Prevention, Public Health, Harm Reduction

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ASAM THE REVIEW COURSE IN ADDICTION MEDICINE

ASAM Disclosure of Relevant Financial Relationships Content of Activity: ASAM Review Course 2014

Name	Commercial Interests	Relevant Financial Relationships: What Was Received	Relevant Financial Relationships: For What Role	No Relevant Financial Relationships with Any Commercial Interests
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Topics

- Concept of harm reduction
- Syringe access
- Overdose prevention
- Aspects of opioid maintenance

Why Harm Reduction?

- Decreases illness, disease and death
- Blood borne disease such as HIV and Hepatitis C
- Injection-related infections (abscesses, endocarditis, etc.)
- Overdose (fatal and non-fatal)

- Increases engagement in services and care
- Gateway to drug treatment, medical and social services

Drug Treatment Isn't for Everyone

- Some occasional alcohol and other drug use may not present a health risk- though any use is worthy of discussion
- Not all users want to stop
- Not all have time for treatment due to work and other obligations
- Limited access to treatment depending on insurance, other commitments, perceptions

Harm Reduction Principles

A set of practical strategies by which harm related to illicit drug use is reduced

- Recognizes that drug use is common
- Include a "spectrum" of strategies from safer use to abstinence
- Low threshold: entry requirements appropriate to the targeted group
- Goal: a longer and healthier life, regardless of drug use

Not just syringes at exchanges

- Counseling
- Drug treatment referral
- Drug treatment
- Overdose prevention
- Hepatitis services
- Acupuncture
- Food

Prevention services

- Primary: Prevention of blood- borne diseases via clean equipment and vaccines
- Secondary: Screening and referral for medical illnesses and substance use disorders
- Tertiary: Prevention of overdose deaths, adherence support, relapse prevention

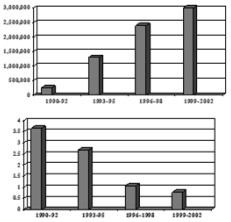
Syringe Access

Syringe Exchanges
Pharmacies
Medical providers

Syringe Access

- Legal options vary by state
- Syringe exchange programs
- Over the counter sales at pharmacies (47 states)
- Prescription (for purpose of reducing spread of blood borne illnesses)
- Counseling: "I hope you never inject again but I want to be sure you and your associates know where to get a sterile syringe."

Syringe Exchange and HIV Incidence Among IDU



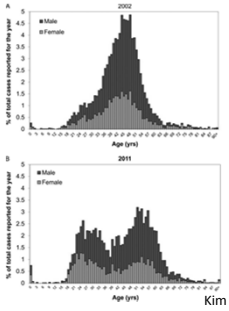
From 1990 to 2002, in New York City:
The number of needles exchanged rose tenfold

HIV seroincidence among drug users dropped

Des Jarlais D et al, AJPH 2005

Hepatitis C Epidemiology

Age distribution of newly reported confirmed cases of hepatitis C Massachusetts



2002 (A, n = 6368)
2011 (B, n = 5194).

Of those with reported risk: IDU 74%
Of those heroin was the most common drug.

Kim A Y et al. J Infect Dis. 2013

Reductions in Hepatitis C

New York City

- 1990: 80% of all new (<6yrs) IDUs Hepatitis C positive
- 2001:38% of all new IDUs Hepatitis C positive
- The median time between the first use of injection drugs and HCV infection rose from 3–4 months in the 1980s to 4–7 years in the 1990s

Des Jarlais AIDS 2005, Edlin Nature 2011

Does syringe access increase injection?

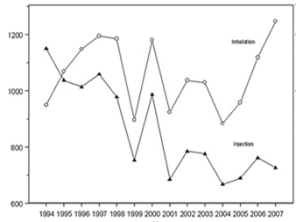
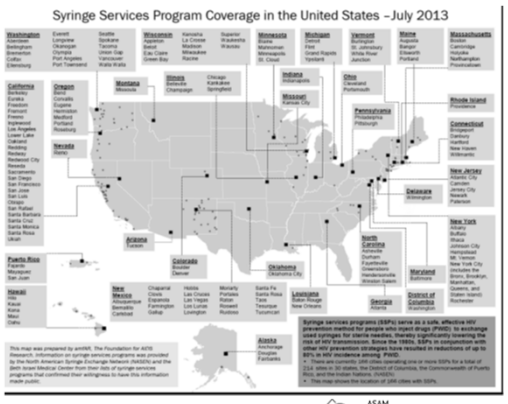


Figure 1 Number of methadone maintenance treatment program admissions over time by route of administration (inhalation versus injection)
Des Jarlais et al Addiction 2010



Barriers to syringe distribution are absent or reduced in 25 States

Safe Disposal

- Hospitals and nursing homes may accept “sharps”
- Syringe exchanges
- (Household trash- properly packaged- check local laws)
- Some pharmacies have kiosks
- Drug treatment programs?

Syringe Access and Medical Care

- Counseling: "I hope you never inject again but I want to be sure you and your associates know where to get a sterile syringe."
- Safe syringe disposal
- Syringe distribution or prescription

Naloxone

- Prescribed opioid antagonist which rapidly reverses opioid related sedation and respiratory depression and may cause withdrawal
- Overdose victims wake up minutes after administration
- Displaces opioids from the receptors for 30-90 minutes
- No pleasant psychoactive effects
- No other effects

Models of Increasing Access to Naloxone

- Community prescribing/distribution to drug user and/or social networks
- Prescribing in outpatient care
- Increasing access among first responders
- Pharmacy collaborative agreements

The Training: 10-20 Minutes

- Prevention understanding the role of:
  - mixing drugs
  - reduced tolerance
  - using alone
- Overdose recognition
- Action
  - Call 911
  - Resuscitation
  - Naloxone administration

Naloxone Distribution Programs: US

MMWR report based on survey of programs known to the Harm Reduction Coalition

- As of 2010, there were 48 known programs, representing 189 community-based sites in 15 states and DC.

CDC, MMWR 2012

Overdose Fatality Prevention Programs

Programs range from State supported to underground 1996 - 2010:

- 53,339 individuals have received kits
- 10,194 overdose reversals reported

Most reversals from syringe access programs

CDC MMWR 2012

States with legislation allowing 3rd party administration

Add: Georgia and Maine
Other states with programs include:
Pennsylvania, Wisconsin, Michigan, Minnesota

Massachusetts

- Massachusetts compared interrupted time series of towns by enrollment in Opioid Education and Naloxone Distribution programs
- 2912 kits distributed
- 327 rescues, 87% by drug users; 98% effective EMS revived the other 3

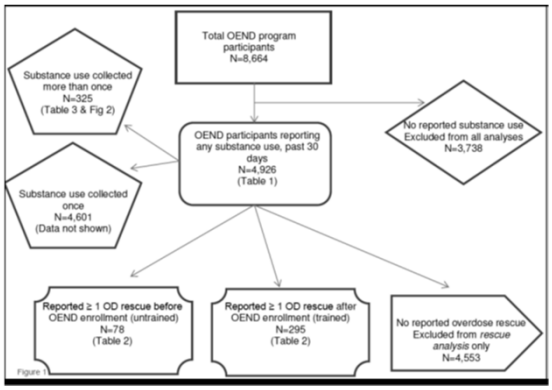
Walley et al BMJ 2013

Community Results

Fatal opioid OD rates compared no implementation

- Program enrollment 1-100 per 100k population (ARR: 0.73)
- Program enrollment >100 per 100,000 (ARR:0.54)
- No differences were found in nonfatal opioid OD rates.

Walley et al BMJ 2013



Increased Opioid Use?

Of the 325 with 2 points of data on drug use:

- No increase in reported use of opioids, alcohol, cocaine or number of substances used
- Significant increase in reported use of benzodiazepines:
- 30% increased use
- 23% decreased use

Doe-Simkins et al BMC Public Health 2014

Goals of Opiate Maintenance

- To reduce opioid misuse
- To reduce mortality
- To reduce transmission of blood-borne viruses
- To improve patients' general health and well being (psycho-social functioning)
- To reduce drug-related crime

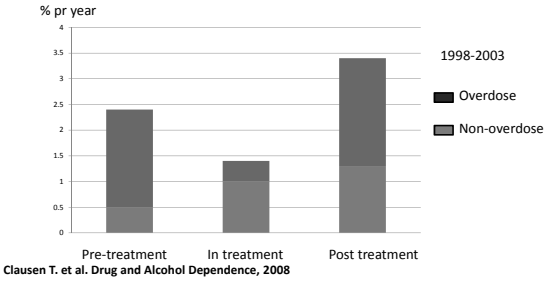
Opioid Maintenance and Mortality

Prospective study of opioid dependent patients applying for methadone (and buprenorphine) treatment in Norway

- 3,789 subjects followed for up to 7 years

Clausen Drug Alc Dep 2008

Mortality before, during and after OMT in Norway



Clausen T. et al. Drug and Alcohol Dependence, 2008

Opioid maintenance and mortality

Overdose deaths in Baltimore

Adjusting for heroin purity and the number of methadone patients, there was a statistically significant inverse relationship between heroin overdose deaths and patients treated with buprenorphine (P = .002).

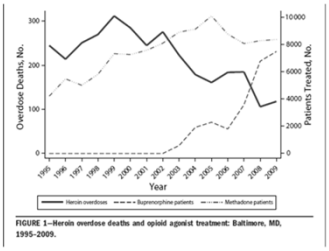
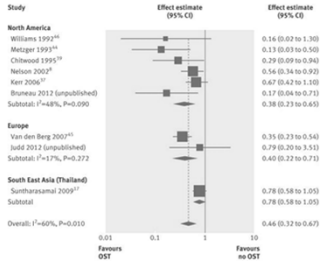


FIGURE 1--Heroin overdose deaths and opioid agonist treatment: Baltimore, MD, 1995-2009.

Opioid maintenance and HIV transmission: a systematic review

Opiate substitution treatment was associated with a 54% reduction in risk of HIV infection among people who inject drugs

MacArthur et al BMJ 2012



Buprenorphine and Public Health

Access to counseling is required but participation is not

- Counseling is not strongly associated with better outcomes

Patients don't need to be dismissed for using drugs

- Buprenorphine treats opioid addiction not other drug use

Counseling

- 141 opioid dependent patient randomized to bpn/nx with physician management (PM) or PM plus cognitive behavioral therapy (CBT)
  - PM: 15-20 minute sessions weekly x2, q2 weeks for 4 weeks then monthly
  - CBT: up to 12 50 minute sessions for the 1st 12 wks
- Similar in demographics, drug use history, treatment history

Fiellin DA et al Am J Med 126:1 2013

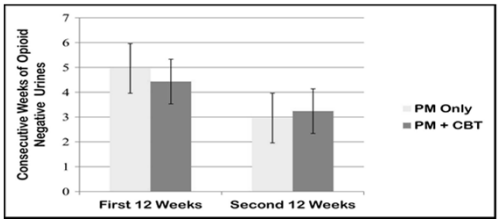


Figure 2 Opioid abstinence by urine toxicology analysis by treatment and time.

No difference in self report of opioid use, opioid abstinence, study completion, or cocaine abstinence between the 2 groups

Fiellin DA et al Am J Med 126:1 2013

Interim Methadone

- 230 patients randomized to standard, enhanced or interim (emergency counseling only) methadone services
- At 4 months no differences in retention in care or urines positive for drug use; some analyses found the interim services to be superior

Schwartz 2011

Opioid Maintenance: Other Risk Behaviors

Compared to former buprenorphine and methadone patients and those never on maintenance current patients had, in the past month

- fewer non-fatal overdoses (OR = 0.5)

Additionally, they were less likely to have

- injected frequently (OR = 0.4)
- to have used heroin daily or almost daily (OR = 0.3)
- to have committed theft (OR = 0.6)
- engaged in drug dealing(OR = 0.7)

Gjersing L et al DAD 2013

Managing Continued Illicit Drug Use

- Psychosocial services may be helpful: counseling, day treatment, self-help groups
- More frequent visits for prescribing if concerned about diversion
- Consider transfer to a higher level of care however discharge is not necessary

Conclusions

Clinicians are encouraged to be familiar with and to offer or refer for:

- Naloxone as overdose prevention
- Access to sterile syringes
- Opioid maintenance treatment with a public health approach