EMCDDA Meeting on the Key Indicator
Drug-related Deaths and Mortality among drug users

29-30 September 2016 - Lisbon

Compilation of National Abstracts

Recent developments concerning the Key Indicator in the Member States, Candidate Countries and Norway

This compilation was prepared for the 2016 annual meeting of the DRD national experts.
More information on the meeting (Agenda, participants, supporting documents, summary) is available from
http://emcdda.europa.eu/meetings/2016/DRD

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Recent developments concerning the DRD Key Indicator in Austria

1. **Brief overall situation on DRD:** (200 words max)
   a. Overdose (drug-induced deaths)
   In 2015, a total of 153 fatal overdoses were verified in the context of autopsies (including 27 deaths – for which no autopsies were performed). After a noticeable rise between 2004 and 2006, the number of fatal poisonings has gone down till 2014 (122 deaths including 20 deaths for which no autopsies were performed). If the rise of the year 2015 is a change of trend is not reasonable assumable at this point.

   b. Overall mortality (cohorts studies)
   No new data.
   c. Other points

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)
   a. Other substances than opioids still a rather small issue in Austria regarding DRD
   b. Increase in the number of drug induced deaths
   c. Low increasing number of young DRD – only for men not women

3. **Emerging concerns/debates** (150 w. max)
   Data for DRD are inconsistent in comparison to data of recent years and other sources of data (e. g. substitution, treatment). If this is a statistical spike will be seen within the next years.

4. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[1], please let us know if you have any information or updates, worth sharing at a European level:
   A. Assessment of the implementation of the DRD KI: tool, process and utility Click here to enter text.
   B. Increases in heroin/opioid deaths[2].
   C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine Click here to enter text.
   D. Prison post release mortality – what is done/missing Click here to enter text.
   E. Safe injecting rooms, naloxone programmes, other responses - updates Click here to enter text.
   F. Any other topic on which you want to provide an update Click here to enter text.

5. **Call for 'abstracts' for presentation**. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.
   - Presentation 1 (title/abstract) Click here to enter text.
   - Presentation 2 (title/abstract) Click here to enter text.

6. Please list below (and send us) any supporting document (that we can share in the public website) you would like us to upload on the DRD 2016 expert web page

[1] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)
[2] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Recent developments concerning the DRD Key Indicator in Croatia

1. **Brief overall situation on DRD:**

   a. Overdose (drug-induced deaths): In Croatia there are two sources of data on the number of drug-related deaths, the General Mortality Registry (GMR) based on DCs, and the Treated Drug Addicts Registry. This report has used data from the GMR, applying the Selection B. In 2015 there was no significant difference in the number of deaths in comparison to the number of deaths during the last few years.

   In 2015, 54 persons died as a direct result of drug abuse, which is the slightly smaller number than in the previous year. 48 deceased persons were men (88.9%) and 6 women (7.1%). Average age of the deceased was 37.7, for men 38.2 and 34 for women. The decreasing trend in the number of DRDs continued in 2013. According to the results of autopsy reports, opiates are still the predominant type of drug (80%). The Treated Drug Addicts Registry analyses causes of death among drug addicts

   b. Overall mortality (cohorts studies)

   No new study available.

2. **2015-16 analysis** (what is new since your 2015 workbook)

   a. No changes since last year.

3. **Emerging concerns/debates**

Potentially new synthetic opioids.

4. **Call for 'abstracts' for presentation**. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.

- Presentation 1 (title/abstract) Overview of DRD in Croatia – Methadone/Heroin related deaths

Croatian National Institute of Public Health (CNIPH) is responsible for coding underlying causes of death and quality of mortality statistics.

CNIPH is responsible for sending data for the DRD indicator (ST5 and ST6) we use the data from GMR, Standard Protocol and Selection B. In the last five years the DRD has a decreasing trend (in 2015 54 deaths) whereby males dominate. The percentage of autopsies in DRD in the last three years has increased trend (94% in 2015). The mean age of DRD has stable trend (about 37). The most common age groups in last six years are from 30 to 44.

In period of 2007 to 2012 we have recorded a significant increase of methadone overdoses and significant decrease of heroin overdose. Since 2013 we have recorded a gentle increase heroin overdose.

Recent developments concerning the DRD Key Indicator in Cyprus

1. **Brief overall situation on DRD:**

a. Overdose (drug-induced deaths)

According to the Special Registry, in 2014 six overdoses were recorded, two of which were attributable to the use of opiates (with any drug). In 2015, the number of drug overdoses increased to nine, eight of which were men (with a mean age of 36 years). In addition, Cyprus nationals constituted the vast majority of the recorded cases. Only in one of the cases opiates were not present.

b. Overall mortality (cohorts studies)

No cohort studies have been carried out in Cyprus yet.

c. Other points

Although no overall picture regarding mortality among drug users is not available, compared to the previous year, in 2015 there seems to be a quite significant increase in the number of indirect drug related deaths which are recorded by the SR, such as car and other accidents, suicides etc. Specifically, while in 2014 four indirect drug related deaths were recorded, in 2015 the respective number increased to 21. In the vast majority of those deaths, THC was present.

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

d. Increase in drug overdoses (from 6 in 2014 to 9 in 2015).

e. Increase in drug overdoses attributable to the use of opiates.

f. Decrease in the mean age of the diseased (while no drug overdoses were recorded in the age groups 20-29 in 2013-2014, in 2014 three of the recorded DRDs were in that age group).

g. Large increase in indirect drug related deaths, such as car and other accidents and injuries.

3. **Emerging concerns/debates**

Increase in opiate induced deaths and a lower age of these deaths raise concerns. In addition, in 2015 is marked by one of the highest numbers of drug overdoses involving Cyprus nationals (as opposed to previous years when the nationality of the diseased in many cases implied a “moving” population, not residing permanently in Cyprus). Further, Oxycodone use, also reflected in TDI data needs to be closely monitored.

Recent developments concerning the DRD Key Indicator in the Czech Republic

1. **Brief overall situation on DRD:**

a. Overdose (drug-induced deaths)

In general mortality register, 57 cases of fatal overdoses on illicit drugs and inhalants (48 in 2014) were reported in 2015, of which 27 were opioid overdoses (14 in 2014), 16 cases of overdoses by stimulants other than cocaine, mostly likely methamphetamine (10 in 2014) and 4 inhalants (13 in 2014) and 10 non-specified substances (11 in 2014). A significant (almost twofold) increase occurred in fatal poisoning by opioids.

For 2015 after a two-year gap, data on drug-related deaths are available from the special mortality register from forensic medicine department (since 2015 new National register – see below). 44 cases of fatal overdoses by illicit drugs and inhalants were identified in 2015. Overdose by psychoactive medicines were mechanism of death in 60 other cases. Of the 44 cases of direct drug-related deaths, 20 cases sere caused by opioids, 15 by methamphetamine, 7 by inhalants and 1 by cocaine. In comparison with 2012 (the last previous year available, when 38 cases of fatal overdoses by illicit drugs and volatile substances were reported), there is an increase especially in opioids (8 cases), among which appeared except heroin, morphine and codeine derivatives also hydromorphone, oxycodone, fentanyl and probably raw opium (noscapine). This is in line with data on problem opioid use – increased use of opioid analgesics is reported recently. Also regional analysis shows that increase of opioid mortality is located in regions with report problem opioid analgesics use.

In 2015, 99 indirect DRDs (under the influence of drugs) were recorded in Special mortality register. Most of them involve accidents and suicides. As regards illicit drugs, the highest number of cases under the influence was associated with methamphetamine (27) and cannabis (13).

b. Overall mortality (cohorts studies)

No new info.

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

a. In 2016 after 2-years gap, data for 2015 are available from the Special mortality register. Unofficial information system from forensic medicine departments coordinated by National monitoring centre for drugs and addictions (the Czech NFP) run from 1998 was replaced by National register on forensic autopsies. It has been introduced by Act No. 372/2011 Coll., on health services and the terms and conditions governing the provision of these services and it became operational since 2015.Structure of the data, criteria, chemical/toxicological compounds reported etc. are in line with previous Special mortality register.

3. **Emerging concerns/debates**

Problem use of opioid analgesics is in rise – see above.

4. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[3], please let us know if you have any information or updates, worth sharing at a European level:

- **A.** Assessment of the implementation of the DRD KI: tool, process and utility See above – new National register on forensic autopsies became operational a provided 2015 data.
- **B.** Increases in heroin/opioid deaths[4]: There is an increase in the Czech rep, associated with problem use of opioid analgesics – see above.
- **C.** Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine No new info
- **D.** Prison post release mortality – what is done/missing No new info
- **E.** Safe injecting rooms, naloxone programmes, other responses - updates No new info

[3] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)
[4] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Recent developments concerning the DRD Key Indicator in Estonia

1. **Brief overall situation on DRD:** (200 words max)

    a. Estonia used to have the highest DRD per population rate in Europe. The reason for this is widespread use of fentanyles, which are extremely potent synthetic opioids. Vast majority of drug-related deaths involve these substances, often in combination with stimulants, alcohol, bezodiasepines.

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

    b. In 2015 the number of DRD in Estonia continued to decline. This development may be due to combination of successful harm reduction interventions - take home naloxone project launched in September 2013 and decline of IDU number, suggested already in 2009 by capture-recapture method. New capture-recapture study is being planned, so new estimates of IDU prevalence in Estonia will be available soon. Decline in intravenous drug use may be attributed to successful information campaigns having prevented people from using drugs.

3. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[5], please let us know if you have any information or updates, worth sharing at a European level:

    A. Assessment of the implementation of the DRD KI: tool, process and utility Click here to enter text.

    B. Increases in heroin/opioid deaths[6].

    C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine Click here to enter text.

    D. Prison post release mortality – what is done/missing Click here to enter text.

    E. Safe injecting rooms, naloxone programmes, other responses - updates In September 2013, the take home naloxone pilot program was launched in Estonia by National Institute for Health Development. Programs are implemented in Harju and Ida-Virumaa Counties, where the problem of injecting drug use is most acute. In total 1336 people received training (incl 1054 drug users) and 1331 naloxone kits were disseminated during the period of September 2013-December 2015. Most of the syringes were distributed to users of narcotic substances (n=1047). In 2015, in collaboration with the Ministry of Justice (special project with Switzerland), the program expanded to prisons for providing training and disseminate naloxone kits to the prisoners with prior history of opioid use before their release. In total 23 people received training and 11 naloxone kits were disseminated in 2015.

    F. Any other topic on which you want to provide an update Click here to enter text.

4. Please list below (and send us) any supporting document (that we can share in the public website) you would like us to upload on the DRD 2016 expert web page

    References:

    Validation study NIHD and Estonian Forensic Science Institute

    J.Tuusov et al "Fatal poisoning in Estonia 2000-2009. Trends in illegal drug-related deaths." Journal of Forensic and Legal Medicine, 2012

    G.Denissov et al "The impact of changing classifications on official fatal poisoning figures." Rom J Leg Med, 2012 (open access)

    The latest IDU population study

    A.Uusküla et al "A decline in the prevalence of injecting drug users in Estonia, 2005–2009." International Journal of Drug Policy, 2013

    An overview of fentanyl misuse

    J. Mounteney et al "Fentanyls: Are we missing the signs? Highly potent and on the rise in Europe." International

    Journal of Drug Policy, 2015

[5] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

[6] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Recent developments concerning the DRD Key Indicator in Finland

1. Brief overall situation on DRD:

a. Overdose (drug-induced deaths)

There have been no significant changes since the last reporting. The latest reported year was 2013. The total number of all fatal poisonings (all substances, not just drugs) has been decreasing steadily over the last decade. Buprenorphine continues to be the top cause of death in fatal drug poisonings with 55 cases in 2014. However, also the number of fatal opioid poisonings is decreasing. By contrast, the number of post-mortem cases with information on drug abuse is increasing, indicating that users of drugs more and more die of other causes than fatal poisoning.

2. Emerging concerns/debates

U-47700 appeared in April 2016 for the first time in Finland. There have been 3 death cases so far. The cause of death is still not settled in these cases, and in all of them there were other significant psychoactive drugs present as well. This is the first new opioid that we have encountered in the post-mortem investigations in Finland even though they have been frequently detected close by, in Sweden and Estonia.

3. Call for 'abstracts' for presentation. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.

- Presentation 1 (title/abstract) **ALL THE DIFFERENT WAYS TO LOOK AT TRAMADOL CASES**
  Post-mortem toxicology results provide comprehensive information on the extent of problems associated with drug abuse. There are numerous ways to look at the same data and the reported numbers greatly depend on the chosen angle.
- All post-mortem cases positive for tramadol in Finland in 2013 were examined in terms of toxicological findings, background information and the manner of death. In these cases, comprehensive post-mortem toxicology had been performed by using chromatographic and mass spectrometric techniques in an accredited central laboratory serving the whole country.
  There were 739 cases positive for tramadol of which 65 cases were connected to drug abuse. The forensic pathologists had defined 40 cases as fatal tramadol poisonings. Of these poisonings, 23 were associated to drug abuse. In 56 cases the death was directly or indirectly caused by the intake of tramadol.
  The extensive post-mortem toxicology data collected in the cause-of-death investigations in Finland enable reliable statistical analysis and research on a population-based level. In reporting data, particular care must be taken that the right question is answered.
- Presentation 2 (title/abstract) **NPS in medico-legal investigations with special focus on U-47700**
  In Finland, all post-mortem samples are analysed in one central laboratory. The high autopsy rate in Finland (18% of all deaths) - especially among unintentional injury deaths (98.3%) – results in an extensive number of post-mortem toxicology cases every year.
  In the last five years, the most prevalent NPS in the post-mortem investigations in Finland have been the synthetic cathinones MDPV and α-PVP. Interestingly, the total number of cathinone findings has gradually decreased, and following the considerably popular α-PVP there has not been any new drug to replace it as the clearly most popular NPS.
  Despite having been frequently encountered in the neighbouring countries, designer opioids and e.g. fentanyl derivatives have been conspicuous by their absence in the Finnish drug market. In the last 6 months, however, there have been three post-mortem cases positive for the novel synthetic opioid U-47700. Details of these cases will be given in the presentation.

Recent developments concerning the DRD Key Indicator in France

1. **Brief overall situation on DRD:**

   a. Overdose (drug-induced deaths)

   After peaking in the mid-1990s, the number of overdose deaths rapidly declined notably as a result of the development of OST and loss of interest in heroin. After a period of increase from 2003 to 2010, data from the mortality register revealed a decrease in the number of fatal overdoses in 2011 and 2012. There was a new increase in the number of overdose deaths in 2013. The number of overdose deaths in 2013 amounted to 237 among 15-49 year-olds (349 in total) according to the general death register (for which the data availability period is 2 years).

   According to the specific overdose death register (DRAMES scheme), between 2010 and 2014, opioid substitution medications were the main substances implicated in overdose deaths, ahead of heroin.

   b. Overall mortality (cohorts studies)

   Between September 2009 and December 2011, the mortality cohort study included 1,134 individuals, and for 955 (or 84%) of these subjects, the vital status was checked in December 2015. For men, the standardised mortality ratio was 5.6. For women, it was much higher (18.5).

2. **2015-16 analysis** (what is new since your 2015 workbook)

   a. The number of overdose deaths in the general death register increased in 2013, after declining for two consecutive years, preceded by a rise between 2003 and 2010. However, the fluctuations observed since 2011 should be interpreted with caution owing to methodological changes. The new increase in the number of overdose deaths in 2013 was partly due to the rise in "false-positive" cases and the fluctuations observed in recent years are probably related to the attempt to exclude them (morphine overdose deaths in a palliative care or cancer context) according to a procedure which has not yet been fully systematised.

   b. . According to the specific overdose death register (DRAMES scheme), opioid substitution medications were implicated in 55% of overdose deaths in 2014, and this trend remains stable. Heroin was implicated in 26% of fatal overdoses and cocaine in 14%. The percentage of deaths involving cannabis was 8%, versus 4% for amphetamines and MDMA/ecstasy. In 30% of deaths, several substances were involved.

3. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on ‘High mortality in certain countries’; and feed-back on the project on ‘Coding issues’, the following topics are considered for inclusion. On these topics[7], please let us know if you have any information or updates, worth sharing at a European level:

   A. Safe injecting rooms, naloxone programmes, other responses - updates The trialling of drug consumption rooms (DCR) falls within the scope of the law to reform the health system. Two cities volunteered to trial these DCR: Paris and Strasbourg. They are scheduled to open in autumn 2016, when the work on the facilities has finished. The specifications for these DCR are laid down by a decree, which defines their operating conditions in detail (organisations and populations concerned, location, personnel, etc.).

   As regards the implementation of a distribution programme for naloxone (antidote to opioid overdose) in France, the proprietary medicinal product Nalscue® (naloxone for nasal use) from the pharmaceutical company Indivior was granted a cohort temporary authorisation for use (ATU) in November 2015. It has been available since July 2016. Only physicians practising in specialised drug addiction treatment centres for drug users (CSAPA), in hospital addiction medicine departments, in emergency departments, in any other departments in which an addiction liaison and treatment team operates and in prison treatment units may include patients in the cohort ATU. Supply is exclusively reserved for pharmacists in charge of dispensing within hospital pharmacies and hospital CSAPA.

4. **Call for ‘abstracts’ for presentation**. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.

[7] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

- Presentation 1 (title/abstract) Mortality cohort study among drug users in France (2009-2015) Abstract: For the second time in France, the excess mortality among drug users could be quantified through a mortality cohort study. Between September 2009 and December 2011, the mortality cohort study included 1,134 individuals, and for 84% of these subjects, the vital status was checked in December 2015. At age and sex controlled, people in the cohort have a risk of dying seven times higher than the national population. This risk is greater for women in the cohort (19 times higher) compared to the national female population than for men (6 times) compared to the male population. In the mortality cohort of individuals arrested for heroin, cocaine or crack use followed from 1992 to 2001, the risk was similar for men (multiplied by 5) and lower among women (9 times). Although significant, this excess mortality compared to other cohorts in Europe, is in the lower range. The causes of death show a high proportion of unknown causes probably hiding overdose deaths or suicide. This ignorance of the causes of death, exclusive to France on such a scale, is a limiting factor for their prevention. A multivariate survival analysis was performed using the Cox model to identify risk factors for death. The self-assessment of their health by drug users appears to be a particularly relevant variable for evaluating the risk of death among drug users. A change in their health perceived as negative by the user, psychiatric treatment and insecure housing are associated with higher mortality.

Recent developments concerning the DRD Key Indicator in Germany

1. **Brief overall situation on DRD:** (200 words max)

   a. Overdose (drug-induced deaths) 1195 overdose deaths were registered in the General Mortality Registry in 2014 (GMR data for 2015 is not yet available), 274 of the deceased were women (22.9 %). Police data (special registry) is available for 2015 and shows 1.226 overdose deaths. While the two recording systems are not directly comparable, they both show a clear increase in the number of drug-induced deaths since 2012 (GMR: 1079; SR: 944). According to police data, overdosing on heroin/morphine (including poisoning by heroin/morphine in conjunction with other substances) remains the most common cause of death with nearly two thirds of all cases (63.1 %) in 2015.

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

   a. In the last years, there was a clear trend towards older age groups within drug-related deaths. This trend seems to be stabilising in the past year. There is no indication of a reversal of said trend; fatal drug-related intoxications amongst the youngest users of hard drugs are still on the second-lowest level since the beginning of recording in 1998.

   b. In the GMR the acute intoxication is only recorded for less than half of all DRD cases; mostly, only the underlying disease is registered. However, of those acute intoxications which actually are recorded, there is a notable increase of intoxications which do not contain opioids (from 11.0 % in 2010 to 22.3 % in 2014).

3. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[8], please let us know if you have any information or updates, worth sharing at a European level:

   A. The KI is fully implemented and data are reported for GMR as well as SR without notable limitations. Regarding the application of the tool for GMR, the utility is hampered by a considerable variation in coding practices among the German Bundeslaender. An analysis for 2013 and 2014 demonstrates that the share of F-codes among the Code selection for GMR accounts for 5% up to 66%, depending from the region in Germany. There is no apparent correlation with information quality in terms of share of toxicological analyses.

   B. Increases in heroin/opioid deaths[9]. Raw numbers of heroin / opioid related deaths have increased, but since the total number of drug related deaths has increased as well, the percentage share of opioid related overdoses has not risen considerably in either police data or the GMR. Quite to the contrary, the GMR shows a rise in the percentage share of non-opioid related DRD in those cases with known toxicology (see above).

   C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine Hospital emergency data is available for poisonings (T40.x-Codes) and acute intoxications (F1x.0-Codes). The total number of admissions has been on the rise for the past 10 years (12348 admissions in 2004; 20525 admissions in 2014). This increase can be seen in F-Codes; the number of T-Codes has not increased. It remains unclear whether this can be explained through coding practices or whether in fact there really were a lower number of cases of poisoning and a higher number of cases of intoxication.

   For poisonings (T40.x-Codes), the largest share of admissions is caused by 'other opioids'. Even though this share has been declining since 2011, it is still by far the most common cause (980 cases in 2014). Heroin-poisonings used to be the second leading cause, but have also been on the decline since around 2008 and by now play a rather smaller role. Since 2011, Cannabinoid-poisonings are the second most common cause for admissions but show a stable trend (308 cases). All other substances (i.e. cocaine) only make up for small percentage shares of all admissions for poisonings.

   In the acute intoxications group (F1x.0) the most coded diagnosis, by some margin, is intoxication through multiple substance use or the use of other psychotropic substances (F19.0). The number of these types of

[8] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

[9] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

inpatient admissions cases have more than quadrupled between 2004 (2475 cases) and 2014 (9451 cases). Acute sedatives/hypnotics intoxication is the second most coded diagnosis. In recent years a slight decrease in the numbers can be seen (2004: 3138 cases; 2014: 2561 cases). Opioid intoxication is, following a short-term rise in the middle of the 2000s, once again below the 2004 level. The development in the number of cannabinoid intoxications, which has more than tripled from 2004 to 2014 (2004: 592 cases; 2014: 2089 cases) as well as intoxication from stimulants (excl. cocaine), which has increased nearly fivefold (2004: 367 cases; 2014: 1814 cases) is more critical.

D. Prison post release mortality – what is done/missing A pilot study in Berlin is currently planning to implement and evaluate a naloxone programme in prisons. Prior to discharge, inmates will receive a drug emergency training and an emergency kit.

E. Safe injecting rooms, naloxone programmes, other responses - updates In the past two years, NGOs have begun to establish more Naloxone programmes. While the coverage is still far from nationwide, in 2016 Naloxone programmes are available in Berlin, Frankfurt, Cologne and other cities in North Rhine-Westphalia and Munich. Supply of naloxone is made more difficult by legal problems as well as a lack of financing and is not integrated into regular healthcare. However, NGOs are engaged in clarifying and improving the legal situation for naloxone programmes, in order to break down barriers to adequate treatment and enable nationwide availability in the future.

The situation for safe injecting rooms is largely unchanged. There are currently 23 drug consumption rooms available in six of 15 Bundeslaender.

Recent developments concerning the DRD Key Indicator in Hungary

1. **Brief overall situation on DRD:**

   a. Overdose (drug-induced deaths)

   Stable situation. Heroin mostly disappeared from the country, so heroin/morphine cases mostly disappeared. There are a few methadone only cases, also stable. The few opiate related cases are polydrug use: benzodiazepines+methadone and/or morphine + other drugs including alcohol.

   b. Other points

   Due to prevalent NPS use further efforts shall be invested into 1) networking of pathologists, toxicologist, laboratory experts, clinician including EWS and alerting 2) pathological effects of NPS including the emergency setting 3) NPS detection in biological samples and fatal overdose cases/data collection 4) shifting to NPS from classical drugs in the PDU population.

2. **2015-16 analysis (what is new since your 2015 workbook)**

   a. In general, nothing really. It seems, that the number of cases is related to the appearance of a new, especially toxic NPS. In 2015 no such substance appeared in the other way extensive – pentedrone and partly a-PVP, a-PHP, a-PEP dominated – NPS market, so the numbers stayed stable and low.

3. **Emerging concerns/debates**

   Synthetic cannabinoid use seems to be on the rise. This is related to emergency cases mostly and also covers acute psychosis beyond the physical symptoms. Not 100% DRD related issue, but up to my understanding this is the most concerning in Hungary.

Recent developments concerning the DRD Key Indicator in Ireland

1. **Brief overall situation on DRD:** (200 words max)

   a. Overdose (drug-induced deaths)

   The National Drug-Related Deaths Index (NDRDI) in Ireland provides all data on drug-induced deaths (DRD) and mortality among drug-users in Ireland. Due to external factors outside of our control there has been a delay in inquests held this year, therefore DRD data for 2014 deaths is still being collected at the time of writing.

   Data shows an increase of 7.2% on DRD reported in 2013 compared to 2012. The percentage of deaths involving polydrugs has increased with the main drugs involved being opiates, benzodiazepines and alcohol.

   b. Overall mortality (cohorts studies) RCSI cohort study

   Cousins, Grainne and Boland, Fiona and Courtney, Brenda and Barry, Joseph and Lyons, Suzi and Fahey, Tom (2016) Risk of mortality on and off methadone substitution treatment in primary care: a national cohort study. Addiction , 111 , (1) , pp. 73-82.

   Summary: 6983 patients on a national methadone treatment register aged 16 to 65 years between 2004 and 2010 took part in this study to assess whether risk of death increases during periods of treatment transition, and investigate the impact of supervised methadone consumption on drug-related and all-cause mortality.

   Conclusions: Among primary care patients undergoing methadone treatment, continuing in methadone treatment is associated with a reduced risk of death. Patients' risk of all-cause mortality increases following treatment cessation, and is highest in the initial four week period. (This article is protected by copyright. All rights reserved.)

   c. Other points

   In 2013 there were 86 poisoning deaths where heroin was implicated (22% of all poisoning deaths). This is the first time since 2009 that the number of heroin-related deaths has increased. Half (49%) of those who died from a heroin-related poisoning death were known to be injecting at the time of their death

2. **Emerging concerns/debates**

   Increase in deaths involving heroin

3. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[10], please let us know if you have any information or updates, worth sharing at a European level:

   A. Increases in heroin/opioid deaths[11]. Both deaths involving heroin and deaths involving methadone increased in 2013 from 2012 data. In 2013, 72% of heroin-related deaths involved polydrugs, mainly benzodiazepines and almost all (94%) deaths where methadone was implicated involved other drugs, mainly benzodiazepines.

   B. Safe injecting rooms, naloxone programmes, other responses – updates: Legislation is being developed to allow for the first medically supervised injecting centre in Ireland. Although delayed, the necessary legislation is expected in autumn 2016. The findings from the naloxone demonstration project are still awaiting.

[10] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

[11] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Recent developments concerning the DRD Key Indicator in Italy

1. **Brief overall situation on DRD:** (200 words max)

   a. Overdose (drug-induced deaths)

   According to Special Register data, in 2015, deaths due to overdose continue to decline in Italy, reaching 305 deaths (in 2014 were registered 313 deaths). Men represent the 86.2% of the cases (263). The non-nationals account for 4.9% with a little decline compared to the previous year. The mean age is 39.3 years with 3.6 year difference between male and female (mean age in men: 39.8) and little variation with the preceding year.

   For more than 50% of the cases there is no evidence of substance used. Nevertheless, heroine represents the most frequently reported substance responsible for overdose deaths being reported in 33% of the cases, followed by cocaine (37 casers corresponding to 12.1%). Methadone was reported in 3 cases and amphetamine in 2.

   b. Overall mortality (cohorts studies)

   c. Other points

   In Italy, general mortality register are also analysed for drug related deaths. This data source confirms general pattern of mortality described above (the most recent year available is 2013),although the number of deaths retrieved using the underlying cause is lower than the Special Register (in 2013 were observed 244 cases). However, this source allows also the study of multiple causes of death, i.e. all causes reported on the death certificate and their associations.

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

   a. Data from General Register confirm the decline in DRD mortality: the standardized mortality rate observed in 2013 was 3.8 per million residents, while in 2014 was 4.5 (-16%).

   b. The differences among age-groups is progressively reducing due to a slight increase of the level of mortality in older ages (55-64 years).

   c. Differences in mortality levels by geographical areas are also reducing but the Centre continues to shows higher mortality levels compared to the other areas.

3. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[12], please let us know if you have any information or updates, worth sharing at a European level:.

   A. Increases in heroin/opioid deaths[13].

   According to the Special Register, the number of opiates deaths has declined in the last years with some oscillatory behaviour, from 295 cases in 2004 to 101 in 2015. Nevertheless, due to the small number of cases and, especially, due to the high number of unknown substance death, the trend cannot be clearly delineated. In the period 2004-2015, the percent of unknown substance has been generally above 50% with some variation (from 45 to 61 %). From the general mortality register, the percent of unknown substance is even higher, accounting for 77% of the cases in 2013.

[12] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

[13] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Recent developments concerning the DRD Key Indicator in Latvia

1. **Brief overall situation on DRD:**

   In the last two years, DRD number has slightly increased compared to 2013, returning to 2012 level (in 2012 there were 17 cases, in 2013 - 11, 2014 - 15, while in 2015 - provisionally 18). Provisionally 2015 data shows, that the most often DRD caused by opioid overdose (in 2014 – 10 and preliminary in 2015 – 7 cases). The substance is not specified in four DRD cases. We remind that 2015 data are provisionally and still is being checked.

2. **2015-16 analysis** (what is new since your 2015 workbook)

   a. Provisionally in 2015 there are registered 18 DRD.

   b. The number of seizures of fentanyl has increased last year (especially carfentanyl), but no proved data is available about fentanyl use among general population or high risk groups. We have to be alert with these seizure data and need to follow the general situation in the country, if there are any changes observed in substance use or overdose.

   c. In 2015 1008 emergency medical service calls (in 2014 – 840) from patients, diagnosed as being under the influence or experiencing abstinence from narcotic or psychotropic substances (ICD-10 F19.2-F19.5), have been recorded and 1682 calls (in 2014 – 1626) from patients, who were diagnosed intoxication with narcotic or hallucinogenic substances (ICD-10 T40).

3. **Emerging concerns/debates**

   Must have to monitor carefully the data from other sources (e.g., changes in the numbers of seizures, the treatment demand data) – whether and how these data are related or going along with the registered DRD and overdoses, thereby to try eliminate the problem before it becomes acute.

Recent developments concerning the DRD Key Indicator in Lithuania

1. **Brief overall situation on DRD:**
   a. Overdose (drug-induced deaths)
   According to data of the Institute of Hygiene, in 2014, 87 deaths (76 males and 11 females) due to drugs and psychotropic substance use were registered.
   According to age distribution, in 2014, the biggest number of deaths was in the young subgroup aged from 30 to 34 (24 individuals), with the average age in the time of death being 34,5 years (in 2013 – 32,3 years), for men – 34,2, women – 35,5, the youngest was 19 years old, the oldest - 51 years old.

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)
   a. According to data of the Institute of Hygiene, in 2015, 115 deaths due to drugs and psychotropic substance use were registered (in 2014 – 87 deaths, 2013 – 54 cases, in 2012 – 70 cases, in 2011 – 45 cases, in 2010 – 51 cases, in 2009 – 68 cases). 70 % of deaths due to drugs and psychotropic substance which were registered in 2015 is deaths from opioids (80 cases).

3. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[14], please let us know if you have any information or updates, worth sharing at a European level:

   A. Assessment of the implementation of the DRD KI: tool, process and utility No new information
   B. Increases in heroin/opioid deaths[15].
   C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine No new information
   D. Prison post release mortality – what is done/missing No new information
   E. Safe injecting rooms, naloxone programmes, other responses - updates No new information

[14] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)
[15] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Recent developments concerning the DRD Key Indicator in Luxembourg

1. Brief overall situation on DRD:

In terms of number of overdose cases in the general population of the Grand Duchy of Luxembourg, this proportion figured 1.76 overdose deaths per 100,000 inhabitants aged 15 to 64 years in 2005 (2000: 5.9 cases per 100,000 inhabitants and 2007: 5.67). In 2015, 3.1 acute OD cases per 100,000 inhabitants have been registered (2010: 3.5), showing a decreasing tendency. Forensic data from 1992 to 2014 show that the most frequently involved substance in drug-related death is heroin, followed by prescription drugs consumed in a polyuse context. 92% of victims were male in 2015 and the mean age of victims has been showing a discontinued increase over the past 20 years (in 1992: 28.4 years and in 2015: 37.4 years). Although the mean age of drug overdose victims has been increasing, the number of victims aged less than 20 years has remained relatively unchanged. No underage victim was reported in 2015.
As regards the nationality of fatal overdose victims, 75% (2014: 75%) were natives,
Since 2012, the mean age of male overdose victims has been showing an important increase compared to previous years. This observation has been confirmed between 2013 and 2015 (mean age of male victims being 37.7 years). The youngest victim was aged 26 (30 years in 2013) and the oldest was 62 (53 years in 2013). No underage victim was reported in 2015. Regarding the nationality of overdose victims, the majority (75%) were natives.
Confronted to most recent national prevalence figures on problem drug users referring to data of 2009 (N = 2,070), (Origer, 2012), the overdose rate in PDU situates at 0.58 % cases / PDU (1.1 % in 2000). The overdose rate in the national general population figured 6.43 overdose deaths per 100,000 inhabitants in 2000. In 2015 overdose rates of 2.13 and 3.1 per 100,000 inhabitants and 100,000 inhabitants aged 15 to 64 years respectively have been observed.
The positive evolution of the number of direct drug-related deaths is to be associated to the implementation of the first national supervised drug consumption room in 2005. Considering that since the opening in 2005 of the first national drug consumption room around 2,000 overdose episodes could be assisted and victims reanimated in this same facility, the life-saving effectiveness of such an offer is given. Also worth mentioning is that a majority of acute drug death victims are known by law enforcement agencies (+/- 80%) for their drug user 'career'. As far as the place of death is concerned, since 2004 approximately 50-65% occurred at the victims' home, followed by public places such as cars, trains or public bath rooms.

Recent peer reviewed research:

Origer A, Le Bihan E, Baumann M. (2015) A Social Gradient in Fatal Opioids and Cocaine Related Overdoses? PLoS ONE 10(5): e0125568. doi:10.1371/journal.pone.0125568

Origer A., Le Bihan E., Baumann, M. (2014) Social and economic inequalities in fatal opiod and cocaine related overdoses in Luxembourg: A case-control Study. International Journal of Drug Policy. 2014; doi:10.1016/j.drugpo.2014.05.015.

Origer A., **Lopes da Costa S., Baumann, M.** (2013) Opiate and cocaine related fatal overdoses in Luxembourg from 1985 to 2011: a study on gender differences. European Addiction Research. 2013;18:288-296. doi:10.1159/000337211.

Further studies were conducted and results presented at international conferences:

Origer A., Baumann, M. Suicide attempts prior to fatal drug overdose in Luxembourg from 1984 to 2011, 21st World Congress on Social Psychiatry. 29th June – 3th July, 2013, Lisbon, Portugal.

Origer A., Lopes da Costa S., Baumann, M. Opiate and cocaine related fatal overdoses in Luxembourg from 1985 to 2011: a time-stratified study on male/female differences. 21th IUHPE World Conference on Health Promotion, 25-29th August, 2013, Pattaya, Thailand

Origer A., Bucki B., Baumann, M. Socioeconomic inequalities in fatal opiate and cocaine related overdoses: transgenerational baggage versus individual attainments. 28th Conference of the EHPS "Beyond prevention and intervention: increasing well-being", 26th - 30th August, 2014, Innsbrück, Austria.

2. Emerging concerns/debates

Increase of cocaine/stimulant inject with more frequent injection episodes and associated risks. The emergence of NPS injection in various risk groups.

3. Meeting – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[16], please let us know if you have any information or updates, worth sharing at a European level:

A. Safe injecting rooms, naloxone programmes, other responses - updates A second supervised drug consumption room is planned to be opened by 2018 in the South of the country

4. Call for 'abstracts' for presentation. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.

- Presentation 1 (title/abstract) None

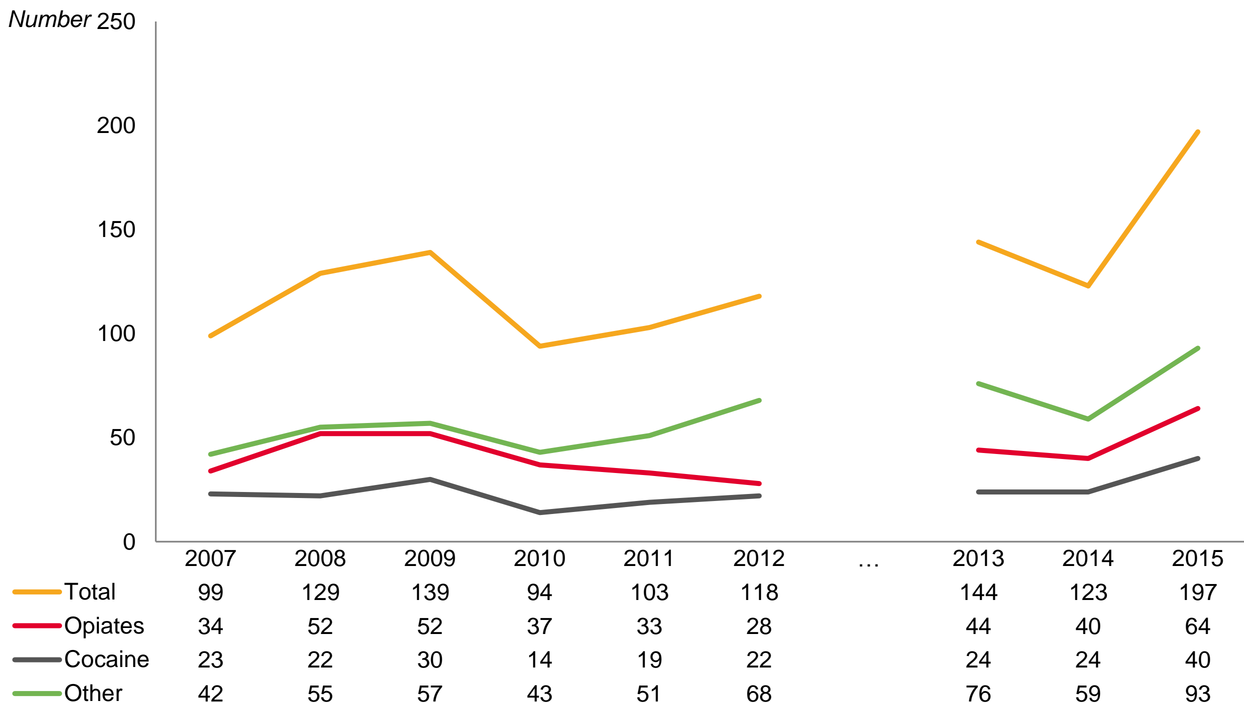
[16] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

Recent developments concerning the DRD Key Indicator in the Netherlands

1. Brief overall situation on DRD:

- **a.** Overdose (drug-induced deaths)
- **b.** Overall mortality (cohorts studies)
- **c.** Other points

The number of drug-induced deaths, according to the EMCDDA-definition Selection B for General Mortality Registers, has increased in The Netherlands from 123 cases in 2014 to 197 cases in 2015. The numbers from 2007 up to including 2015 are given in the figure below. The increase has been found for deaths related to opiates as well as deaths related to cocaine, and deaths related to other substances.



	2007	2008	2009	2010	2011	2012	…	2013	2014	2015
Total	99	129	139	94	103	118		144	123	197
Opiates	34	52	52	37	33	28		44	40	64
Cocaine	23	22	30	14	19	22		24	24	40
Other	42	55	57	43	51	68		76	59	93

Source: Causes of Death Statistics, Statistics Netherlands (CBS). Selection of cases according to the EMCDDA-definition Selection B for General Mortality Registers, as reported in ST6_2016_NL_01.

2. 2015-16 analysis (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

- **a.** See figure above
- **b.** With regard to tramadol, only very few cases are known in The Netherlands.

Recent developments concerning the DRD Key Indicator in Norway

1. **Brief overall situation on DRD:**

a. Overdose (drug-induced deaths)

For the 2016 report, 2014 data in terms of mortality statistics are available. The number of overdoses in Norway was 266 in 2014, compared with 234 in 2013. Although the increase of 32 deaths represent more than a 10% increase from 2013-1014, the 2014 data are considered to be on a fairly stable trend (with annual “natural variation”) judging the situation from 2003-2014 combined. If population growth is included the overall trend during 2003-2014 is likely a gradual decrease in the rate of overdoses per 1mill population. The mean age of the deceased is increasing, and the main intoxicant is heroin, followed by other opioids. In total 86% of overdose deaths have at least one opioid figuring among the cause of deaths. The rate of heroin as the main contributing factor for overdose deaths, decreased from around 50% to around 25% in Norway between 2008-2012, but has now increased during the two most recent years to the current 34% in 2014.

b. Overall mortality (cohorts studies)

There are no new cohort studies published during the past year from Norway.

c. Other points

The Norwegian naloxone project is ongoing and has recently been extended to new cities. More than 3000 nasal sprays with naloxone have been distributed, primarily to active users of opioids, since the project was initiated in June 2014.

2. **2015-16 analysis** (what is new since your 2015 workbook)

a. The rate of overdose deaths, seem to be on a relatively stable trend, although up numerically from the previous year.

b. The age of those dying from overdose is continuing to increase and the incidence of deaths among very young persons is low.

c. Heroin is continuing to be the main contributor to overdose deaths, and increasing during past 2 years.

d. Norway is in the second part of the ongoing “national overdose prevention strategy” which started in 2014, and with current plans through 2017.

e. The distribution of nasal naloxone to drug users is ongoing, and the project which started in two cities (Oslo and Bergen) has now been extended to include 7 cities in total, and further extensions are planned.

3. **Emerging concerns/debates**

a. There are increasingly political debates around liberalization of drug policies in general, pushed primarily by “legalize cannabis” movements, and also debates about introducing heroin assisted treatment to heroin dependent persons not benefiting from other treatments.

b. No formal change in drug policy has this far been signalled by the current government, or during the past year.

4. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on ‘High mortality in certain countries’; and feed-back on the project on ‘Coding issues’, the following topics are considered for inclusion. On these topics[17], please let us know if you have any information or updates, worth sharing at a European level:

A. Assessment of the implementation of the DRD KI: tool, process and utility Click here to enter text.

B. Increases in heroin/opioid deaths[18].

Norway has since 2013 seen a gradual increase in the rate of heroin as main intoxicant, since the low rate in 2012. However no dramatic change in the general spectrum of opioids has taken place, and Norway has seen few fentanyl related deaths.

C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine Click here to enter text.

[17] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

[18] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

D. Prison post release mortality – what is done/missing A yet unpublished study of prisoners released during 2000-2014 in Norway is underway; more than 90.000 releases are included and the main outcome is mortality post-release. The findings will be published, but highlights the high risk of overdose death immediately post-release, but that this risk has decreased over recent years, since 2000, in parallel with the general overdose death rate which also has decreased since 2000 in Norway. Additionally a Norwegian report on drug use among prisoners was published in August 2016, based on more than 1000 inmates interviewed during 2013-14. The report identify that half of the inmates had used drugs daily during the 6 months prior to imprisonment and about 30% of inmates had experience with injection of drugs. About 35% reported using drugs to get high (not prescribed) during imprisonment, most commonly this included cannabis.

E. Safe injecting rooms, naloxone programmes, other responses - updates Norway has one safe injection facility in Oslo, but a new one is about to open in Bergen. In Norway injection rooms by law allows only injection of drugs, not consumption of drugs such as inhalation. This has been debated, as it is considered less harmful to inhale opioids, than to inject them. The naloxone program is part of the national overdose prevention strategy, and has been extended to more locations. Experiences are that sprays are well received and are often used in overdose situation. Experiences are generally positive, but national and regional mortality statistics from 2015 are not yet available, which will be the first year to assess any impact on mortality statistics.

5. Call for 'abstracts' for presentation. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.

- Presentation 1 (title/abstract) Overdose mortality following prison release in Norway

Recent developments concerning the DRD Key Indicator in Portugal

1. Brief overall situation on DRD:

- **a.** Overdose (drug-induced deaths)
- **b.** Overall mortality (cohorts studies)
- **c.** Other points

Please see chapter on drug-related deaths on the Harms and Harm Reduction Workbook

2. 2015-16 analysis (what is new since your 2015 workbook)

In the context of general registers and according to the EMCDDA protocol, in 2014 were registered 37 cases of drug-related deaths, representing a 32% increase in relation to 2013 (caution in the comparison with previous years due to methodological changes referred to in Question 4. A).

These 37 deaths have resulted in an average number of potential years of life lost of 29.4 years and at a rate of potential years of life lost of 11.9 years for 100 000 inhabitants (21.5 in men and 2.7 in women).

As to the causes of death, 5 cases (14%) were assigned to disturbances: multiple dependence or another (ICD10: F19.2), and 32 deaths (86%) attributed to intoxication (accidental or intentional): 43% of cocaine, 19% of methadone, 3% for heroin, 8% for other opiates, 5% for synthetic narcotics, 3% for cannabis and 5% for other narcotics and non-specified narcotics .

The majority of these deaths were from the male gender (89%). Five-year age groups with more registered deaths were those of 35-39 years (22%) and 45-49 years (19%), with a mean age of 42 years old. It is worth noting also the proportion of youth and young adults cases (27%).

In relation to the specific registers, in 2015 were registered 41 overdoses based on the direct cause of death and medical forensic aetiology (more +24% than in 2014). To date, there is no more detailed information available about these overdoses.

3. Emerging concerns/debates (150 w. max)

4. Meeting – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[19], please let us know if you have any information or updates, worth sharing at a European level:

A. Assessment of the implementation of the DRD KI: tool, process and utility The implementation of the medical certificate online was completed throughout the country in 2014. In 2014, for the first time the Information System of death certificates covered all deaths registered in the country. This allowed the improvement of data quality, among others, greater speed in transmission of information and greater clarification of the factors and causes of death, with consequences at various levels, in particular in the optimisation of the combination of codes included in the EMCDDA criteria, as well as a decrease in the proportion of causes of death poorly defined. Such changes require caution in the comparison of data with previous years. On the other hand, also the result of the optimization of information flows between the information sources of specific and general registers, since 2013 it is a greater convergence in the number of deaths by poisoning (accidental or intentional) of general registers with the number of deaths by overdose of specific records.

B. Increases in heroin/opioid deaths[1]. There is no data available in the moment. We expect to present data in the harms and harm reduction workbook.

C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine No information available.

D. Prison post release mortality – what is done/missing No information available.

E. Safe injecting rooms, naloxone programmes, other responses - updates See treatment Workbook

[1] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

F. Any other topic on which you want to provide an update

Recent developments concerning the DRD Key Indicator in Romania

1. **Brief overall situation on DRD:**
   a. Overdose (drug-induced deaths)
   In 2015 there were reported 20 cases of direct drug related deaths. Compared with previous years, DRD cases seem to fall back to the 2011' level. The national expert consider this is not a real decrease of the casework, but rather an expression of underreporting / missing proper casuistry.

2. **2015-16 analysis** (what is new since your 2015 workbook)
   a. The number of cases of drug related deaths is relatively stable.
   b. Decrease in the number of DRD cases in which was detected the association of alcohol and narcotics.
   c. In most of the DRD cases it was detected only one substance.

3. **Emerging concerns/debates**
   a. Implementation of an electronic system to collect DRD data.
   b. Training for forensic specialists in order to improve the reporting system (to avoid the underreporting).
   c. Improve the legislative framework.

Recent developments concerning the DRD Key Indicator in Slovenia

1. **Brief overall situation on DRD:**
   a. Overdose (drug-induced deaths): we get data from GMR and believe, that no under-reporting exists as we also get data from autopsy information, toxicology reports and police databases.
   b. Overall mortality (cohorts studies): in 2014 we closed our cohort study and plan to start with the new cohort study in 2017
   c. Other points

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)
   a. Increased number of drug induced deaths: 32 in 2015 (28 in 2014)
   b. Increased mean age: 40,6 years (male) and 40,7 years (female in 2015 (in 2014: 37,4 for males and 37,2 for females)
   c. First drug induced deaths because of cannabis in Slovenia (2 deaths)
   d. Decrease of metadon induced deaths: in 2015 7 males, in 2014 12 deaths (11 males and 1 female)
   e. Increased number of deaths in older people: in 2015 11 deaths in 45+, in 2014 6 deaths in 45+

3. **Emerging concerns/debates**
   a. At the moment we do not report detailed toxicological information due to the lack of an expert in this field, trying to get one
   b. Preparing for the colaboration with the National Association for Driving regarding drug use and impared driving and traffic accidents
   c. Document about »take home naloxone« is being prepared for the national level (finished in December 2016)

4. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[20], please let us know if you have any information or updates, worth sharing at a European level:
   A. Assessment of the implementation of the DRD KI: tool, process and utility no data
   B. Increases in heroin/opioid deaths[21]. Increase in 2015 compared to 2014 and 2013
   C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine increase of hospitality cases regarding intoxication (data for Central region of Slovenia-600.000 inhabitants: 2013: 14 hospital emergency cases for heroin, in 2014 34 hospital emergency cases for heroin)
   D. Prison post release mortality – what is done/missing at the moment no data
   E. Safe injecting rooms, naloxone programmes, other responses - updates safe injecting room pilot project by NGO is about to start in a few months

[20] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)
[21] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Recent developments concerning the DRD Key Indicator in Spain

Most recent available data on mortality corresponds to year 2014 and has been notified in "2016 harms and harms reduction workbook". In this abstract we include the main results that can be completed with 2016 workbooks and in our webpage.
http://www.pnsd.msssi.gob.es/profesionales/sistemasInformacion/home.htm

1. **Brief overall situation on DRD**

   a. Overdose (drug-induced deaths)

   Information about deaths: The DRD Spanish KI comprises information on all deaths due to acute reaction to psychoactive substances and not only deaths caused by overdose, which cannot be disaggregated.

   Number of deaths and trend: In 2014, the indicator of mortality due to acute reaction of psychoactive substances totalled 556 deaths. Stable trend over the last 5 years.

   Distribution by gender: In 2014, 81% of deaths were in males (stable trend throughout the historical series).

   Distribution by age: In 2014, the average age of decease was 44 years. The average increased progressively from 35 in 2003. This increase could be related to the fact that opioids are present in the majority of deaths and ageing of the cohort of users of this drug is well known. In 2014, over 50% of deaths were of persons over 45 years, while in 2003 half of the deaths occurred in ages between 30 and 40.

   Profile: Taking into account the limitations of the method, it could be said that the most frequent death profile due to acute reaction to psychoactive substances is that of a man over 40 years of age, single, with no prior pathology, who has recently used some psychoactive substance and who shows no signs of suicide. There is a downward trend in the presence of anti-HIV antibodies among deceased when this information was known; the lowest value in the historical series was registered in 2014 (27%).

   b. Overall mortality (cohorts studies)

   The Spanish National Point does not carry out any cohort studies. However, some studies have been conducted, by researchers, in Spain. Some references:

   Lethality of Opioid Overdose in a Community Cohort of Young Heroin Users. Eur Addict Res. 2015; 21 (6):300-6. ITINERE Project Group.

   Mortality risk factors and excess mortality in a cohort of cocaine users admitted to drug treatment in Spain. J Subst Abuse Treat. 2014 Feb; 46 (2):219-26.Spanish Working Group for the Study of Mortality among Drug Users.

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

   a) Opioids: Since the start of the historical series, opioids have ranked in first place, being present, in 2014, in 64% of deaths caused by an acute reaction to drugs. Stable trend.

   b) Cocaine: Since the start of the historical series, cocaine has ranked in second place, being present, in 2014, in 51.7% of deaths caused by an acute reaction to drugs. With regards to the evolution in time, there was an increase up to 2007, followed by a downward phase until its stabilization in recent years.

   c) Cannabis: Since the start of the historical series, cannabis has ranked in third place, being present, in 2014, in 16.5% of deaths caused by an acute reaction to drugs. The temporary evolution shows an increase that seems to have stabilized in recent years. Cannabis usually is detected in toxicology analysis together whit opioids and cocaine.

   d) Amphetamines: Since the start of the historical series, amphetamines have ranked in fourth place, being present, in 2014, in 8% of deaths caused by an acute reaction to drugs. In recent years, there has been a slight upward trend in percentage of deaths caused by acute reaction to drugs in which amphetamines have been proved in toxicological analysis. Because these are small figures, the variations are hard to appraise and the trend must be interpreted with caution.

3. **Emerging concerns/debates**

   No main new concern since 2015 workbook.

Just a comment related whit intentional death. In 2014, signs of suicide are detected in 20% of deaths, an increase from 2013 (11%) is detected. Further studies are necessary in order to clarify this rise.

4. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[22], please let us know if you have any information or updates, worth sharing at a European level:

A. Assessment of the implementation of the DRD KI: tool, process and utility.

The assessment of the implementation of the DRD KI is useful and general speaking Spain had good evaluations. Some changes can be done in the tool in order to improve the DRD KI quality and with the goal of increase the utility of the KI in policies.

B. Increases in heroin/opioid deaths[23].

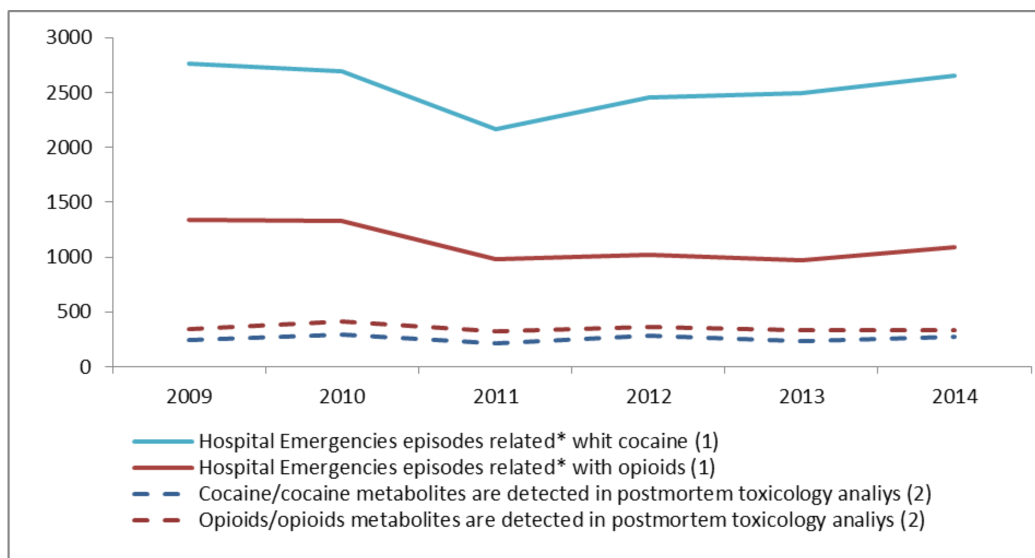
Since the start of the historical series, opioids have ranked in first place, being present, in 2014, in 64% of deaths caused by an acute reaction to drugs. Opioids have an important relevance in mortality caused by drugs despite the fact that use prevalence is among the lowest in Spain. Acceding to the 2015 General Population survey in Spain, 0.1% of the population between 15 and 64 years had used heroin in the last 12 months. Trend shows a stabilization/decrease of drug related death in which opioids are detected. (2010:409 deaths, 2011:318, 2012: 366, 2013: 337, 2014: 333)

C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine

We present some data based on the information provided by the Drug Related Death KI and the Hospital Emergency Indicator. It´s necessary to take into account that both sources of information are different (methodology, coverage, etc.) therefore the data must be interpreted cautiously.

Next figure shows that number of emergency episodes related to cocaine are higher than those related whit heroine (cocaine prevalence is higher) while number of deaths related to opioids is higher than those related to cocaine. We wish to highlight that opioids have an important relevance in mortality caused by drugs despite the fact that use prevalence is among the lowest in Spain (0.1% of the population between 15 and 64 years had used heroin in the last 12 months in 2015) and estimated number of problematic heroin users shows a clearly decreasing trend up to 2014.

Figure: Number of Drug Related death (opioids/cocaine) and Hospital emergency related episodes (opioids/cocaine). Spain 2009- 2014.



*The drug is mention in clinical history and doctor assessment recognizes causality between the drug and the emergency.

Source: Spanish Observatory on Drugs. Emergency Indicator. (2) DRD KI, Special Mortality Register.

D. Prison post release mortality – what is done/missing

[22] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

[23] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

Information on prison post release mortality is not available at the National Focal Point. Request to the unit in charge has been made.

E. Safe injecting rooms, naloxone programmes, other responses - updates

In 2014, there are 12 safe injecting rooms in Spain; with 5.909 clients recorded for that year.

5. Call for 'abstracts' for presentation. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.

- Presentation 1 (title/abstract)

"Easy method to estimate drug related death using general and specific mortality registers".

Spain has essentially two sources of information that allow obtaining data on mortality resulting from drug use: a Specific Register of Mortality due to acute reaction to drugs, which is responsibility of the Spanish National Focal Point and a General Mortality Register, managed by the National Statistics Institute. Based on this information the Spanish Observatory on Drugs makes an estimation of death related to drugs.

We can expose pros and cons of each source of information and explain an easy method to estimate drug related death using both registers (general and specific).

Recent developments concerning the DRD Key Indicator in Turkey

1. **Brief overall situation on DRD:**

   a. Overdose (drug-induced deaths): **590** cases of **direct DRDs** were observed in Turkey in 2015 (2014: 497). 53.7% (n:317) of deaths caused by intoxication with opium derivatives and 46.3% (n:273) of deaths caused by intoxication with other drugs. Heroin in 291 cases, tramadol in 23 cases, methadone in 15 cases, pethidine in 5 cases, fentanyl in 4 cases, oxycodone in 1 case, buprenorphin in 1 case, ecstasy in 166 cases, synthetic cannabinoids in 137 cases, cocaine in 56 cases, methamphetamine in 54 cases, amphetamine in 42 cases, volatile substances in 34 cases were detected.

   b. Overall mortality (cohorts studies)

   c. Other points: **598** cases of **indirect DRDs** were observed in Turkey in 2015 (2014: 622). In the indirect DRD cases; heroin in 101 cases, tramadol in 16 cases, methadone in 7 cases, fentanyl in 2 cases, buprenorphin in 2 cases, pethidine in 1 case, ecstasy in 172 cases, synthetic cannabinoids in 30 cases, cocaine in 71 cases, methamphetamine in 57 cases, amphetamine in 57 cases, volatile substances in 13 cases were detected.

2. **2015-16 analysis** (what is new since your 2015 workbook)

   a. Both in cases of direct and indirect DRDs a very significant increase is being observed in ecstasy, amphetamine/methamphetamine and prescribed opioids (especially tramadol and methadone) use compared to the previous years.

   b. The rate of using synthetic cannabinoids increased 34.3% in direct DRDs (n:137 in 2015 and n:102 in 2014). Controversially the rate of using cannabis decreased 25.6% in direct DRDs, compared to previous year (n:316 in 2015 and n:425 in 2014).

Recent developments concerning the DRD Key Indicator in the United Kingdom

1. **Brief overall situation on DRD:** (200 words max)

   a. Overdose deaths – overdose deaths have risen considerably in the UK in recent years. Increases in registrations of drug misuse deaths were reported in England and Wales in both 2013 and 2014 (ONS 2014; 2015) and a further rise is anticipated for 2015. A large increase was reported in overdose deaths in Scotland in 2015, following a similar increase in 2014 (NRS 2016). These increases are mainly driven by increasing opioid overdoses, particularly from heroin, although there are also increases across other substance groups. Prior to the recent increases the number of heroin overdoses had fallen markedly at around 2010 but recent numbers are similar to or higher than pre-2010 figures.

   b. Recent cohort studies – Pierce et al (2015a) established that a cohort of opioid users identified via treatment and criminal justice services experienced a mortality rate almost six times what would be expected. In addition to inflated overdose risk, they identified that users were at increased risk of infectious disease, respiratory disease, circulatory disease, liver disease, suicide, and homicide. Two studies linking drug treatment and drug poisoning datasets confirmed earlier studies that found treatment was highly protective against overdose risk (White et al, 2015), with one finding that overdose risk was significantly reduced when the person was in receipt of pharmacological treatment compared to periods only receiving psychological interventions (Pierce et al, 2015b).

2. **2015-16 analysis** (what is new since your 2015 workbook) (150 words max – 3 or 4 bullet points)

   Although data for England and Wales has not been released at the time of writing, a further rise in drug-related deaths is anticipated, and an increase has already been observed in the latest figures for Scotland. Therefore the expectation is a continuation of the trends reported in the last few years. More detailed analysis will follow once official statistics are published for England and Wales.

3. **Emerging concerns/debates** (150 w. max)

   There is growing public policy concern in the UK about the recent increases in drug-related deaths and all the countries of the UK have initiatives seeking to reduce DRDs. In England, there was a national inquiry into the causes of the increases which is due to publish in September 2016 and its recommendations will include continued provision of treatment, improving access to and retention in treatment and addressing physical and mental health problems and related social needs of drug users.

   Naloxone is widely available in Wales and Scotland and its use has been evaluated positively (ISD, 2015; Welsh Government, 2016); naloxone availability was widened in England in October 2015, although local provision is variable.

4. **Meeting** – this year, beyond the usual topics and components (overdose/toxicology from SR; GMR data; mortality cohorts studies; but also responses), feed-back from the projects on 'High mortality in certain countries'; and feed-back on the project on 'Coding issues', the following topics are considered for inclusion. On these topics[24], please let us know if you have any information or updates, worth sharing at a European level:

   A. Assessment of the implementation of the DRD KI: tool, process and utility Click here to enter text.

   B. Increases in heroin/opioid deaths[25]. This is the main cause for concern in this area in the UK and the main focus for initiatives to reduce drug-related deaths, including efforts to promote provision and use of naloxone.

   C. Hospital emergency data to cross-check DRD at least for heroin/opioids/cocaine In Scotland, the National Drug-Related Deaths Database includes cross-referencing with hospital admissions data, reporting on the most recent admission to a general acute hospital and/or a psychiatric hospital prior to overdose death. In the most recent year, 10% of those who suffered a drug misuse death in Scotland had been discharged from hospital in the month before they died (ISD, 2016). Analysts at Public Health England have recently acquired hospital data in order to carry out analysis of hospital admissions prior to overdose death and are looking to complete this within the next year.

[24] Tramadol-related deaths is a special topic also, covered by an MS xls collection tool (update of the 2013 review)

[25] In the 2016 EDR, concerns were raised about increases in some countries. It would be useful to get your updates and views on this issue.

D. Prison post release mortality – what is done/missing A study by Bird et al (2015) highlighted reduced DRD risk in the 12 weeks following prison release after the introduction of prison-based opioid substitution treatment in Scotland. As part of monitoring naloxone provision in Scotland, the proportion of all opioid deaths that are within four weeks of release from prison is monitored and this has fallen considerably in recent years. In England, there will be further exploration of the relationship between prison treatment and overdose risk post-release when updated drug poisoning data is available shortly.

E. Safe injecting rooms, naloxone programmes, other responses - updates Both Scotland and Wales monitor their take home naloxone programmes, including the number of kits distributed and used (based on a proxy in Scotland). In England, naloxone availability has been widened but local provision varies considerably.

F. Any other topic on which you want to provide an update Click here to enter text.

5. Call for 'abstracts' for presentation. If you have any suggestion for a presentation please suggest the title and provide a 150 words abstract. Topics can be those listed above in question 4, but feel free to suggest any other – programme under construction.

- Presentation 1 (title/abstract): **The national inquiry into drug-related deaths in England.**

A national inquiry was called in 2016 into recent rises in drug-related deaths in England and reported in September. The national expert group reviewed the available data and intelligence and commissioned additional intelligence, while five regional events gathered local intelligence on effective strategies for preventing drug-related deaths and identified areas for improvement. The inquiry concluded that there are multiple causes of the current increasing trend in DRD in England, focusing in particular on the impact of changes in the purity and availability of heroin and the increased susceptibility of the ageing heroin using population in England to overdose risk due to cumulative physical and mental health problems. The inquiry made multiple recommendations, focusing on action that local and national stakeholders can undertake, such as improved treatment provision and supporting provision of naloxone, and encouraging continued research and investigation into the causes of DRD.