


Preventing opioid overdose with education and naloxone rescue kits

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Prescribers' Clinical Support System for Opioid Therapies
Friday, October 25th, 2013
2:30-3:30pm ET

Disclosures –
Alexander Y. Walley, MD, MSc



- The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:
 - Consultant for Social Sciences Research Inc. which is developing a training module for first responders
- My presentation will include discussion of “off-label” use of the following:
 - Naloxone is FDA approved as an opioid antagonist
 - Naloxone delivered as an intranasal spray with a mucosal atomizer device has not been FDA approved and is off label use
- Funding: CDC National Center for Injury Prevention and Control 1R21CE001602-01



Learning objectives

At the end of this session, you will know:


1. Epidemiology of overdose
2. The rationale for and scope of overdose education and naloxone distribution (OEND) programs
3. Effectiveness of OEND
4. How to incorporate OEND into medical settings



Overdose education and naloxone rescue kits

SAMHSA
Opioid Overdose
TOOLKIT:
Information for Prescribers

store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA13-4742



JUL 18 2011


Dear Colleague:


Most of you will remember the initial time IOT through SAMHSA's National Prescription Opioid Abuse and Overdose Prevention Campaign. The goal of the campaign was to increase awareness of the risks of opioid abuse and overdose, and to encourage the use of naloxone to reverse opioid overdose. The campaign was a success, and we have seen an increase in the use of naloxone across the country. Today, we are releasing the Opioid Overdose Prevention Toolkit, which provides information for prescribers on how to use naloxone to prevent and treat opioid overdose. The toolkit includes a letter to patients, a patient education brochure, and a naloxone rescue kit. We encourage you to use the toolkit to educate your patients on the risks of opioid abuse and overdose, and to encourage them to use naloxone to prevent and treat opioid overdose. The toolkit is available at store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA13-4742.

Please identify and address the barriers to access to the naloxone rescue kit and educate your patients on the risks of opioid abuse and overdose. The toolkit includes a letter to patients, a patient education brochure, and a naloxone rescue kit. We encourage you to use the toolkit to educate your patients on the risks of opioid abuse and overdose, and to encourage them to use naloxone to prevent and treat opioid overdose. The toolkit is available at store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA13-4742.

Respectfully,
[Signature]
Director, National Center for Substance Abuse Treatment

...you may wish to encourage the prescription of naloxone, a non-abusable, short-term antidote to opioid overdose, to high risk individuals...





ASAM


American Society of Addiction Medicine

Public Policy Statement on the Use of Naloxone for the Prevention of Drug Overdose Deaths

Adopted by ASAM Board of Directors April 2010



- "ASAM supports the increased use of naloxone in cases of unintentional opioid overdose, in light of the fact that naloxone has been proven to be an effective, fast-acting, inexpensive and non-addictive opioid antagonist with minimal side effects... Naloxone can be administered quickly and effectively by trained professional and lay individuals who observe the initial signs of an opioid overdose reaction."

www.asam.org/docs/public-policy-statements/1naloxone-1-10.pdf






About Naloxone


- Naloxone reverses opioid-related sedation and respiratory depression = pure opioid antagonist
 - Not psychoactive, no abuse potential
 - May cause withdrawal symptoms
- May be administered IM, IV, SC, IN
- Acts within 2 to 8 minutes
- Lasts 30 to 90 minutes, overdose may return
- May be repeated
- Narcan® = naloxone

Rationale for overdose education and naloxone distribution

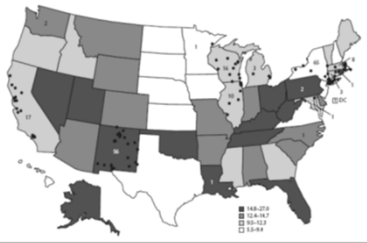
- Most opioid users do not use alone
- Known risk factors:
 - Mixing substances, abstinence, using alone, unknown source
- Opportunity window:
 - Opioid overdoses take minutes to hours and is reversible with naloxone
- Bystanders are trainable to recognize and respond to overdoses
- Fear of public safety




Overdose education and naloxone rescue kits

FIGURE 3. Number (N = 188) and 'location' of local drug overdose prevention programs providing naloxone in 2010 and age-adjusted rates* of drug overdose deaths† in 2008 — United States



	2010
States w/ OENDs	15
Programs	188
People enrolled	53,032
OD rescues	10,171


* Not shown in states with fewer than three local programs.
† Age-adjusted rates.
‡ Source: National Drug Counter System. Available at <http://www.nidk.nih.gov/health/press/081010odds.html>.







Wheeler E et al. *Morb Mortal Wkly Rep* 2012;61:101-5.

Evaluations of overdose education and naloxone distribution programs

- Feasibility
 - Piper et al. *Subst Use Misuse* 2008; 43: 858-70
 - Doe-Simkins et al. *Am J Public Health* 2009; 99: 788-791
 - Enteen et al. *J Urban Health* 2010;87: 931-41
 - Bennett et al. *J Urban Health*. 2011; 88: 1020-30
 - Walley et al. *JSAIT* 2013; 44:241-7 (Methadone and detox programs)
- Increased knowledge and skills
 - Green et al. *Addiction* 2008; 103:979-89
 - Tobin et al. *Int J Drug Policy* 2009; 20: 131-6
 - Wagner et al. *Int J Drug Policy* 2010; 21: 186-93
- No increase in use, increase in drug treatment
 - Seal et al. *J Urban Health* 2005;82:303-11
- Reduction in overdose in communities
 - Maxwell et al. *J Addict Dis* 2006;25: 89-96
 - Evans et al. *Am J Epidemiol* 2012; 174: 302-8
 - Walley et al. *BMJ* 2013; 346: f174
- Cost-effective - Coffin and Sullivan. *Ann Intern Med.* 2013; 158: 1-9.
 - \$438-\$14,000 (best-worst case scenario) for every quality-adjusted life year gained



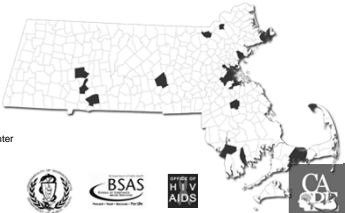



**Massachusetts Department of
Public Health program**

**Enrollments and Rescues:
2006-2013_(first half)**

<ul style="list-style-type: none"> • Enrollments – >19,000 individuals – >12 per day 	<ul style="list-style-type: none"> • Rescues – >2,100 reported – >1 per day
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- AIDS Action Committee
- AIDS Project Worcester
- AIDS Support Group of Cape Cod
- Brookline Area Multi-Services Inc. (BAMSI)
- Bay State Community Services
- Boston Public Health Commission
- Greater Lawrence Family Health Center
- Holyoke Health Center
- Learn to Cope
- Lowell House/ Lowell Community Health Center
- Manet Community Health Center
- Northeast Behavioral Health
- Seven Hills Behavioral Health
- Tapestry Health
- SPHERE

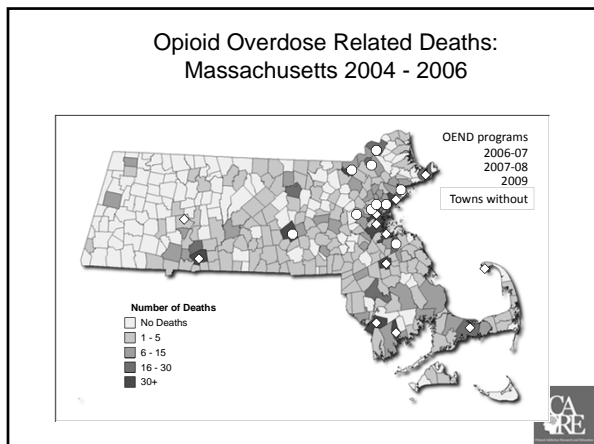





INPEDE OD
(Intranasal Naloxone and Prevention Education's Effect on OverDose)
Study

Objective:
Determine the impact of opioid overdose education with intranasal naloxone distribution (OEND) programs on fatal and non-fatal opioid overdose rates in Massachusetts

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Sarah Ruiz
Al Ozonoff



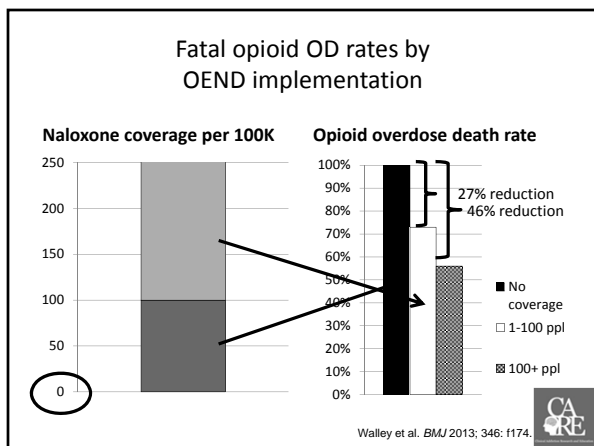


Fatal opioid OD rates by OEND implementation

Cumulative enrollments per 100k	RR	ARR*	95% CI
Absolute model:			
No enrollment	Ref	Ref	Ref
Low implementation: 1-100	0.93	0.73	0.57-0.91
High implementation: > 100	0.82	0.54	0.39-0.76

* 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

Walley et al. *BMJ* 2013; 346: f174.



Opioid-related ED visits and hospitalization rates by OEND implementation

Cumulative enrollments per 100k	RR	ARR*	95% CI
Absolute model:			
No enrollment	Ref	Ref	Ref
Low implementation: 1-100	1.00	0.93	0.80-1.08
High implementation: > 100	1.06	0.92	0.75-1.13

* 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

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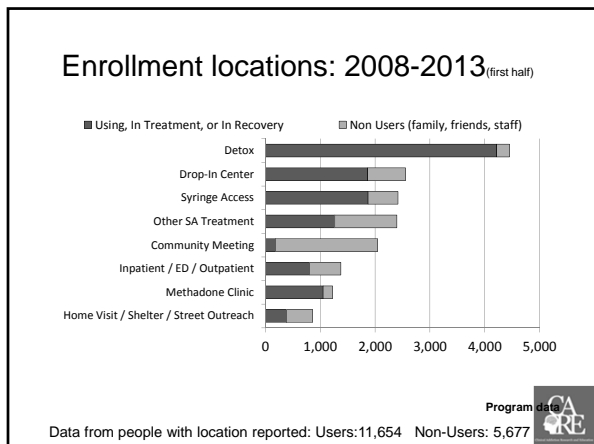
INPEDE OD Study Summary

1. Fatal OD rates were decreased in MA cities-towns where OEND was implemented and the more enrollment the lower the reduction
2. No clear impact on acute care utilization



Venues and Models





Implementing OEND in MMT and detox

Among 1553 OEND participants who reported taking methadone, 47% were trained in detox, 25% at HIV prevention programs, and 17% in MMT. Previous overdose, recent inpatient detox or incarceration, and polysubstance use were OD risks common among all groups.

Model	Advantages	Disadvantages
1. Staff provide OEND on-site	<ul style="list-style-type: none"> • Good access to OEND • OD prevention integrated 	<ul style="list-style-type: none"> • Patients may not disclose risk
2. Outside staff provide OEND on-site	<ul style="list-style-type: none"> • OD prevention integrated • Interagency cooperation • Low burden on staff 	<ul style="list-style-type: none"> • Community OEND program needed
3. OE provided onsite, naloxone received off-site	<ul style="list-style-type: none"> • OD prevention integrated • Interagency cooperation 	<ul style="list-style-type: none"> • Increased patient burden to get naloxone
4. Outside staff recruit near MMT or detox	<ul style="list-style-type: none"> • Confidential access to OD prevention 	<ul style="list-style-type: none"> • OD prevention not re-enforced in treatment • Not all patients reached

Among 29 MMT and 93 detox staff who received OEND, 38% and 45% respectively reported witnessing and overdose in their lifetime. Walley et al. JSAT 2013; 44:241-7.

- ### Other venues and models
- First responder – police and fire
 - Quincy, Revere, Gloucester, Weymouth, Saugus
 - Emergency Department (ED) SBIRT
 - Post-incarceration
 - Prescription naloxone
 - Prescribetoprevent.org
-

Incorporating overdose education and naloxone rescue kits into medical and addiction practice

1. Prescribe naloxone rescue kits
 - PrescribeToPrevent.org
2. Work with your OEND program



Practical Barriers to Prescribing Naloxone

1. Prescriber knowledge and comfort
2. How to write the prescription?
3. Does the pharmacy stock rescue kits?
 - Rescue IN kit with MAD?
 - Rescue IM kit with needle?
4. Who pays for it?
 - Insurance in Massachusetts covers naloxone, but not the atomizer yet
 - The MAD costs \$3 each-> \$6-7 per kit
 - Work with your pharmacy to see if they will cover it



Legal Barriers to Prescription Model

“Prescribing naloxone in the USA is fully consistent with state and federal laws regulating drug prescribing. The risks of malpractice liability are consistent with those generally associated with providing healthcare, and can be further minimized by following simple guidelines presented.”

1. Only prescribe to a person who is at risk for overdose
2. Ensure that the patient is properly instructed in the administration and risks of naloxone

Burris S et al. "Legal aspects of providing naloxone to heroin users in the United States. Int J of Drug Policy 2001; 12; 237-248.




**Massachusetts - Passed in August 2012:
An Act Relative to Sentencing and Improving Law Enforcement
Tools**

Good Samaritan provision:
 •Protects people who overdose or seek help for someone overdosing from being charged or prosecuted for drug possession
 – Protection does not extend to trafficking or distribution charges

Patient protection:
 •A person acting in good faith may receive a naloxone prescription, possess naloxone and administer naloxone to an individual appearing to experience an opiate-related overdose.

Prescriber protection:
 •Naloxone or other opioid antagonist may lawfully be prescribed and dispensed to a person at risk of experiencing an opiate-related overdose or a family member, friend or other person in a position to assist a person at risk of experiencing an opiate-related overdose. For purposes of this chapter and chapter 112, any such prescription shall be regarded as being issued for a legitimate medical purpose in the usual course of professional practice.



The Network
for Public Health Law

Ideas. Experience. Practical answers.



LEGAL INTERVENTIONS TO REDUCE OVERDOSE MORTALITY: NALOXONE ACCESS AND OVERDOSE GOOD SAMARITAN LAWS




www.networkforphl.org/_asset/qz5pvn/network-naloxone-10-4.pdf



Overdose Education in Medical Settings

- Where is the patient at as far as overdose?
 - Ask your patients whether they have overdosed, witnessed an overdose or received training to prevent, recognize, or respond to an overdose
- Overdose history:
 1. Have you ever overdosed?
 1. What were you taking?
 2. How did you survive?
 2. What strategies do you use to protect yourself from overdose?
 3. How many overdoses have you witnessed?
 1. Were any fatal?
 2. What did you do?
 4. What is your plan if you witness an overdose in the future?
 1. Have you received a narcotic rescue kit?
 2. Do you feel comfortable using it?



Intranasal Administration

HOW TO GIVE NASAL SPRAY NARCAN

1. Put in top of yellow cap
2. Pop off red cap
3. Use the green wings
4. Administer 2 sprays into each nostril
5. Repeat after 2-3 minutes if needed
6. If no response after 2 minutes, give the second dose

<p>Pro</p> <ul style="list-style-type: none"> • 1st line for some local EMS • RCTs: slower onset of action but milder withdrawal • Acceptable to non-users • No needle stick risk • No disposal concerns 	<p>Con</p> <ul style="list-style-type: none"> • Not FDA approved • No large RCT • Assembly required, subject to breakage • High cost: <ul style="list-style-type: none"> - \$40-50+ per kit
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3. Effectiveness of OEND
4. How to incorporate OEND into medical settings

Thank you! awalley@bu.edu

Helpful websites....

<p>For prescribers and pharmacists</p> <ul style="list-style-type: none"> • PrescribetoPrevent.org <p>News + research on overdose prevention</p> <ul style="list-style-type: none"> • OverdosePreventionAlliance.org <p>International overdose prevention efforts</p> <ul style="list-style-type: none"> • NaloxoneInfo.org <p>Opioid overdose prevention education</p> <ul style="list-style-type: none"> • StopOverdose.org <p>Family support</p> <ul style="list-style-type: none"> • Learn2Cope.org <p>Legal interventions</p> <ul style="list-style-type: none"> • www.networkforphl.org/_asset/ga25pvn/network-naloxone-10-4.pdf <p>Project manual</p> <ul style="list-style-type: none"> • harmreduction.org/wp-content/uploads/2012/11/od-manual-final-links.pdf 	<p>2013 National Drug Control Strategy</p> <ul style="list-style-type: none"> • www.whitehouse.gov/ondcp/2013-national-drug-control-strategy <p>ASAM 2010 Policy Statement</p> <ul style="list-style-type: none"> • www.asam.org/docs/public-policy-statements/naloxone-1-10.pdf <p>SAMHSA toolkit</p> <ul style="list-style-type: none"> • store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA11-4722 <p>SAMHSA Letter to prescribers</p> <ul style="list-style-type: none"> • www.dpt.samhsa.gov/pdf/dearColleague/SAMHSA_fertanyl_508.pdf
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