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EVIDENCE-BASED PREVENTION AND TREATMENT
OPTIONS FOR EMERGING HEROIN USE IN A PUBLIC HEALTH FRAMEWORK
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Evidence-based Prevention & Treatment Options for Emerging Heroin Use in a Public Health Framework

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Heroin Use – why concern for public health?

- Major risks/harms:
- Morbidity: Infectious disease transmission, including HIV/HCV, especially if H is used by injection (rather than smoked)
- Morbidity/InfDis risks greatly enhanced if heroin is used a) in risky environments and b) in conjunction with other drugs (e.g., stimulants => 'bingeing')
- Mortality: Accidental overdose deaths, e.g. due to variable substance purity/contamination
- Crime: H is bought on black markets, and associated with substantial acquisition (e.g., property crime, sex work etc.) crime

Targeted Prevention for Heroin Use

- What to do? => depends on socio-epidemiological situation of use
- If heroin is largely used by non-injection smoked, key focus ought to be on preventing transition to injecting as key morbidity/mortality risk
- Few studies of brief interventions/educational outreach for maintenance of/switch to non-injection routes suggesting short-term benefits (but limited strength of evidence)
- For injection users, clear & strong evidence that a) easily accessible and b) well-run needle exchange programs will lower infectious disease transmission risk and incidence

Treatment options

- Opioid maintenance treatment (OMT) as primary treatment response in virtually all Western countries, and increasingly elsewhere
- Methadone : Oral opioid agonist treatment, in practical use and researched in North America since 1960s; widely available in numerous countries, as far as China & Iran
- Buprenorphine: Newer oral agonist/antagonist (Bup/Naloxone combo) => preferable for more stable populations and more diversion/abuse resistant; available in North America, France, others
- Both Methadone and Buprenorphine added to the WHO's 'List of Essential Medicines' in 2005 è supported by WHO, ONDCP, UNAIDS
- Medical Heroin Prescription: Injection or oral options; examined by large-scale clinical trials in CH, NL, GER, CAN, and in very limited use for high-risk and treatment refractory H-user populations

Benefits of OMT (see NIDA, Cochrane group, NIH Consensus Conf/JAMA, BMJ, Lancet => pub details on request)

- ... among opioid users successfully attracted and retained into OMT:
 - è Reduction of HIV infection risk and incidence
 - è Reduction of illicit opiate drug use
 - è Reduction of overdose risks & fatalities
 - è Reduction of drug-related crime
 - è Improvement of physical and mental health status & Quality of Life indicators
 - è Cost-beneficial and cost-effective
- ...also implies that OMT constitutes both effective treatment and prevention, especially if provided to users at an early stage of use

Challenges for OMT

- Appeals/attracts only limited proportion of H users -> in 'optimized' systems, max. 50% of users
- Structures/practices of delivery: Broad OMT reach & accessibility cannot be achieved by specialized clinics but require integration of OMT into community-based health care services (e.g., GP offices, community health centres, local pharmacies) => requires broad training
- Broad OMT availability & community dispensing can facilitate diversion, i.e. methadone can become commodity on illicit drug markets => restrictions/control need to be balanced with public health aims
- In several countries (incl. US & CAN), prescription opioids (e.g., oxycodone, hydromorphone, codeine) have replaced heroin as drug of choice among street users => new challenge for prevention & treatment interventions (especially in 'PO rich countries')

Figure D8.
BC Methadone Program clients receiving methadone maintenance,
BC College of Physicians and Surgeons, 2006

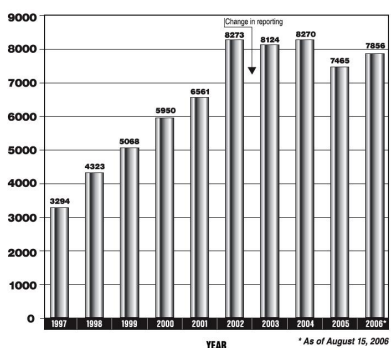


Figure E4.
Hepatitis C rates by year, Vancouver, BC and Canada, 1995 – 2006

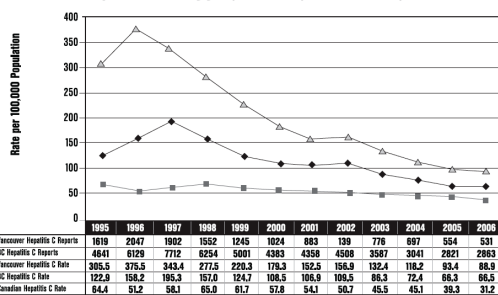
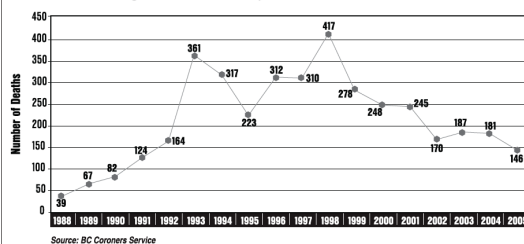
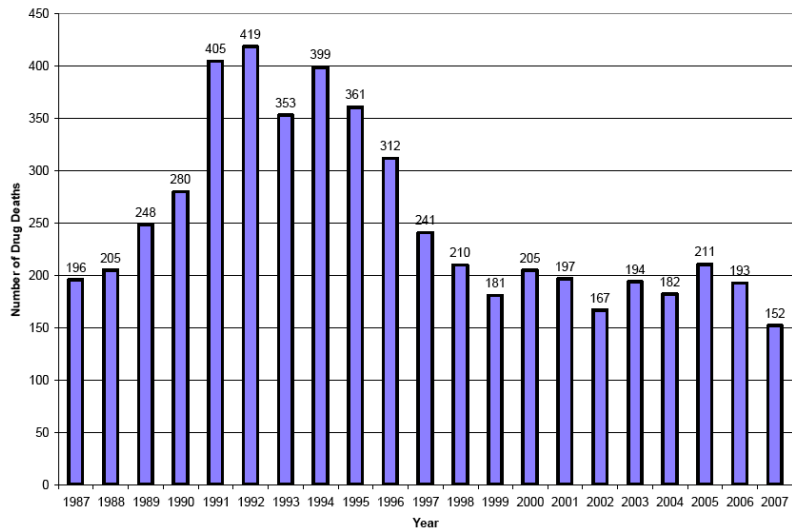


Figure C2.
BC Illicit Drug Deaths 1988-2005, Office of the Chief Coroner



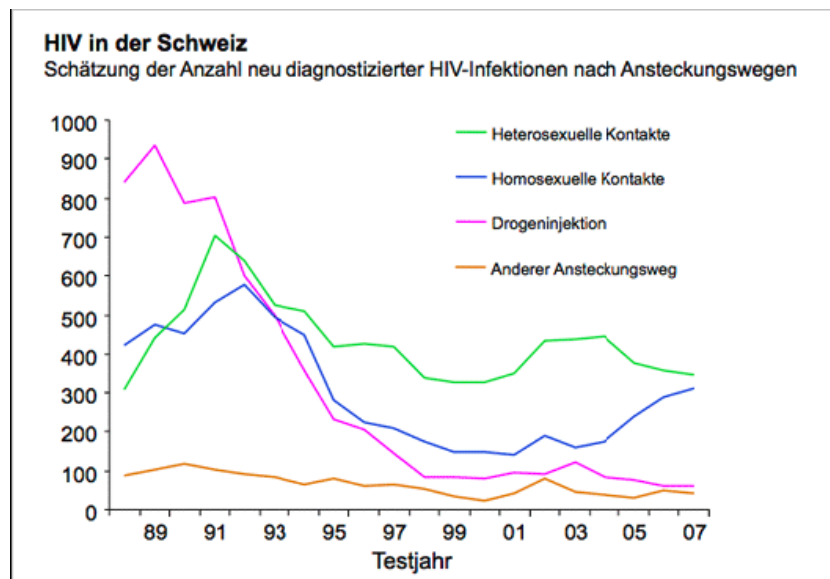
Drug-related Deaths in Switzerland, 1987-2007

Source: fedpol (2008) Schweizerische Betäubungsmittelstatistik 2007



Numbers of Newly Diagnosed HIV-infections by Principal Source of Infection, Switzerland, 1988 - 2008

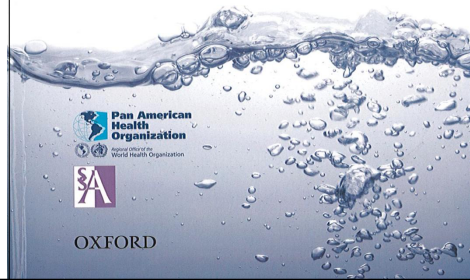
Source: http://www.bag.admin.ch/hiv_aids/01033/01143/01498/index.html?lang=de&bild=19460



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