

**OVERDOSE EDUCATION AND  
NARCAN DISTRIBUTION IN AN OTP**

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### Disclosure

- Naloxone is FDA approved as an opioid antagonist
- Naloxone delivered as an intranasal spray through a mucosal atomizer device has not been FDA approved and is off label use

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### Objectives

- Scope of the problem
- Why OTP and OEND
- Description of one program
- Lessons learned and challenges ahead

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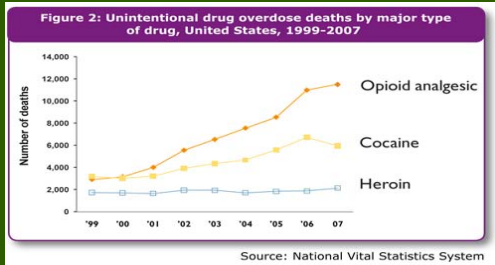
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## Scope of the Problem



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## Scope of the Problem

- Currently 18 Massachusetts residents die each week of an opioid-related overdose
- In Massachusetts and 15 other states there are more opioid-related fatal overdoses than motor-vehicle related injury deaths

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## Massachusetts Response:

- Goal to decrease the incidence of overdose, improve its management, and reduce the amount of misused, abused and diverted rx opioids
- Bystander overdose education and naloxone distribution pilot is just one initiative

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## Rationale for OEND

- Most opioid users do not use alone; others are often present at ODs
- Opportunity window: opioid OD takes minutes to hours and is reversible with naloxone
- Opioid users can be trained to understand and recognize OD
- Fear of legal authorities
- Last line of defense

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## Naloxone

- Pure opioid antagonist
- Treatment of choice for the reversal of an opioid overdose by emergency responders
- Displaces opioids from the brain receptors and restores consciousness and breathing
- Safe with no potential for abuse

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## Intranasal Administration

- In Massachusetts we are distributing intranasal naloxone
- Boston EMS standard of care since 2005
- Avoids the risk of secondary needle exposure and eliminates concerns with disposal

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### Naloxone Distribution:

- 155 programs in 16 states are currently distributing naloxone with overdose prevention education to active drug users.

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### Evaluations of Naloxone Distribution Programs

- No increase in drug use
- No major medical side effects
- Possible increase in drug treatment
- Drug users recognize overdose and can be trained to respond
- Programs are generally through street outreach or at NEP sites

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### 2006

- The BPCH OTP became the first additional site beyond NEP



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### Why at an OTP?

- Those with opioid dependence are at high risk for overdose
- Polypharmacy
- Treatment may end abruptly
- Many of those treated at OTPs remain connected to communities where substance abuse is widespread
- Forum to discuss previous experiences
- Sets a tone for treatment

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### Description of the Program

- Partnership between BPHC, BMC, and Massachusetts' DPH (BSAS)
- Sited at BPHC's OTP
- Offered to new clients at one of their 3 mandatory orientation groups
- Offered to established clients on a drop-in basis
- RN trainer

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### Description of the Program

- One hour training on overdose prevention, recognition and response
- At the completion of the training, clients are offered a naloxone rescue kit which contains two doses of naloxone and two nasal atomizers

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### Description of the Program

- All trainings and naloxone distributions are documented
- When a kit is used, a client reports back to the trainer or to BPHC's NEP for a refill

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### Training Content: Prevention

- Know when you're most at risk for overdose: changes in tolerance
- Purity testing: "tester shots"
- Buying from same/trusted sources
- Mixing drugs/etoh
- Using with a reliable partner

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### Training Content: Recognition

- Slower/stopped/loud breathing
- Not responsive to verbal or physical stimulation (sternal rub)
- Turning blue
- Differentiating normal drug response from potentially fatal overdose
- Close monitoring for status changes

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### Training Content: Response

- Call 911
- Airway
- Rescue breathing
- Administer naloxone
- Recovery position
- Stay with the person: return of the overdose

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### Call 911



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### Training Content: Kit Assembly



1. Pop off two yellow caps and one red cap.
2. Screw medicine *gently* into delivery device.
3. Hold spray device and screw it onto the top of the delivery device.
4. Spray half of the medicine up one side of the nose and half up the other side.



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### Training Content: Naloxone

Narcan has a stronger affinity to the opioid receptors than opioids like heroin or Percocet, so it knocks the opioids off the receptors for a short time. This allows the person to breathe again and reverses the overdose.

The diagram illustrates the mechanism of Narcan. It shows a cross-section of the brain with several 'Opioid receptor on brain' sites. Initially, blue spheres representing opioids are bound to these receptors. Then, green spheres representing Narcan are introduced. The text explains that Narcan has a stronger affinity for the receptors, so it displaces the opioids. The final state shows the green Narcan spheres bound to the receptors, and the blue opioid spheres are free in the surrounding space.

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### Training Content: Naloxone

- Spray half into each nostril
- Rescue breathing until Naloxone
- If no improvement after 5 minutes, administer a second dose.
- If second dose doesn't work, something else is wrong
- Storage

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### Training Content: Return of the Overdose

- Naloxone lasts 30-90 minutes
- Heroin overdose could last 2 hours
- Methadone overdose could last 24 hours.
- Multi-drug overdose could be more dangerous

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## Enrollments

- Through 2010, in Massachusetts, 5433 people have been enrolled in the bystander intranasal naloxone pilot and 768 overdose reversals have been reported.
- To date, over 400 participants have been enrolled at the OTP with 11 documented cases of OD reversal

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## Of 768 Overdose Reversals

- 96% heroin
- 29% any rx medication
- 27% benzodiazepine/ barbiturate
- 90% stayed with victim
- 58% sternal rub
- 46% rescue breathing
- 33% 911 called
- 0% salt or cocaine shot

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## Lessons Learned and Challenges Ahead

- Senate Bill #1843, An Act to Reduce Opioid Overdose Deaths. This bill, if passed, will provide protection from charges of drug possession for individuals who call 911 to seek medical attention for someone who is experiencing a drug overdose, as well as for the person who is overdosing.

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## Lessons Learned and Challenges Ahead

- Cost
- Refills
- Residential treatment settings/some shelters: cannot have naloxone
- "Not me" attitude
- Expanding to OBOT/PCC
- Need other staff to champion this effort

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## Thank you!

■ [donna.beers@bmc.org](mailto:donna.beers@bmc.org)

■ Thanks to:  
Alexander Y. Walley, MD, M.Sc.  
Medical Director Massachusetts Opioid Overdose Prevention Pilot Program

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