



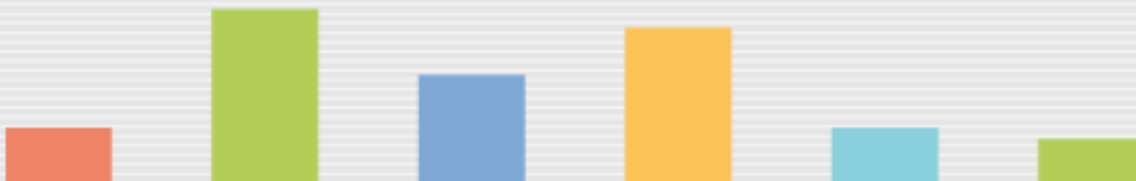
European Monitoring Centre  
for Drugs and Drug Addiction

# Cohort studies

Drug-related deaths and mortality among drug users - DRD  
Treatment demand indicator - TDI

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# Objectives of the session

- to discuss examples of cohort studies and to reflect on how, in practice, collaboration with treatment centres and use of treatment data, can contribute to assess the whole health impact of high-risk forms of drug use;
- to reflect on identifying data capable of supporting linkage



# Background

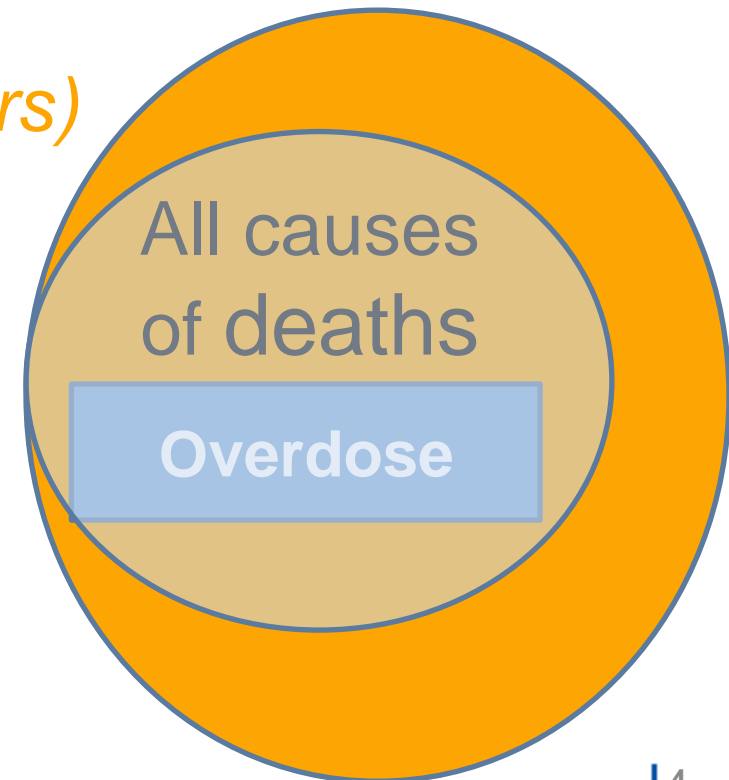
The DRD monitoring is based on 3 pillars

- General mortality register – national statistics
- Special mortality register – forensic services
- **Mortality studies among drug users (all causes)**



# Background

- General mortality registers – national statistics
- Special mortality registers – forensic services
- **Mortality studies among drug users (all causes)**
  
- *Population at risk (denominators)*
- *Drug attributable fraction*
- *Burden of disease*
- *Responses*
- *Best practices, policies*



# What the cohort studies tell us?

- Determine overall and cause specific mortality rates
- Estimate the excess mortality among drug users compared with their peers in the general population
- Detect changing patterns in the cause of deaths
- Determine the impact of interventions
- Compare the risk, across time, profil, countries..



# What the cohort studies tell us?

- Produce national estimates of deaths among drug-users
- For that, OD mortality rates can be extrapolated from cohort studies to local or national estimated numbers of problem drug users.
- Contribute to the validation of data from other sources e.g. the number of drug overdose deaths reported in mortality registries



## Alternative approach to triangulate the number of OD deaths and measure the risk of death: Cohort studies

23 drug user mortality studies identified for the 7 countries

16 excluded - did not report a DRD rate

Additional 3 excluded – lack of case definition comprising active drug use during observation

4 remaining studies, 2 countries, based on 2 cohorts

Scotland (opiate users, observation 1996-2006): DRD rate during & post-treatment 4.4 (95% CI: 4.1–4.6) per 1,000 PY (Merrall et al., 2012)

Norway (opiate users, observation 1997-2003): DRD rate during-treatment 4 (95% C.I. 0-8), post-treatment 21 (17–25), circa 6.7 (derived) per 1,000 PY combined (Clausen et al., 2008): note wide C.I.

# Current cohorts

- In the past :more countries, COSMO group and 2 thematic papers on cohort studies
- Reporting through Fonte: very little last year
- NL IE FR PL, and plans in Latvia, Slovenia



Contents: Introduction (p. 2) | Methods and data sources (p. 3) | Key findings from recent mortality cohorts in Europe (p. 8) | Public health perspectives and implications (p. 13) | Conclusion (p. 15) | Glossary (p. 17) | References (p. 18)

**Abstract:** More than 6 000 drug users die of overdose each year in the European Union, and most of these deaths occur among problem drug users and involve opioids. In addition, many deaths related indirectly to drug use occur each year. To gain a clearer picture of the overall number of lives lost due to drug use in Europe, this paper builds on the results of an earlier work that looked at all-cause mortality among problem drug users. By linking data on entrants to drug treatment programmes with information from death registries, mortality cohort studies can determine death rates from all causes within the study population. The study presents data from nine European countries, including seven not previously studied using EMCDDA methodology. Among over 31 000 participants (22 % female), covering 203 000 person-years of follow-up, 2 886 deaths were recorded, 18 % among females. Overall crude mortality rate per 1 000 person-years follow-up was 14.2, but varied

geographically from 3.5 to 22.7. Cause of death was reported in 71 % of all deaths, half of which was accounted for by external causes: overdose (35 %), suicide (5 %) and other external causes (10 %). Somatic causes accounted for about 45 % of the known-cause deaths: HIV/AIDS (14 %), circulatory diseases (9 %), respiratory diseases (5 %) and other somatic causes (16 %). Risk of death among problem drug users was typically 10 or more times that among their peers in the general population. The analysis shows that the deaths of problem drug users are overwhelmingly premature and preventable.

**Keywords:** drug-related deaths  
cohort study | drug overdose  
opioid use

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# Thank you!

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**DRD Key Indicator annual expert meeting**

