



European Monitoring Centre  
for Drugs and Drug Addiction

# Issues on deaths related to methadone and deaths related to cocaine

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# Deaths related to methadone

- 700,000 opioid users in substitution treatment in the European Union
- Deaths related to methadone have come to the spotlight (often mentioned in toxicology, sometimes as cause of death)



# Main message

- Methadone is an effective treatment for problem opioid use.
- Opioid users in methadone treatment have 1/3 of overall mortality than out of treatment.
- The overall mortality decreases by 85% for those in methadone treatment more than 12 months
- While in methadone treatment, clients have an overdose mortality 5-10 times lower than in other treatments or out of treatment.



- A study in the UK showed a substantial decrease of methadone deaths after introduction of better prescription guidelines.



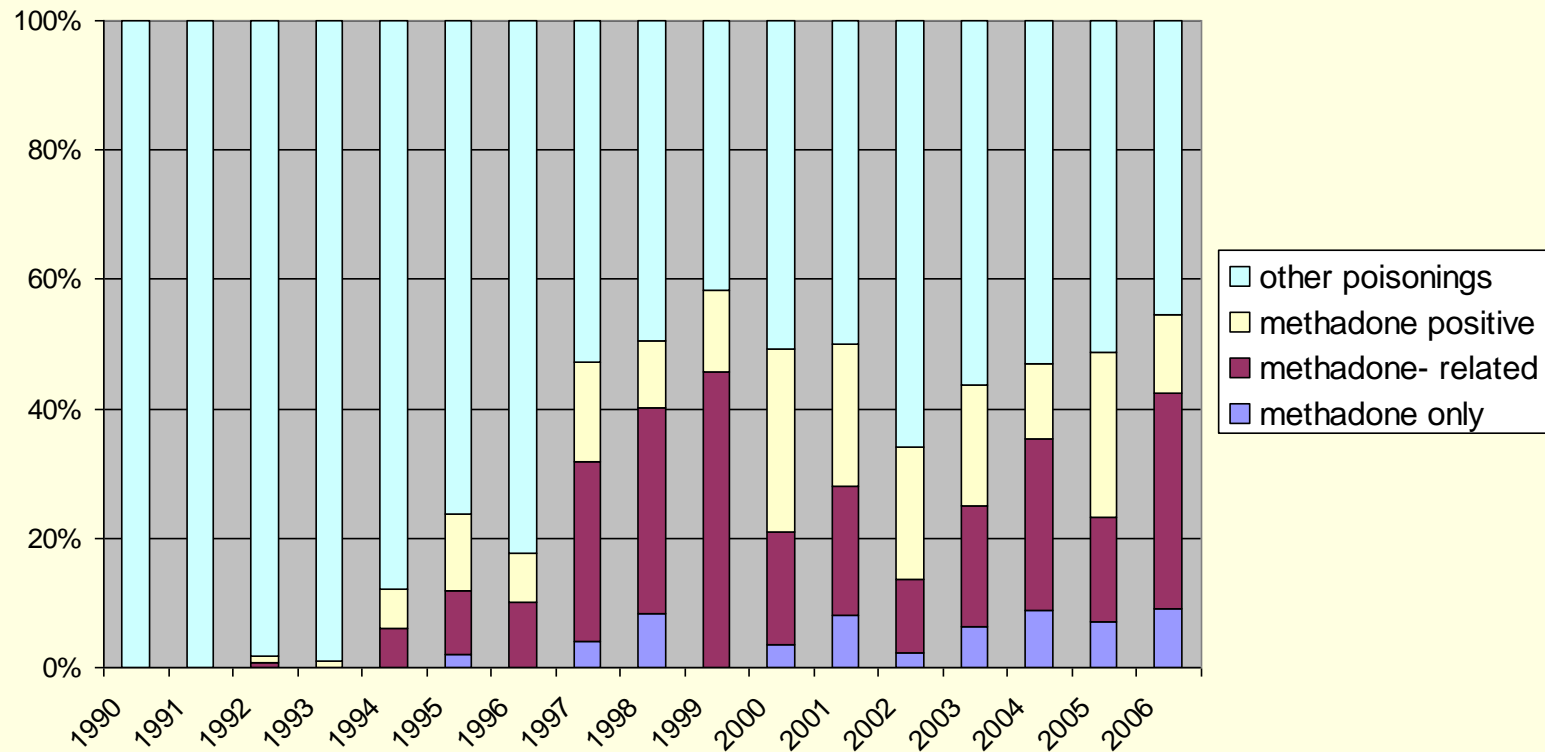
# However there are indeed deaths related to methadone

- Natural deaths in methadone clients
- Accidents or trauma deaths in methadone clients
- Deaths due to toxicity when starting treatment (→ clinical management)
- Deaths due to cardiac toxicity (high dosages or pre-existing problems)
- Deaths due to methadone overdose. Often among people not in treatment (improve clinical management, guidelines for take home, and improved access to treatment)



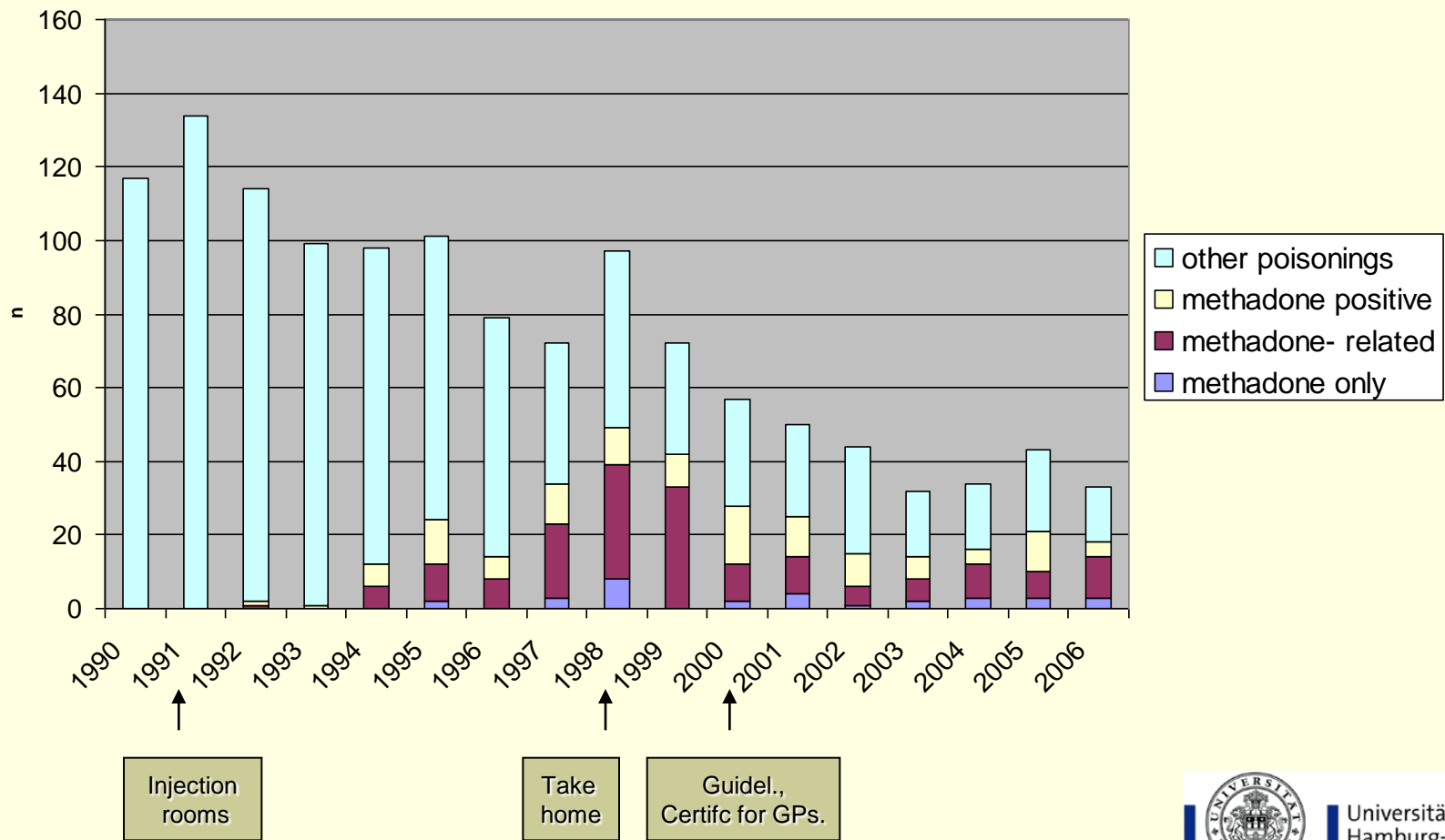
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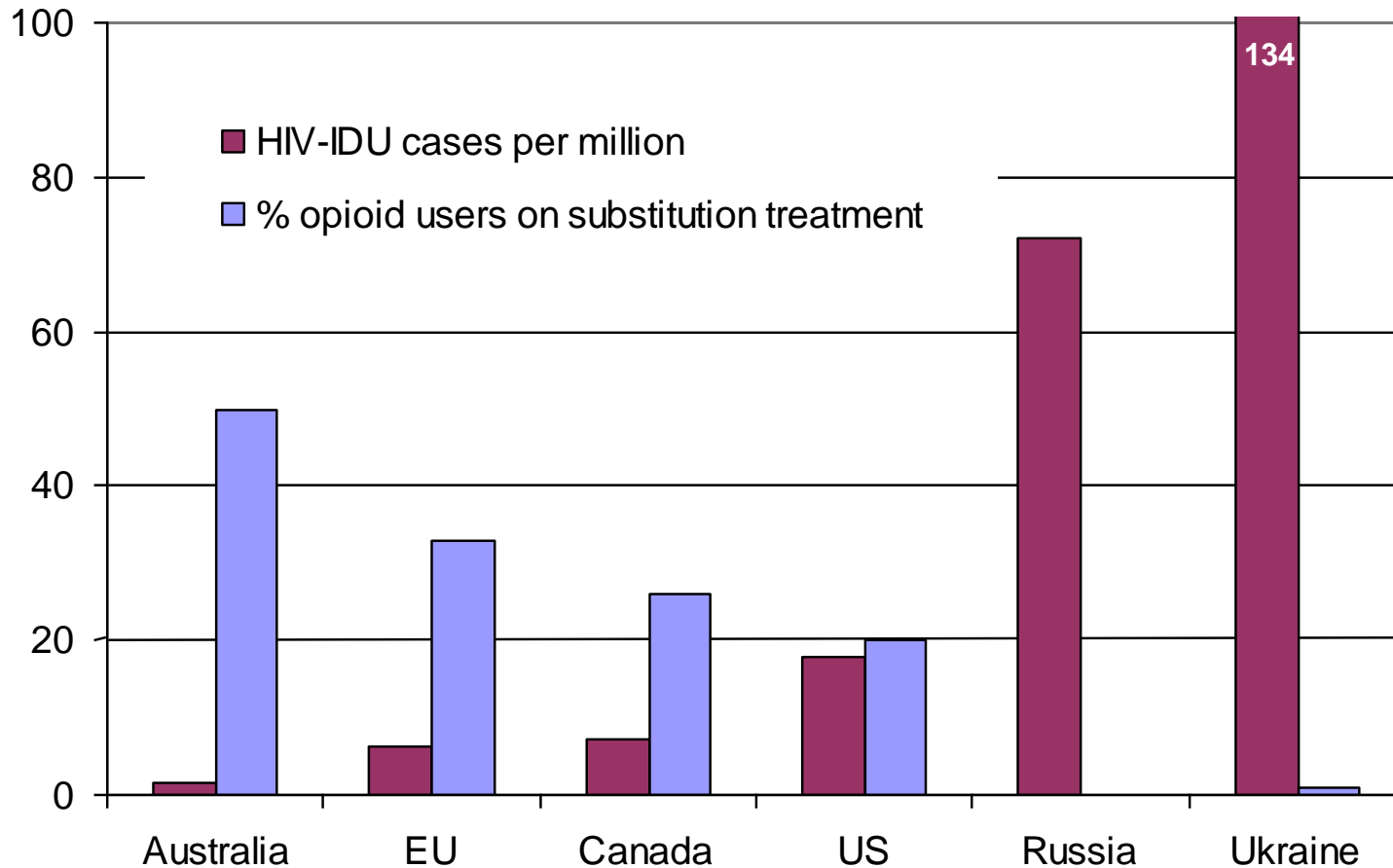


- Methadone appears to reduce the risk of HIV infection by 50% compared to withdrawal or not treatment





# Incidence of diagnosed HIV in IDUs per million population (2005) and % coverage of opioid substitution treatment (2000-2004) (Wiessing et al., Am J Public Health 2009)



# Cocaine related deaths

- Cocaine deaths are more difficult to identify than opioid deaths and the causal link is less clear
- Cocaine deaths are uncommonly due to direct pharmacological intoxication
- Due to previous reason and social profile of victims, they may not come to the attention of the police or medical personnel



# Cocaine related deaths

- Most fatalities are caused by cardiovascular or cerebrovascular accidents
- Pre-existing conditions are a risk factor (spontaneous or due to chronic cocaine use)
- The most common case: chronic use may cause also chronic problems (atherosclerosis, ventricular hypertrophy) and subsequent deaths by arrhythmias or myocardial infarction.



- Alcohol use may increase toxicity of cocaine by increased blood levels (30%) and production of cocaethylene.
- Follow up (cohort) studies are important to assess the mortality related to cocaine.
- Some studies indicate 4-8 higher mortality than in general population (overdoses, Aids, cardiovascular, accidents, violence). In part due to intravenous use or concomitant opioid use



- Cocaine use often produces psychiatric problems (anxiety, paranoid ideas) that tend to resolve in a short period of time
- It is necessary to increase awareness of potential role of cocaine in cardiovascular and cerebrovascular problems, in particular among young adults.

