A Brief History of Overdose Prevention in San Francisco

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Treatment On Demand

- 1997 San Francisco initiative to provide substance abuse treatment “On Demand”
- Extensive community planning process
- Expansion of treatment service availability
- Development of new services to fill gaps
- Significant increase in funding
- Commitment to Harm Reduction approach

Early Local Overdose Research

Ochoa KC, Hahn JA, Seal KH, Moss AR
- 1996-48% of 122 SF IDUs reported at least one overdose,
- 65% reported no medical attention at last overdose

Seal KH, Kral AH, Gee L et al.
- 1998-1999 of 1,427 SF area adult heroin IDUs- 48% had experienced an overdose

Seal KH, Downing M, Kral AH et al.
- 1999-2000 UCSF Urban Health Study- of 82 SF IDUS, 89% had witnessed an overdose
- Only half (51%) called emergency medical services (EMS) at the last overdose event
- The majority (87%) reported strongly favoring receiving training in overdose management and take-home naloxone.
Seattle conference on Overdose Research- January 2000

- Overdose risk factors
- Trends in overdose fatalities
- Roles of different treatment modalities, outreach workers, emergency medical services and law enforcement
- Conference findings and local research informed Heroin Issues recommendations

TOD Heroin Issues Committee Recommendations

- 1) train or require CHOWs, HIV test counselors, & SEPs to do overdose prevention & improve syringe access and disposal
- 2) conduct broad public education to increase overdose awareness and targeted education/overdose response training for people at-risk of heroin overdose in jails, probation departments, and drug treatment programs
- 3) develop a pilot study to explore the feasibility and effectiveness of training IDUs to use naloxone as an overdose prevention tool

Drug Overdose Prevention Education (DOPE)

- 2000- $10k to develop OD curriculum
- 2001- $30k seed fund to begin implementation
- 2002-3-Additional grants received from California Endowment, Drug Policy Alliance, Goldman Fund, San Francisco Neighborhood Safety Fund, Tides Foundation, VanLobenSels/ RembeRock Foundation & others, also had revenue from AHA- approved CPR certifications for drug treatment counselors, shelter workers, and other social service providers
- 2005- current $73k funded by DPH through HRC
Initial DOPE Focus

- Overdose Risk Factors
- Recognizing Overdose signs
- Overdose response
  - Call 911
  - Rescue Breathing
  - Recovery Position
  - Follow Up
- Naloxone Pilot Program
  - 2003- Naloxone distribution

Deaths Involving Drug Abuse – DAWN
SF Metropolitan Area -1994-2002

DOPE Expansion

- SRO Hotels
- Golden Gate Events
- 2010 Intra-Nasal Device
  - New method expands target audience
  - Revised distribution strategy
- 2011- AB109- Prisoners return to local supervision
  - Welcome packet
  - Need for increased probation training
- Planned Pharmacy & Primary Care programs
- Methadone and Buprenorphine programs
- Family Focus- Youth Opiate prescription misuse
- Health Officer Order

Take-home naloxone for opioid overdose prevention: Strategies to reduce prescription opioid and heroin overdose deaths

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Overview

- Drug overdose and deaths are a growing problem
- The risk factors for overdose are well-known
- OD interventions are simple and legal, and have widespread support
- Overdose prevention programs are effective in saving lives
- Basic OD prevention strategies and materials
- Naloxone training and distribution
- Examples of OD prevention programs
- Recent developments
- Future directions
- Considerations for Treatment Providers

Drug overdose deaths of all intents by major drug type, U.S., 1999-2009

Source: National Vital Statistics System. The reported 2005 numbers are underestimated. Some overdose deaths were not included in the total for 2007 because of deficient reporting of the first cause of death.
Drug overdose deaths of all intents by type of opioid analgesic involved, U.S., 1999-2009

http://www.samhsa.gov/data/2k11/DAWN/2k9DAWNME/HTML/DAWN2k9ME.htm

DAWN: Opiate-related deaths, total and specified
2007-2009- 4 Bay Area Counties

http://www.samhsa.gov/data/2k11/DAWN/2k9DAWNME/HTML/DAWN2k9ME.htm

CA PMDP-CURES
5 Bay Area Counties- Top 20 Prescriptions combined totals

http://www.samhsa.gov/data/2k11/DAWN/2k9DAWNME/HTML/DAWN2k9ME.htm
Overdose Prevention Education and Naloxone Programs

MMWR:
First US program began distributing naloxone in 1996
From 1996 to June 2010:
- 53,032 individuals have been trained in naloxone administration and overdose response
- 10,171 overdose reversals reported
- Majority of these programs are located at needle exchanges
- Majority of individuals trained are drug users

MMWR:
- 38,860 doses of naloxone were distributed by programs in the year prior to the survey
- 87.5% of programs distribute parenteral naloxone (delivered by intramuscular injection)
- 8.3% of programs provide only intranasal naloxone
- 4.2% of programs provide both intranasal and parenteral naloxone
Overdose prevention programs: US

• MMWR based on survey of programs known to the Harm Reduction Coalition, October 2010

• As of 2010, there were 48 known programs, representing 188 community-based sites in 15 states and DC.

CDC MMWR February 17, 2012
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6106a1.htm

Program Support

• New York, New Mexico and Massachusetts operate state-wide programs supported by State Departments of Public Health

• City Health Departments support programs in Baltimore, San Francisco, Seattle, New York City

• Connecticut, Washington, New Mexico, Colorado, Rhode Island, Florida, Maryland, Alaska, Illinois and New York, have passed Good Samaritan laws to encourage calling 911

• New Mexico, Illinois, Connecticut, Massachusetts, New York, Washington and California (selected counties) provide liability protection for 3rd party administrators of naloxone and/or prescribers of naloxone
Legal issues

- All state laws allow for prescription of naloxone by a physician to those at risk of overdose
- Some states have passed legislation to allow for prescribing to anyone potentially at risk of witnessing an overdose (including family, friends or service providers) in addition to people who are at risk of overdose themselves.
- Other jurisdictions have passed local laws or initiated pilot programs

The law in California

- We have additional liability protection for prescribers and users of naloxone (3rd party) in seven counties, as per AB 2145: Drug Overdose Treatment Liability passed in 2010
- San Francisco, Los Angeles, Humboldt, Santa Cruz, Alameda, Fresno and Mendocino
- Working on making this statewide
- Does not mean that only the 7 counties can provide naloxone to at-risk individuals

The DOPE Project, San Francisco

- Distributing intranasal naloxone (since May 2010) under standing orders
- Expanded to all needle exchange programs and sites, methadone maintenance programs and other community-based programs
- Over 3,400 trained, over 5,540 kits distributed
- As of June 2012, 782 reported reversals
  – 140 since January 2012 due to spike in ODs due to stronger heroin in SF
- Increase in reversals where the drugs involved in the overdose included pharmaceutical opioids, most often Dilaudid, Morphine and Fentanyl patches
Heroin-related Deaths, San Francisco, 1993-2010
SF naloxone coverage rate per 100,000 – using a gross SF pop of 800k,
3000 trained would give us a rate of 374, consistent with the reduction in deaths we have seen (thank you Phillip Coffin)

Overdose Prevention, Recognition, and Response Trainings

Components of a Training
1. What is an overdose?
2. What causes an overdose?
3. Prevention messages
4. Recognition
5. Response
6. Aftercare
7. Follow-up and refills
What puts people at risk for ODs?

- Mixing Drugs
- Variation in strength and content of ‘street’ drugs (purity)
- Tolerance changes (abstinence, being in treatment, jail, etc.)
- Using alone
- Physical Health (liver functioning, weight loss, asthma, immune system problems, dehydration, malnutrition, etc.)

Recognizing an Overdose

<table>
<thead>
<tr>
<th>REALLY HIGH</th>
<th>OVERDOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscles become relaxed</td>
<td>Deep snoring or gurgling (death rattle) or wheezing</td>
</tr>
<tr>
<td>Speech is slowed/slurred</td>
<td>Blue skin tinge- usually lips and fingertips show first</td>
</tr>
<tr>
<td>Sleepy looking</td>
<td>Pale, clammy skin</td>
</tr>
<tr>
<td>Will respond to stimulation like yelling, sternum rub, pinching, etc.</td>
<td>Heavy nod, will not respond to stimulation</td>
</tr>
<tr>
<td>Nodding out</td>
<td>Breathing is very slow, irregular, or has stopped/faint pulse</td>
</tr>
</tbody>
</table>

Sternum Rub
Calling 911

- Clearly give address or nearest intersection
- Keep loud noise in background to a minimum—if it sounds chaotic, they will dispatch police to secure the scene and protect the paramedics
- Avoid using words like drugs or overdose—stick to what you see:
  - “Not breathing, turning blue, unconscious, non-responsive, etc.”

Recovery Position
Naloxone reversing an OD

Heroin

Naloxone

Opioid receptor

Naloxone has a stronger affinity to the opioid receptors than the heroin, so it knocks the heroin off the receptors for a short time and lets the person breathe again.

Reversing an overdose:

Image of an ambulance and first aid kit.
New Developments:

- Increased media attention
- Buy-in from federal and (select) state, county and local agencies
- Increase in opioid analgesic (prescription drug) deaths
- Naloxone distribution in urban areas targeting solely injectors is not meeting national need

New Developments

- Ft Bragg Army base, Operation OPIOIDSafe
- Veterans Administration pilot at Palo Alto facility
- UN Commission on Narcotic Drugs passed Overdose Resolution
- Primary care, pain management and pharmacy-based naloxone prescription programs are evolving
- New programs in Denver, Seattle, Ohio, Redding and Humboldt, CA

A Lifesaving Overdose Antidote Should Be Made More Widely Available
Federal agency involvement

- SAMHSA creating Overdose Prevention Tool Kit for OTPs
- MMWR on OD/naloxone programs
- FDA workshop, April 2012
- “Dear Colleague” letter from Rep. Mary Bono Mack (R-CA) to HHS demanding national OD prevention campaign, including naloxone, July 2012
- NIDA just recently funded the first R01 to include naloxone prospectively (WA).
- ONDCP Meetings and 2012 Drug Strategy
- American Medical Association (AMA) resolution supporting naloxone distribution

Prescribe to Prevent

- Provides medico-legal information, patient education materials, background research, and billing information
- www.prescribetoprevent.org

Website created by colleagues who are helping to pilot naloxone prescription: Nab Dasgupta, Alice Bell, Traci Green, Maya Doe Simkins, Sarah Bowman, Leo Beletsky, Scott Burris, Alex Walley, Sammy McGowan
**Inclusion criteria**

- Received emergency medical care involving opioid intoxication or poisoning
- Suspected history of substance abuse /nonmedical opioid use
- Prescribed methadone or buprenorphine
- Higher-dose (>50 mg morphine equivalent/day) opioid prescription
- Receiving any opioid prescription for pain plus:
  - Rotated from one opioid to another because of possible incomplete cross-tolerance
  - Smoking, COPD, emphysema, asthma, sleep apnea, respiratory infection, or other respiratory illness or potential obstruction.
  - Renal dysfunction, hepatic disease, cardiac illness, HIV/AIDS
  - Known or suspected concurrent alcohol use
  - Concurrent benzodiazepine or other sedative prescription
  - Concurrent antidepressant prescription
- Patients who may have difficulty accessing emergency medical services (distance, remoteness)
- Voluntary request from patient or caregiver
Bibliography


Massachusetts OEND

- Model state-wide naloxone distribution program
- Standing order, works from State DPH regulation, not statewide legislation
- All programs receive their naloxone free from MDPH for distribution (MDPH has invested nearly 1 million dollars in naloxone distribution since 2006)
- Integrated into treatment, corrections, parents groups, SBIRT, HIV prevention, etc.
- Excellent data collection system
- Collaboration between BSAS and OHA
- SAMHSA’s CSAP grant to BSAS for MASSCALL2 programs in 15 communities with high overdose burden to implement opioid overdose prevention strategies
- Training and equipping BLS, Fire and law enforcement with naloxone

Enrollments and Rescues: 2006-2012

- Enrollments
  - 12,367 individuals
  - 300 per month

- Rescues
  - 1301 reported
  - 30 per month
Enrollment locations: 2008-present

- Using, in Treatment, or in Recovery: Non Users (family, friends, staff)
- Detox
- Syringe Access
- Drop-In Center
- Community Meeting
- Other SA Treatment
- Methadone Clinic
- Inpatient/Outpatient
- Home Visit/Street Outreach

Number enrolled: 0 500 1,000 1,500 2,000 2,500 3,000 3,500

Program data

Data from people with location reported: Users: 7,220 Non-Users: 3,522

The Massachusetts Model:
Integration into Drug Treatment services

- MDPH supports their funded drug tx providers to integrate OD prevention by funding the Overdose Prevention Training Initiative (SPHERE Health Imperatives):
- The goals of the Overdose Prevention Training Initiative are:
  1. To support drug and alcohol treatment providers to incorporate opiate overdose prevention messages, screening, and education into their work;
  2. To support drug and alcohol treatment providers to become opiate overdose prevention advocates; and
  3. To build provider capacity to prevent and respond to accidental opiate overdoses.
- SPHERE’s overdose prevention services include:
  - Trainings: Includes both half day onsite trainings and regional (and onsite) full day trainings
  - Resources: Information and materials that will help providers start conversations with clients and which can be distributed to clients
  - Action Planning Tools: Guidelines, worksheets and other tools to help you plan for the future, take action, and make meaningful changes
  - Statewide Surveys
  - Access to internet sources of support
  - Links to research, resources, and organizations

For more information, visit their site at http://www.hcsm.org/sphere/overdose-prevention-training-initiative

Fatal opioid OD rates by OEND implementation: 2002-09

<table>
<thead>
<tr>
<th>RR</th>
<th>ARR*</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>No enrollment</td>
<td>Ref</td>
<td>Ref</td>
</tr>
<tr>
<td>1-150</td>
<td>0.92</td>
<td>0.73**</td>
</tr>
<tr>
<td>&gt; 150</td>
<td>0.83</td>
<td>0.50**</td>
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* Adjusted Rate Ratios (ARR) All rate ratios adjusted for the city/town population rates of age under 18, male, race/ethnicity (Hispanic, white, black, other), below poverty level, medically supervised inpatient withdrawal treatment, methadone treatment, BSAS-funded buprenorphine treatment, prescriptions to doctor shoppers, and year

Total OEND enrollments through 2006-09 in 19 selected towns: 2912
Issues and Considerations

- Prescription status of naloxone is still a barrier (esp regarding 3rd party administration)
- Lack of designated funding streams to support existing naloxone distribution programs
- Drug shortage and price increases
- Difficulty in implementing naloxone prescription due to multiple players that must coordinate, billing, etc.

Common concerns and criticisms of OD prevention programs:

- Drug users are not capable of recognizing and managing an OD with Naloxone
- The person who gets Naloxone will be violent upon OD reversal
- Naloxone access will postpone peoples’ entry into drug treatment
- Naloxone access encourages riskier drug use or relapse

Incorporating OD Prevention into your agency:

Three potential strategies:
1. Developing a policy for responding to on-site overdose
2. Integration of overdose prevention messages into work with program participants, including contingency planning if being discharged from treatment.
3. Training participants to respond to an overdose, with rescue breathing and/or Naloxone
Starting the Conversation...

Did you know that...
Relapse puts a person at high risk for fatal overdose.

Did you know that...
Mixing heroin with alcohol or benzos can put a person at risk for fatal overdose.

Possible models for providing overdose prevention to drug treatment clients

<table>
<thead>
<tr>
<th>Staff provide training about OD Prevention and distribute naloxone upon discharge (if appropriate)</th>
<th>Staff train and then refer to local OD Prevention Program for naloxone</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD Prevention Program Staff regularly come on-site to train and distribute naloxone</td>
<td>Staff refer out to OD Prevention Program for training and naloxone as part of treatment plan</td>
</tr>
</tbody>
</table>

Treatment provider’s power to save lives

- Treatment providers have access to people at-risk for overdose
- Treatment that results in complete abstinence from opioids is a protective factor against overdose
- Treatment that results in opiate substitution (methadone or buprenorphine) is a protective factor against overdose
- Any event that modifies tolerance followed by any use of opioids increases risk for overdose. Such events include:
  - Personal choice
  - Institutionalization
  - Treatment
  - Hospitalization
  - Incarceration
  - Illness
Next Steps

- Implement naloxone co-prescription pilots
- Integrate OD Prevention into drug treatment programs
- Improve overdose surveillance
- Gather more information about prescription drug users to help design meaningful interventions
- Evaluate efficacy of naloxone co-prescription (naloxone distribution programs have already been shown to be efficacious)

Acknowledgements

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- Fred Brason
- Denise Paone
- Scott Burris
- Leo Beletsky
- Phillip Coffin
- Pete Davidson
SPHERE’s Tips for Developing & Delivering Effective Overdose Prevention Training for Drug and Alcohol Treatment Providers

Emphasize ‘Organic Opportunities’ That Exist In Treatment Where Overdose Prevention Messages Can Be Expressed, As Examples For Training Application And Action.

Think about the client/program participant. At each point where there is structured contact with a counselor, ask: what can be done to bring in overdose prevention information? Here are some of our recommendations:

**ORGANIC OPPORTUNITIES FOR OVERDOSE PREVENTION INTEGRATION IN DRUG AND ALCOHOL TREATMENT**

<table>
<thead>
<tr>
<th>‘Organic Opportunity’</th>
<th>To Ask, Reinforce, Share:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission/Intake</td>
<td>▪ What is the person’s experience with opioids? Benzos? Alcohol? Mixing medications?</td>
</tr>
<tr>
<td></td>
<td>▪ What is the person’s experience with overdose?</td>
</tr>
<tr>
<td></td>
<td>▪ What is the person’s experience with witnessing an overdose?</td>
</tr>
<tr>
<td>Medical History</td>
<td>▪ What is the person’s experience with overdose?</td>
</tr>
<tr>
<td>Individual Education and Counseling</td>
<td>▪ Assess risk for accidental opioid overdose</td>
</tr>
<tr>
<td></td>
<td>▪ Review risk reduction</td>
</tr>
<tr>
<td></td>
<td>▪ Review response measures</td>
</tr>
<tr>
<td>Group Education</td>
<td>▪ Provide overdose information</td>
</tr>
<tr>
<td></td>
<td>▪ Offer an opportunity to share experiences with overdose</td>
</tr>
<tr>
<td></td>
<td>▪ Consider challenges and strategies to practice risk reduction</td>
</tr>
<tr>
<td></td>
<td>▪ Teach response measures</td>
</tr>
<tr>
<td></td>
<td>▪ Sponsor rescue breathing lessons</td>
</tr>
<tr>
<td></td>
<td>▪ Sponsor narcan response training</td>
</tr>
<tr>
<td>Relapse Prevention</td>
<td>▪ Review overdose risk factors, especially around tolerance changes, and risk reduction</td>
</tr>
<tr>
<td></td>
<td>▪ Review overdose signs and symptoms</td>
</tr>
<tr>
<td></td>
<td>▪ Review overdose response and reversal</td>
</tr>
<tr>
<td>Discharge Planning</td>
<td>▪ Review overdose risk factors, especially around tolerance changes</td>
</tr>
<tr>
<td></td>
<td>▪ Review Witness Responses</td>
</tr>
<tr>
<td></td>
<td>▪ Review risk reduction measures</td>
</tr>
<tr>
<td></td>
<td>▪ Provide referrals for support in the community (Narcan training program, support groups)</td>
</tr>
</tbody>
</table>
Drug Overdose after Incarceration:
You may be at risk. Learn the facts, protect yourself.

Many of you have used drugs in the past and may be tempted to use again in the future after you get out of prison. It is important for you to know that when you come out of jail or prison, you don’t have the same tolerance for drugs and alcohol that you might have had when you went in—even if you’ve only been locked up for a short time. **This reduced tolerance for drugs and alcohol puts you at risk for overdose.** You have the greatest chance of overdosing during the first few weeks and months after you get out if you decide to use again.

**Overdose facts:**

- Overdoses can happen with any drug, but you are at highest risk if you use heroin, cocaine or prescription painkillers like oxycodone (examples: OxyContin, Percocet), hydrocodone (examples: Vicodin or some cough syrups), morphine, fentanyl, or methadone.

- A lot of overdoses happen when people use drugs after a period of not using—like when they get out of jail or prison—because their tolerance is lower. This means your body can’t handle as much drugs or alcohol than it did before.

- It is very risky to mix drugs, especially downers and uppers (like heroin and cocaine) or downers with other downers—like alcohol and pills, alcohol and heroin, or benzodiazepines (aka “benzos,” like Xanax, Klonopin, Valium, Ativan) and opiates (heroin, methadone, prescription painkillers).

**Overdose deaths are preventable. There are ways you can lower your risk for overdose:**

- Get support upon release for issues with drug use (see section on HEALTH & TREATMENT and SUPPORTIVE SERVICES)

- If you do decide to use, do not use alone—no one will be able to help if you are in trouble.

- Try not to mix drugs, even “legal” drugs like prescription painkillers and alcohol—these are very dangerous combinations.

- Don’t overestimate your tolerance. It has decreased since you’ve been incarcerated and your body won’t be able to handle the same amount you may have done before.

**How do I get more information about preventing overdoses, or what to do if one happens?**

There are programs all over the US that teach drug overdose prevention and what to do if you or someone you know overdoses. Some of these programs give out a drug called Narcan (also knows by its generic name, Naloxone) that helps stop an overdose on opiates like heroin, methadone or prescription painkillers. These programs teach you how to use Narcan and do rescue breathing (mouth to mouth) in case someone overdoses and they give you a Narcan kit for emergencies. These programs are free and confidential.

If you are interested in learning more about preventing overdoses or what to do in case of an overdose, please contact the Harm Reduction Coalition to find the program closest you. Our phone number is 510-444-6969 ext. 16. or email us at dope@harmreduction.org