

E•QUAL | EMERGENCY QUALITY NETWORK

Opioid Initiative Wave I –
Overdose Prevention & Naloxone Distribution

Presenter



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Overdose Prevention and Naloxone Distribution

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CHIEF SCIENTIFIC OFFICER
JULY 10, 2018



Objectives

1

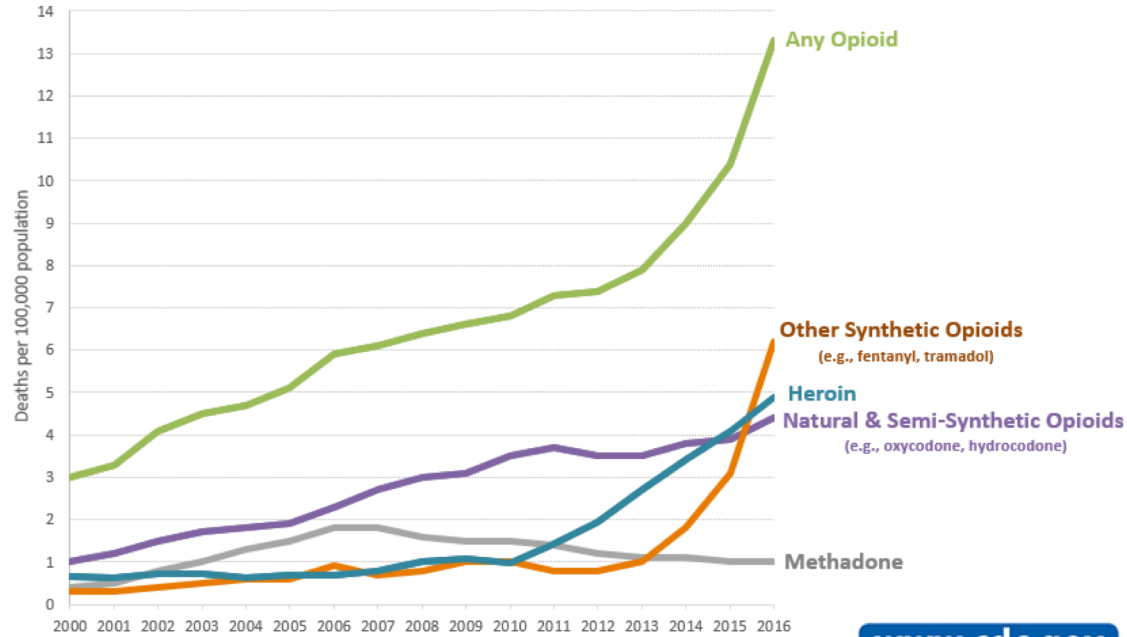
Understand which patients are at greatest risk of opioid overdose

2

Understand how naloxone distribution can be incorporated into Emergency Department protocols



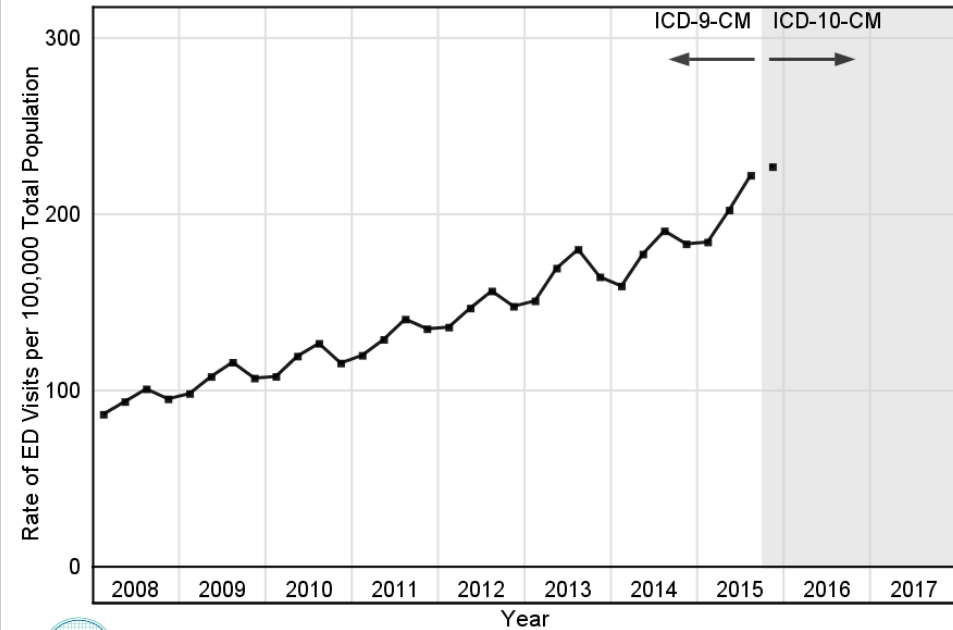
Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2017. <https://wonder.cdc.gov/>.



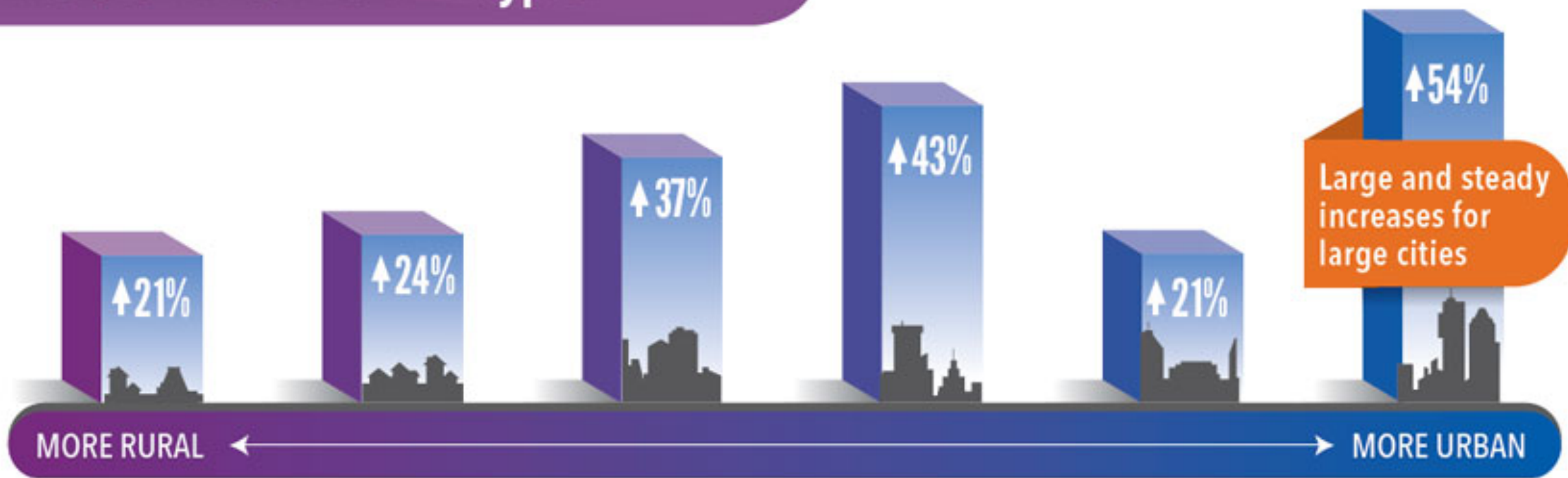
U.S. National: Opioid-Related Hospital Use
Rate of Emergency Department (ED) Visits



Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS), 2008-2015 (all available data as of 03/16/2018). Emergency department visits exclude those for patients admitted to the hospital.

An Escalating Epidemic of Overdoses

Opioid overdoses continued to increase in cities and towns of all types.*



SOURCE: CDC's Enhanced State Opioid Overdose Surveillance (ESOOS) Program, 16 states reporting percent changes from July 2016 through September 2017.

* From left to right, the categories are:

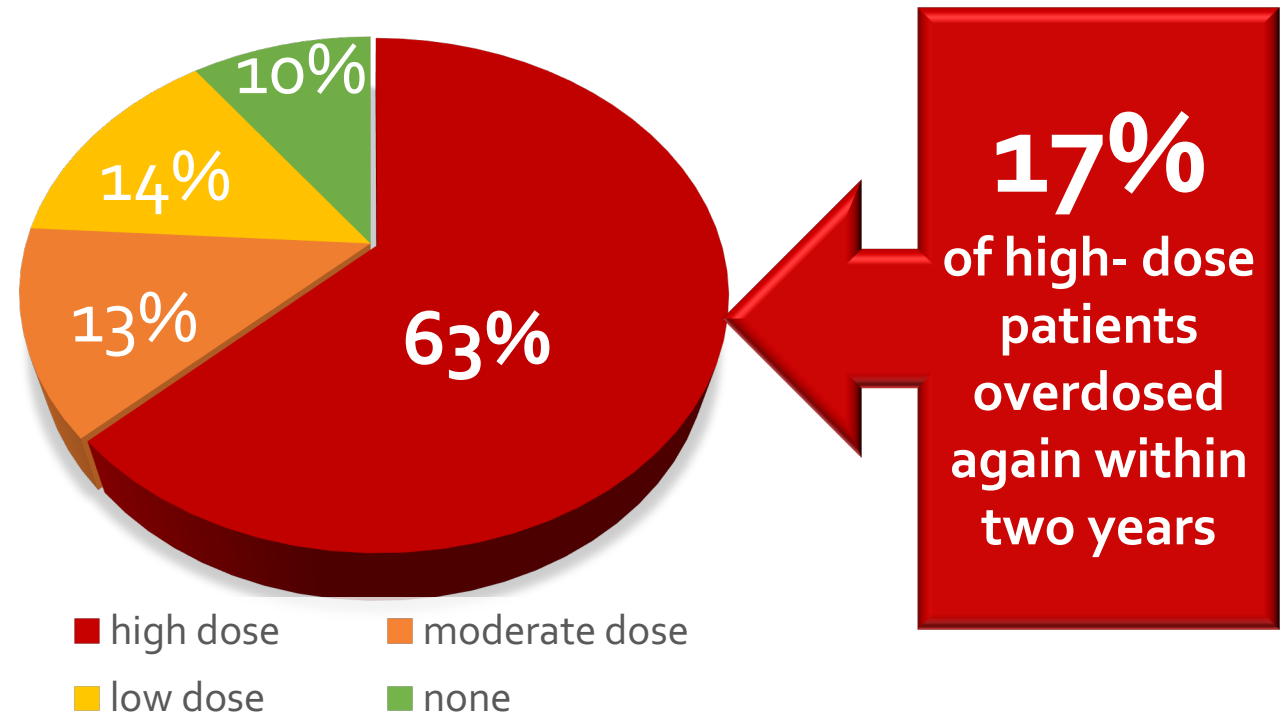
1) non-core (non-metro), 2) micropolitan (non-metro), 3) small metro, 4) medium metro, 5) large fringe metro, 6) large central metro.

High Mortality Rate After Non-Fatal Overdose

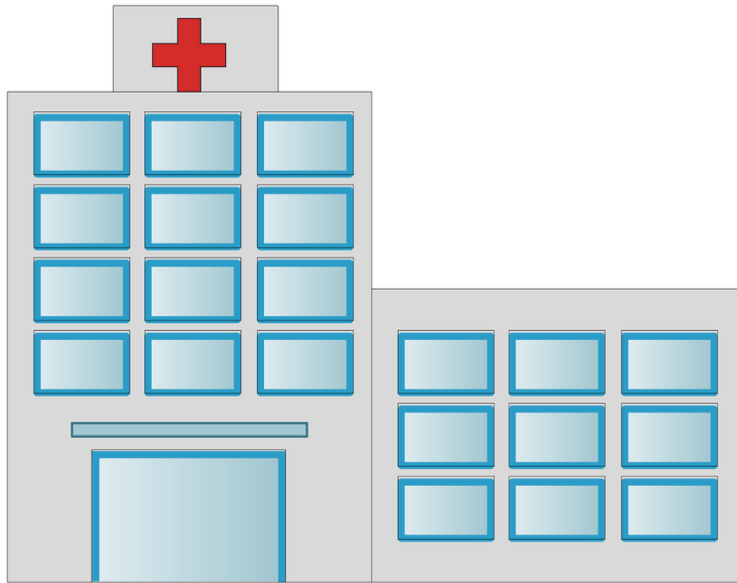
Massachusetts study following over 12,000 patients after a non-fatal overdose found:

- 9.9 percent died within 1 year
- Half of those died within 1 month

Another study found that doctors continue to prescribe opioids for 91 percent of patients after non-fatal overdose



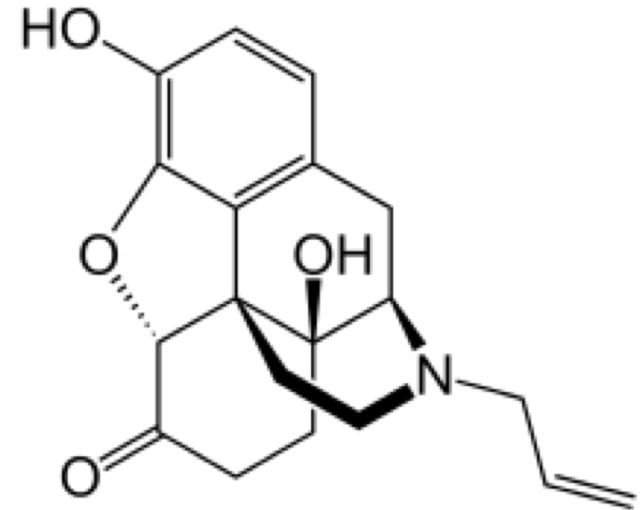
EDs Are Critical Points of Intervention



- Post overdose brief interventions
- Educating patients prescribed opioids
- Co-prescribing naloxone
- Prescribing naloxone to and educating potential bystanders
- Initiation of medication assisted treatment
- Referral to community treatment/services

How Naloxone Works

- Opioid Antagonist with high affinity for the μ -opioid receptor
- Works within minutes
- Half-life 30-90 minutes
- Risk of re-overdose if not monitored
- Multiple doses may be needed for highly potent opioids (e.g. fentanyl)

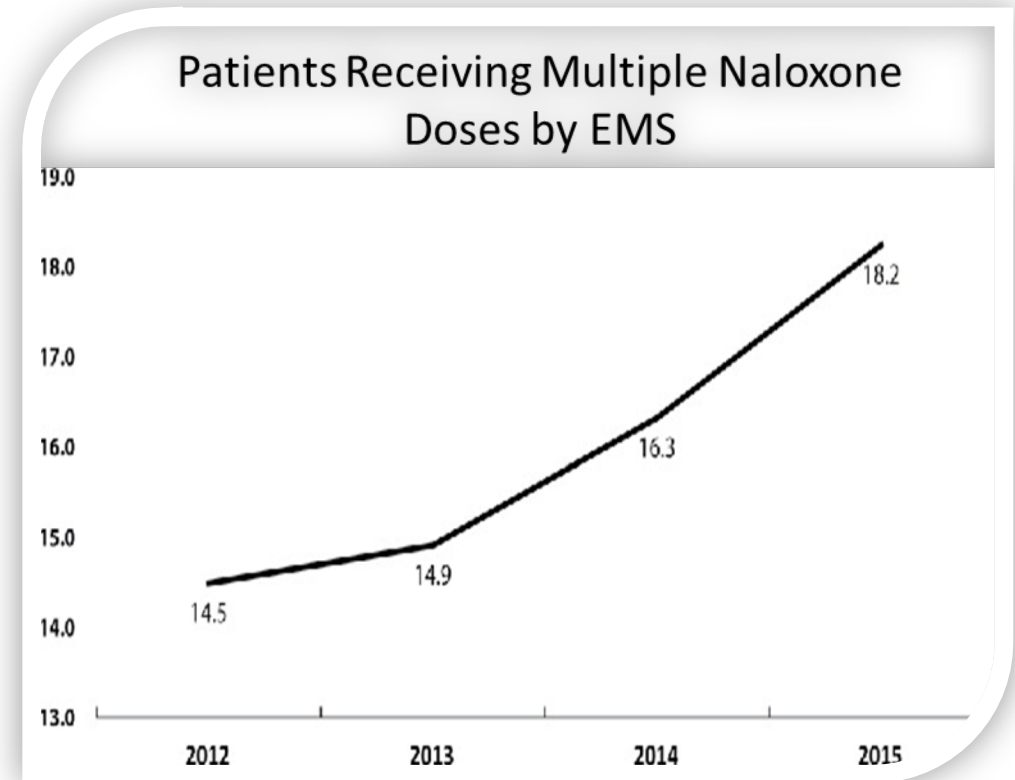




Naloxone Formulations

Naloxone Dosage

- FDA labeling recommends:
 - Initial doses of 0.4mg to 2mg naloxone (IV or IM)
 - Repeated doses up to a total dose of 10mg as needed
- For community administration FDA recommends starting with the equivalent of 2mg naloxone administered by injection
- High doses (up to 5.4 mg/kg boluses and 4 mg/kg/h infusions) given to subjects without adverse effects

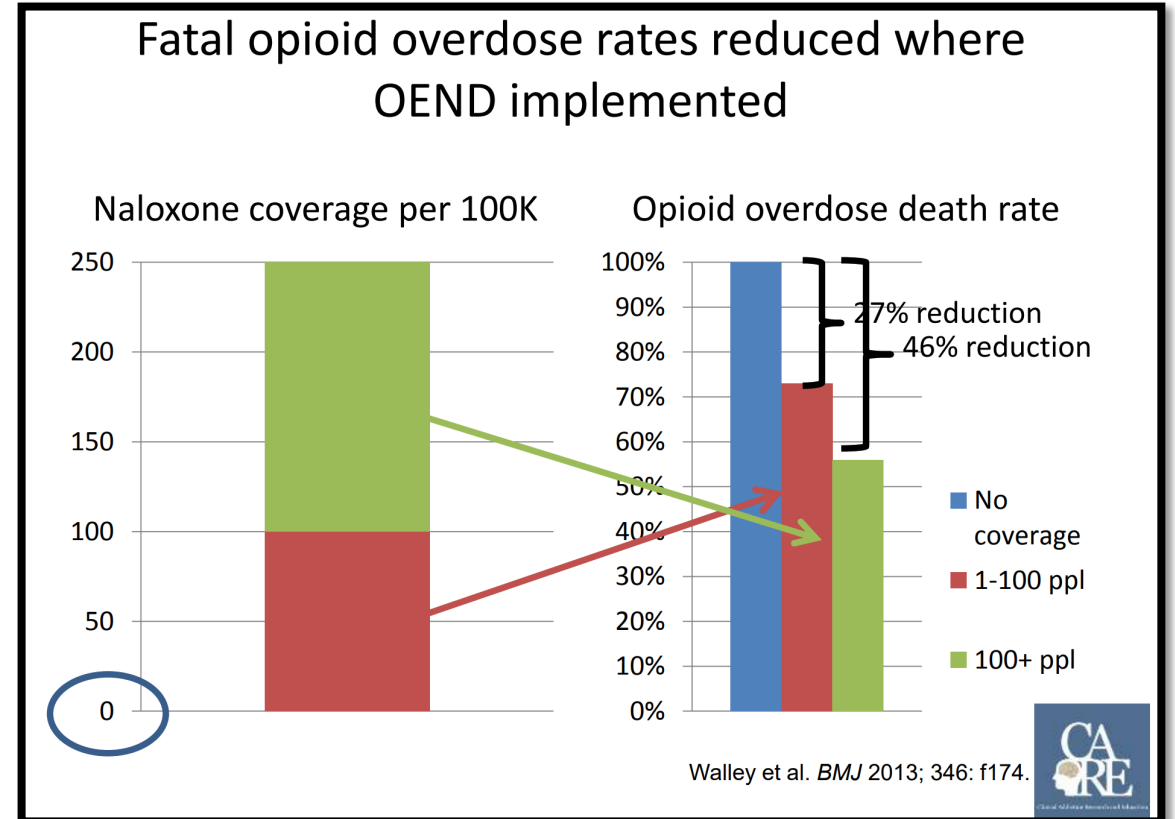


Naloxone Saves Lives

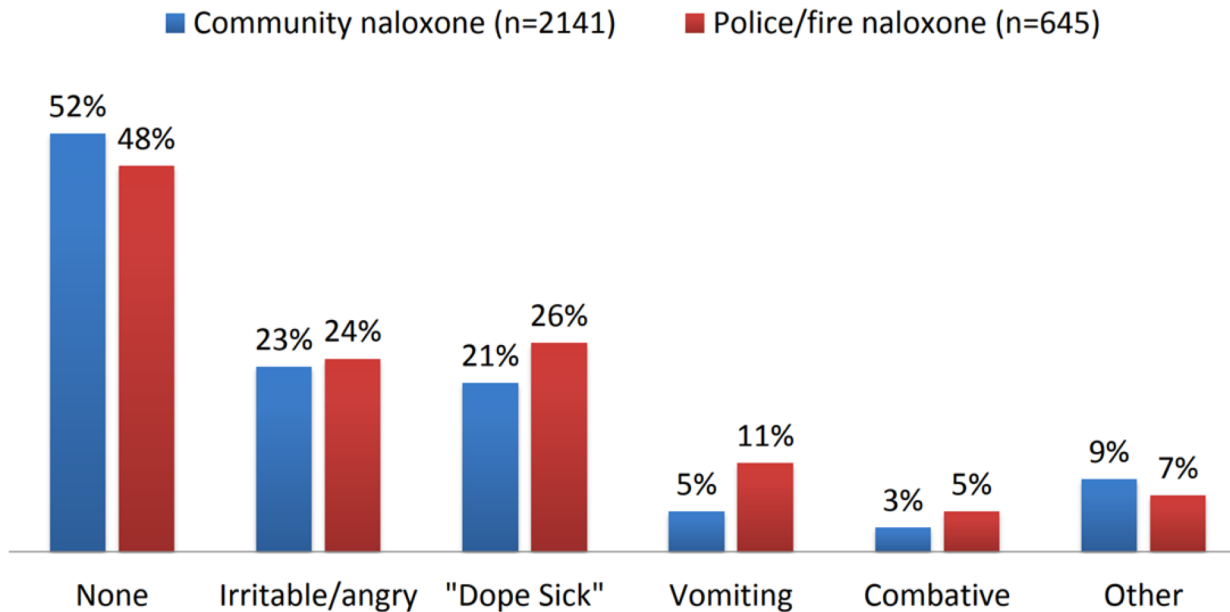
Lack of reliable national data on overdose reversals

From 1996 to 2014, at least 26,500 opioid overdoses were reversed by laypersons

Massachusetts take home naloxone programs led to significant reduction in fatal overdoses in communities that implemented



Withdrawal symptoms after naloxone rescue 2010-2014



Program data – 2008-2014

Other = confused, disoriented, headache, aches and chills, cold, crying, diarrhea, happy, miserable



Naloxone Precipitates Withdrawal

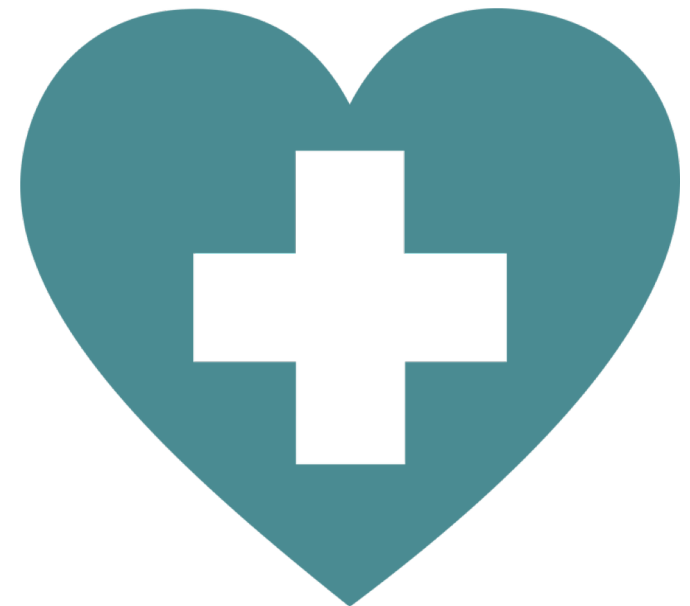
The Patient Perspective: Overdose Reversal

- Patients may be in acute withdrawal
- They may be scared, confused, and upset
- Addiction changes the brain
 - It impacts decision making
 - It can make the patient believe they need the drug to survive
- They may not be ready to even discuss engaging in treatment
- But positive encounters build trust with the healthcare system
- Naloxone distribution can keep patients alive until they are willing to enter treatment



A Public Health Approach

- Stigma and discrimination remain pervasive, even within the healthcare system
- Patients with addiction can be challenging; they often have bad experiences with the healthcare system
- It may take multiple attempts to engage someone in care
- Harm reduction approaches including naloxone, sterile injection training, syringe service programs, and safe injection sites help to rebuild trust
- These approaches tend to reduce drug use and increase participant engagement in treatment



Who is at Risk?

Patients who:

- Previously overdosed
- Are prescribed over 50 morphine milligram equivalents per day
- Are co-prescribed benzodiazepines
- Are changing opioid medications (due to incomplete cross-tolerance)
- Are prescribed opioids and have:
 - Comorbid mental illness
 - A history of substance misuse
- Have recently completed opioid detoxification
- Have a history of opioid misuse and recently released from incarceration
- Have been prescribed methadone for pain (due to long half-life)



The Patient Perspective: Naloxone Prescribing

- Recent Small Survey in an ED in Illinois:
 - Among patients who injected heroin: 76% were aware of naloxone; 39 % had access
 - Among chronic pain patients: Only 32% were aware of naloxone, 2% had access
- 1 in 5 pain patients have experienced an overdose
- Only 3% reported having a prescription or receiving training
- Co-prescribing naloxone leads to fewer opioid related ED visits and patients find it acceptable



Naloxone Training

Core components:

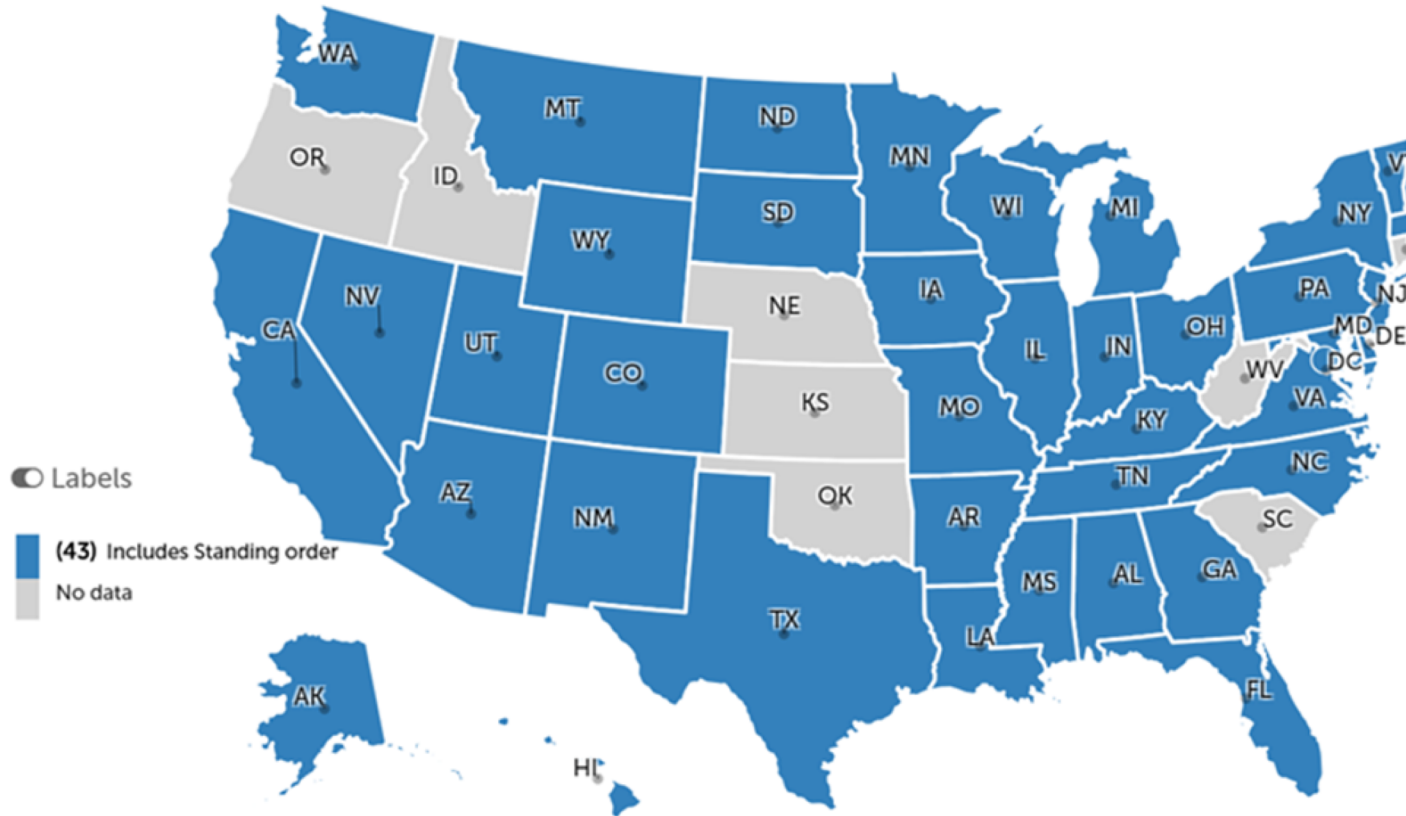
- Know the signs
- Call 911
- Give naloxone
- Repeat if needed
- Rescue breathing if needed
- Rescue position
- What not to do

Naloxone is an antidote for opioids which can include:

Codeine Demerol Hydromorphone Heroin Oxycodone
Dilaudid Morphine Buprenorphine Fentanyl Methadone



7/1/17 How are pharmacists allowed to dispense or distribute naloxone without a patient-specific prescription from another medical professional?



Know the Laws

- Good Samaritan laws
- Naloxone access (standing orders)
- Prescriber immunity (criminal and civil)
- Bystander immunity
- Requirements to act
- Privacy laws – HIPAA, 42 CFR Part 2
 - OCR Guidance: <https://www.hhs.gov/sites/default/files/hipaa-opioid-crisis.pdf>
 - Legal Action Center Guidance: <https://lac.org/wp-content/uploads/2017/09/Confidentiality-and-overdose-factsheet-final.pdf>

Summary

- *Naloxone is safe and effective*
- *Patients who have overdoses are at high risk for overdosing again*
- *Emergency departments are critical points of intervention*
- *Naloxone distribution to high risk patients saves lives*





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Addiction Policy Forum

The Addiction Policy Forum is a diverse partnership of organizations, policymakers and stakeholders committed to working together to elevate awareness around addiction and to improve national policy through a comprehensive response that includes prevention, treatment, recovery and criminal justice reform.

We envision a world where fewer lives are lost and help exists for the millions of Americans affected by addiction every day.



ED NALOXONE DISTRIBUTION:

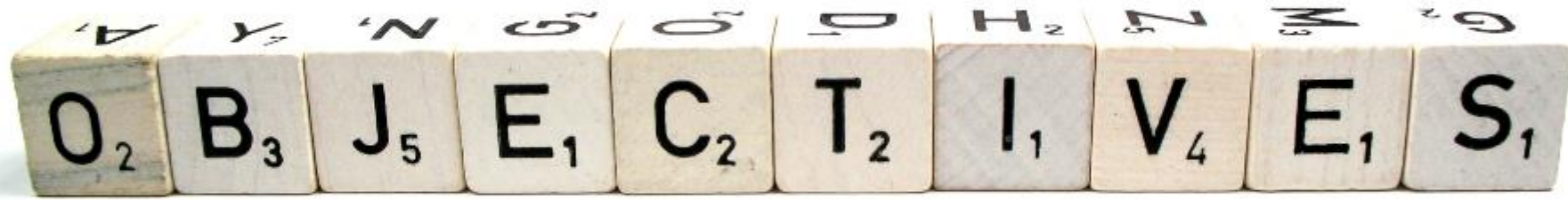
*Key Considerations
and Implementation
Strategies*



August 19, 2015 Webinar; Updated July 10, 2018
Sponsored by the ACEP Trauma and Injury Prevention Section



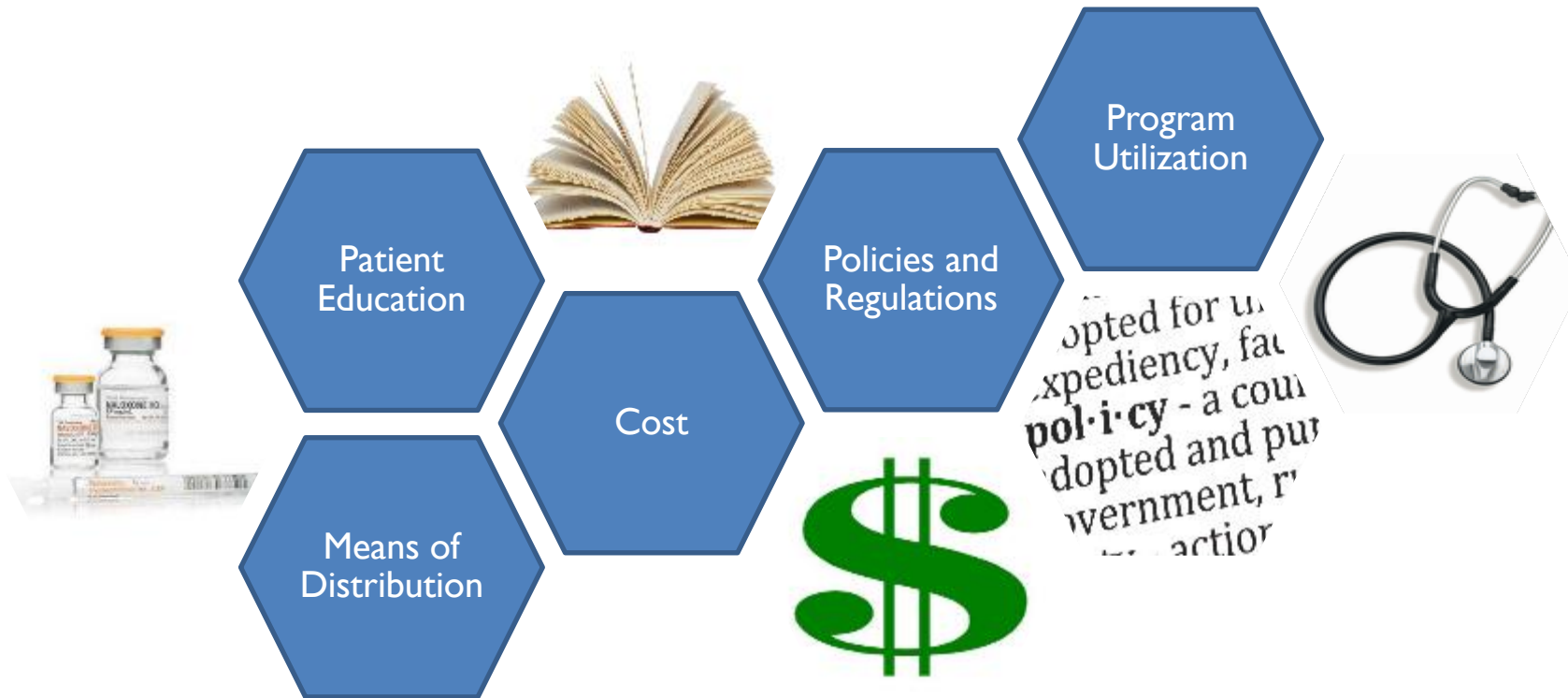
**Trauma & Injury
Prevention Section**



-
- Identify key considerations and common obstacles to setting up a program.
 - Outline practical steps to establishing an ED naloxone distribution program.
 - Case Study
 - Summarize current successful strategies.

Overview

Key Considerations



Key Considerations:

- **Type of Naloxone to distribute or RX:**

IM, IN, or autoinjector



- **Location of distribution**

In ED direct to patient, outpatient prescription, referral to community or pharmacy distribution site.



Means of Distribution

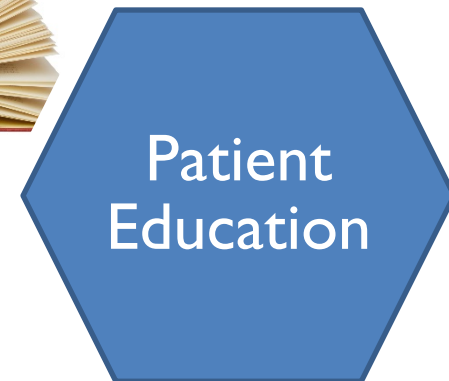
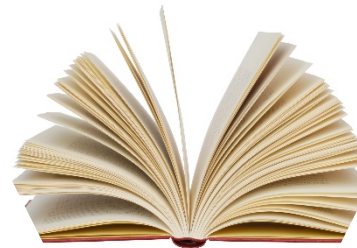


Key Considerations

- **Content:** Overdose prevention, recognition, response and naloxone training.
- **Format:** In person, video, handout
- **In person:** Hospital staff, partnership with outside organizations

<http://prescribetoprevent.org/patient-education/videos/>

<http://harmreduction.org/issues>



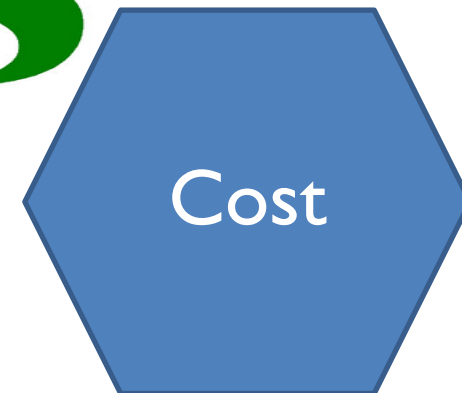
Key Considerations

- **Naloxone funding sources:**

Departments of Health, grants, hospital funding, insurance reimbursement/copays, self pay

- **Insurance billable services:**

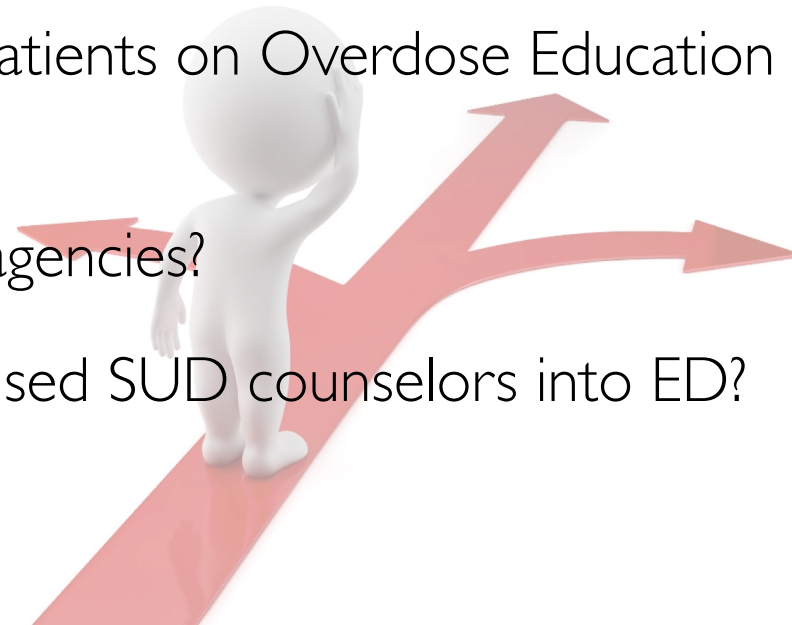
naloxone, nasal atomizer, educational materials, SBIRT, healthcare provider education



<https://www.goodrx.com/naloxone> Est. Price \$40
<https://www.goodrx.com/narcan> Est. Price \$135
<https://www.goodrx.com/evzio> Est. Price \$3,900

Logistical Considerations

- Who will order naloxone for ED distribution? or prescribe it?
- Who will distribute it to the patients?
- Where will naloxone be stored and dispensed from?
- Who will assemble the rescue kit?
- Who will train ED staff to educate patients on Overdose Education and Naloxone Use (OEN)?
- How can EDs partner with outside agencies?
- How to integrate peer coaches, licensed SUD counselors into ED?



Patient Concerns for Accepting Naloxone

- Stigma associated with self identifying their risk
- Fear of legal consequences for possession or use

- Can't use it on self and often unaccompanied
- In withdrawal, wants to leave not to feel sick
- "Ruins my high."



BOSTON
MEDICAL
CENTER

EXCEPTIONAL CARE. WITHOUT EXCEPTION.

BU School of Medicine



 BOSTON PUBLIC HEALTH COMMISSION

Bureau of Substance
Addiction Services

Case Study: Overdose prevention and intranasal naloxone rescue kits in the Emergency Department: A City, State and Hospital Collaboration

Edward Bernstein, MD

Professor of Emergency Medicine, Boston University School of Medicine

Medical Director, Boston Medical Center, Project ASSERT

Director of Faster Paths to Treatment/ BMC Grayken Center

July 10, 2018

Strength of Research Evidence

Massachusetts Department of Public Health Community-Based Enrollments and Rescues: 2006-2013

- Enrollments
 - >22,000 individuals
 - 17 per day
- Rescues
 - >2,600 reported
 - 2.4 per day

In a time series analysis, Opioid-related overdose death rates in Massachusetts communities that implemented OEND were 27-46% lower than in those that had not, controlling for community factors

Walley A, et al. BMJ. 2013;346:f174.

Supportive Legislation: *All States & D.C.*

Massachusetts General Law Chapter 94C Section 34A (8/12)

Medical Amnesty

- a) A person who, in good faith, seeks medical assistance for someone experiencing a drug-related overdose shall not be charged or prosecuted for possession of a controlled substance under sections 34 or 35 if the evidence for the charge of possession of a controlled substance was gained as a result of the seeking of medical assistance.

- e) 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.”

BMC ED OEND PROGRAM EVOLUTION



**Boston EMS Patient
Transports to Boston
Hospitals for narcotic
related incidents (NRI)*
>1/3rd BMC**

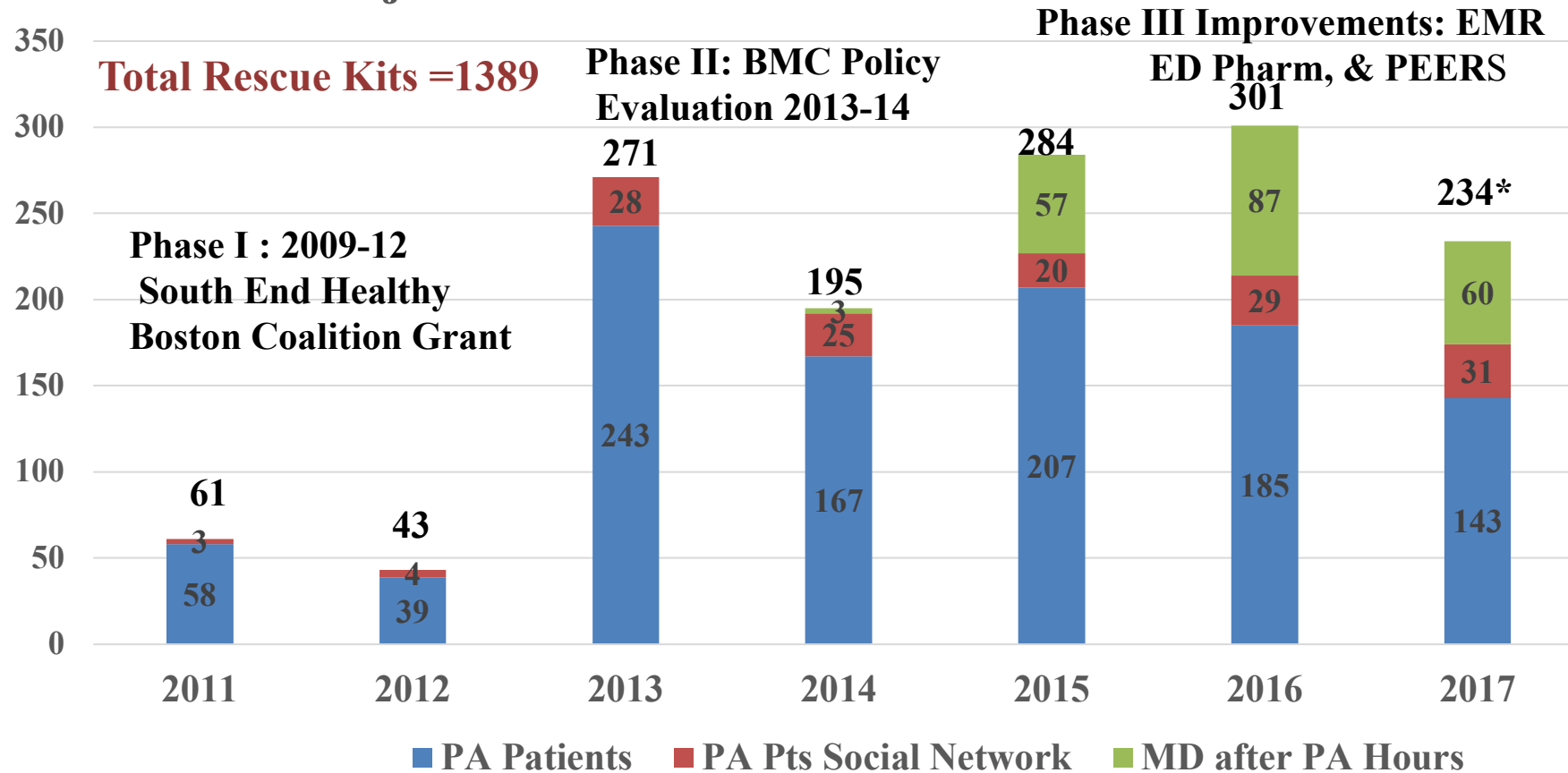
EMS Patients Transports	2015	2016	2017
BMC	848	961	1132
Boston	2601	2879	3619

**2013 BMC NRI 527
Boston 1518**

**NRI includes heroin-related, and/or Narcan-given (fatal and non fatal) ODs or transports where clients were in cardiac or respiratory arrest from opioids*

Boston Medical Center E.D. Opioid Education and Naloxone Distribution

Naloxone Rescue Kit Distribution by Project ASSERT LADCs and MD: 2011-2017



* 2017 Offered and Refused = 424

BRIEF RESEARCH REPORT

Opioid Education and Nasal Naloxone Rescue Kits in the Emergency Department

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Patricia M. Mitchell, RN*

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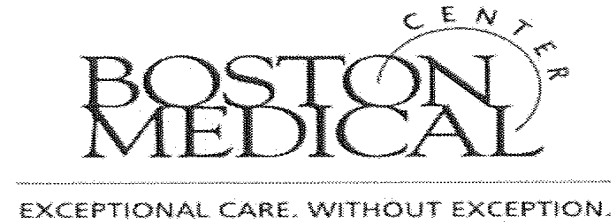
Full text available through open access at http://escholarship.org/uc/uciem_westjem

DOI: 10.5811/westjem.2015.2.24909

37 received take home Naloxone, 27 witnessed an O.D. 6 used Naloxone kit, 95% stayed at scene

Introduction: Emergency departments (EDs) may be high-yield venues to address opioid deaths with education on both overdose prevention and appropriate actions in a witnessed overdose. In addition, the ED has the potential to equip patients with nasal naloxone kits as part of this effort. We evaluated the feasibility of an ED-based overdose prevention program and described the overdose risk knowledge, opioid use, overdoses, and overdose responses among participants who received overdose education and naloxone rescue kits (OEN) and participants who received overdose education only (OE).

BMC President Kate Walsh pledged to Boston Public Health Commission that all ED patients “at risk for an opioid overdose” will be offered Naloxone



Policy and Procedure Manual

Policy #:	13.09.45
Issued:	Sept. 2013
Reviewed/ Revised:	
Section:	Pharmacy

Intranasal Naloxone Kit Discharge Order Protocol

Purpose:

To establish a Standing Discharge Order Protocol and dispensing procedure for Nasal Naloxone Kit Discharge Prescriptions in the BMC Emergency Department.

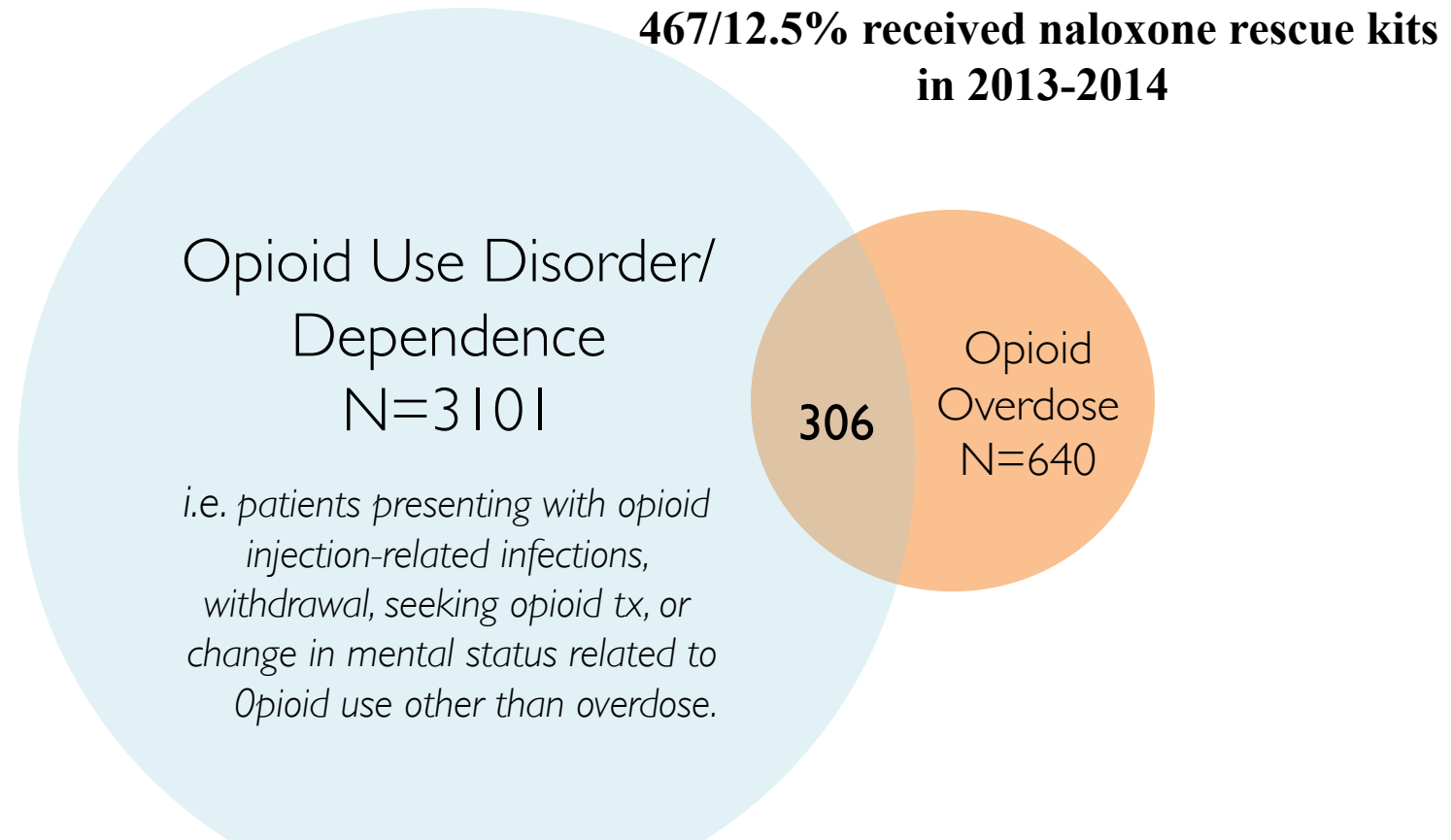
Policy Statement:

This protocol allows for Nasal Naloxone Kits to be ordered by licensed personnel for patients *at risk for opioid overdose* who are being discharged from the BMC Emergency Department. Under the protocol, BMC Inpatient Pharmacy is granted authority to dispense Nasal Naloxone Kits as a discharge prescription when the BMC Outpatient Pharmacies are closed. BMC waives the payment for these prescriptions.

http://prescribetoprevent.org/wp-content/uploads/NaloxoneKitDischargeOrderProtocol_091313.pdf

Boston Medical Center Adult ED Patients at Risk for Overdose

Denominator = 96,419 patients; At Risk Numerator 3,741
- based on ICD 9 Codes from Jan. 2013- Dec. 2014.



Ellison J, Walley AY, Feldman JA, Bernstein E, Mitchell PM, Koppelman EA, Drainoni ML. Identifying Patients for Overdose Prevention With ICD-9 Classification in the Emergency Department, Massachusetts, 2013-2014. Public Health Reports. 2016 Sep 1;131(5):671-5.



Why is it so hard to implement change? A qualitative examination of barriers and facilitators to distribution of naloxone for overdose prevention in a safety net environment

Mari-Lynn Drainoni^{1,2,3*}, Elisa A. Koppelman^{1,3}, James A. Feldman^{2,4}, Alexander Y. Walley^{2,4}, Patricia M. Mitchell^{2,4}, Jacqueline Ellison¹ and Edward Bernstein^{1,2,4}

Abstract

Background: The increase in opioid overdose deaths has become a national public health crisis. Naloxone is an important tool in opioid overdose prevention. Distribution of nasal naloxone has been found to be a feasible, and effective intervention in community settings and may have potential high applicability in the emergency department, which is often the initial point of care for persons at high risk of overdose. One safety net hospital introduced an innovative policy to offer take-home nasal naloxone via a standing order to ensure distribution to patients at risk

Results: Acceptance of the policy was good but uptake was low. Primary themes related to facilitators included: real world driven intervention with philosophical, clinician and leadership support; basic education and training efforts; availability of resources; and ability to leave the ED with the naloxone kit in hand. Barriers fell into five general categories: protocol and policy; workflow and logistical; patient-related; staff roles and responsibilities; and education and training.

ED Provider Positive Attitude to OEND

- *“In theory a great idea! I don’t think you’re going to find much philosophical resistance here” ...*
- *“Why would you be against Narcan? I can’t even think of a rational argument....It’s like it’s something like condoms...”*

Barriers to ED OEND Implementation

- protocol and policy;
- workflow and logistical;
- patient-related;
- staff roles and responsibilities;
- and education and training.

Challenges: Protocol and policy; Workflow and logistics

- the policy was developed with insufficient input from frontline staff: *“the physician who signed the hospital standing order was not an ED provider.”*
- identifying who is the “right” patient to be offered/to receive the naloxone kit: ... *“those at risk population versus those who have evident and immediate risk of death, I think you got to— in a world of limited resources, you have to decide where you’re going to devote your time and effort.”*

ED Providers Perceived Barriers to OEND

In practice, there is lots of work to do:

“I think there’s still a sense of– there’s the deserving and the undeserving ill and this is self-inflicted and not disease. I don’t think people in healthcare are immune to that....”

“If it’s not in their hand walking out the door, if they need it, they got too many other things on their plate to go worry about as opposed to go get it.”

- Bed Request - Inpatient
- Bed Request - Observation
- Place in Menino Observation Unit
- Transfer to Same Day Procedure
- Transfer from ED to L&D
- Place in Psych Observation
- Blood Administration - Cryoprecipitate
- Blood Administration - Fresh Frozen Plasma
- Blood Administration - Platelets
- Blood Administration PRBC - Multiple units w/ T&C
- Emergency Common Orders
- Endometriosis Antibiotics
- Naloxone Kit (for use when Project Assert is closed)
- Sepsis Protocol Flag

- Genitourinary
- Infant Evaluation
- Psychotropic Medications Mild/Moderate/Severe
- Respiratory Illness
- Trauma (Surgical)
- Trauma Radiology

Severe Sepsis

- Initial Septic Shock Management Orders
- Unknown Origin (Empiric)
- Unknown Neutropenic Fever
- Abdominal Origin
- Catheter / IVDU / Endocarditis Origin
- CNS Origin (Page ID if CNS infection and true PCN allergy)
- Community Acquired Pneumonia
- Community Acquired Pneumonia with Structural Lung Disease /COPD with risk

Manage Orders

Order Sets

Options

Place new orders or order sets

+ New

Standard



Next

New Orders

Naloxone Kit

nalOXone intranasal solution 2 mg

1 spray into each nostril once.

Nasal, Once, Today at 1415, For 1 dose

Coach or PEERS Model for Overdose Education and Naloxone Kit Distribution

Project ASSERT LADCs or Recovery Coaches

- **P** Page to bedside
- **E** Evaluate
- **E** Educate on overdose and distribute naloxone
- **R** Referrals to BMC Faster Paths ED bridge clinic for Buprenorphine, IM Naltrexone, Detox, AA/NA
- **S** Safe discharge



Key Considerations Summary

- **ED Logistics: Hospital Administration and ED** leadership buy-in, program coordinator/champion, minimize barriers for utilization: order built into EMR, streamline kit access, clear roles on distribution and patient education.
- **Other factors: Enabling** Federal, state and local policies and regulations, ED/Hospital support, policies & procedures, method of cost reimbursement.



Program
Utilization

It's Time to Save Lives, Not Moralize

The Misunderstood Society

#BreakTheStigma



Addiction is not a *Choice*.
It's a Disease.

End the stigma of addiction.
Help someone who needs
treatment.



Massachusetts
Department
of Public Health

5A3552

#StateWithoutStigMA

STOP
Addiction
IN ITS TRACKS

HELPLINE: 800-327-5050
mass.gov/StateWithoutStigMA

Resources

- Samuels EA, Hoppe J, Papp J, Whiteside L, Raja AS, Bernstein E. *Emergency Department Naloxone Distribution: Key Considerations and Implementation Strategies*. Irving, TX: American College of Emergency Physicians; 2015. accessed at <https://www.acep.org/how-we-serve/sections/trauma--injury-prevention/>
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<https://youtu.be/kqEgHQHAMqM>.
- The Network for Public Law and Health. Overdose Prevention and Harm Reduction Blog Posts. accessed at <http://overdoseprevention.blogspot.com/p/od-prevention-program-locator.html>
- Prescribe To Prevent accessed at http://prescribetoprevent.org/wp2015/wp-content/uploads/Naloxone-product-chart.17_04_14.pdf; accessed at <http://prescribetoprevent.org/patient-education/videos/>
- Harm reduction coalition. Fentanyl accessed at <http://harmreduction.org/issues/fentanyl/>

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Drainoni ML, Koppelman EA, Feldman JA, Walley AY, Mitchell PM, Ellison J, **Bernstein E**. Why is it so hard to implement change? A qualitative examination of barriers and facilitators to distribution of naloxone for overdose prevention in a safety net environment. *BMC Res Notes.* 2016 Oct 18;9(1):465.

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Walley AY, Xuan Z, Hackman HH, et al. Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis. *BMJ.* 2013;346:f174.

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