



European Monitoring Centre  
for Drugs and Drug Addiction

## Gaps in PWID estimates: can DRID help?

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EMCDDA

DRID meeting 2017



## PDU: What are we measuring

- **PDU Generic case definitions**

We are measuring the prevalence of **'recurrent drug use that is causing actual harms (including physical, psychological or social problems) to the person or is placing the person at a high risk of suffering such harms'**



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for Drugs and Drug Addiction

PDU (Problem drug use)  
revision summary

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[http://www.emcdda.europa.eu/attachements.cfm/att\\_218205\\_EN\\_PDU%20revision.pdf](http://www.emcdda.europa.eu/attachements.cfm/att_218205_EN_PDU%20revision.pdf)

## PDU: What are we measuring

- **Generic case definition by estimate**
  - Common estimates
    - **Injecting Drug Use (PWID)**
    - High-risk Opioid Use
    - High-risk Cannabis Use
  - Country-specific estimates
    - High-risk Cocaine use
    - High-risk Amphetamines use
    - High-risk of other substances
    - High-risk of opioids, cocaine and/or amphetamines
  - Characteristics of high-risk drug use

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## PDU: How are we measuring it

- **Ideally** based on clinical diagnosis of (harms) and high-risk pattern of use (potentially harmful):
  - ICD10: *Harmful use, Dependence syndrome*
  - DSM5: *Substance use disorder*
  - Injecting in the last 12 months not according to prescription
  - High frequency of use
- **In practice**, using proxies and indirect methods to estimate the size of hidden populations
  - Using Treatment/Mortality/HIV/ Police/Probation registries
  - Estimating those not captured using capture-recapture, truncated poisson, multiplier

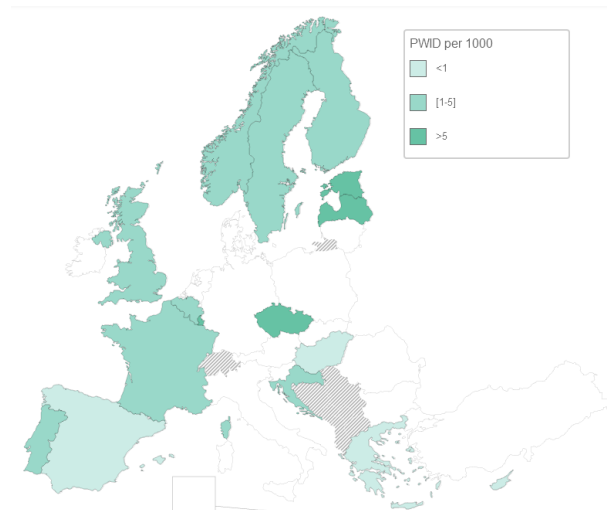
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## Methods

Methods	Freq
Capture-Recapture > 2 sources	3
Capture-Recapture	2
Truncated Poisson	2
Treatment Multiplier	3
Mortality Multiplier	2
HIV Multiplier	2
Extrapolation to HRDU	2

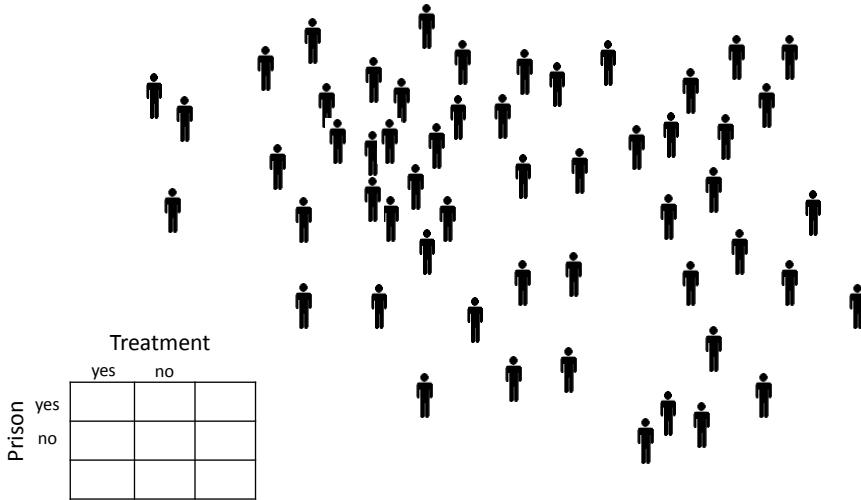
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Number of people who inject drugs per 1000, most recent estimates (2009 onwards) source: FONTE

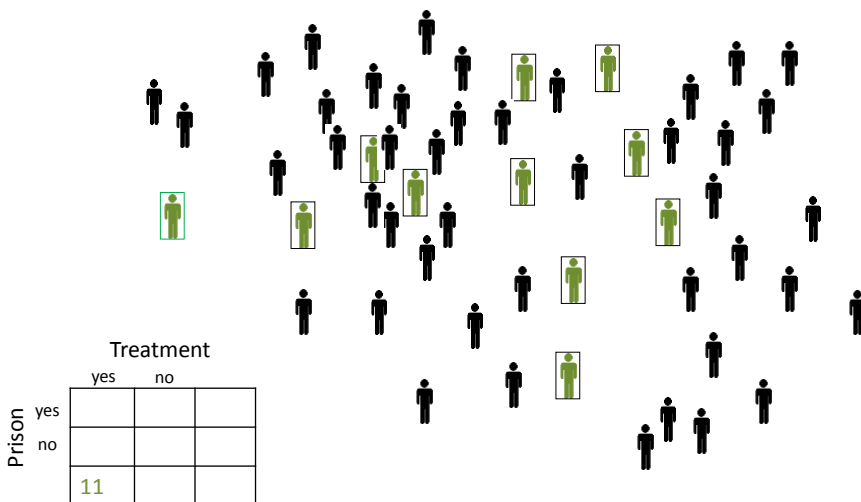


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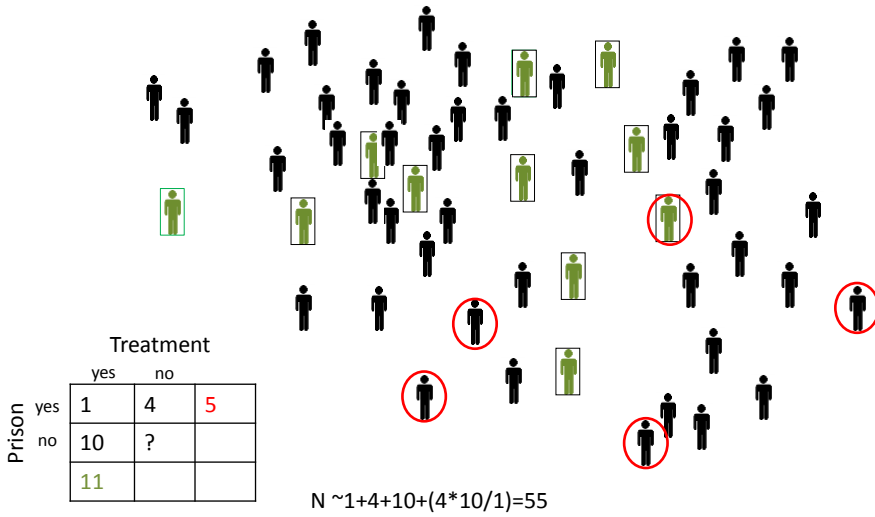
## Capture-recapture



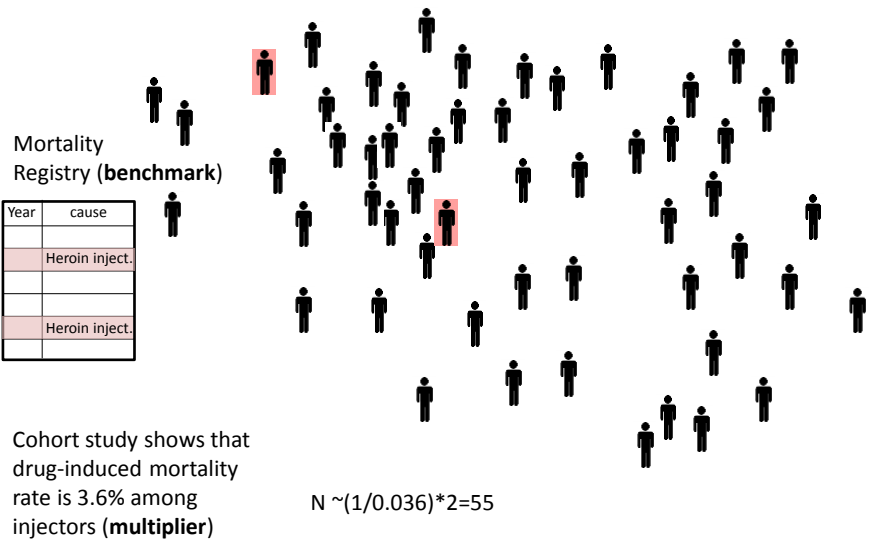
## Capture-recapture



# Capture-recapture



# Multiplier



## HIV Multiplier

- **Barrio Anta *et al* (2010) in Spain:**
  - **Benchmark:** new HIV diagnosed in recent injectors in 2001-08 (covering ~30% of population)
    - Adjusted for under-reporting, drug users not tested, delayed reporting
  - **Multiplier** obtained from 2 cohort studies among HIV- injectors (1224 person/years, 2001-06)
  - Authors estimate HIV+ drug injectors and HIV- drug injectors
- **Bollaerts *et al* (2013) in Belgium:**
  - **Benchmark:** HIV/AIDS register (2000-10) with information on ever-injectors
    - Adjusted with imputation methods for missing information
  - **Multiplier** obtained from a sero-behavioural study among ever-injectors in contact with treatment facilities or prison (2004-05)

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## Assumptions-Requirements

- **Assumptions:**
  - Being captured by one source does not influence the chance of being captured by another source (Independence)
  - The probability of being captured is equal across individuals (Homogeneity)
  - The population is closed
- Relies on individual record linkage for CR
- Relies on recent and *representative* studies for multiplier (cohort, cross-sectional)

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## Next steps

- PDU working group on PWID
  - Identifying available data sources
  - Exchanging protocols
    - Crude methods
    - More advanced methods
    - Discussing limitations
  - Planning Reitox Academy