Mortality cohort studies among problem drug users in Poland

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Annual expert meeting on Drug-related deaths (DRD)
Lisbon, 29–30 November 2016
The goals of the study

- to estimate mortality rate among problem drug users
- to identify risk factors of deaths related to problem drug use
- to formulate recommendations for mortality prevention addressed to problem drug using population
Definition of problem drug use

- Regular, frequent drug use and experiencing serious drug related problems
  - All drugs included
  - Problems as one of definition criteria

Justification:
- Data available – individual data from residential treatment only, lack of information on types of drugs used (the ICD diagnose only)
- Dominating patterns of drug use – polydrug use
- Research traditions
- Demand from policy makers and professionals
Method

- Data collection procedure
  - Preparing data base of treated drug users – eliminating double counting in 12 years period
  - Checking vital status using national electronic population register

- Analyses:
  - Crude mortality rate, standardized mortality ratio, potential years of life lost, Kaplan-Meier survival analysis and Cox regression

- Population
  - Drug users treated in 2000-2011 in residential drug addiction treatment in whole country

- Follow up period: 2000-2013
Research materials

- Size of initial group – 96 135
  - Vital status identified – 74 192 (77.2%)
  - Vital status unidentified – 21 943 (22.8%)
- Number of person-years – 560 523
- Number of deaths – 5 727 (7.7%)
- Crude mortality rate (CMR) – 10.2 per 1000 person/years
- Standardized mortality ratio (SMR) – 3.3 (95% CI: 3.2 – 3.4)
Factors of mortality (Cox regression model)
Factors of mortality (Cox regression model) – cont.
Factors of mortality (Cox regression model) – cont.

Source of income

- Employment: 1.0
- Self-employment: 1.2
- Temporary job: 1.3
- Family: 1.3
- Pension: 1.9
- Disability money: 2.2
- Unemployment benefit: 1.7
- Social assistance: 2.6
Factors of mortality (Cox regression model) – con.

**Place of living**
- Alone: 1.4
- With family: 1.1
- Other household: 1.1
- Social welfare home: 1.5
- Homeless: 1.6
- Other: 1.0
- Recovered: 1.0

**Treatment outcome**
- With improvement: 1.8
- With no improvement: 2.0
- With deterioration: 6.4
Conclusions

High risk of death for:
- males
- low educated
- not employed
- living alone or homeless
- discharged from treatment without complete success

These group should be matter of concern and interventions

Further analysis needed to explore complicated structures of relationships
Restrictions and limitations

- Relatively high share of cases with unidentified vital status
  - ID code (initials, date of birth, gender) not always stable and unique
  - Data quality in treatment data base and population register not perfect
- Limited scope of information available in
  - treatment data base
  - national register of deaths
- Data protection issues – causes of deaths unavailable yet