition – Selection B or Selection D- but more cases for quality assurance (e.g. cases with psychoactive medicines or cases with unspecified cause of death). In principle these detailed data sets remain at national level, although the EMCDDA has collected them on a non-regular basis (planned every three years).

'Key figures'
Data reported every year to the EMCDDA in Reitox Tables (until 2006) and Fonte Templates, from 2007 onwards. They are aggregated summarised information based on cases fulfilling EMCDDA case definition — Selection B or Selection D. Not all possible breakdowns are reported.

Users of this protocol
This protocol is intended for specialists familiar with GMRs and/or SRs. It provides a method (or set of ICD codes for GMR) to extract cases from existing registries. This protocol does not give indications about death certification, investigation or WHO ICD coding. These issues are outside EMCDDA mandate and they are dealt with by international organisations (WHO) or national legislation. However, the EMCDDA exchanges information and collaborates with WHO experts and Eurostat on these topics in order to facilitate harmonisation and improvement of quality.

([13]) http://www.who.int/classifications/icd/en/

Updates of the DRD Standard Protocol

Version 3.0 to version 3.1 (2005)

DRD version 3.0 was presented as a self-contained document to be applied by National focal points, National experts, National working groups, and data-programmers. Version 3.0 applied direct data-delivery and omitted data collection by spreadsheets ([14]). *Note that the numeration of that version of the protocol (version 3.0) was due to the existence of previous working versions of the protocol. They are not presented here.*

The update 3.1 consisted only of a practical procedure to group cases already included in Selection B or D in three broad groups, according to existing information (Opiates — Non-opiates — Others/mixed/unknown). The procedure was described by adding Annex 5 to Version 3.0. This update does not modify the DRD definitions agreed when the protocol was drafted in 2002. Selection B and Selection D remain the same, as well as the corresponding procedures for data extraction and reporting from GMRs and SRs.

Version 3.1 to version 3.2 (2009–10)

This update consists of

1. The new features of data reporting to the EMCDDA through Fonte [Annex 4 and 5]

2. The new 'sub-table' on toxicology findings in post-mortem investigations, to be used from 2010 [Annex 6]. Note that this does not imply changes in the DRD protocol.

3. A practical procedure to extract and report cases from those GMRs that have implemented the ICD-10 updates (2002–03) [Annex 7 and 8] and how these updates affect the data extraction and reporting from GMR that have implemented it. This procedure was discussed and adopted in the annual expert meeting 2006. This update does not modify the DRD conceptual definition (as presented in the box below). Selection B is adapted for those countries where such ICD-updates have been implemented (only a few countries at the time of this revision).

4. A general editing took place, including a more detailed introduction on the conceptual framework of the different components of mortality related to drug use.

2.2 EMCDDA definition of drug-related deaths (DRD)

The concepts presented here are operationalised in the different sections of the protocol.

The EMCDDA definition of DRD in the Key Indicator is 'deaths happening shortly after consumption of one or more illicit psychoactive drugs, and directly related to this consumption, although they often may happen in combinations with other substances such as alcohol or psychoactive medicines.

Usually these deaths are also named 'overdoses', 'poisonings' or 'drug-induced deaths'.

([14]) The former spreadsheets used to send data to the EMCDDA, no longer in use, are in Annex 3 for clarification and better illustration of the process of data extraction and selection.

The EMCDDA in agreement with the group of national experts developed this common definition, focusing on those deaths directly related to consumption of illegal substances

The operational case definition agreed to obtain the appropriate cases from the relevant sources of information is detailed below, in terms of the specifics ICD codes to be included (GMRs) or the categories of cases from SRs.

Sources of information: most national statistics on DRD are recorded through General Mortality Registries (GMR) or Special Mortality Registries (SR). GMRs are present in all Member States and are usually maintained by the National Statistical Offices. SRs are present in many, but not all Member States and are often based on forensic or police recording systems. Some are specific ad-hoc registries on DRD based on the combination of forensic, police and toxicological sources — and in some cases, on additional sources.

Population covered: all persons who die in the national territory (independently of their nationality or residence status) and whose death is recorded on the GMR and/or SR, with sufficient information on the register regarding cause of death to allow their selection, if their cause of death matches the EMCDDA case definition. The feasibility to quantify the total number of non-residents included in the national figures reported annually to the EMCDDA (through the Fonte system) will be assessed.

2.3 Methods to extract the cases from mortality registries

In operational terms the cases are selected as follows, either from General Mortality Registries (GMR) or Special Mortality Registries (SR).

General method: extraction from GMR

Note: in some countries GMRs experience difficulties in identifying DRD and other external causes of death and therefore their SR is considered more reliable. The existence of both GMR and SR with a good consistency of the results (both in numbers and in trends) is the ideal situation.

The criteria are presented below according to ICD-9 and subsequent ICD-10 (including ICD-10 updates (2002–03)).

→ For the WHO ICD-9 coded GMRs the selection criteria were as follows: cases were counted when:

— their underlying cause of death was drugs psychoses, drug dependence, nondependent drug abuse, accidental poisoning, suicide and self-inflicted poisoning, and poisoning with undetermined intent;

— the death was due to a standard list of specific illicit drugs: opiates, cocaine, amphetamines and derivatives, cannabis and hallucinogens.

ICD-9 codes to be selected were the following:

Category of DRD	Selected ICD-9 code(s)
Drug psychoses	292
Drug dependence	304.0, 304.2-9
Non-dependent drug abuse	305.2-3, 305.5-7, 305.9
Accidental drug poisoning	E850.0, E850.8[1)], E854.1-2, E855.2, and E858.8[1)]
Suicide and self-inflicted drug poisoning	E950.0[1)] , E950.4[1)]
Drug poisoning undetermined intent	E980.0[1)], E980.4[1)]

([1]) In combination with N-codes (N965.0, and/or N968.5, and/or N969.6, and/or N969.7.)
Note: in certain categories cases had to be selected combining E-codes and N-codes.

This selection was agreed by the EMCDDA Expert Group on DRD and called **'Selection B'** (see details of codes below in Table 1 and 2: 'Coding of values for the variables 'DRD' and 'Filter_B' in ICD-9 coded General Mortality Registries' and 'Combinations of E-codes with only one N-code in ICD-9 coded General Mortality Registries'.

→ For the WHO ICD-10 coded GMRs the equivalent 'Selection B' was developed in consultation with Eurostat and the WHO experts, and adopted by the EMCDDA Expert Group on 24–25 June 2002 (following Project 2000_CT.00.RTX.22).

The 'Selection B' of ICD-10 codes (as underlying cause of death) to estimate the number of DRD are:

- Harmful use, dependence, and other mental and behavioural disorders due to:
  opioids (F11)
  cannabinoids (F12)
  cocaine (F14)
  other stimulants (F15)
  hallucinogens (F16)
  multiple drug use (F19)

- Accidental poisoning (X41, X42), intentional poisoning (X61, X62), or poisoning by undetermined intent (Y11, Y12) by:
  opium (T40.0)
  heroin (T40.1)
  other opioids (T40.2)
  methadone (T40.3)
  other synthetic narcotics (T40.4)
  cocaine (T40.5)
  other and unspecified narcotics (T40.6)
  cannabis (T40.7)
  lysergide (T40.8)
  other and unspecified psychodysleptics (T40.9)
  psychostimulants (T43.6)

Note: in certain categories cases have to be selected by combining X and Y-codes with T-codes (see details of codes below in Table 3: Coding of values for the variables 'DRD' and 'Filter_B', ICD-10).

A summarised form of presenting Selection B for ICD-10 is the following:

Underlying cause of death	Selected ICD-10 code(s)
Disorders	F11-F12, F14-F16, and F19
Accidental poisoning	X42[1)], X41[2)]
Intentional poisoning	X62[1)], X61[2)]
Poisoning undetermined intent	Y12[1)], Y11[2)]

([1]) In combination with the T-codes: T40.0-9, 2) In combination with the T-code: T43.6.

→ Effect of the (2006) WHO ICD-10 revision
Practicalities and implications are detailed later in the ICD-10 section of this protocol.

Alternative/complementary method: extraction from SR

The method based on the SR will be applied in countries where the general method cannot be implemented, as well as whenever possible as a backup estimate for the GMR.

Cases are counted when the death are due to poisoning (by accident, suicide, homicide, or undetermined intent) and due to opioids, amphetamines, cocaine (or crack), cannabis, hallucinogens, solvents ([15]), or synthetic designer drugs like amphetamine derivatives, alone or in combination.

The groups of deaths to be selected are the following:

Underlying cause of death	Further breakdown
Poisoning by: accident suicide undetermined intent	Poisoning by the substances: opioids methadone (only) poly-substances including opioids poly-substances excluding opioids unspecified substances

- 'poly-substances' should include at least two of the above mentioned substances, or at least one, in addition of alcohol, or psychoactive medicine.
- 'unspecified/unknown' will be included when it is assumed to include one of the above mentioned substances (i.e. based on other data without toxicological confirmation ([16]) ?)

See also Part II of the Protocol.
This selection was agreed by the EMCDDA group of experts. It was called **'Selection D'.**

([15]) As in GMR, solvent deaths are mainly accidents not related to abuse, it was decided not to include these codes in the GMR selection, to avoid over-inclusion of non-relevant cases.
([16]) In some cases (not many), toxicological analysis is not done (the forensic expert did not consider it necessary, toxicological analysis was not possible e.g. bodies in an advanced state of decomposition, samples lost or deteriorated in transportation, storage or analysis) but where there were circumstantial evidences of drug overdose (e.g. witnesses, paraphernalia with drugs, recent venopunctures) considered enough for the responsible professional for the case to be reported.

3. Part IA: Protocol for ICD-9 coded General Mortality Registries

3.1 Introduction

The General Mortality Registries codify the cause of death of all deceased persons according to the International Classification of Diseases (ICD) of the World Health Organization (WHO).

In all countries the 'underlying cause of death' is recorded, which is defined as the disease or injury which initiated the train of events directly leading to death or the circumstances of the accident or violence which produced the fatal injury.

In some countries also the 'contributory causes of death' are recorded. They are defined as follows 'A contributory cause of death is a significant condition that unfavourably influences the course of the morbid process and thus contributes to the fatal outcome, but which is not related to the disease or condition directly causing death'. However only a small number of countries include in their GMR contributory causes and the completeness and comparability of them in those countries is very difficult to assess at present.

An example of general information on ICD codification can be seen from:

http://www.statistics.gov.uk/about/classifications/ICD10/coding_underlying_cause_death.asp

The standard for GMRs comprises a series of underlying causes of deaths as coded under the ICD, 9th and 10th edition. These codes are specified at three- or four-digit level, for example — for the case of ICD 9 — E851 (Accidental poisoning by barbiturates) and E853.2 (Accidental poisoning by benzodiazepine-based tranquillizers).

Broad categories include:

— drug psychoses
— drug dependence
— non-dependent drug abuse
— poisoning
  i. accidental
  ii. by suicide and self-inflicted
  iii. with undetermined intent.

The substances causing death need to be specified:

— For ICD-9 coded GMRs (before the implementation of the ICD-10) this required that a number of defined E-codes (poisoning deaths) must be extracted in combination with nature of injury codes (N-codes) that specified the substance causing death.

— For ICD-10 coded GMRs this requires that X-codes and Y-codes be extracted in combination with T-codes (equivalent to N codes in ICD-9).

For ICD-9, as in many countries one E-code may have multiple associated N-codes (e.g. E850.8 (accidental poisoning due to mixed substances), can be complemented by N965.0 (opiates), N986.5 (cocaine), N969.6 (hallucinogens), etc.), a specific procedure had to be followed to exclude double counting as the DRD-Standard requires that one case must only be coded to one category.

However, in other countries, due to the organisation of their database, one E-code can be coupled with only one N-code. In this case, the procedure 'Alternative procedure: combination with only one N-code' should be followed.

Contributing causes of death were not included in this protocol because a significant number of European countries were not able to provide the corresponding data. There are also difficulties in the interpretation of the data.

Cases extracted and cases selected

Note that the defined groups used for data extraction and collection does not automatically imply that all causes of death extracted will be used for reporting the 'key figures' annually to the EMCDDA. A consensus was reached among EU experts to include in the EMCDDA definition the following categories:

- deaths by drug psychoses, drug dependence, non-dependent drug abuse, accidental poisoning, suicide and self-inflicted poisoning, and poisoning with undetermined intent;
- only deaths due to drugs typical of abuse like opiates, cocaine, amphetamines, cannabis and hallucinogens;
- psychoactive medicines will be excluded of drug-related deaths to be reported to the EMCDDA.

Causes of death related to unspecified drugs are only collected to obtain insight into the accuracy of coding.

These selections of cases (ICD-9 or ICD-10) were called 'Selection B' and they were used to report the 'key figures' annually to the EMCDDA through the Standard Reitox tables.
In a summarised way, for ICD-9 coded GMRs, the EMCDDA definition ('Selection B') focuses on the following categories of underlying causes of death:

Underlying cause of death	Selected ICD-9 code(s)
Drug psychoses	292
Drug dependence	304.0, 304.2-9
Non-dependent drug abuse	305.2-3, 305.5-7, 305.9
Accidental drug poisoning	E850.0, E850.8[1)], E854.1-2, E855.2, and E858.8[1)]
Suicide and self-inflicted drug poisoning	E950.0[1)] , E950.4[1)]
Drug poisoning undetermined intent	E980.0[1)], E980.4[1)]

([1]) In combination with N-codes (N965.0, and/or N968.5, and/or N969.6, and/or N969.7), as explained below.

3.2 Procedure for ICD-9 coded GMRs

The procedure to be applied by the national experts and data programmers was as follows:

- Step 1: Extract and collect data in the format of the EMCDDA database (MS Excel™ format at the time) as a 'detailed data set' (defined in Methods 1.1).

- Step 2: From the database extracted in Step 1, select the data to be reported in the 'key figures' for the Fonte online templates (formerly for Standard Reitox tables) (defined in Methods 1.1).

3.3 Step 1: Extract and collect data in the format of the EMCDDA database

Every two or three years, the EMCDDA intends to request the 'detailed data set' resulting of application of the DRD Standard to the GMR or SR in the following format.

In the case of the GMR (when the ICD-9 was used) the database to be delivered had the format presented below. However, note that the ICD-9 classification is not used anymore in Europe. This format will not be required in the future (but it is showed here as a considerable part of data collected in earlier years was based on this classification (see section 4 for the corresponding ICD-10 information):

Variable	Country	Year	Gender	Age group	DRD code	Number	Filter_B
Coding/ values	008-826	1985 ff.	1–3	6–18	1–55	1 ff.	0–1

As mentioned before 'key figures' for annual reporting to the EMCDDA have to be computed by national experts on their own database (the 'detailed data set' to be maintained at national level, after it has been extracted from the mortality register). Therefore it is necessary to extract and collect data in this format each year.

The cases selected to compute 'key figures' will be extracted by means of the variable 'Filter_B' at step 2 of the procedure below.

SPSS databases or those in other formats that could easily apply filters were preferred. Data could be collected in MS™ Excel spreadsheets but this made the application of filters more difficult.

The different variables and the values they can take are now explained further.

Country
The variable 'Country' complies with the ISO 3166 standard for country codes (RIPE Network Coordination Centre, 1994). 'Country' is an alphanumeric variable which implies that for variable starting with a zero, the zero must be included (e.g. Austria is '040' and not '40').

In SPSS databases, alphanumeric variables are defined as the type 'string' and in MS™ Excel as 'text' format.

The country codes are as follows:
- 008 for Albania
- 040 for Austria
- 056 for Belgium
- 100 for Bulgaria
- 191 Croatia
- 196 for Cyprus
- 203 for Czech Republic
- 208 for Denmark
- 233 for Estonia
- 246 for Finland
- 250 for France
- 276 for Germany
- 300 for Greece
- 348 for Hungary
- 372 for Ireland
- 380 for Italy
- 428 for Latvia
- 440 for Lithuania
- 442 for Luxembourg
- 470 for Malta
- 528 for Netherlands
- 578 for Norway
- 616 for Poland
- 620 for Portugal
- 642 for Romania

- 703 for Slovak Republic
- 705 for Slovenia
- 724 for Spain
- 752 for Sweden
- 792 for Turkey
- 826 for United Kingdom

Year
For the variable 'Year' the respective year of death is filled in.

Gender
The variable 'Gender' runs from 1 through 3: the following codes are used:
- 1 for male
- 2 for female
- 3 for unknown.

Age group
The variable 'Age group' runs from 6 through 18: the following codes are used:
- 6 for <15 years
- 7 for 15–19 years
- 8 for 20–24 years
- 9 for 25–29 years
- 10 for 30–34 years
- 11 for 35–39 years
- 12 for 40–44 years
- 13 for 45–49 years
- 14 for 50–54 years
- 15 for 55–59 years
- 16 for 60–64 years
- 17 for >=65 years
- 18 for unknown.

DRD
The variable 'DRD' runs from 1 through 55 (codes and categories are in Table 1 below).

Number
The variable 'Number' stands for the total number of cases for this gender, age-band, year of death and DRD code. 'Zero cases' for a given gender, age-band, year of reporting and DRD code do not need not be reported. Therefore the minimum reported for 'Number' is one, through the maximum number found in a category.

Filter_B
Not all extracted data count for the 'key figures' (EMCDDA definition); only cases included in selection B count for the key figures for the Standard Reitox tables (Fonte templates). The variable 'Filter_B' defines this selection B.
A category (which can be one code, or a combination of codes) included in Selection B, receives the value '1'. A category or a code not included in selection B receives the value '0'.

In SPSS, Filter_B can be installed easily each year on updated databases by running a syntax command.

Table 1: Coding of values for the variables 'DRD' and 'Filter_B' in ICD-9 coded General Mortality Registries

DRD	ICD9-Code(s)	Drug psychoses	Filter_B	Broad Group (see note)
1	292	Drug psychoses	1	NS
DRD	**ICD9-Code(s)**	**Drug dependence**	**Filter_B**	
2	304.0	Morphine type	1	O
3	304.1	Barbiturate type	0	-
4	304.2	Cocaine	1	NO
5	304.3	Cannabis	1	NO
6	304.4	Amphetamine type and other psychostimulants	1	NO
7	304.5	Hallucinogens	1	NO
8	304.6	Other	1	NS
9	304.7	Combination of morphine-type drug with any other	1	O
10	304.8	Combination excluding morphine-type drug	1	NO
11	304.9	Unspecified	1	NS
DRD	**ICD9-Code(s)**	**Non-dependent abuse of drugs**	**Filter_B**	
12	305.2	Cannabis	1	NO
13	305.3	Hallucinogens	1	NO
14	305.4	Barbiturates and tranquillisers	0	-
15	305.5	Morphine type	1	O
16	305.6	Cocaine type	1	NO
17	305.7	Amphetamine type	1	NO
18	305.8	Antidepressants	0	-
19	305.9	Other, mixed, or unspecified	1	NS

DRD	ICD9-Code(s)	Accidental poisoning	Filter_B	Broad Group
20	E850.0	Opiates and related narcotics	1	O
21	E850.8 AND N965.0 AND N968.5	Mixed including opiates AND cocaine	1	O
22	E850.8 AND N965.0 AND NOT N968.5	Mixed including opiates AND NO cocaine	1	O
23	E850.8 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0	Cocaine OR stimulants OR hallucinogens and NO opiates	1	NO
24	E850.8 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)	Other, NO opiates, NO cocaine, NO stimulants, NO hallucinogens	0	-
25	E850.9	Unspecified analgesics, antipyretics, antirheumatics	0	-
26	E851	Barbiturates	0	-

27	E852	Other sedatives and hypnotics	0	-
28	E853.2	Benzodiazepines	0	-
29	E854.1	Psychodysleptics (including cannabis and hallucinogens)	1	NO
30	E854.2	Psychostimulants (including amphetamines)	1	NO
31	E855.2	Local anaesthetics (including cocaine)	1	NO
32	E855.9	Unspecified other drugs acting on the nervous system	0	-
33	E858.8 AND N965.0 AND N968.5	Mixed including opiates AND cocaine	1	O
34	E858.8 AND N965.0 AND NOT N968.5	Mixed including opiates AND NO cocaine	1	O
35	E858.8 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0	Cocaine OR stimulants OR hallucinogens and NO opiates	1	NO
36	E858.8 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)	Other, NO opiates, NO cocaine, NO stimulants, NO hallucinogens	0	-
37	E858.9	Unspecified other drugs	0	-
DRD	**ICD9-Code(s)**	**Suicide and self-inflicted poisoning**	**Filter_B**	
38	E950.0 AND N965.0	Opiates	1	O
39	E950.1	Barbiturates	0	-
40	E950.2	Other sedatives and hypnotics	0	-
41	E950.3 AND N969.4	Benzodiazepines	0	-
42	E950.4 AND N965.0 AND N968.5	Mixed including opiates AND cocaine	1	O
43	E950.4 AND N965.0 AND NOT N968.5	Mixed including opiates AND NO cocaine	1	O
44	E950.4 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0	Cocaine OR stimulants OR hallucinogens and NO opiates	1	NO
45	E950.4 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)	Other, NO opiates, NO cocaine, NO stimulants, NO hallucinogens	0	-
46	E950.5	Other unspecified drugs or medicine	0	-

DRD	ICD9-Code(s)	Poisoning undetermined intent	Filter_B	Broad Group
47	E980.0 AND N965.0	Opiates	1	O
48	E980.1	Barbiturates	0	-
49	E980.2	Other sedatives and hypnotics	0	-
50	E980.3 AND N969.4	Benzodiazepines	0	-
51	E980.4 AND N965.0 AND N968.5	Mixed including opiates AND cocaine	1	O
52	E980.4 AND N965.0 AND NOT N968.5	Mixed including opiates AND NO cocaine	1	O
53	E980.4 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0	Cocaine OR stimulants OR hallucinogens and NO opiates	1	NO
54	E980.4 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)	Other, NO opiates, NO cocaine, NO stimulants, NO hallucinogens	0	-
55	E980.5	Other unspecified drugs or medicine	0	-

Note:
The column 'Broad Group' refers to the category on which a case can be included according to the substance/s to which the death was attributed: (O; deaths with Opiates), (NO; deaths with No Opiates), (NS; Not Specified/mixed), (- ; Not applicable because those cases are not included in Selection B).

Explanation to single ICD-9 codes

Some DRD-codes are defined by just one ICD-9 code (codes underlined in table 1 above), and others by combinations of ICD-9 codes. If a DRD-code is defined by only one ICD-9 code, we only select a case if the underlying cause of death is coded to the respective ICD-9 code. This means that in case of one ICD-9 code, contributing causes of death are not taken into account and are not selected.
The DRD-codes that are defined by only one ICD-9 code are: DRD1 through DRD20, DRD25 through DRD32, DRD37, DRD39, DRD40, DRD46, DRD48, DRD49, and DRD55.

Explanation to combinations of ICD-9 codes

For the complete application of the DRD Standard, it is necessary that E-codes can be combined with at least two N-codes. In some countries only one N code is available, and in this case, see below for an alternative procedure.

The DRD-codes that are defined by combinations of E- and N-codes are the remaining (not underlined in table above). The selection criterion for these DRD-codes always starts with an E-code referring to the underlying cause of death: E850.8, E858.8, E950.0, E950.3, E950.4, E980.0, E980.3, and E980.4.

Of these, codes E950.0 and E980.0 must be extracted in combination with N-code 965.0 to obtain cases related to opiates. Similarly, codes E950.3 and E980.3 must be extracted in combination with N-code 969.4 to extract cases related to benzodiazepines.

The remaining four codes (E850.8, E858.8, E950.4, E980.4) are known to be associated with multiple N-codes, at least in some countries. In order to avoid double counting, cases should be assigned into one of four mutually exclusive categories.

At a descriptive level these categories are:

- opiates AND cocaine (regardless of other substances);
- opiates AND NO cocaine (regardless of other substances);
- mixed, including one or more of the following: cocaine OR stimulants OR hallucinogens AND NO opiates (regardless of other substances);
- other, NO opiates, NO cocaine, NO stimulants, NO hallucinogens.

The corresponding definitions are DRD21-DRD24, DRD33-DRD36, DRD42-DRD45 and DRD51-DRD54 (table above).

Alternative procedure: use N-codes located exceptionally in the place reserved to contributing causes

In some countries, codes E850.8, E858.8, E950.4 or E980.4 (underlying cause of death) may have one additional-code (secondary cause) for the nature of injury that is non-specific, for example, code N977.8 (other drugs and medicines) or N977.9 (unspecified drug or medicine).

Information on the specific substances involved (e.g. opiates) may be contained in series of N-codes recorded in addition to this unspecified N code. These additional N codes may be located in the space physically reserved to ‘contributing causes’ (though they are not contributing causes). In this specific situation, the N-codes recorded as (in the location of) *contributing* causes of death, and all other information pertaining to a case, must also be taken into account.

For example, if the underlying cause of death is coded to E850.8 in combination with N965.0 and in combination with N968.5, the case counts as a DRD21 'Mixed including opiates AND cocaine'. The case counts as a DRD21 if in all information about the case, including the codes placed in the location of contributing causes, E850.8 is found in combination somewhere with N965.0 AND somewhere with N968.5.

The same logic applies to the other DRD-codes that are defined by combinations of E-codes and N-codes.

Alternative procedure: Combinations with only one N-code

To apply the DRD-Standard completely, it is necessary that ICD-9 E-codes can be combined with at least two ICD-9 N-codes. However, for the General Mortality Registers of some countries, E-codes can only be combined with one N-code. The following guidelines and Table 2 describe how to compute DRD1 through DRD55 in case E-codes can only be combined with one N-code.

Following the guidelines below will have for consequences to merge categories DRD21 with 22, DRD33 with 34, DRD42 with 43 and DRD51 with 52 (see underlined categories in Table 2).

Table 1 above shows that DRD21, DRD33, DRD42, and DRD51 are included in Filter_B. In case only one N-code is available, they will be included also in Selection B (same Filter_B applied) to report the key figures for the Standard Reitox tables.

Table 2: Combinations of E-codes with only one N-code in ICD-9 coded General Mortality Registries

DRD-number(s)	Computation prescription	Explanation
DRD1 through DRD20	Compute as already prescribed in Table 1.	
DRD21	E850.8 AND N965.0	Meaning 'accidental poisoning, mixed including opiates'.
DRD22	Do not compute but leave empty.	Because these cases are merged with DRD21
DRD23	E850.8 AND N968.5 E850.8 AND N969.7 E850.8 AND N969.6	Compute DRD23 as 'E850.8 AND (N968.5 OR N969.7 OR N969.6)', meaning 'accidental poisoning, including cocaine OR stimulants OR hallucinogens'.
DRD24 through DRD32	Compute as already prescribed in Table 1.	
DRD33	E858.8 AND N965.0	Compute DRD33 as 'E858.8 AND N965.0', meaning 'accidental poisoning, mixed including opiates'.
DRD34	Do not compute but leave empty.	Because these cases are merged with DRD33.
DRD35	E858.8 AND N968.5 E858.8 AND N969.7 E858.8 AND N969.6	Compute DRD35 as 'E858.8 AND (N968.5 OR N969.7 OR N969.6)', meaning 'accidental poisoning, including cocaine OR stimulants OR hallucinogens'.
DRD36 through DRD41	Compute as already prescribed in Table 1.	
DRD42	E950.4 AND N965.0	Compute DRD42 as 'E950.4 AND N965.0', meaning 'suicide and self-inflicted poisoning, mixed including opiates'.
DRD43	Do not compute but leave empty.	because these cases are merged with DRD42.
DRD44	E950.4 AND N968.5 E950.4 AND N969.7 E950.4 AND N969.6	Compute DRD44 as 'E950.4 AND (N968.5 OR N969.7 OR N969.6)', meaning 'suicide and self-inflicted poisoning, including cocaine OR stimulants OR hallucinogens'.
DRD45 through DRD50	Compute as already prescribed in Table 1.	
DRD51	E980.4 AND N965.0	Compute DRD51 as 'E980.4 AND N965.0', meaning 'poisoning undetermined intent, mixed including opiates'.
DRD52	Do not compute but leave empty.	because these cases are merged with DRD51.
DRD53	E980.4 AND N968.5 E980.4 AND N969.7 E980.4 AND N969.6	Compute DRD53 as 'E980.4 AND (N968.5 OR N969.7 OR N969.6)', meaning 'poisoning undetermined intent, including cocaine OR stimulants OR hallucinogens'.
DRD54 through DRD55	Compute as already prescribed in Table 1.	

3.4 Step 2: Select the data to be reported annually as condensed 'key figures' to the EMCDDA

Each year, the key figures on DRD are reported to the EMCDDA. Note that until 2006 these key figures were reported through Reitox Standard tables (5 and 6) as in other topics. From 2007 onwards these data are collected by online Fonte system, but the information collected remains the same, with some format changes.

1. In Annex 4, the link to the current Fonte template of Standard Table 5 is provided.
2. Information on the online Fonte system is presented on Annex 5.

COUNTRY:				
Year of reporting:				
ICD version used:				
		Male	Female	Total
Number of cases				
Mean age				
Age distribution (number)	<15			
	15-19			
	20-24			
	25-29			
	30-34			
	35-39			
	40-44			
	45-49			
	50-54			
	55-59			
	60-64			
	>=65			
	Not known			
Toxicology		--------	--------	--------
Number of cases with known toxicology				
of which (1)				
a) number with opiates (+any drug)				
b) number any drug without opiates				
c) number "other/mixed/unspecified)"				

(1) The groups (a), (b) and (c) are mutually exclusive

Only include those cases (DRD-numbers) that have a '1' on Filter B. In SPSS, the key figures can easily be calculated by means of custom tables by the sum of values of the variable 'Number'.

Filling in 'Toxicology' section: grouping DRD cases (Selection B) into broad groups
In Table 1 (the last column) describes how to group DRD cases (included in Selection B) into broad groups by type of substance involved

- 'cases with opiates'
- 'cases without opiates'
- 'other, mixed or unspecified'.

More information on the use of this grouping to fill in the toxicology section of Reitox Standard Tables 5 and 6 (the parts based on Selection B) is given in the following section on the ICD-10 code GMR — see page 48). That will apply to the respective Fonte templates.
This procedure will facilitate the consistent grouping of ICD codes into the three broad groups and in particular for codes that imply 'Other, mixed or unspecified' where it is not possible (on the basis of the ICD code assigned to the case) to allocate cases neither to the broad group 'with opiates' nor 'without opiates'. See also discussion on this issue on Page 42 (Point 4.1.1.2)

4. Part IB: Protocol for ICD-10 coded General Mortality Registries

For an introduction to ICD-coded GMRs, see the introduction above, the rationale behind ICD-10 coded GMRs remaining unchanged compared to ICD-9.

The set of codes to be selected to produce the EMCDDA case definition from ICD-10 coded GMRs is presented below, in two sections:

1. The first section for the original version of ICD-10 classification (still used in most countries at the time of revision of this protocol),
2. The second section that enumerates the codes to be selected in countries that have implemented the ICD-10 updates (2002–03). At the time of revision of this protocol this affects only to a few EU countries.

4.1 Original version of ICD-10 classification (before implementation of the ICD-10 updates (2002-03))

For ICD-10, the EMCDDA definition ('Selection B') focuses on categories of underlying causes of death described above in 'Summary of definition' (page 15) and detailed below page 41 (Table 3):

Underlying cause of death	Selected ICD-10 code(s)
Disorders	F11-F12, F14-F16, and F19
Accidental poisoning	X42[1)], X41[2)]
Intentional poisoning	X62[1)], X61[2)]
Poisoning undetermined intent	Y12[1)], Y11[2)]

([1]) In combination with the T-codes: T40.0-9, 2) In combination with the T-code: T43.6

This 'Selection B' of ICD-10 codes to estimate the number of drug-related deaths can be presented also as follows:

- Harmful use, dependence, and other mental and behavioural disorders due to:
  opioids (F11)
  cannabinoids (F12)
  cocaine (F14)
  other stimulants (F15)
  hallucinogens (F16)
  multiple drug use (F19).

- Accidental poisoning (X41, X42), intentional poisoning (X61, X62), or poisoning by undetermined intent (Y11, Y12) by:
  opium (T40.0)
  heroin (T40.1)
  other opioids (T40.2)
  methadone (T40.3)
  other synthetic narcotics (T40.4)
  cocaine (T40.5)
  other and unspecified narcotics (T40.6)
  cannabis (T40.7)
  lysergide (T40.8)
  other and unspecified psychodysleptics (T40.9)
  psychostimulants (T43.6)

4.1.1 Procedure

In general, the procedure to be applied by the national experts and the data programmers is as follows:
— Step 1: Extract and collect data in the format of the EMCDDA database.
— Step 2: Select the data to be reported in the key figures for the Standard Reitox tables.

The two steps are now further explained.

4.1.2 Step 1: Extract and collect data in the format of the EMCDDA database

Every two or three years, the EMCDDA intends to request the 'detailed data set' (point 1.1, methods, introduction) resulting of application of the DRD Standard to the GMR or SR in the following format. This more detailed data collection has as objective to ensure consistent application of the DRD protocol methodology, to assure quality and to allow more detailed analysis.

Variable	Country	Year	Gender	Age group	DRD code	Number	Filter_B
Coding/ values	008-826	1985 ff.	1–3	6–18	56–151	1 ff.	0–1

As mentioned before 'key figures' for annual reporting to the EMCDDA have to be computed by national experts on their own database (the 'detailed data set' to be maintained at national level), and to be reported to the EMCDDA through the Fonte on-line system. Therefore it is necessary to extract and collect data in this 'detailed' format each year, in order to compute the 'key figures'. The cases used to compute 'key figures' will be calculated by means of the variable 'Filter_B' (see step 2 of the procedure, below).

SPSS databases or those in another format that could easily apply filters were preferred. Data could be collected in MS Excel™ format spreadsheets but this made the application of filters more difficult.

The different variables and the values they can take are now explained further.

Country
The variable 'Country' complies with the ISO 3166 standard for country codes (RIPE Network Coordination Centre, 1994).

'Country' is an alphanumeric variable. This implies that for values that start with a zero, that zero has a meaning and must be included. For example, Austria must be coded alphanumerically to '040', and not numerically as the mere figure '40'. In SPSS databases, alphanumeric variables are defined as the type 'string'. In MS Excel™ spreadsheets, alphanumeric variables are defined as 'text'.

The country codes are as follows:
- 008 for Albania
- 040 for Austria
- 056 for Belgium
- 100 for Bulgaria
- 191 for Croatia
- 196 for Cyprus
- 203 for Czech Republic
- 208 for Denmark
- 233 for Estonia
- 246 for Finland
- 250 for France
- 276 for Germany
- 300 for Greece
- 348 for Hungary
- 372 for Ireland
- 380 for Italy

- 428 for Latvia
- 440 for Lithuania
- 442 for Luxembourg
- 470 for Malta
- 528 for Netherlands
- 578 for Norway
- 616 for Poland
- 620 for Portugal
- 642 for Romania
- 703 for Slovak Republic
- 705 for Slovenia
- 724 for Spain
- 752 for Sweden
- 792 for Turkey
- 826 for United Kingdom

Year
For the variable 'Year' the respective year is filled in.

Gender
The variable 'Gender' runs from 1 through 3.

The following codes are used:
- 1 for male
- 2 for female
- 3 for gender unknown.

Age group
The variable 'Age' runs from 6 through 18.

The following codes are used:
- 6 for <15 years
- 7 for 15–19 years
- 8 for 20–24 years
- 9 for 25–29 years
- 10 for 30–34 years
- 11 for 35–39 years
- 12 for 40–44 years
- 13 for 45–49 years
- 14 for 50–54 years
- 15 for 55–59 years
- 16 for 60–64 years
- 17 for >=65 years
- 18 for age unknown.

DRD
The variable 'DRD' runs from 56 through 151. The codes are described in Table 3.

Number
The variable 'Number' stands for the number of drug-related deaths. Zero cases need not be delivered. Therefore 'Number' runs from 1 through the maximum number found in a category.

Filter_B
As already explained above, not all extracted data count for the 'key figures' (the EMCDDA definition). Only cases included in selection B do count for the key figures for the Standard Reitox tables. Selection B is the selection on which consensus was found among the national

experts of the EU. The variable 'Filter_B' defines this selection B. A category included in selection B, receives the value '1'. A category not included in selection B receives the value '0'.
In SPSS, Filter_B can be installed easily each year on updated databases by running a syntax command (Annex 2).

Note: the procedure will differ according to the availability of T-codes or not (see respectively Tables 3a and 3b) and notes before table 3b.

Table 3a: Coding of values for the variables 'DRD' and 'Filter_B' for ICD-10 coded GMR – when T-codes are available

DRD	ICD10-Code(s)	Disorders: Acute intoxication	Filter_B	Broad Group (See note)
56	F11.0	Opioids	1	O
57	F12.0	Cannabinoids	1	NO
58	F13.0	Sedatives	0	-
59	F14.0	Cocaine	1	NO
60	F15.0	Other stimulants	1	NO
61	F16.0	Hallucinogens	1	NO
62	F18.0	Volatile solvents	0	-
63	F19.0	Multiple/other	1	NS
DRD	**ICD10-Code(s)**	**Disorders: Harmful use**	**Filter_B**	**-**
64	F11.1	Opioids	1	O
65	F12.1	Cannabinoids	1	NO
66	F13.1	Sedatives	0	-
67	F14.1	Cocaine	1	NO
68	F15.1	Other stimulants	1	NO
69	F16.1	Hallucinogens	1	NO
70	F18.1	Volatile solvents	0	-
71	F19.1	Multiple/other	1	NS
DRD	**ICD10-Code(s)**	**Disorders: Dependence**	**Filter_B**	**-**
72	F11.2	Opioids	1	O
73	F12.2	Cannabinoids	1	NO
74	F13.2	Sedatives	0	-
75	F14.2	Cocaine	1	NO
76	F15.2	Other stimulants	1	NO
77	F16.2	Hallucinogens	1	NO
78	F18.2	Volatile solvents	0	-
79	F19.2	Multiple/other	1	NS
DRD	**ICD10-Code(s)**	**Disorders: Other**	**Filter_B**	
80	F11.3-9	Opioids	1	O
81	F12.3-9	Cannabinoids	1	NO
82	F13.3-9	Sedatives	0	-
83	F14.3-9	Cocaine	1	NO
84	F15.3-9	Other stimulants	1	NO
85	F16.3-9	Hallucinogens	1	NO
86	F18.3-9	Volatile solvents	0	-
87	F19.3-9	Multiple/other	1	NS

Coding to be used ONLY if T-Codes are available				
DRD	**ICD10-Code(s)**	**Accidental poisoning**	**Filter_B**	**Broad Group (see note)**

88	X42 AND T40.0	Opium	1	O
89	X42 AND T40.1	Heroin	1	O
90	X42 AND T40.2	Other opioids	1	O
91	X42 AND T40.3	Methadone	1	O
92	X42 AND T40.4	Other synthetic narcotics	1	O
93	X42 AND T40.5	Cocaine	1	NO
94	X42 AND T40.6	Other and unspecified narcotics	1	NS
95	X42 AND T40.7	Cannabis	1	NO
96	X42 AND T40.8	Lysergide [LSD]	1	NO
97	X42 AND T40.9	Other/unspec. psychodysleptics	1	NS
98*	This code will apply only if T-codes are NOT available (see next table)			
99	X41 AND T42.3	Barbiturates	0	-
100	X41 AND T42.4	Benzodiazepines	0	-
101	X41 AND T42.6	Other antiepileptic and sedative	0	-
102	X41 AND T42.7	Antiepileptic and sedative unspec.	0	-
103	X41 AND T43.6	Psychostimulants	1	NO
104	X4* AND T43.8	Other psychotropic	0	-
105	X4* AND T43.9	Psychotropic unspecified	0	-
106	X44 AND T50.9	Other and unspecified drugs	0	-
107	X49 AND T50.9	Other and unspecified chemicals	0	-
DRD	**ICD10-Code(s)**	**Intentional poisoning**	**Filter_B**	**-**
108	X62 AND T40.0	Opium	1	O
109	X62 AND T40.1	Heroin	1	O
110	X62 AND T40.2	Other opioids	1	O
111	X62 AND T40.3	Methadone	1	O
112	X62 AND T40.4	Other synthetic narcotics	1	O
113	X62 AND T40.5	Cocaine	1	NO
114	X62 AND T40.6	Other and unspecified narcotics	1	NS
115	X62 AND T40.7	Cannabis	1	NO
116	X62 AND T40.8	Lysergide [LSD]	1	NO
117	X62 AND T40.9	Other/unspec. psychodysleptics	1	NS
118*	This code will apply only if T-codes are NOT available (see next table)			
119	X61 AND T42.3	Barbiturates	0	-
120	X61 AND T42.4	Benzodiazepines	0	-
121	X61 AND T42.6	Other antiepileptic and sedative	0	-
122	X61 AND T42.7	Antiepileptic and sedative unspec.	0	-
123	X61 AND T43.6	Psychostimulants	1	NO
124	X6* AND T43.8	Other psychotropic	0	-
125	X6* AND T43.9	Psychotropic unspecified	0	-
126	X64 AND T50.9	Other and unspecified drugs	0	-
127	X69 AND T50.9	Other and unspecified chemicals	0	-

DRD	**ICD10-Code(s)**	**Poisoning undetermined intent**	**Filter_B**	**Broad Group**
128	Y12 AND T40.0	Opium	1	O
129	Y12 AND T40.1	Heroin	1	O
130	Y12 AND T40.2	Other opioids	1	O
131	Y12 AND T40.3	Methadone	1	O
132	Y12 AND T40.4	Other synthetic narcotics	1	O
133	Y12 AND T40.5	Cocaine	1	NO
134	Y12 AND T40.6	Other and unspecified narcotics	1	NS
135	Y12 AND T40.7	Cannabis	1	NO
136	Y12 AND T40.8	Lysergide [LSD]	1	NO
137	Y12 AND T40.9	Other/unspec. psychodysleptics	1	NS
138*	This code will apply only if T-codes are NOT available (see next table)			

139	Y11 AND T42.3	Barbiturates	0	-
140	Y11 AND T42.4	Benzodiazepines	0	-
141	Y11 AND T42.6	Other antiepileptic and sedative	0	-
142	Y11 AND T42.7	Antiepileptic and sedative unspec.	0	-
143	Y11 AND T43.6	Psychostimulants	1	NO
144	Y1* AND T43.8	Other psychotropic	0	-
145	Y1* AND T43.9	Psychotropic unspecified	0	-
146	Y14 AND T50.9	Other and unspecified drugs	0	-
147	Y19 AND T50.9	Other and unspecified chemicals	0	-
DRD	**ICD10-Code(s)**	**ILL defined**	**Filter_B**	**-**
148	R96.0	Instantaneous death	0	-
149	R96.1	Death not otherwise explained	0	-
150	R98	Unattended death	0	-
151	R99	Other ill-defined and unspecified	0	-
* see Alternative procedure: X- and Y-codes without T-codes (specific table below)				

Note:
The column 'Broad Group' refers to the category on which a case can be included according to the substance/s to which the death was attributed: (O; deaths with Opiates), (NO; deaths with No Opiates), (NS; Not Specified/mixed), (- ; Not applicable because those cases are not included in Selection B).

Explanation to single ICD-10 codes

Some DRD-codes are defined by just one ICD-10 code and others by combinations of ICD-10 codes. If a DRD-code is defined by only one ICD-10 code, only select a case if the underlying cause of death is coded to the respective ICD-10 code. This means that in case of one ICD-10 code, contributing causes of death are not taken into account and are not selected.

The DRD-groups defined by only one ICD-10 code are DRD56 through DRD87 (all F-codes, defining 'disorders').

Note that some groups apply only to those countries that do not have T codes DRD98, DRD118, DRD138. (See below).

Note also that codes R are only collected for quality purposes –to assess number of deaths coded to ill-defined causes of death.

Explanation to combinations of ICD-10 codes

It is preferred that X- and Y-codes can be combined with at least one T-code that specifies the underlying cause of death. In case no T-code is available, see below for the alternative procedure.
The DRD-codes that are defined by combinations of X- and Y-codes with T-codes are: DRD88 through DRD97, DRD99 through DRD117, DRD119 through DRD137, and DRD139 through DRD147.
The selection criterion for these DRD-codes always starts with an X- or Y-code. These are primarily X42, X41, X62, X61, Y12, and Y11. These X- and Y-codes refer to the underlying cause of death. At DRD88, for example, 'X42 AND T40.0' represents accidental poisoning by opium.

Alternative procedure: T-codes by exception from contributing causes

As in the case of ICD-9 (see page 28), in some countries, information on the specific substances involved (e.g. opiates) may be contained in a series of T-codes recorded in the placed reserved to 'contributing causes' (although they are not contributing causes). In this

specific situation, the T-codes recorded as (in the place of) contributing causes of death and all other information pertaining to a case, must also be taken into account.
For example, if the underlying cause of death is coded to X42 in combination with T40.0, the case counts as a DRD88. The case counts as a DRD88 if in all information about the case, including that located in place reserved to contributing causes, X42 is found in combination somewhere with T40.0. The same logic applies to the other DRD-codes that are defined by combinations of X- and Y-codes with T-codes.

Alternative procedure: X- and Y-codes without T-codes

To apply the DRD-Standard completely, it is necessary that ICD-10 X- and Y-codes can be combined with at least one T-code. However, for the GMR of some countries, X- and Y-codes cannot be combined with any T-code. The following guidelines describe how to proceed then:

However, be aware that in case no T-codes are available, selection B for the key figures cannot be made. Only over-inclusive data can then be extracted.

The extraction based on F-codes remains unchanged. The extractions based on X and Y codes are simplified (see explanations and table 3b below):

Do not compute DRD88 through DRD97, but only compute DRD98, **that is X42**.
Do not compute DRD99 through DRD105.
For DRD106, instead of 'X44 AND T50.9', only compute **X44**.
For DRD107, instead of 'X49 AND T50.9', only compute **X49**.
Do not compute DRD108 through DRD117, but only compute DRD118, **that is X62**.
Do not compute DRD119 through DRD125.
For DRD126, instead of 'X64 AND T50.9', only compute **X64**.
For DRD127, instead of 'X69 AND T50.9', only compute **X69**.
Do not compute DRD128 through DRD137, but only compute DRD138, **that is Y12**.
Do not compute DRD139 through DRD145.
For DRD146, instead of 'Y14 AND T50.9', only compute **Y14**.
For DRD147, instead of 'Y19 AND T50.9', only compute **Y19**.

Note: This table does not imply any change from previous version of the protocol. It presents the same information with Table layout –Table- for more clarity.

Notice that some countries do not apply T-codes (nature of injury), so they can do an approximation to Selection B with this alternative procedure (same than in version 3.0).
T-codes are not underlying (main) or contributory (secondary) causes of death, but additional information about the "nature of injury". [17]

Table 3b: Coding of values for the variables 'DRD' and 'Filter_B' for ICD-10 coded GMR – when T-codes are NOT available

DRD	ICD10-Code(s)	Disorders: Acute intoxication	Filter_B	Broad Group (See note)
56 to 87	Computation of DRD56 through DRD87 remains the same as in the previous table 3a			

[17] Most countries do not publish their national figures based on T codes –as that could make tables complicated - but do have the information in their databases. This is simply an editorial decision. The national experts, to produce Selection B usually go directly to the National Statistical Institute and have developed with them specific extraction procedures.

Coding to be used only if T-Codes are NOT available				
DRD	**ICD10-Code(s)**	**Accidental poisoning**	**Filter_B**	**Broad Group**
98	X42	Narcotics and psychodysleptics	1	NS
	X44	Other and unspecified drugs, medicine and biological substances	0	
	X49	Other and unspecified chemicals and noxious substances	0	
DRD	**ICD10-Code(s)**	**Accidental poisoning**	**Filter_B**	**Broad Group**
18	X62	Narcotics and psychodysleptics	1	NS
	X64	Other and unspecified drugs, medicine and biological substances	0	
	X69	Other and unspecified chemicals and noxious substances	0	
DRD	**ICD10-Code(s)**	**Poisoning undetermined intent**	**Filter_B**	**Broad Group**
138	Y12	Narcotics and psychodysleptics	1	NS
	Y14	Other and unspecified drugs, medicine and biological substances	0	
	Y19	Other and unspecified chemicals and noxious substances	0	

4.1.2 Step 2: Select the data to be reported annually as condensed 'key figures' to the EMCDDA

The following step applies to both the original version of ICD-10 classification, and to countries where the ICD-10 updates (2002–03) are implemented.

Each year, the key figures on DRD are reported to the EMCDDA. Until 2006 these key figures were reported through Reitox Standard tables (5 and 6) as in other topics, and from 2007 onwards these data are collected by online Fonte system. Information collected remains the same, with some format changes.

1. In Annex 4, the link to the current Fonte template of Standard Table 5 is provided.
2. Information on the online Fonte system is presented in Annex 5.

COUNTRY:				
Year of reporting:				
ICD version used:				
		Male	Female	Total
Number of cases				
Mean age				
Age distribution (number)	<15			
	15-19			
	20-24			
	25-29			
	30-34			
	35-39			
	40-44			
	45-49			
	50-54			
	55-59			
	60-64			
	>=65			
	Not known			
Toxicology		--------	--------	-------
Number of cases with known toxicology				
of which (1)				
a) number with opiates (+any drug)				
b) number any drug without opiates				
c) number "other/mixed/unspecified)"				

(1) The groups (a), (b) and (c) are mutually exclusive

Only include cases (DRD-numbers) that have a '1' on Filter B. In SPSS, the key figures can easily be calculated by means of custom tables by the sum of values of the variable 'Number'.

Filling in 'Toxicology' section: grouping DRD cases (Selection B) into broad groups

The reporting of key figures on DRD requires very basic differentiation of cases with regard to the substances involved: cases with opiates, without opiates and cases for which information available do not allow classifying them in either of the two groups.

The procedures of the ICD, in both 9th and 10th editions, prescribe that codes should be selected on the basis of information available to coders on the death certificate (unless complementary information e.g. toxicology, is provided to coders, or further queries conducted). Information available on death certificates is often limited regarding substances causing or present in poisoning deaths and coders have to use codes indicating 'other' or 'unspecified' substances. In other cases, even if information on substances found is available, ICD rules prescribe the use of certain codes indicating 'mixed' or 'multiple' substances when there are several substances from different groups.

This problem cannot be solved at the moment of data extraction from the GMR, and therefore a convention should be used to deal with other/mixed/unspecified cases when reporting through the Reitox Standard Tables.

TABLE 3 ([18]) (last column) describes how to group DRD cases included in Selection B into broad groups by type of substance involved

- 'cases with opiates' O
- 'cases without opiates' NO
- 'other, mixed or unspecified' NS

This procedure will facilitate the consistent grouping of ICD codes into the three groups and in particular for codes that imply 'Other, mixed or unspecified'.

Procedure for completion of the 'toxicology section'

Note: In some cases, this procedure may be applied also when the 'national definition' is not exactly the same, but similar to Selection B or to Selection D

(i) Based on Selection B

Table 5. Part 2A (based on Selection B) and, when 'national definition' is the 'Selection B':
- Table 5. Part 1 (in this case Part 1 and Part 2A will be equal)
- Table 6

For the section on the distribution of cases according to substances, compute the total number of cases in group 'O', 'NO' and 'NS' and report them in the respective rows.
The EMCDDA computes the percentages of cases in 'O' and 'NO' group, after exclusion of the 'NS' group, considered as 'missing values'.

For the section on 'cases with known toxicology'
Include the number of cases classified under 'O', 'NO' or 'NS'. The 'NS' group might include cases without toxicology, as well as 'multiple', 'other' or 'mixed' substances, but this cannot be known at the moment of data extraction. This is a general issue with the rules of ICD classification for GMR.

([18]) As well as Tables 1 and 2 for ICD-9 coded GMRs, and Table 4 for SRs.

(ii) Based on Selection D

As Selection D are based in Special Registries see the respective section.

(iii) Detailed toxicology findings, or 'Toxi sub-table 5'

The above described breakdown of cases with/without opiates provided limited information on the reported DRD cases. In order to explore the feasibility of collecting more detailed standard information, a 'Toxicology Field Trial' was launched, aiming to monitor drugs and combinations of drugs identified in the cases reported to the KI. The project started during the 2004 expert meeting, followed by a 1st field trial in 2006 and a 2nd in 2007–08 with an updated MS® Excel template. Twelve countries participated, reporting more than 7 000 cases and the feasibility study showed that this data collection provided useful information. It showed that in some countries, the information was readily available or accessible with limited additional efforts (no need for new collection of DRD cases).
This was presented and discussed with the DRD experts during the 2009 annual meeting, and the principle of this enhanced data collection was accepted by the Heads of focal points in November 2009. The 'Toxi sub-table 5' [link in Annex 6] is included in Fonte in 2010.

Note: the Toxi-Table is independent from the DRD protocol — it cannot be constructed even from the 'detailed data set', and needs additional different information. This new development is included in this version of the protocol though as it will significantly increase the amount of information available through the KI standard reporting.

4.2 ICD-10 updates (2002–03) and effects on how to compute Selection B

- This section applies only to countries where the 2002/03 ICD-10 updates have been implemented.
- For the time being (2010) this has been done only in few countries. Please check with your respective National Statistical Office – or the institute in charge of the GMR.

Several ICD-10 updates for codification of deaths due to drug intoxications were adopted in 2002 and 2003 by the Heads of WHO Collaborating Centres for International Classifications in Health Care and entered into force from 1st January 2006.

This section refers only to this ICD-10 updates (2002–03) classification system and only applies to countries where these ICD-10 updates (2002–03) have been implemented (either in 2006 as recommended or in a different year). As a pre-requisite, it is implied that countries already used main injury codes (T codes) in their GMR. This section does not affect SRs.

The ICD-10 updates (2002–03) indicate the following:

1. **Give poisoning (X or Y) priority over dependence (F)** and code lethal poisoning to X or Y codes and not to F code (.0) (Acute intoxication).
   This rule will not affect Selection B overall; it only will switch some cases from codes F (already included) to codes X or Y (also included).

2. **Rules for coding multiple substance poisonings** (when no component is specified as main cause by the certifier) [Annex 8].
   This may allow identifying some additional relevant DRD cases that previously might have been unrecognised (e.g. deaths due to combination of substances where it was not possible to know the main substance (and depending on which combination of substances). In some cases, it might have been coded to an unspecified group — such as X44 and T50.9, and therefore would not have been counted in Selection B).

This ICD-10 updates (2002–03) does not change the EMCDDA conceptual definition of DRD but enlarges to a limited extent the number of codes to be included in the practical computation of selection B for ICD-10. The following additional combinations of codes will be included (only in combination with relevant T codes):

- X44 accidental poisoning by and exposure to other and unspecified drugs, medicine and biological substances
- X64 intentional self-poisoning by and exposure to other and unspecified drugs, medicine and biological substances
- Y14 poisoning by and exposure to other and unspecified drugs, medicine and biological substances, undetermined intent

Additional codes to be selected are the following:

Underlying cause of death	Selected ICD-10 code(s) ([1])
Accidental poisoning	X44
Intentional poisoning	X64
Poisoning undetermined intent	Y14

([1]) Only in combination with main injury codes (T) T40.0-9 (narcotics and psychodysleptics) or T43.6 (stimulants with abuse potential).

Annex 7 presents more detailed information.

Annex 8 presents the list of additional DRD codes that are created following the application of the ICD-10 updates (2002–03) on instructions for DRD codification.

5. Part II: Protocol for Special Registries

As already mentioned above, there are two main sources of information on drug-related deaths: General Mortality Registers (GMRs), which are present in all countries of the European Union, and Special Registers (SRs) present in many countries but with some differences in organization.

Ideally specifically developed information systems combine several sources of information (e.g. forensic, police and others) which allows a high detection rate of cases. In other cases these registries are included in existing information systems of police or medico-legal institutions.

This section only applies to those Member States that hold a SR (at the time of editing this protocol many countries have a form of SR). Both registers have advantages and disadvantages. Ideally, data from both GMR and SR will complement and help cross validate each other.

For this purpose, the EMCDDA recommends that, when available, data from both sources are reported. Cross analysis of both sources will contribute to improve their quality as well as the understanding and interpretation of trends (in numbers and characteristics of victims).
For the SR, the DRD Standard focuses on the following categories of underlying causes of death:

Underlying cause of death	Further breakdown
Poisoning by: accident suicide undetermined intent	Poisoning by the substances: opioids methadone (only) poly-substances including opioids (poly)substances excluding opioids unspecified substances

For validation purposes, data are also collected for poisoning by medicines and deaths by other causes than poisoning. However, only cases of poisoning by drugs of abuse are considered as part of the EMCDDA definition (Selection D) and will therefore be reported in the 'key figures'.

Note: Previous versions of the DRD Standard included homicide as one of manner of death by poisoning to be selected here. For consistency with Selection B through GMRs, and to the very small practical relevance, it was decided to omit this group from SR).

5.1 Procedure

In general, the procedure to be applied by the national experts and the data programmers is as follows:

- Step 1: Extract and collect data in the format of the EMCDDA database i.e. 'Detailed Dataset'.

- Step 2: Select the data to be reported, i.e. Key Figures for the Standard Reitox tables.

5.2 Step 1: Extract and collect data in the format of the EMCDDA database

Every year, the National focal point needs to liaise with the data providers (e.g. police, forensic institution, or the dedicated Special Registry if not held at the focal point) to collect the number of cases in a database ('Detailed dataset') formatted as follows.

Variable	Country	Year	Gender	Age group	Cause	Number	Filter_D
Coding/ values	008–826	1985 ff.	1–3	6–18	18–28	1 ff.	0–1

Then, data is processed to produce the 'key figures' to be reported annually to the EMCDDA through Fonte.

Every three years, the EMCDDA will request these aggregated 'detailed datasets' from countries with available SRs, with the purpose of checking data quality and conducting additional analysis.

Country
The variable 'Country' complies with the ISO 3166 standard for country codes (RIPE Network Coordination Centre, 1994).

Please note that the variable 'Country' is an alphanumeric variable. This implies that if a value on this variable starts with a zero, that zero has a meaning and must be included. For example, Austria must be coded alphanumerically to '040', and not numerically as the mere figure '40'. In SPSS databases, alphanumeric variables are defined as the type 'string'. In MS™ Excel spreadsheets, alphanumeric variables are defined as 'text'.

The country codes are as follows:

- 008 for Albania
- 040 for Austria
- 056 for Belgium
- 100 for Bulgaria
- 191 for Croatia
- 196 for Cyprus
- 203 for Czech Republic
- 208 for Denmark
- 233 for Estonia
- 246 for Finland
- 250 for France
- 276 for Germany
- 300 for Greece
- 348 for Hungary
- 372 for Ireland
- 380 for Italy
- 428 for Latvia
- 440 for Lithuania
- 442 for Luxembourg
- 470 for Malta
- 528 for Netherlands
- 578 for Norway
- 616 for Poland
- 620 for Portugal
- 642 for Romania
- 703 for Slovak Republic
- 705 for Slovenia
- 724 for Spain
- 752 for Sweden
- 792 for Turkey
- 826 for United Kingdom

Year
For the variable 'Year' the respective year is filled in.

Gender
The variable 'Gender' runs from 1 through 3. The following codes are used:

- 1 for male
- 2 for female
- 3 for gender unknown.

Age group
The variable 'Age' runs from 6 through 18. The following codes are used:

- 6 for <15 years
- 7 for 15–19 years
- 8 for 20–24 years
- 9 for 25–29 years
- 10 for 30–34 years
- 11 for 35–39 years
- 12 for 40–44 years
- 13 for 45–49 years
- 14 for 50–54 years
- 15 for 55–59 years
- 16 for 60–64 years
- 17 for >=65 years
- 18 for age unknown.

Cause
The variable 'Cause' runs from 18 through 28 [Table 4]. It gives the cause of death stated by the SR professionals. The ICD-10 codification of the cases is done in the GMR and gives the underlying cause of death.

Note: The terminology 'underlying' and 'contributory' cause of death has to be reserved for the GMR, as a specific ICD terminology, whereas SR do in principle not apply ICD codification.

Number
The variable 'Number' stands for the number of drug-related deaths. Zero cases do not need to be delivered. Therefore 'Number' runs from 1 through the maximum number found in a category.

Filter_D
As already explained above, not all extracted data of the 'Detailed Dataset' count for the 'EMCDDA definition' and therefore for the 'Key Figures' of the Standard Reitox tables. Only cases included in Selection D will count for the Key Figures.

As well as Selection B for the GMRs, Selection D for the SRs is the selection on which consensus was found among the national experts. The 'Filter_D' variable defines this Selection D. A category included in selection D, receives the value '1'. A category not included in Selection D receives the value '0'.

In SPSS, Filter_D can be installed easily each year on updated databases by running a syntax command. The syntax command for Filter_D is given in Annex 2.

Table 4: Coding of values for the variables 'Cause' and 'Filter_D'

Cause	Poisoning	Filter_D	Broad group (see note)
18	Poisoning by opioids only (excluding methadone)	1	O
19	Poisoning by methadone only	1	O
20	Poisoning by poly-substances including opioids	1	O
21	Poisoning by (poly)substances excluding opioids	1	NO
22	Poisoning by psychoactive medicines	0	-
23	Poisoning by unspecified/unknown substances	1	NS
Cause	**Other than poisoning#**	**Filter_D**	**Broad group**
24	Natural/internal causes	0	-
25	Accidents other than by poisoning	0	-
26	Suicide other than by poisoning	0	-
27	Homicide other than by poisoning	0	-
28	Undetermined causes other than by poisoning	0	-
# These other causes are also mutually exclusive. One case may only be coded to one cause category.			

Note: The column 'Broad Group' refers to the category on which a case can be included according to the substance/s to which the death was attributed: (O; deaths with Opiates), (NO; deaths with No Opiates), (NS; Not Specified/mixed); - ; Not applicable because cases are not included in Selection D).

Note: the 'NS' group ('Not Specified/Unknown') is worded in a different way compared to the GMR ('other/mixed/unspecified') because coding of substances (T codes) according to ICD follows specific rules that will not apply to SR ([19]).

Explanation of the substance breakdown for poisoning cases

Causes of death are divided into poisoning and other than poisoning. The poisoning cases are further divided by the substances implicated in death.
Beware of the fact that not all substances detected or mentioned in a case are taken into account. Only substances that have had a determinant or facilitating role in the causation of the death are taken into account. Substances that are not considered to have played any role as underlying or contributing cause of death are thus not taken into account to assign a case to a category of substances.
Each 'poisoning' case is coded to only one of the six mutually exclusive causes 18 through 23 as explained below.

Cause 18: Opioids only (excluding methadone)

If only opioids, but not 'methadone only', are registered as having had a determinant role in the causation of the death, and no other substances are registered as a cause of death. If, for example, alcohol is also registered as a cause of death besides opioids, the case is assigned to cause 20 as further explained below.

Cause 19: Methadone only

If only methadone is registered as having had a determinant role in the causation of the death, and no other substances are registered as a cause of death. If, for example, alcohol is also registered as a cause of death besides methadone, the case is assigned to cause 20 as further explained below.

([19]) 'Other' and 'mixed' are ICD terminology. There are specific codes for other and mixed (e.g.T40.9, T43.9, T44.9) according to some rules, e.g. when within a group the substance is known but cannot be placed in one of the specified categories; when the specific substance is unknown but the group is known; or when there are two substances of two different groups.

Cause 20: Poly-substances including opioids

If opioids are registered as having had a determinant role in the causation of the death and one or more of the following substances are also registered as a cause of death:

amphetamines
cocaine/crack
cannabis
hallucinogens (e.g. LSD, mescaline, PCP, psilocybin)
solvents
'synthetic designer drugs ([20])' (e.g. derivates of phenethylamine (MDA, MDMA, 2C-B etc. and other substances, e.g. GHB)
barbiturates
tranquillisers and other non-barbiturate sedatives (e.g. benzodiazepines)
alcohol
other psychoactive substances not listed above.

Cause 21: (Poly)substances excluding opioids

If there are no opioids and one or more of the following illegal substances are registered as the underlying cause of death:
amphetamines
cocaine/crack
cannabis
hallucinogens (e.g. LSD, mescaline, PCP, psilocybin)
solvents
'synthetic designer drugs' (e.g. derivates of phenethylamine (MDA, MDMA, 2C-B, etc. and other substances, e.g. GHB).

Other illegal psychoactive substances

If in addition to the aforementioned substances:
alcohol,
barbiturates,
tranquillisers or non-barbiturate sedatives
other psychoactive substances not listed above
are also registered as a cause of death, the case is still coded to cause 21 (for example, a case with cocaine and alcohol and barbiturates will be coded 21).

If, on the other hand, psychoactive medicines are registered as a cause of death, and none of the above substances, and no opioids are registered as a cause of death, the case is coded to cause 22 (for example, a case with alcohol and barbiturates only — see below).

Cause 22: Psychoactive medicines

Cause 22 means that, no opioids, no amphetamines, no cocaine/crack, no cannabis, no hallucinogens, no solvents, and no 'synthetic designer drugs' are registered as a cause of death.
A case is coded 22 if one or more of the following psychoactive medicines are registered as a cause of death: barbiturates, benzodiazepines, other sedatives, and minor tranquillisers.
Antidepressants, neuroleptics and other psychoactive medicines are not taken into account to define a case if they are alone.

([20]) 'Synthetic Designer Drugs' is not a specific term, but was chosen to maintain a simplified list of most commonly found substances and families of substances, rather than an exhaustive list (which could include dozens or rarely found substances).

A case is also coded to cause 22 if death is due to the combined use of alcohol and one or more of the psychoactive medicines listed above (i.e. barbiturates, benzodiazepines, other sedatives, and minor tranquillisers).

Cause 23: Unspecified/unknown

A case is coded to cause 23 if the substances that have caused death are unspecified or unknown, but assumed to be one of the substances listed as to be notified (e.g. if toxicological analysis on body samples was not possible, but signs of injection were found and traces of heroin in the needle) (see footnote 15, page 17).

Explanation of other causes than poisoning

Five other causes of death (24 through 28 in Table 4 above), are other causes than poisoning, as follows:

Cause 24: natural/internal (e.g. disease).
Cause 25: accidents other than by poisoning.
Cause 26: suicide other than by poisoning.
Cause 27: homicide other than by poisoning.
Cause 28: undetermined other than poisoning.

These other causes are also mutually exclusive. One case may only be coded to one cause category.

Note that these cases are *not included in the EMCDDA case definition* for SR (Selection D) and therefore not considered when reporting key figures on an annual basis (formerly through Reitox Standard Tables and at present through Fonte on-line templates).

In some countries, the SR collects information on deaths other than poisoning (e.g. accidents, diseases) among known drug dependent people. However, the reliability and exhaustively of this reporting is difficult to assess unless many different sources of possible cases are included and searched actively, which happens in some countries but is not the norm.

5.3 Step 2: Select the data to be reported annually as condensed 'Key Figures' to the EMCDDA

Until 2006 Key Figures were reported through Reitox Standard tables 5 and 6 as for other topics or indicators. From 2007 onwards, these data are collected by online Fonte system, but the information collected remains the same, with some format changes.

In Annex 3 a sample of full Standard Table 5 (Part II — Special registries) is provided. Information on the online Fonte system is presented on Annex 5.

Each year, the Key Figures on DRD are reported to the EMCDDA by the Standard Reitox table 5.

Only include cases (DRD-numbers) that have a '1' on Filter D. Do not count cases with a '0' on Filter_D as they are only collected for validation purposes. In SPSS, the Key Figures for the Standard Reitox tables (Fonte templates) can easily be calculated by means of custom tables by the sum of values of the variable 'Number'.

Filling in 'Toxicology': grouping DRD cases (Selection D) into broad groups.

In the case of Selection D, the grouping of cases into the broad groups is simpler than for Selection B (See Table 4, last column):

- Codes 18, 19 and 20: 'cases with opiates'
- Code 21: 'cases without opiates'
- Code 23: 'unspecified/unknown'.

The procedure to use this grouping to fill in the toxicology section of Reitox Standard Tables 5 and 6 (the parts based on Selection D), is the same as the procedure applied for the ICD-10 code GMR (see above).

Based on Selection D

Table 5. Part 2B (based on 'Selection D') and, when 'national case definition' is the 'Selection D':

- Table 5. Part 1 (in this case Part 1 and Part 2B will be equal)
- Table 6

For the section on the distribution of cases according to substances, compute the number of cases with opiates (groups 18, 19 and 20), without opiates (group 21), and with an unspecified/unknown substance (group 22). Include in the table the total numbers of cases for each group in the respective rows.

EMCDDA computes the percentages of cases in 'O' and 'NO' group, after exclusion of the 'Unspecified/unknown' group, considered as 'missing values'.

For the section on 'cases with known toxicology'
Include the number of cases classified under 'O', 'NO' as well as 'unspecified/unknown', where it is known that a toxicological analysis was performed but the results are not recorded in the documentation/database (this situation should be very infrequent).

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Annexes

Annex 1: Key dates and steps in the development of the EMCDDA DRD Standard

1993	European Monitoring Centre for Drugs and Drug Addiction is set up
1994–95	Implementation of the ICD-10 coding of General Mortality Registries
1996	Partnership for the development of the EMCCDA key indicators with national experts, researchers, working groups, focal points, institutions, contractors. Collaboration with WHO, Eurostat, CICAD, UNODC, and other countries: USA, Australia, Russia
1997	Development of the 'European Drug Information Map'. Analysis of 'national definitions'. In general, referred to acute DRD; review of available national data sources, their quality and accessibility; Assessment of which was the 'preferred national data source'.
1999	First broad conceptual differentiation between Acute deaths 'directly' caused by drug use itself AND Other deaths related 'indirectly' to drug use.
2001	The EMCDDA five key epidemiological indicators are endorsed by the European Council Recommendation: 'drug-related infectious diseases (DRID), 'general population surveys (GPS)', 'problem drug use (PDU)', 'treatment demand indicator (TDI)', and 'drug-related deaths and mortality among drug users (DRD).
2002	Launch of Standard protocol version 3.0
2005	Launch of Standard protocol version 3.1
2006	WHO ICD-10 updates (2002–03) for codification of DRD using the ICD-10 enter into force
2007	DRD data to be reported to EMCDDA through the Fonte Web Interface
2008	Preparation of version 3.2, internal review and presentation to the DRD experts
2009	Assessment of implementation of the key indicator
2009–10	Final comments from the national experts. Revision, editing of version 3.2

Annex 2: SPSS syntax commands to install filters, and logical terminology

SPSS syntax command for Filter_B for ICD-9 as well as ICD-10 coded GMRs

Explanation: Since the DRD-numbers for ICD-9 (1-55) and ICD-10 (56-151) are mutually exclusive, the same syntax command installs Filter_B for ICD-9 as well as ICD-10 coded GMRs. However, this requires that for a given year, data are not included twice, that is once for ICD-9 and once for ICD-10.

Run the following command in SPSS to install Filter_B:

```
USE ALL.
COMPUTE Filter_B=(
(drd >= 1  & drd <=  2) |
(drd >= 4  & drd <= 13) |
(drd >= 15 & drd <= 17) |
(drd >= 19 & drd <= 23) |
(drd >= 29 & drd <= 31) |
(drd >= 33 & drd <= 35) |
(drd =  38)             |
(drd >= 42 & drd <= 44  |
(drd =  47)             |
(drd >= 51 & drd <= 53) |
(drd >= 56 & drd <= 57) |
(drd >= 59 & drd <= 61) |
(drd >= 63 & drd <= 65) |
(drd >= 67 & drd <= 69) |
(drd >= 71 & drd <= 73) |
(drd >= 75 & drd <= 77) |
(drd >= 79 & drd <= 81) |
(drd >= 83 & drd <= 85) |
(drd >= 87 & drd <= 97) |
(drd = 103)             |
(drd >=108 & drd<= 117) |
(drd = 123)             |
(drd >=128 & drd<= 137) |
(drd = 143)
).
VARIABLE LABEL Filter_B '(drd  >=   1  &  drd  <=    2) | '+
'(drd  >=   4  &  drd  <=  13) |'+
'(drd  >= 15  &  drd  <=  17) | '+
'(drd  >... (FILTER)'.
VALUE LABELS Filter_B  0 'Not Selected' 1 'Selected'.
FORMAT Filter_B (f1.0).
FILTER BY Filter_B.
EXECUTE .
```

SPSS syntax command for Filter_D for SRs

Run the following command in SPSS to install Filter_D:

```
USE ALL.
COMPUTE Filter_D=(
cause = 18 |
cause = 19 |
```

```
cause = 20 |
cause = 21 |
cause = 23
).
VARIABLE LABEL Filter_D 'cause = 18 | cause = 19 | cause = 20 | cause = 21 |'+
 ' cause = 23 (FILTER)'.
VALUE LABELS Filter_D  0 'Not Selected' 1 'Selected'.
FORMAT Filter_D (f1.0).
FILTER BY Filter_D.
EXECUTE .
```

Logical terminology

The DRD-Standard applies formal logical terminology, which can be translated directly into computer languages. This counts especially for selections of cases defined by the terms 'AND' and 'OR'. Especially for the GMR, it is recommended that professionals, who are trained to apply formal logic, are responsible for the extraction of the data on DRD. Definitions in logical terminology are as follows:

- 'AND': in logical terminology, the prescription ‘A AND B’ means that a case is only selected if the case satisfies condition A as well as condition B. If the case does not satisfy condition A, it is not selected. If the case does not satisfy condition B, it is not selected. The case is also not selected if it does not satisfy both condition A and condition B.

- 'OR': in logical terminology, the prescription ‘A OR B’ means that a case is selected if condition A is satisfied, if condition B is satisfied, or if both conditions A and B are satisfied. The case is not selected if both conditions A and B are not satisfied.

- Mutual definitions of 'AND' and 'OR': from the logical definitions of 'AND' and 'OR', it follows that (A AND B) equals NOT (NOT A OR NOT B). Conversely, (A OR B) equals NOT (NOT A AND NOT B). This way, 'AND' and 'OR' are mutually defined by one another.

'Through': for the DRD-Standard 'through' means 'up to and including'. For example '1 through 10' means: '1, 2, 3, 4, 5, 6, 7, 8, 9, and 10'. Furthermore, ‘1–10’ means ‘1 through 10’, which equals ‘1 up to and including 10’ as defined above.

Annex 3: Former MS™Excel spreadsheet tables

These former MS™ Excel spreadsheets can no longer be used to send data to the EMCDDA. They are presented here for more graphic illustration of the relationship between 'extracted cases' (all in the table) referred to as 'detailed data set' through the protocol; and the 'Key Figures' or 'reported cases' to the EMCDDA, that constitute the DRD standard (in colour).

In these spreadsheets, age categories were still placed beside one another. In the current format of the EMCDDA database, they are placed above one another.

Selections B and D are marked in pink colour in the spreadsheets below.

Part IA: Former spreadsheet for ICD-9 coded GMRs

Part IA: Former spreadsheet for ICD-9 coded GMRS

		Age group(*)													
DRD	ICD9-Code(s)	1	2	3	4	5	6	7	8	9	10	11	12	13	T
1	292														0
2	304.0														0
3	304.1														0
4	304.2														0
5	304.3														0
6	304.4														0
7	304.5														0
8	304.6														0
9	304.7														0
10	304.8														0
11	304.9														0
12	305.2														0
13	305.3														0
14	305.4														0
15	305.5														0
16	305.6														0
17	305.7														0
18	305.8														0
19	305.9														0
20	E850.0														0
21	E850.8 AND N965.0 AND N968.5														0
22	E850.8 AND N965.0 AND NOT N968.5														0
23	E850.8 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0														0
24	E850.8 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)														0
25	E850.9														0
26	E851														0
27	E852														0
28	E853.2														0
29	E854.1														0
30	E854.2														0
31	E855.2														0
32	E855.9														0
33	E858.8 AND N965.0 AND N968.5														0
34	E858.8 AND N965.0 AND NOT N968.5														0
35	E858.8 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0														0
36	E858.8 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)														0
37	E858.9														0
38	E950.0 AND N965.0														0
39	E950.1														0
40	E950.2														0
41	E950.3 AND N969.4														0
42	E950.4 AND N965.0 AND N968.5														0
43	E950.4 AND N965.0 AND NOT N968.5														0
44	E950.4 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0														0
45	E950.4 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)														0
46	E950.5														0
47	E980.0 AND N965.0														0
48	E980.1														0
49	E980.2														0
50	E980.3 AND N969.4														0
51	E980.4 AND N965.0 AND N968.5														0
52	E980.4 AND N965.0 AND NOT N968.5														0
53	E980.4 AND (N968.5 OR N969.7 OR N969.6) AND NOT N965.0														0
54	E980.4 AND NOT N965.0 AND NOT (N968.5 OR N969.7 OR N969.6)														0
55	E980.5														0
	Total males	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total males for DRD-Standard (selection E)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

(*)Age groups: 1 = <15, 2 = 15-19, 3 = 20-24, 4 = 25-29, 5 = 30-34, 6 = 35-39, 7 = 40-44, 8= 45-49, 9 = 50-54, 10 = 55-59, 11 = 64, 12 = >=65, 13 = age unknown.

Part IB: Former spreadsheet for ICD-10 coded GMRs

	Underlying cause of death		Age group[1]												
	Substances		1	2	3	4	5	6	7	8	9	10	11	12	13	
DRD	**Disorders: Acute intoxication**	**ICD10-Code(s)**														**T**
56	Opioids	F11.0														**0**
57	Cannabinoids	F12.0														**0**
58	Sedatives	F13.0														**0**
59	Cocaine	F14.0														**0**
60	Other stimulants	F15.0														**0**
61	Hallucinogens	F16.0														**0**
62	Volatile solvents	F18.0														**0**
63	Multiple/other	F19.0														**0**
DRD	**Disorders: Harmful use**	**ICD10-Code(s)**														**T**
64	Opioids	F11.1														**0**
65	Cannabinoids	F12.1														**0**
66	Sedatives	F13.1														**0**
67	Cocaine	F14.1														**0**
68	Other stimulants	F15.1														**0**
69	Hallucinogens	F16.1														**0**
70	Volatile solvents	F18.1														**0**
71	Multiple/other	F19.1														**0**
DRD	**Disorders: Dependence**	**ICD10-Code(s)**														**T**
72	Opioids	F11.2														**0**
73	Cannabinoids	F12.2														**0**
74	Sedatives	F13.2														**0**
75	Cocaine	F14.2														**0**
76	Other stimulants	F15.2														**0**
77	Hallucinogens	F16.2														**0**
78	Volatile solvents	F18.2														**0**
79	Multiple/other	F19.2														**0**
DRD	**Disorders: Other**	**ICD10-Code(s)**														**T**
80	Opioids	F11.3-9														**0**
81	Cannabinoids	F12.3-9														**0**
82	Sedatives	F13.3-9														**0**
83	Cocaine	F14.3-9														**0**
84	Other stimulants	F15.3-9														**0**
85	Hallucinogens	F16.3-9														**0**
86	Volatile solvents	F18.3-9														**0**
87	Multiple/other	F19.3-9														**0**

(continued)

DRD	Accidental poisoning	ICD10-Code(s)													T
88	Opium	X42 AND T40.0													0
89	Heroin	X42 AND T40.1													0
90	Other opioids	X42 AND T40.2													0
91	Methadone	X42 AND T40.3													0
92	Other synthetic narcotics	X42 AND T40.4													0
93	Cocaine	X42 AND T40.5													0
94	Other and unspecified narcotics	X42 AND T40.6													0
95	Cannabis	X42 AND T40.7													0
96	Lysergide [LSD]	X42 AND T40.8													0
97	Other/unspec. psychodysleptics	X42 AND T40.9													0
98	Narcotics and psychodysleptics	X42*													0
99	Barbiturates	X41 AND T42.3													0
100	Benzodiazepines	X41 AND T42.4													0
101	Other antiepileptic and sedative	X41 AND T42.6													0
102	Antiepileptic and sedative unspec.	X41 AND T42.7													0
103	Psychostimulants	X41 AND T43.6													0
104	Other psychotropic	X4* AND T43.8													0
105	Psychotropic unspecified	X4* AND T43.9													0
106	Other and unspecified drugs	X44 AND T50.9													0
107	Other and unspecified chemicals	X49 AND T50.9													0
DRD	**Intentional poisoning**	**ICD10-Code(s)**													**T**
108	Opium	X62 AND T40.0													0
109	Heroin	X62 AND T40.1													0
110	Other opioids	X62 AND T40.2													0
111	Methadone	X62 AND T40.3													0
112	Other synthetic narcotics	X62 AND T40.4													0
113	Cocaine	X62 AND T40.5													0
114	Other and unspecified narcotics	X62 AND T40.6													0
115	Cannabis	X62 AND T40.7													0
116	Lysergide [LSD]	X62 AND T40.8													0
117	Other/unspec. psychodysleptics	X62 AND T40.9													0
118	Narcotics and psychodysleptics	X62*													0
119	Barbiturates	X61 AND T42.3													0
120	Benzodiazepines	X61 AND T42.4													0
121	Other antiepileptic and sedative	X61 AND T42.6													0
122	Antiepileptic and sedative unspec.	X61 AND T42.7													0
123	Psychostimulants	X61 AND T43.6													0
124	Other psychotropic	X6* AND T43.8													0
125	Psychotropic unspecified	X6* AND T43.9													0
126	Other and unspecified drugs	X64 AND T50.9													0
127	Other and unspecified chemicals	X69 AND T50.9													0
DRD	**Poisoning undetermined intent**	**ICD10-Code(s)**													**T**
128	Opium	Y12 AND T40.0													0
129	Heroin	Y12 AND T40.1													0
130	Other opioids	Y12 AND T40.2													0
131	Methadone	Y12 AND T40.3													0
132	Other synthetic narcotics	Y12 AND T40.4													0
133	Cocaine	Y12 AND T40.5													0
134	Other and unspecified narcotics	Y12 AND T40.6													0
135	Cannabis	Y12 AND T40.7													0
136	Lysergide [LSD]	Y12 AND T40.8													0
137	Other/unspec. psychodysleptics	Y12 AND T40.9													0
138	Narcotics and psychodysleptics	Y12*													0
139	Barbiturates	Y11 AND T42.3													0
140	Benzodiazepines	Y11 AND T42.4													0
141	Other antiepileptic and sedative	Y11 AND T42.6													0
142	Antiepileptic and sedative unspec.	Y11 AND T42.7													0
143	Psychostimulants	Y11 AND T43.6													0
144	Other psychotropic	Y1* AND T43.8													0
145	Psychotropic unspecified	Y1* AND T43.9													0
146	Other and unspecified drugs	Y14 AND T50.9													0
147	Other and unspecified chemicals	Y19 AND T50.9													0
DRD	**ILL defined**	**ICD10-Code(s)**													**T**
148	Instantaneous death	R96.0													0
149	Death not otherwise explained	R96.1													0
150	Unattended death	R98													0
151	Other ill-defined and unspecified	R99													0
		Total males	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Part II: Former spreadsheet for SRs

M	Cause of death	Age group												
A	**A. Poisoning by accident, suicide,**	<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	>=65	?y	**Total**
L	**homicide, or undetermined intent**														
E	A1. Opiates only (excluding methadone)														**0**
	A2. Methadone only														**0**
	A3. Poly-substances including opiates														**0**
	A4. (Poly)substances excluding opiates														**0**
	A5. Psychoactive medicines														**0**
	A6. Unspecified/unknown														**0**
	Subtotal A: poisoning	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	B. Other than poisoning	<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	>=65	?y	**Total**
	B1. Natural/internal														**0**
	B2. Accidents other than by poisoning														**0**
	B3. Suicide other than by poisoning														**0**
	B4. Homicide other than by poisoning														**0**
	B5. Undetermined other than poisoning														**0**
	Subtotal B: other than poisoning	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total males	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total males DRD-Standard (sel. D)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
F	**Cause of death**	**Age group**													
E	**A. Poisoning by accident, suicide,**	<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	>=65	?y	**Total**
M	**homicide, or undetermined intent**														
A	A1. Opiates only (excluding methadone)														**0**
L	A2. Methadone only														**0**
E	A3. Poly-substances including opiates														**0**
	A4. (Poly)substances excluding opiates														**0**
	A5. Psychoactive medicines														**0**
	A6. Unspecified/unknown														**0**
	Subtotal A: poisoning	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	B. Other than poisoning	<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	>=65	?y	**Total**
	B1. Natural/internal														**0**
	B2. Accidents other than by poisoning														**0**
	B3. Suicide other than by poisoning														**0**
	B4. Homicide other than by poisoning														**0**
	B5. Undetermined other than poisoning														**0**
	Subtotal B: other than poisoning	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total females	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total females DRD-Standard (sel. D)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total males and females	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total m. and f. DRD-Standard (sel. D)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Annex 4: Standard tables

Standard Reitox tables have been the EMCDDA quantitative data collection system in several topics until implementation in 2007 of the FONTE system for online data reporting to EMCDDA.
Standard tables include: ST 5 for annual reporting of drug-induced deaths, ST 6 for evolution of drug-induced deaths and ST 18 for reporting of mortality cohort studies[21].

All current versions are available from https://fonte.emcdda.europa.eu/fonte

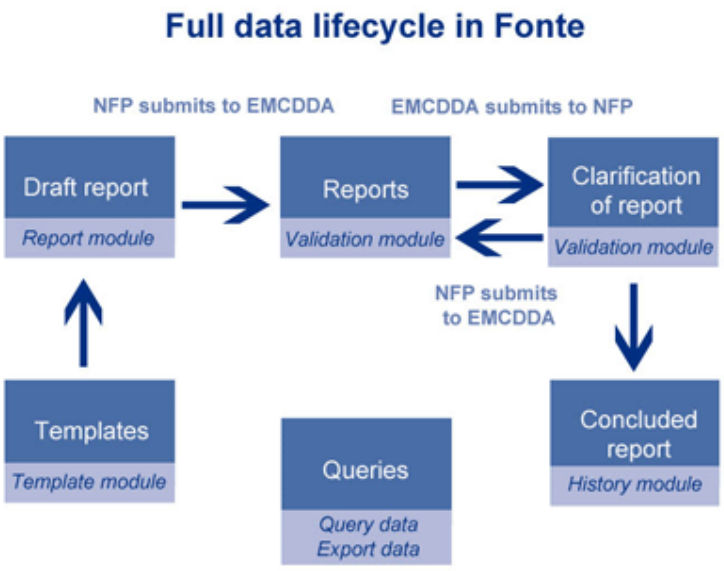
[21] Note that reporting on mortality cohort studies constitutes part of the EMCDDA 'DRD and mortality' key indicator. For more information on mortality cohort studies, see http://www.emcdda.europa.eu/themes/key-indicators/drd

Annex 5: Fonte: General background and details of reporting

On 1 July 2008, the EMCDDA took a major step forward in streamlining and improving its data handling, with the launch of a new web application and database, Fonte. The development of Fonte, in progress since 2006, reflects a priority of the EMCDDA to consolidate monitoring and reporting structures. From now on, the EMCDDA, Reitox national focal points and other key partners will collect, validate and store drug-related data almost entirely through Fonte. Former tools, such as Standard tables and Structured questionnaires, used to gather data for the EMCDDA Annual report, Statistical bulletin and other products, have now been incorporated into the application.

Fonte also acts as a 'memory' and drug-related data collected from numerous sources since the birth of the EMCDDA, and stored in various systems, have now been migrated into one central repository. This allows easy access to historical data, thereby facilitating scientific analysis.

Fonte acts as the interface between the EMCDDA, the national focal points and other national partners. It is a web application that manages the entry into and retrieval of data from a central repository, addresses and improves the three stages in the data lifecycle:



- **Data collection**

Fonte collects data through so-called 'templates', formerly known as Standard tables (ST). The templates 5 and 6 (Acute/direct Drug-induced deaths, and Evolution of Acute/direct Drug-induced deaths) were launched in 2007.

Although ST18 'Overall mortality and causes of death among cohorts of drug users' is listed as a template type in Fonte from 2008, the data was initially not collected via Fonte, to allow time for clarification of the requirements with the countries. For 2008 (reporting 2007 data), the few countries that carried out mortality cohort studies were asked to report on the existing MS Excel files used in recent years. The template 18 was launched in 2009.

- **Data validation and storage**

Data entered into Fonte (now 'reports') are saved directly into a central repository. Amendments and comments are tracked in Fonte's validation module.

- **Data retrieval**

Fonte enables users to extract either full reports (filled-in structured tables or structured questionnaires) or to find information using queries.

- **Support and immediate technical help**

Support is managed by FonteHelpdesk@emcdda.europa.eu Tel: +351 211 21 0333

Fonte reference documents are integrated into Fonte's help module. There are three user-oriented reference documents: (i) a comprehensive Fonte user manual (ii) a Fonte quick reference guide (iii) Fonte FAQs (Fonte Frequently Asked Questions). The Fonte help module also provides information on who to turn to in case of different kinds of problems.
More information is available from
http://www.emcdda.europa.eu/html.cfm/index15919EN.html

The DRD Templates (formerly Tables 5 and 6) to be filled have been available since 2007 from https://fonte.emcdda.europa.eu
The DRD Mortality Template for reporting of mortality cohort studies (formerly Table 18) has been available since 2009.

Access for National focal points to login available from
https://fonte.emcdda.europa.eu/fonte/common/home.do

Annex 6: 'Toxicology sub table 5', added to Fonte in 2010

The current version of the Fonte template for ST5 is available from https://fonte.emcdda.europa.eu/fonte

Annex 7: Changes following the ICD-10 updates (2002-03) on DRD codification using the ICD-10, and practical examples

This text was taken from a summary of ICD-10 updates (2002–03), drafted by Lars Age Johansson (WHO Nordic Collaborative Centre).

In 2002 and 2003, the Heads of the WHO Collaborating Centres for International Classifications in Health Care approved of the ICD-10 updates (2002–03) classification of DRD. The updates entered into force on 1 January 2006. The following changes have been approved by the Centres Heads:

Vol 1, p. 321:
Add under '.0 Acute intoxication':
Excludes: intoxication meaning poisoning (T36-T50)

Vol 2, p. 52:
Add new notes on F10-F19:

F10-F19	Mental and behavioural disorders due to psychoactive substance use with mention of: X40-X49 Accidental poisoning by and exposure to noxious substances, code X40-X49 X60-X69 Intentional self-poisoning by and exposure to noxious substances, code X60-X69 X85-X90 Assault by noxious substances, code X85-X90 Y10-Y19 Poisoning by and exposure to drugs, chemicals and noxious substances, undetermined intent, code Y10-Y19

Delete note on F10-F19:

F10-F19	Fourth characters .0 (Acute intoxication) and .5 (Psychotic disorder) with mention of Dependence syndrome (.2), code F10-F19 with fourth character .**2**.

Add new note on F10-F19:

F10-F19	Fourth character .0 (Acute intoxication), code X40-X49, X60-X69, X85-X90 or Y10-Y19

Vol 2, p. 61:
Delete note on T36-T50:

T36-T50	Poisoning by drugs, medicines and biological substances ... code F10-F19 with fourth character .2.

Vol 2, p. 62:
Delete note on X40-X49 and Y10-Y15:

X40-X49	Accidental poisoning by and exposure to noxious substances
Y10-Y15	Poisoning by and exposure to noxious substances, undetermined intent ... code F10-F19 with fourth character .2.

Delete entry in Table 1:

Selected cause	With mention of	Resulting linked code
F10-F19	(F1x.0)	F10-F19 (F1x.2)
F10-F19	(F1x.5)	F10-F19 (F1x.2)

Add new entry to Table 1:

Selected cause	With mention of	Resulting linked code
F10-F19	X40-X49	X40-X49
F10-F19	X60-X69	X60-X69
F10-F19	X85-X90	X85-X90
F10-F19	Y10-Y19	Y10-Y19

Vol 2, p. 65
Delete entry in Table 1:

Selected cause	With mention of	Resulting linked code
T36-T50	F10-F19 (F1x.2)	F10-F19 (F1x.2)
X40-X49	F10-F19 (F1x.2)	F10-F19 (F1x.2)
Y10-Y15		

Vol 2, p. 66:
Add new entry to Table 2:

Codes not to be used for underlying cause mortality coding (code to item in parentheses; if no code is indicated, code to R99)

F10.0 (code to X45, X65, X85, or Y15)
F11.0 (code to X42, X62, X85, or Y12)
F12.0 (code to X42, X62, X85, or Y12)
F13.0 (code to X41, X61, X85, or Y11)
F14.0 (code to X42, X62, X85, or Y12)
F15.0 (code to X41, X61, X85, or Y11)
F16.0 (code to X42, X62, X85, or Y12)
F17.0 (code to X49, X69, X89, or Y19)
F18.0 (code to X46, X66, X89, or Y16)
F19.0 (code to X40-X49, X60-X69, X85-X90, or Y10-Y19)

Vol 2, p. 87:
Delete current paragraph 4.2.11. Replace with following paragraph:

4.2.11 Poisoning by drugs, medicines and biological substances

(A) Selection of the underlying cause of death

(i) If one component of the combination is specified as the cause of death, code to that component.

Ex.: 1(a) Poisoning by amphetamine
2 Toxic levels of heroin and flunitrazepam

Code to accidental poisoning by amphetamine (X41). By placing amphetamine poisoning alone in Part I and reporting the other substances as contributing causes of death in Part II, the certifier has identified amphetamine as the most important substance in bringing about the death.

Ex. 1(a) Poisoning by alcohol
2 Toxic levels of heroin and flunitrazepam

Code to accidental poisoning by alcohol (X45). By placing alcohol poisoning alone in Part I and reporting the other substances as contributing causes of death in Part II, the certifier has identified alcohol as the most important substance in bringing about the death.

Ex.: 1(a) Poisoning by heroin
2 Toxic levels of alcohol and flunitrazepam

Code to accidental poisoning by heroin (X42). By placing heroin poisoning alone in Part I and reporting the other substances as contributing causes of death, the certifier has identified heroin as the most important substance in bringing about the death.

(ii) When no component is specified as the main cause of death, clarification should be sought from the certifier.

(iii) When no such clarification can be obtained, code combinations of alcohol with a drug to the drug. For other multi-drug deaths, code to the appropriate category for 'Other'.

(B) Identifying the most dangerous drug

To provide useful statistics on multiple drug deaths, it is of utmost importance that the most dangerous drug is identifiable in addition to the underlying cause (see also Nature of injury, pp. 86–87). When selecting the code for the most dangerous drug, apply the following instructions.

If one component of the combination is specified as the cause of death, code to that component. If no single component is indicated as the cause of death, code combinations of alcohol with a drug to the drug. When the classification provides a specific category for a combination of drugs, e.g. mixed antiepileptics (T42.5), code to that category. If no appropriate combination category is available, select the main injury code in the following order of priority:

1. **Opioids** (T40.0-T40.2): Combinations including opioids classifiable to more than one fourth-character subcategory in T40.0-T40.2: Code to T40.2
2. **Cocaine** (T40.5)
3. Psychostimulants with abuse potential (T43.6). Includes: Amphetamine and derivates
4. **Synthetic narcotics** and other and unspecified narcotics (T40.3-T40.4, T40.6)
   Combinations including synthetic narcotics classifiable to more than one fourth-character subcategory in T40.3-T40.4: Code to T40.4
   Combinations including synthetic narcotics classifiable to more than one fourth-character subcategory in T40.3-T40.4 with other and unspecified narcotics classifiable to T40.6: Code to T40.6
5. **Antidepressants** (T43.0-T43.2): Combinations including antidepressants classifiable to more than one fourth-character subcategory in T43.0-T43.2: Code to T43.2
6. **Non-opioid analgesics** (T39.-): Combinations including non-opioid analgesics classifiable to more than one fourth-character subcategory in T39.0-T39.4: Code to T39.8
7. **Drugs and substances not listed above**: If the death certificate reports more than one such drug, code to the first mentioned.

Practical examples

Six examples follow ([22]), to illustrate the rule of giving poisoning (X or Y codes) priority over dependence (F codes), and the rules for selection of underlying cause of death:

a. Accidental poisoning by alcohol, and alcohol dependence since 15 years:
According to ICD rule this should be coded as X45.x as underlying cause of death (UCD), rather than F10.2 code. Additional codes such as F10.2 can be used to identify that the person was an alcoholic with a dependence syndrome. T51 identify toxic effects of alcohol; Y90 & Y91 provide supplementary information e.g. alcohol levels.

b. Part I Suicide by amphetamine; Part II: Toxic levels of heroin
***UCD X61.x**. Code to suicidal poisoning by amphetamine X61.x and T43.6 to identify amphetamines. Additional T codes for heroin can also be coded T40.1 By placing amphetamine poisoning alone in Part I and reporting heroin as contributing cause in Part II, the certifier has identified amphetamine as the most important substances in bringing about the death.*

c. Part I: Poisoning by alcohol; Part II: Toxic levels of amphetamines
***UCD: X45.x**. Code to accidental poisoning by alcohol (X45) and T51.9. By placing alcohol poisoning alone in Part I and reporting the other substance as contributing cause of death in Part II, the certifier has identified alcohol as the most important substance in bringing about the death. Additional code for amphetamine T43.6 is useful in multiple cause analysis.*

d. Part I: Alcohol & Heroin accidental overdose
***UCD: X42.x,** T40.1. If there is alcohol and drugs, ignore the alcohol and code the drugs as if the alcohol was not mentioned.T40.1 identifies heroin as the drug causing death. Additional code for alcohol T50.9 is useful in multiple cause analysis.*

e. Part I: Overdose death due to heroin and cocaine.
Underlying cause of death X42.x (accidental) or X62.x (suicide) or X85.x (homicidal intent) or Y12.x (undetermined intent). Both heroin and cocaine are in the category for narcotics and psychodysleptics. It is also important to identify the most dangerous drug. If no single component is indicated as the cause of death follow WHO guidelines. In this case heroin T40.1 is more dangerous than cocaine. Therefore code for most dangerous drug is T40.1
When using multiple codes, cocaine is also coded T40.5 as an additional code useful for multiple cause analysis.

f. Part I: Accidental overdose death due to heroin and ecstasy
When no drug is specified as the underlying cause of death, and both drugs fall in the categories for 'drugs, medicines and biological substances' (X40-44), code to category 'other and unspecified' X44. This code is used when the substances involved have different three-character codes. UCD: X44.x (accidental poisoning by and exposure to other and unspecified drugs, medicines and biological substances). Code to be used as Heroin (X42) & Ecstasy (X41) have different three-character codes. The code X44 shows that more than one drug is involved. T40.1 shows that the most dangerous substance in the combination was heroin. Additional T-code for ecstasy T43.6 is useful in multiple cause analysis.

The selection of code X44 in principle remains the same as before (i.e. when not possible to get further information) but with the advantage that a more specific T-code according to the priority list (ICD-10 update) will be added. However, where possible, clarification should be sought from a certifier.

([22]) All examples are from a presentation given by Dr Kathleen England, Department of Health Information Malta, during the EMCDDA DRD expert meeting in 2006 on 'Drug-related deaths ICD-10 updates'.

Annex 8: Additional DRD codes following the ICD-10 updates (2002-03) on codification using the ICD-10 (entered into force from 1/1/2006)

DRD	ICD 10-Code(s)	Accidental poisoning	Filter B
152	X44 and T40.0	Opium	1
153	X44 and T40.1	Heroin	1
154	X44 and T40.2	Other opioids	1
155	X44 and T40.3	Methadone	1
156	X44 and T40.4	Other synthetic narcotics	1
157	X44 and T40.5	Cocaine	1
158	X44 and T40.6	Other and unspecified narcotics	1
159	X44 and T40.7	Cannabis	1
160	X44 and T40.8	Lysergide (LSD)	1
161	X44 and T40.9	Other/Unspec. psychodysleptics	1
162	X44 and T43.6	Psychostimulants	1
DRD	**ICD 10-Code(s)**	**Intentional self-poisoning**	**Filter B**
163	X64 and T40.0	Opium	1
164	X64 and T40.1	Heroin	1
165	X64 and T40.2	Other opioids	1
166	X64 and T40.3	Methadone	1
167	X64 and T40.4	Other synthetic narcotics	1
168	X64 and T40.5	Cocaine	1
169	X64 and T40.6	Other and unspecified narcotics	1
170	X64 and T40.7	Cannabis	1
171	X64 and T40.8	Lysergide (LSD)	1
172	X64 and T40.9	Other/Unspec. psychodysleptics	1
173	X64 and T43.6	Psychostimulants	1
DRD	**ICD 10-Code(s)**	**Poisoning undetermined intent**	**Filter B**
174	Y14 and T40.0	Opium	1
175	Y14 and T40.1	Heroin	1
176	Y14 and T40.2	Other opioids	1
177	Y14 and T40.3	Methadone	1
178	Y14 and T40.4	Other synthetic narcotics	1
179	Y14 and T40.5	Cocaine	1
180	Y14 and T40.6	Other and unspecified narcotics	1
181	Y14 and T40.7	Cannabis	1
182	Y14 and T40.8	Lysergide (LSD)	1
183	Y14 and T40.9	Other/Unspec. psychodysleptics	1
184	Y14 and T43.6	Psychostimulants	1

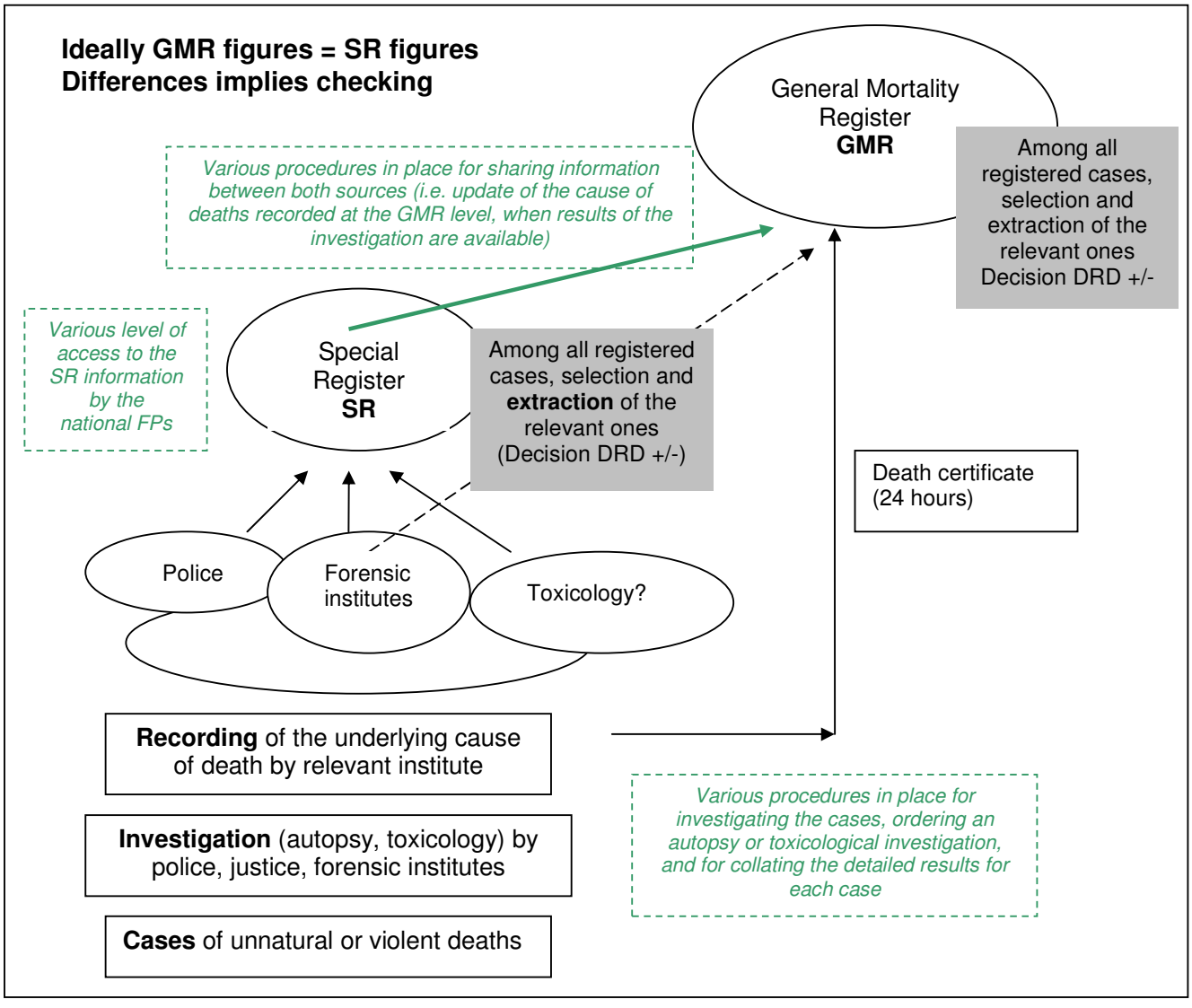
Annex 9: National DRD experts in 2008 and 2009. Contributors to the development of the DRD standard over the years (in bold)

Country	Name	Institution
Austria	**Martin Busch** Charlotte Wirl	Gesundheit Österreich GmbH Geschäftsbereich ÖBIG
Belgium	Nathalie Deprez **Francis Sartor** Kaat Bollaert	Belgian Reitox Focal Point — Scientific Institute of Public Health
Bulgaria	Sonya Chipeva Maria Valova	National Focal Point on Drugs and Drug Addictions
Croatia	Tanja Coric	Croatian National Institute of Public Health — Department of Medical Demography
Cyprus	Byron Gaist Maria Savidou	Cyprus National Monitoring Centre for Drugs and Drug Addiction
Czech Republic	Viktor Mravcik Thomas Zabransky Pavla Chomynova	Czech National Focal Point for Drugs and Drug Addiction
Denmark	**Henrik Saelan** **Lene Haastrup** **Eva Hammerby**	Medical Office of Health
	Claudia Ranneries	Sundhedsstyrelsen (National Board of Health)
Estonia	Katri Abel-Ollo Ave Talu Gleb Denissov	National Institute for Health Development
Finland	Sanna Rönkä **Ari Virtanen** **Erkki Vuori**	National Research and Development Centre for Welfare and Health (STAKES)
France	Eric Janssen **Hélène Martineau**	Observatoire Français des Drogues et Toxicomanies (OFDT)
Germany	**Axel Heinemann**	Institut für Rechtsmedizin Universität Hamburg
Greece	**Chara Spiliopoulou**	Medical School of the Athens University
Hungary	Eszter Nádas	Hungarian National Focal Point
Ireland	**Suzi Lyons** **Mary O'Brien** **Hamish Sinclair** **Ena Lynn** Jean Long	Alcohol and Drug Research Unit - Health Research Board

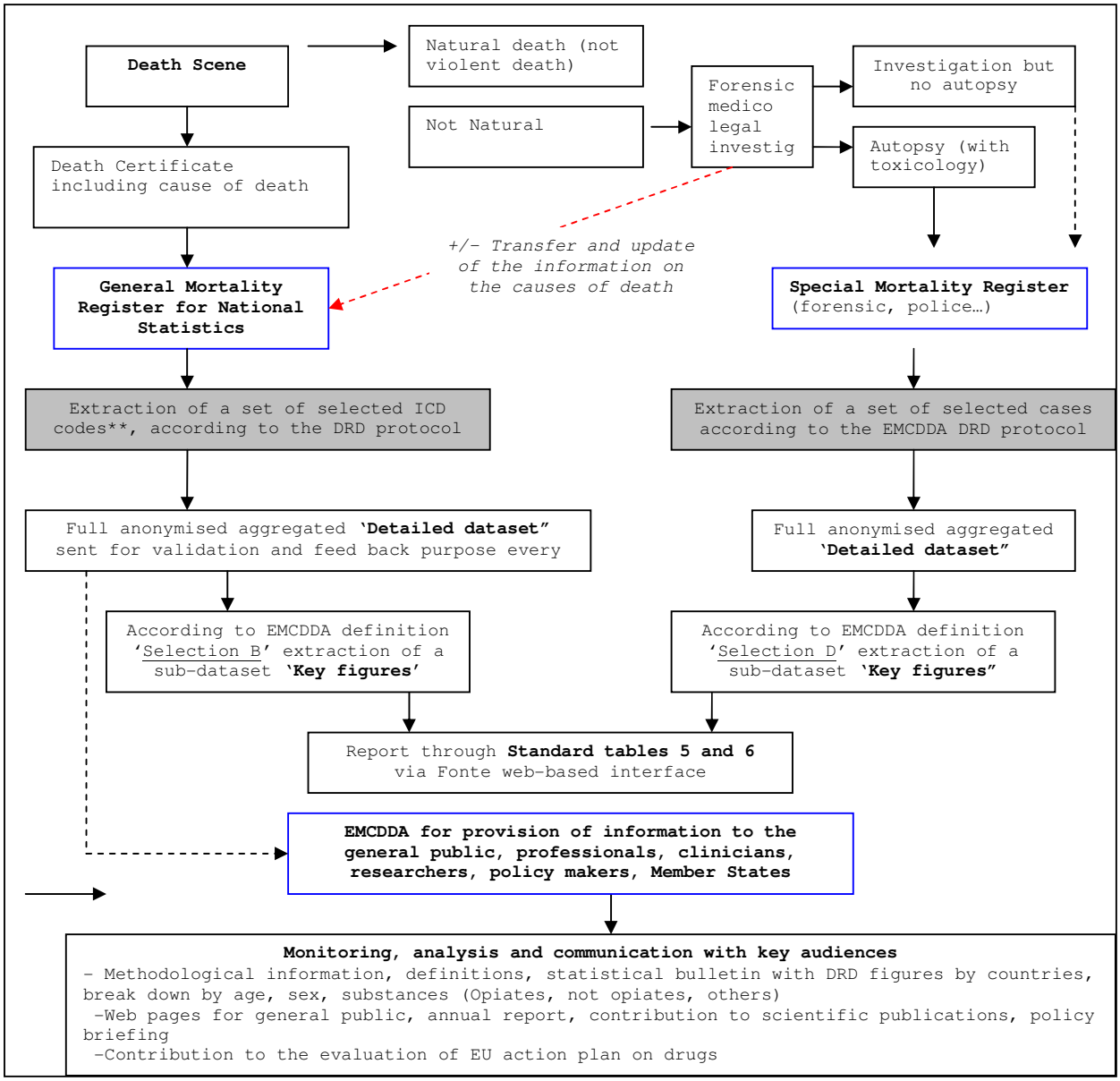
Italy	Teodora Macchia	Drug Research and Control Department — Instituto Superiore di Sanità
Latvia	Linda Sile Marcis Trapencieris	State Agency, Public Health Agency, Latvian National Focal Point
Lithuania	Ernestas Jasaitis	Drug Control Department Under the Government of Lithuania
Luxembourg	**Jean-Marie Schanck** **Alain Origer**	Directorate of Health — Statistics Department
Malta	**Kathleen England**	Malta National Mortality Registry — Dept. of Health Information
Netherlands	**Guus Cruts** **Margriet van Laar** Marcel Buster	Trimbos-instituut — Institute of Mental Health and Addiction
Norway	Einar Odegar	Norwegian Institute for Alcohol and Drug Research (SIRUS)
Poland	Janusz Sieroslawski Artur Malczewski	Polish National Focal Point — National Bureau for Drugs Prevention
Portugal	Maria dos Anjos Campos Jaime Botelho	Instituto Nacional de Estatística Direcção Geral de Saúde
Romania	Monica Agapie	National Antidrug Agency
Slovakia	Jozef Sidlo	Faculty of Medicine — Comenius University
Slovenia	Jozica Selb	Institute of Public Health of the Republic of Slovenia
Spain	**Teresa Brugal** **Gregorio Barrio** Victor Ramírez Elena Alvarez	Government Delegation to the National Plan on Drugs (DGPNSD)
Sweden	**Anna Fugelstad**	Karolinska Institute — Clinical Alcohol and Drug Addiction
Turkey	Bulent Sam	Ministry of Justice (The Council of Forensic Medicine)
United Kingdom	**John Corkery**	National Programme on Substance Abuse Deaths (npSAD) — International Centre for Drug Policy (ICDP)
	Hilkka Ahonen	As member of WHO expert group
	Mary Heanue	As member of WHO expert group
	Lars Age Johansson	As member of WHO Mortality Reference Group
	Eric Jougla	As member of WHO expert group
	Marleen De Smedt	Eurostat Task Force Causes of Death Statistics

Annex 10: Charts on DRD data reported to the EMCDDA by the EU Member States, Croatia, Norway and Turkey

(10a) GMR and SR: two sources for complementary and cross validated information on DRD



(10b) General summarised flow chart of information from the death scene to the EMCDDA figures on Drug-Related Deaths in the 27 EU Member States, Croatia, Norway and Turkey.



* International Classification of Diseases (ICD), of the World Health Organization, used to code and classify the underlying cause of death.