

Combing treatment data with local surveys to estimate high risk opiate use, high risk stimulant use and high risk cocaine use in Norway

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Guidelines for the prevalence of problem drug use (PDU) key indicator at national level

EMCDDA Recommended Draft Technical Tools and Guidelines

Key Epidemiological Indicator: Prevalence of problem drug use

2004



Problem/high risk drug use

‘recurrent drug use that is causing actual harms (negative consequences) to the person (including dependence, but also other health, psychological or social problems), or is placing the person at a high probability/risk of suffering such harms’

Marginalized users, or those who have a high risk to become marginalized



Multiplier method, general

The total population of drug users T is unknown (partly hidden population).

Given a sample of size B of the population in question (benchmark) and the probability c for someone of this unknown population to be member of the sample, the total population T can be estimated from

$$T = B / c$$



Multiplier method, general

$$T = B / c$$

B: the number of identified problem drug users

c: an estimate of the probability of a problem drug user to be member of the identified sample *B*



Types of samples or benchmarks

- Multiplier Method Using Treatment Data
- Police Multiplier Method
- Police/Deaths Multiplier Method
- Multiplier Method Using Mortality Data
- Multiplier Method Using HIV/AIDS Data



Estimating the number of high risk opioid users

- B is set to the number of beds in institutionalized drug treatment in 2013 occupied by persons with an opioid diagnosis – an estimate made out of the distribution of diagnoses over the whole year (TDI data)
- C is the proportion who have been in drug treatment (not ST) last month among opioid users in a survey among 1020 high risk drug users, 2013
- Result: B/c equals 9000 high risk opioid users (6700 - 14 000) i 2013, where 7000 in substitution treatment (ST) is not included



Estimating the number of high risk stimulant users (not cocaine) 1

- B is set to the number of beds in institutionalized drug treatment in 2013 occupied by persons with a stimulant diagnosis – an estimate made out of the distribution of diagnoses over the whole year (TDI data)
- C is the proportion who have been in institutionalized drug treatment (not ST) last month among stimulant users in a survey among 1020 high risk drug users, 2013
- Result: B/c equals 8100 stimulant users outside ST + an estimate of 3100 in ST, yields 11200 stimulant users (8 700 -17100) including persons in ST in 2013



Estimating the number of high risk stimulant users (not cocaine) 2

- The number of injecting drug users is estimated by the mortality multiplier method.
- We estimate the proportion of high risk stimulant users among PWID in the high risk population from the survey among 1020 high risk drug users
- We estimate the proportion of non injecting high risk stimulant users from the same survey
- This yields 5 500 (4 650-6 400) «socially excluded» high risk stimulant users
- From the general population surveys 2013-2014 we estimate the number of persons who use amphetamines twice a week or more
- This yields 6 400 (1 650-11 150) «socially included» amphetamines users
- Added, the total estimate is 11 900 (6 300-17 600) high risk drug users

Estimating the number of high risk cocaine users

- The number of injecting drug users is estimated by the mortality multiplier method.
- We estimate the proportion of high risk injecting cocaine users in the high risk population from the survey among 1020 high risk drug users
- We estimate the proportion of non injecting high risk cocaine users from the same survey
- This yields 450 (320-630) «socially excluded» high risk cocaine users
- From the general population surveys 2013-2014 we estimate the number of persons who use cocaine twice a week or more
- This yields 4 550 (680 – 8550) «socially included» cocaine users
- Added, the total estimate is 5 000 (900-9 200) high risk drug users of cocaine – assuming no overlap



Things to remember

- Need a “good” study of a sample of the high risk population in your country
- Need a benchmark, B, of persons (high risk drug users, PWID) whom are also found in a register or there is an estimate of the total number
- Need an estimate of the probability that a high risk drug user is included in the study sample. This can be a question about drug treatment last month or injecting or follow up study on cause of death (mortality multiplier)
- Combine estimates from estimates in subpopulations (socially included (GPS) and excluded (marginalized street population). Overlap?
- Admit that there will be bias and uncertainty. Check with other knowledge

