Drug-related deaths in Europe: current situation and responses

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Cyprus National Addictions Authority (CNAA)
Seminar: Reducing the risk of overdose and opioid-related deaths
20 February 2019, Nicosia
European Monitoring Centre for Drugs and Drug Addiction

- Decentralised EU information agency on drugs
- Formally established 1993 in Lisbon
- Working with Focal Points in 30 countries

The hub of drug-related information in the EU

- European drug report, statistics, and various web-based and print products to inform the drugs debate
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- Definition ‘overdoses’ (drug-induced deaths)
- Situation and trends
- Vulnerability and situations of elevated risk

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- Availability in 30 European countries
- Perspectives
Drug-related deaths

- Definition ‘overdoses’ (drug-induced deaths)
- Situation and trends
- Vulnerability and situations of elevated risk
EU Drugs Strategy 2013–2020:

• High number of DRD in Europe a challenge

• Investing in effective measures to achieve a substantial reduction in DRD a priority

EU Action Plan on Drugs:

• Decrease number of overdose deaths

• Make preventive interventions available

• Promote exchange of best practices

Source: https://eur-lex.europa.eu/homepage.html
Drug-induced deaths

**Drug-induced deaths: “overdoses” “poisonings”**

- deaths directly attributable to the pharmacological action of a drug
- Alone or in combination with other substances (e.g. alcohol, psychoactive medicines)
- happening shortly after consumption.

Included in the EMCDDA Key epidemiological indicator (DRD) and a European Core Health Indicator (ECHI)

Data sources: General mortality registers or Special mortality registers

Overdose deaths: characteristics and trends

Premature and preventable

Source: EMCDDA European Drug Report, 2018
High percentage of deaths involving opioids

Source: EDR 2018
4 countries with no data. 14/26 data based on General mortality registers
Overdose mortality varies across Europe

- **22 deaths /million population aged 15–64** (35 for males and 9 for females)
- North / south gradient
- Various trends

Source: EMCDDA European Drug Report, 2018
Increasing vulnerability through ageing

Increasing average age of drug overdose victims (22-year trend) (right)

Increases in drug-induced deaths reported in Europe 2012 to 2016, by age band (below)

Source: EMCDDA European Drug Report 2017; EMCDDA Statistical Bulletin
Age-adjusted drug overdose death rates, by opioid category: United States, 1999–2017
Increasing role of fentanils in Europe

FIGURE 4
Seizures of fentanils reported to the EU Early Warning System: trends in number of seizures and quantity detected, 2012-16

Number of seizures

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<tr>
<th>Year</th>
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Tablets (thousands)

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Powder (kilograms)

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Liquid (litres)

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Mortality after prison release for drug users

Some findings:

- England/Wales (first week): SMR X 29 (M) X 69 (F)
- Denmark (first two weeks): SMR X 62 for males and females
- France (first year): SMR X 24 (M 15-34); X 274 (M 35-54)
- Norway: elevated risk of death, peaking in first week, 85% overdose
- Ireland (DRD register): 28% left prison one week before death, 18% left prison one month before death

References: Zlodre & Fazel, 2012 Am. Journal of Public Health; Singleton et al., 2003; Brehm Christensen et al., 2006; Butken et al., 2017; Marsden et al., 2017.
To sum up (drug-related deaths)

High drug-related mortality among drug users

Deaths premature and avoidable

Increasing trend since 2012

Heroin-using populations in Europe are ageing and physically vulnerable

Risk of overdose death among prisoners in the immediate post-release period extremely high

Vigilance regarding fentanyl and other synthetic opioids required

Reducing drug-related deaths

- Evidence-based responses
- Availability in 30 European countries
- Perspectives
Interventions to reduce opioid-related deaths

**Reducing fatal outcome of overdose**

- **Supervised drug consumption**: Immediate first-aid in drug emergencies
- **Take-home naloxone programmes**: Improved bystander response

**Reducing risk of overdose**

- **Retention in opioid substitution treatment**: Reduce drug use and injecting
- **Overdose risk assessments**: In treatment facilities and prisons
- **Overdose awareness**: Knowledge of risk and safer use

**Reducing vulnerability**

- **Outreach and low-threshold services**: Accessible services
- **Enabling environment**: Removing barriers to service provision
- **Empowerment of drug users**: Enabling drug users to protect themselves
- **Public health approach**: Recognition of wider impact

Availability of selected interventions to reduce opioid-related deaths in 30 European countries

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<thead>
<tr>
<th>Country</th>
<th>Take-home naloxone programmes</th>
<th>Drug consumption rooms</th>
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Availability of selected interventions to reduce opioid-related deaths in 30 European countries

Opioid substitution treatment (OST)

- Percentage of estimated high-risk opioid users receiving opioid substitution treatment, 2016 estimates

Source: European Drug Report 2018
OST – evidence of effectiveness

Opioid substitution treatment is beneficial/likely to be beneficial for:

- reducing injecting → risk behaviour
- reducing mortality
- reducing risk of infections, especially HIV
- retaining patients in treatment
- improving effectiveness of ARV treatment in HIV positive opioid users
- heroin maintenance beneficial for chronic heroin users.

OST – evidence of effectiveness in prison

Introduction of OST in the community (yellow) and in prison (green) in Europe: 1967-2015

Prison OST beneficial for:
- reducing injecting risk behaviour in prison
- reducing deaths in prison
- continuity of opioid substitution treatment on release increases treatment entry and retention
- reduces post-release mortality.

Source: EMCDDA Statistical Bulletin - Reitox Focal Points

The effectiveness of opioid maintenance treatment in prison settings: a systematic review

Hedrich et al., 2012 Addiction. EMCDDA Best Practice Portal.
Through-care interventions reduce mortality risks related to prison release

Source: Joint ECDC/EMCDDA guidance on BBV prevention in prisons – Guidance in brief, 2018

Figure 1: Service priorities at the different stages of detention
Geographical spread of drug consumption rooms (DCRs) in Europe

Number of facilities

1 2 3 4 5 7

+ Liège (BE) & Lausanne (CH) in 2nd half of 2018

DCRs – evidence of effectiveness

• reaching the most marginalized and problematic injecting users;
• reducing injecting risk behaviour;
• facilitating access to health care services
• reducing public disorders associated with illicit drug use (people injecting drugs in public, publicly discarded syringes and injection-related litter).
• No increase (and no decrease) in drug-related offences within the area of the DCRs.

References: Based on latest systematic reviews by Kennedy et al., 2017 (47 studies) and Potier et al., 2014 – see EMCDDA Best Practice Portal.
Take-home naloxone (THN) initiatives in ten countries in Europe

Source: EMCDDA survey on Take home naloxone programmes in 28 EU Member States, Norway and Turkey. EMCDDA, in press
THN – evidence of effectiveness

WHO guidelines on community management of opioid overdose, 2014

People likely to witness an opioid overdose should have access to naloxone and be instructed in its administration to enable them to use it for the emergency management of suspected opioid overdose.

EMCDDA systematic review of 21 studies on THN, 2015:
Overdose educational and training interventions complemented by take-home naloxone are effective in decreasing overdose-related mortality

Bird et al. Evaluation of Scotland’s national naloxone programme, 2016:
Brief training and standardised naloxone supply for individuals at risk of opioid overdose in prison is effective in reducing opioid-related deaths (36% reduction in the proportion of these deaths in the 4 weeks following release);
Challenges for THN programmes

Legal/regulatory barriers
• Naloxone typically a prescription-only medicine (except Italy)
• Use may be limited to medically trained personnel
• Handling and storage may be restricted

Overdose response training a necessary component
• Knowledge of CPR
• Risk of re-narcotisation
• Need to call emergency services

Barriers related to the application form / price?
• Injectable naloxone formulation generic and low price (2–3 €/amp.)
• Naloxone nasal sprays now available – affordability/price?
Challenges of a more dynamic drug supply

- Variable heroin potency due to adulteration with potent synthetic opioids
- Naloxone recommended to be used in case of suspected synthetic opioid OD, considering the following specificities:
  - Potentially shorter overdose response time may require adaptation of naloxone formulations;
  - more rapid administration of naloxone warranted because of the rapid onset of fentanils;
  - more rapid escalation of additional doses for naloxone may be needed in comparison with heroin or other opioids;
  - overall, higher doses of naloxone may be needed for fentanyl patients in comparison with heroin patients;
  - fentanyl patients may require a longer period of observation in hospital than heroin patients. (Ref. Neptune 2018, cf EMCDDA Best Practice Portal)
To sum up: Perspectives for the prevention of overdose deaths

Core interventions
- High coverage of opioid substitution treatment
- Naloxone made available to first responders
- OD risk assessments as part of day-by-day practice in addiction care
- Increase overdose risk awareness among people who use drugs

Opportunities
- Take-home programmes to make naloxone widely available to people at risk and their social networks
- Improved through-care prison-community

Gaps
- Enhance support to those leaving drug treatment
- Identify barriers to establishment of DCRs
- Achieve sufficient take-home naloxone coverage in risk contexts
- Adapt THN programmes to meet challenges of synthetic opioids
- Define standards for post-overdose care
Further EMCDDA Resources


Visit emcdda.europa.eu

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Characteristics and trends in drug-induced deaths in Cyprus

**Gender distribution**
- Female: 17%
- Male: 83%

**Toxicology**
- 67.0% of deaths with opioids present among deaths with known toxicology

**Age distribution of deaths in 2016**

- >65
- 60–64
- 55–59
- 50–54
- 45–49
- 40–44
- 35–39
- 30–34
- 25–29
- 20–24
- 15–19
- <15

**Trends in the number of drug-induced deaths**

NB: Year of data 2016, or most recent year