Naloxone Distribution from the ED for patients at-risk for Opioid Overdose

Sponsored by ACEP Trauma & Injury Prevention Section

April 25, 2014

American College of Emergency Physicians®
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ACEP Trauma & Injury Prevention Section

ACEP Trauma & Injury Prevention Section

- **Our mission**: To advance discussion, research, and dissemination of evidence-based guidelines, with the goal of reducing injury-related morbidity and mortality among ED patients

- **Goals for this webinar**:
  - To discuss pros & cons of naloxone distribution to prevent opioid overdose deaths
  - To analyze potential strategies to facilitate naloxone distribution for ED patients
  - To spur further discussion within ACEP and EDs across the country regarding our role in opioid overdose prevention

Structure of the Webinar

- 3 presentations
  - **Michael Botticelli**, Acting Director of the White House Office of National Drug Control Policy (ONDCP)
  - **Lauren Whiteside** MD MS, Division of Emergency Medicine, University of Washington *and* **Caleb Banta-Green** PhD, MPH, MSW, Research Scientist, Alcohol and Drug Abuse Institute and Affiliate Assistant Professor of Health Services at the University of Washington
  - **Ed Bernstein** MD, Professor of Emergency Medicine and Director of the Brief Negotiated Interview & Active Referral to Treatment (BNI-ART) Institute at Boston University Medical Center (BUMC)

Guidelines for the Webinar

- **Q&A**
  - Please send us your questions as we go along
  - We will save time **at the end** of the 3 presentations for questions

ONDCP & American College of Emergency Physicians Webinar

April 25, 2014

ADB ACEP Webinar

Michael Botticelli, Acting Director
Office of National Drug Control Policy

Office of National Drug Control Policy

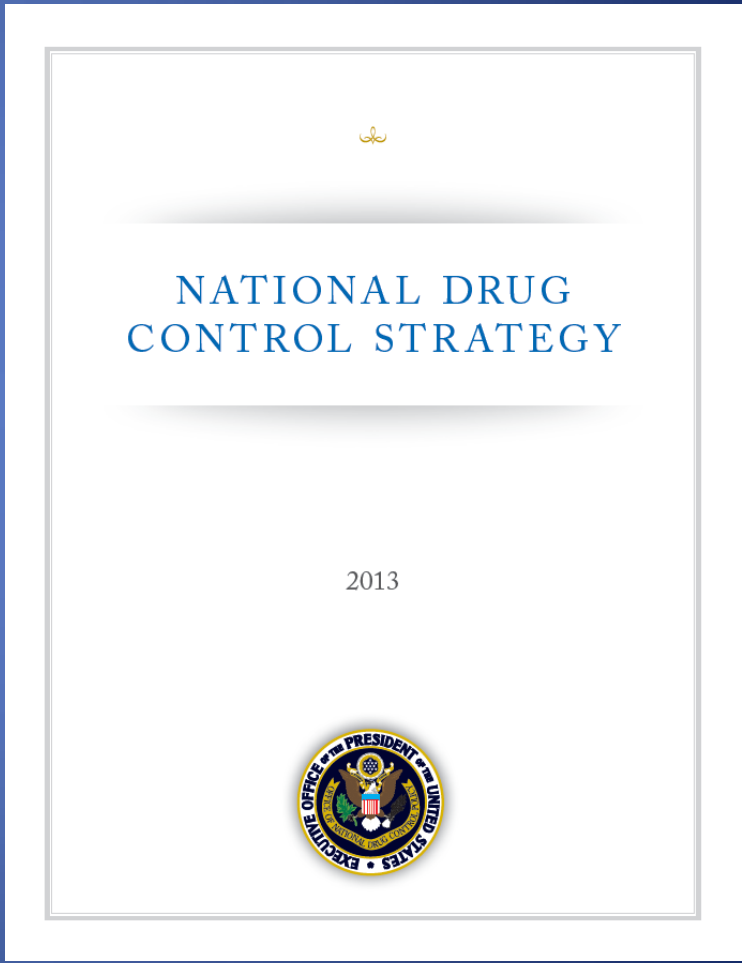
- Component of the Executive Office of the President
- Coordinates drug-control activities and related funding across the Federal Government
- Produces the annual *National Drug Control Strategy*

National Drug Control Strategy

- The President's science-based plan to reform drug policy:
  1) Prevent drug use before it ever begins through education
  2) Expand access to treatment for Americans struggling with addiction
  3) Reform our criminal justice system
  4) Support Americans in recovery

- Coordinated Federal effort on 112 action items

- Signature initiatives:
  - Prescription Drug Abuse
  - Prevention
  - Drugged Driving

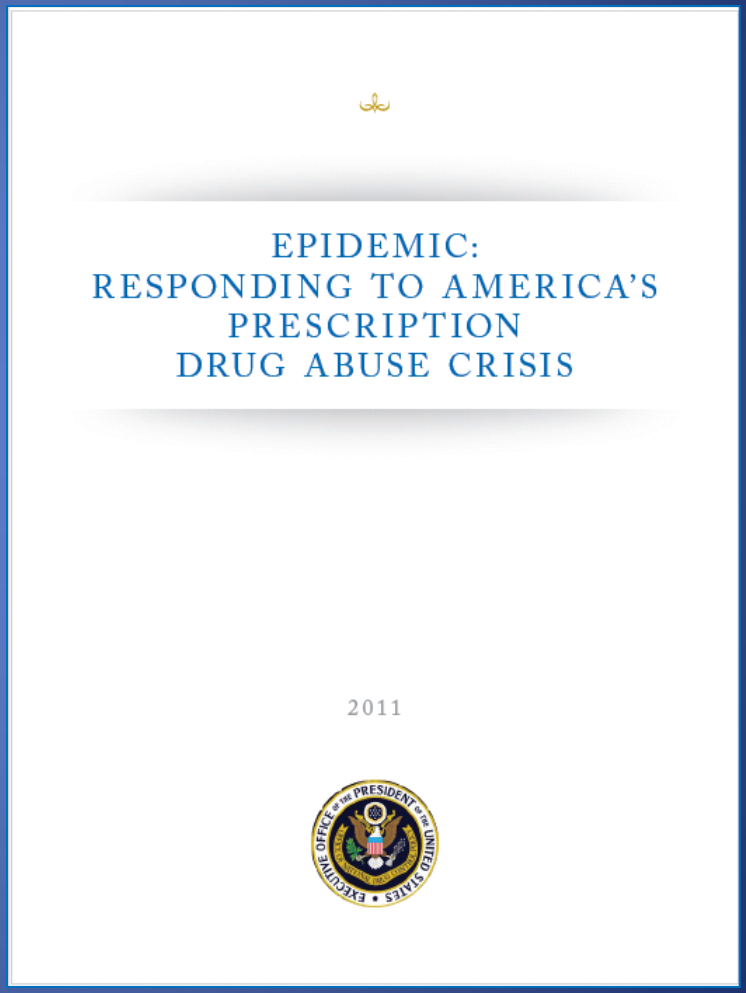


Prescription Drug Abuse Prevention Plan

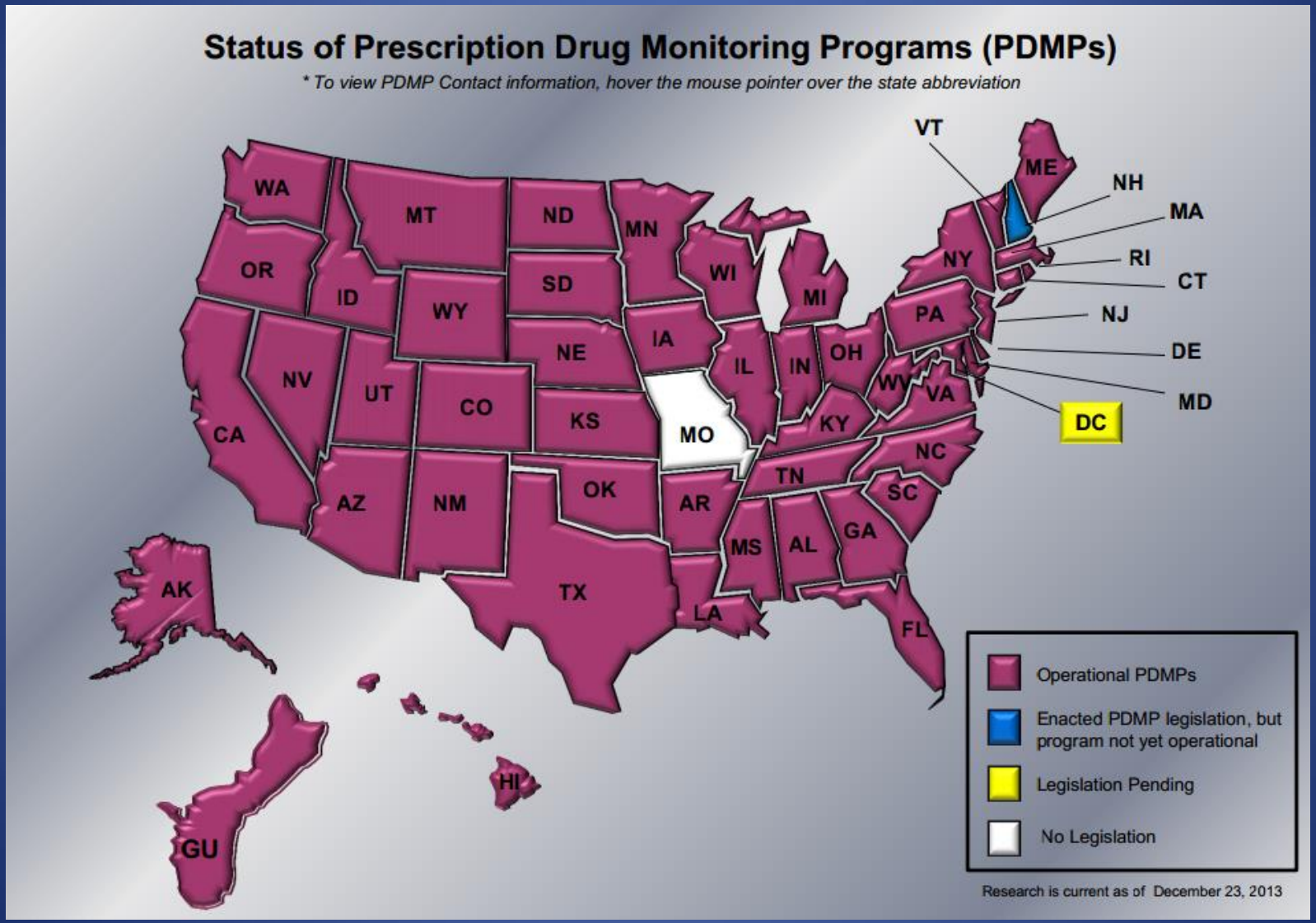
- Coordinated effort across the Federal Government

- Four focus areas:

  1) Education
  2) Prescription Drug Monitoring Programs
  3) Proper Disposal of Medication
  4) Enforcement

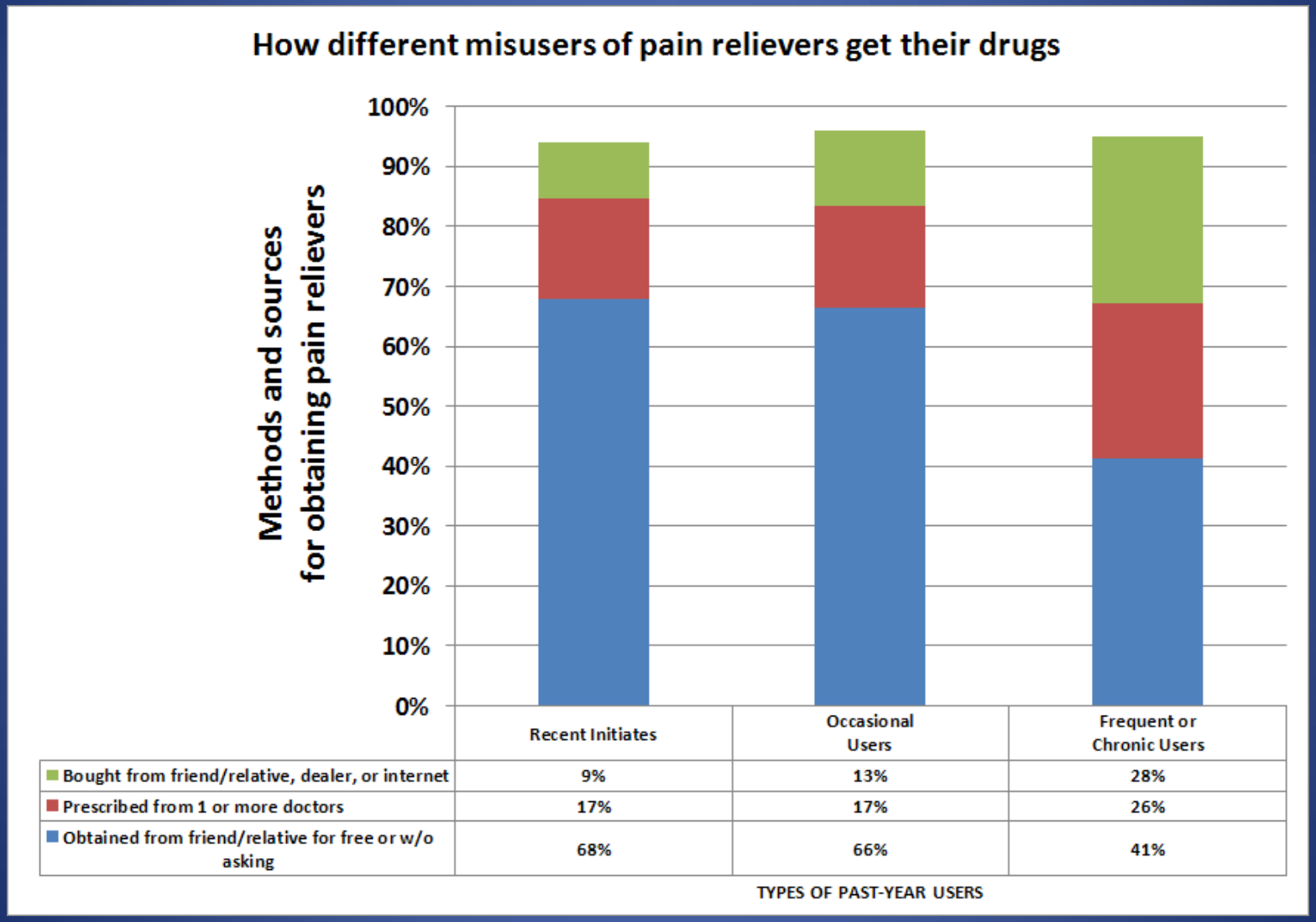


Prescription Drug Monitoring Programs



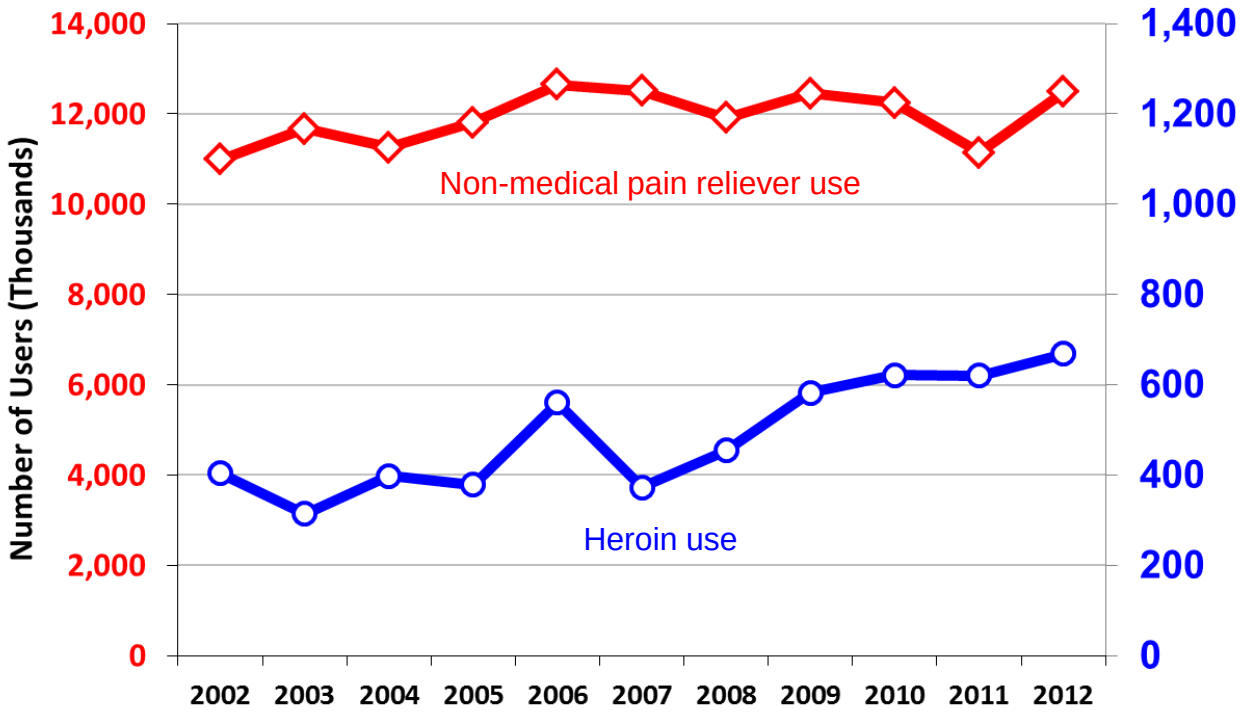
Source: PDMP Training and Technical Assistance Center, Brandeis University, 2013

Source of Prescription Pain Relievers



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2009-2010

Heroin Use or Non-Medical Use of Pain Relievers in the Past Year among Persons Aged 12 or Older: 2002 - 2012



Source: SAMHSA, 2012 National Survey on Drug Use and Health (September 2013).

Overdose Prevention and Education

The *National Drug Control Strategy* supports comprehensive overdose prevention efforts, to include:

- More extensive public education campaigns about overdose, including the signs of overdose, emergency interventions, information about "Good Samaritan" laws where they exist, and the importance of connecting individuals with substance use disorders to treatment.

- Expanded training and availability of emergency interventions, such as naloxone (Narcan) for first responders.

- Increased education among health care providers about informing patients using opioids (and their family members/caregivers) about potential for, signs of, and interventions in case of overdose.

Naloxone

- The Administration supports the use of naloxone by public health and law enforcement professionals to prevent drug-related deaths because we have seen how effective the drug can be.
  - It is legal to prescribe naloxone to patients at risk for overdose to be administered by family members or others who are available.
- ONDCP understands some have concerns that widespread availability of naloxone does not further the objective of reducing opioid misuse directly.
  - However, ONDCP supports this along with overdose education because some victims are in circumstances which make obtaining or succeeding at treatment difficult and overdose education with naloxone may save a life and enable eventual participation in treatment.

Naloxone Autoinjector

- FDA recently approved a new autoinjector that provides verbal instructions out loud to the rescuer during the rescue (similar to the technology used for defibrillators).[1]
- Approval was specifically for rescue without requirement for training;
- The medication is prescribed to the patient but can be used by caregiver or as law permits by first responder;
- Comes with a "trainer" to practice "sham rescues";
- This may mitigate concerns about administration
  - by non-medical personnel;
  - Using traditional needle & syringe; or
  - Off-label use of nasal inhaler kits.

1. Drug Label source: http://www.accessdata.fda.gov/drugsatfda_docs/label/2014/205787Orig1s000lbl.pdf
Image source: http://www.evzio.com/pdfs/NDA%20205787%20Approval%2003apr14-3%20Trainer%20IFU.pdf

Naloxone in the Community: Quincy, MA

- In late 2010, the Massachusetts DPH, Quincy PD, and mental health/addiction organizations partnered to create a program to train and equip police officers with nasal naloxone.
  - Since 2010, officers have administered naloxone in more than 220 overdose events, almost all of them resulting in successful overdose reversals.

"I believe we have spread the word that no one should fear calling the police for assistance, and that the option of life is just a 911 call away. We have also reinforced with the community that the monster is not in the cruiser. Indeed, the officer represents a chance at life."

— Lt. Det. Patrick Glynn, Quincy PD

- Now, approximately 15 Police/Sheriff agencies with naloxone programs nationwide (e.g., NYPD/Staten Island; Lorain, OH; Vermont State Police)

Recognizing and Responding to an Opioid Overdose

- Overdose education may be billed using codes for Brief Intervention
- SAMHSA permits states to use block grant funds for this activity
- The American Society of Anesthesiologists (ASA) has created a card explaining how to recognize and respond to an opioid overdose.
- The card, called "Opioid Overdose Resuscitation," is available for download on the ASA Web site. We ask all of you to disseminate this card as widely as possible.
- *To download the card, go to:*
  http://www.asahq.org/WhenSecondsCount/resources

Leadership Opportunities for Emergency Department Physicians

- Sign up for and use PDMPs, and encourage residents to follow this practice, where allowed.
- Expand screening to identify patients at risk for overdose or other escalations (including transition to heroin).
- Use Screening, Brief Intervention, and Referral to Treatment (SBIRT) billing codes for screening, intervention, and when needed to refer to treatment. This may be used for identifying substance use problems and for those at risk for overdose.
- Work with payers (e.g., Medicaid) to ensure screening and SBIRT codes are funded and a variety of medicines are on payer formularies (naloxone).

Leadership Opportunities for Emergency Department Physicians (cont'd)

- Consider abuse-deterrent formulations and safety profiles of medicines on formularies when prescribing.
- Consider diversion risk when prescribing.
- Counsel patients concerning overdose risk and signs, particularly among high-risk patient populations.
- Facilitate access among EMT, first responders, and co-prescription when needed.

For More Information

WHITEHOUSE.GOV/ONDCP

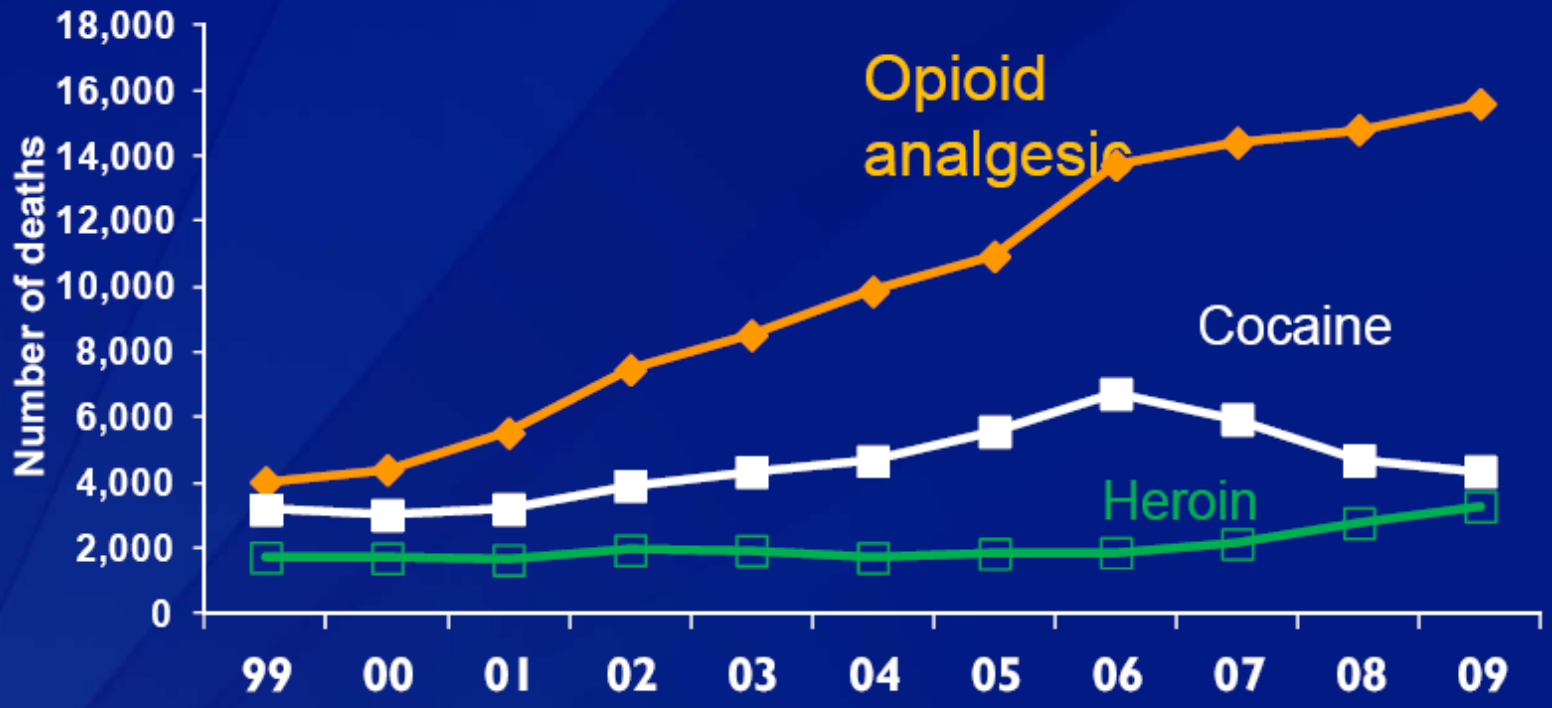
Naloxone Distribution from the ED for patients at-risk for Opioid Overdose

Lauren Whiteside MD MS
Caleb Banta Green PhD, MPH, MSW

ACEP/ONDCP webinar
April 25, 2014

UNIVERSITY *of* WASHINGTON
ADAI
Alcohol & Drug Abuse Institute

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



Heroin substantially under-reported in deaths

Source: National Vital Statistics System. The reported 2009 numbers are underestimates. Some overdose deaths were not included in the total for 2009 because of delayed reporting of the final cause of death.

Opioid Epidemiology

- In 2011, there were an estimated 258,482 ED visits involving heroin
  - This represents ~20% of all ED visits related to illicit drugs
  - National Survey on Drug Use and Health indicate heroin use is increasing (620,000 past year heroin users in 2011)
- In 2011, there were an estimated 488,004 ED visits involving prescription opioids/opiates
  - This represents ~39% of all ED visits related to prescription drugs
  - National Survey on Drug Use and Health indicate prescription opioid use decreased in 2011

Opioids: Rx to Heroin

- A relationship between misuse of prescription-type opiates and subsequent heroin use is indicated by NSDUH data* and other research**
  - particularly adolescents and young adults

*C. Jones 2013

** Peavy et al, 2012 and Lankenau et al, 2012

Overdose Risk: Heroin

- ***Any*** heroin use is a risk for overdose

- Easy to identify in the ED
  - Self-identify as IVDU
  - Present with overdose
  - Have complaints related to intravenous drug use

Overdose Risk: Prescription Opioids

- Tremendous variability
  - Chief complaints in the ED vary, demographics vary
- Many typologies of use:
  1. Prescription (Rx) opioid users for pain
     - Prescribed and take as directed
     - Prescribed and take not as directed
     - Not prescribed
  2. Seeking high/prevent withdrawal
     - Prescribed
     - Not prescribed
  3. Drug Treatment
     - Methadone, Buprenorphine/Suboxone

Identifying patients at risk for prescription opioid overdose

- Identify patients by:
  - Presentations related to opioids
  - Prescription Drug Monitoring Program
    - Multiple prescribers
    - Co-prescribing and use of sedatives and opioids
  - Co-morbid psychiatric illness and/or substance abuse is *associated* with opioid misuse and overdose
  - Opioid dose prior to ED visit and opioid needs after ED visit

Overdose Risk

Prior overdose is the #1 predictor of subsequent overdose

Overdose Risk: Multiple Prescribers and co-prescribing

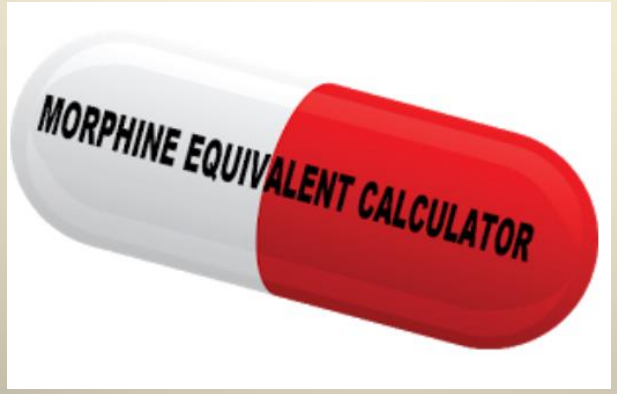
- Increased risk of opioid-related overdose death among patients with ≥ 4 prescribers or pharmacies
  - In WV, among those that died from an opioid overdose, ~20% had five or more prescribers in the past year
- Having a prescription for sedative is associated with non-fatal and fatal opioid overdose
  - The combination of prescription opioids and benzodiazepines was the most common cause of polysubstance overdose death from 2005-2009

Overdose Risk: Psychiatric Illness, Alcohol and other Substance Use

- Sedative prescription, inpatient psychiatric stay are associated with non-fatal opioid overdose
- Examining records of those with fatal opioid overdose
  - High rates of substance abuse
  - Association of opioid overdose and psychiatric illness

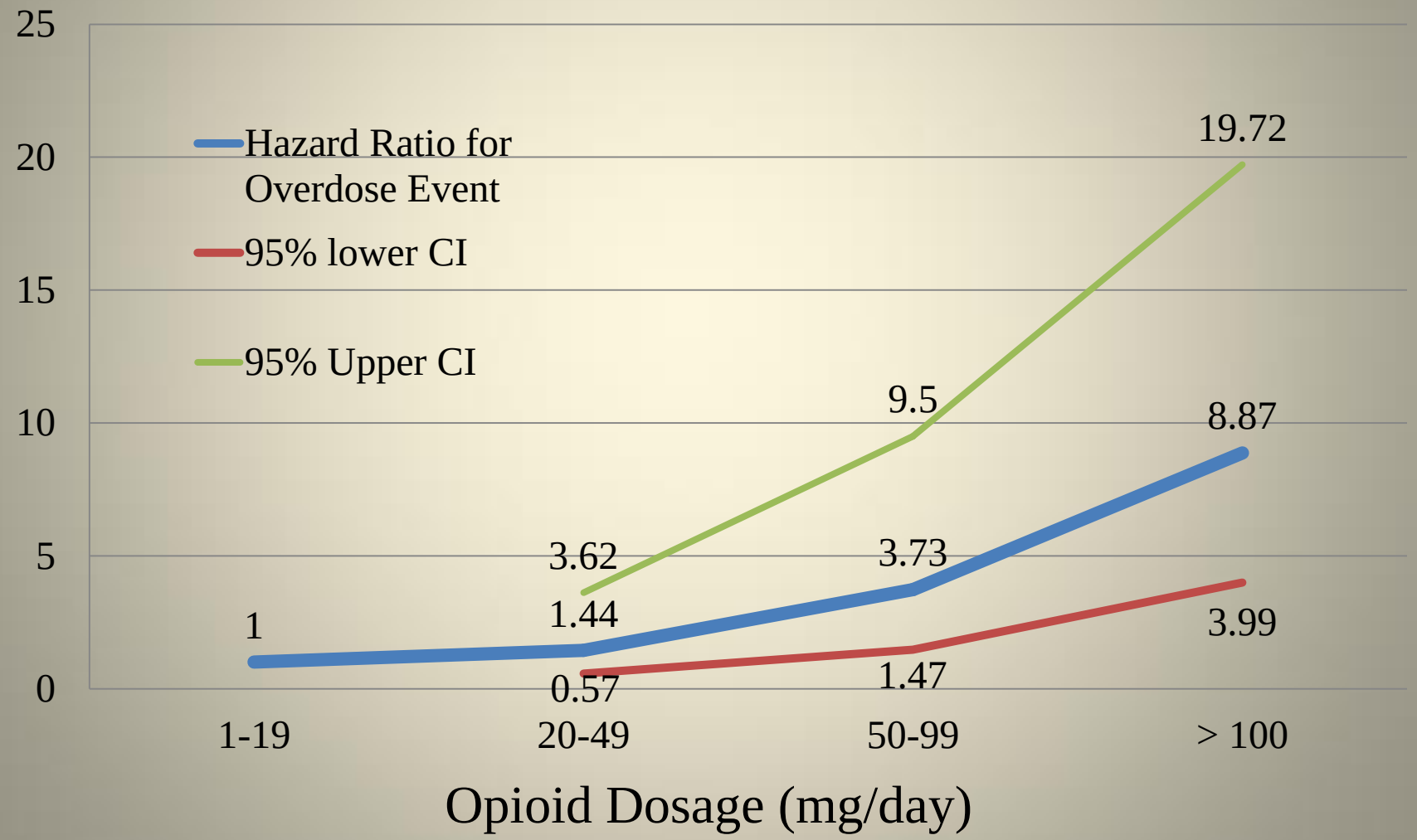
Overdose Risk: Dose and Morphine equivalents

- Among patients on 100 morphine equivalents/day, the annual prevalence of fatal or non-fatal overdose in patients in a managed care setting is 2%



Dunn KM, Saunders KW, Rutter CM et al. Opioid Prescriptions for Chronic Pain and Overdose. *Annals of Internal Medicine*. 2010;152:85-92

Dose of prescribed opioids and risk of overdose



Dunn KM, Saunders KW, Rutter CM et al. Opioid Prescriptions for Chronic Pain and Overdose. *Annals of Internal Medicine*. 2010;152:85-92

Patient Acceptance of Overdose Risk

- NIDA Funded trial of overdose prevention is enrolling heroin users and Rx opioid users
  - PI Banta-Green 1R01DA030351-01A1
- We've found that Rx opioid users
  - Have low OD risk-perception
  - Associate "overdose" with "addiction"
- Medical providers also may not see risk

Study Flier #1

Adapted from local public health-syringe exchange program

Be a PRO!

Prevent &

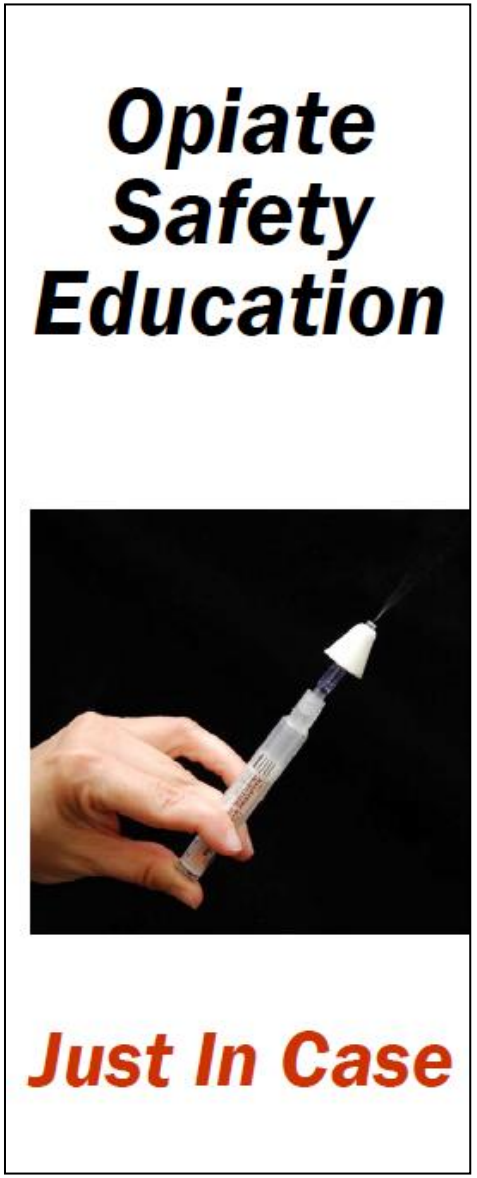
Reverse

Overdose

Save a Life!

Study Flier #2

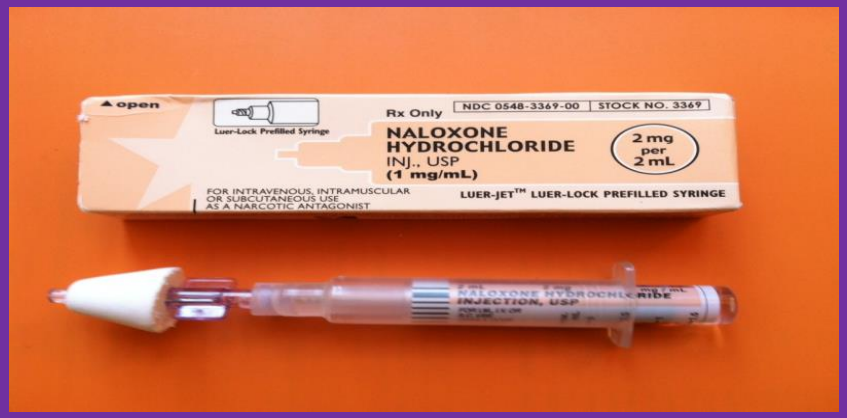
- Word “overdose” removed
- Pro-social message removed
- Assembled kit image
- “Just in case” language added,
  - Subjects were saying things like “oh it’s like an epi-pen” or “like a fire extinguisher”



Do you take strong pain medications?

For example:

Percocet, Vicodin, methadone, oxycodone, morphine, MSContin, Dilaudid, fentanyl, or any other "opiate" medication?



Ask your provider for naloxone!!

Naloxone is an antidote sprayed into the nose if you are too sleepy or can't be woken up due to these pain medications.

Talk to your provider for more information.

Naloxone distribution

BMJ

BMJ 2013;346:f174 doi: 10.1136/bmj.f174 (Published 31 January 2013)

RESEARCH

Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis

Results: Communities that implemented overdose education + naloxone distribution had less fatal overdose than communities that did not implement this program and the greater density of naloxone the fewer fatalities

Naloxone safety and formulation

- Naloxone safety
  - No contraindications (theoretical allergy)
- Intra-muscular vs. intra-nasal
  - No apparent effectiveness difference
- FDA approved Evzio
  - Auto-injector
  - Provides verbal instructions to user
    - Similar to Automated Defibrillator (AED)

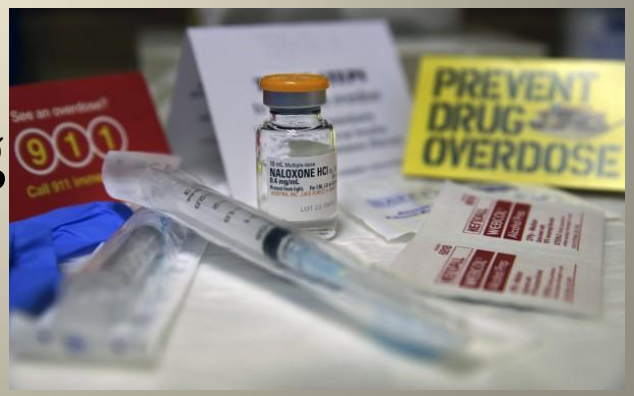
Public Health Prevention

- Model to prescribe ‘just in case’ medications already exists in EM
  - Epipen for anaphylaxis
  - Diastat for pediatric seizure

- HPV vaccine in adolescents
  - Does not cause increase in risky sexual behavior among teens that get immunized

Naloxone as **part of** overdose prevention

- Naloxone should be part of an intervention to address overdose prevention
- Overdose education includes:
  - Recognizing personal risks
  - Information and referral to counseling
  - Recommendation to talk to prescriber about medication safety
  - Naloxone administration training



Naloxone as part of overdose prevention

- All patients that are dispensed naloxone should be counseled to call 911

- In current studies, no increased death from naloxone distribution

Legal/Policy Supports- Range of actions

Naloxone

- Explicitly allow prescribing to patients
- Explicitly allow prescribing to potential witnesses
- Prescribers immune from civil/criminal liability

Good Samaritan

- Immunity from legal charges, often drug possession, for OD victim and person who “seeks medical aid”
  - Could be changes to law OR local policies made public by Public Health and Law Enforcement

The Network for Public Health Law

Ideas. Experience. Practical answers.

LEGAL INTERVENTIONS TO REDUCE OVERDOSE MO… NALOXONE ACCESS AND OVERDOSE GOOD SAMARITAN LAWS

Background

Fatal drug overdose has increased more than six-fold in the past three
Americans every year.[1] Nearly 15,000 of these deaths are known to ha
is likely higher.[2] This increase is mostly driven by prescription opioids s
account for more overdose deaths than heroin and cocaine combined.[3]

LawAtlas℠
The Policy Surveillance Portal

Send Us Feedback

Home > Interactive Portal

Naloxone Overdose Prevention Laws Map

Reset | Essential Information

- At least one of these selections apply
- All of these selections apply

Pick a year

Jurisdiction has a naloxone law

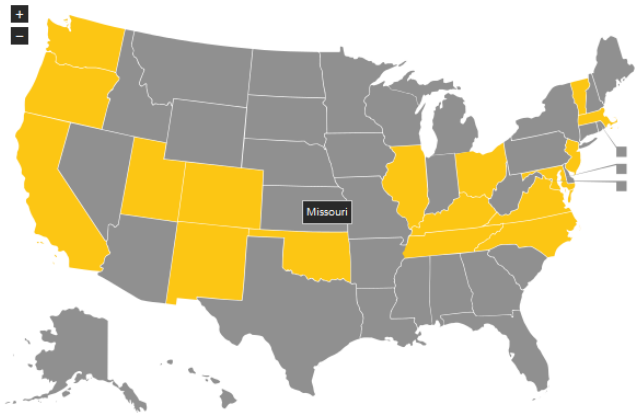
Prescribers immune from criminal liability

Prescribers immune from civil liability

Third party prescription authorized

- Yes
- No

Naloxone program participation required



Download the Map | Download the Data

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

Conclusion

- Patients at high risk for OD clearly in ED
- For heroin users ED's are commonly used and OD education + THN could lead to fewer and/or less serious overdoses
- A good place to identify those at elevated risk from Rx opioids is the ED
  - Need to work on risk perception by patient and provider
- Intervention components/materials available need motivated staff people to implement
  - e.g. www.prescribetoprevent.org

Overdose prevention and intranasal naloxone rescue kits in the Emergency Department: A Hospital Policy

Edward Bernstein, MD
Boston University School of Medicine
Boston Medical Center, Project ASSERT
BU School of Public Health BNI ART Institute

Friday April 25, 2014

BOSTON MEDICAL CENTER

EXCEPTIONAL CARE. WITHOUT EXCEPTION.

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.

Application:

All Pharmacy and Emergency Department (ED) staff

Exceptions:

None

Procedure:

Background

- The Massachusetts Department of Public Health (DPH) approves community programs to provide overdose education and naloxone distribution services and

BMC Nasal Naloxone Rescue Kit (NNRK) Protocol

- NNRKs can be prescribed via a regular outpatient prescription by any licensed prescriber and sent to BMC's outpatient pharmacies for filling during normal business hours.

- When Project Assert is unavailable and the outpatient pharmacies are closed, a nurse or physician may fax a Discharge Prescription for NNRK Standing Order to the inpatient pharmacy for a patient at risk for opioid overdose. The NNRK will be tubed to ED and given directly to patient with instructions on its use at time of discharge.

- The Discharge Prescription form will be placed in the patient's medical record.

- Under this protocol, prescriptions are considered to be signed by Alexander Walley, MD (the requirement for an actual signature is waived).

BOSTON MEDICAL CENTER

EXCEPTIONAL CARE. WITHOUT EXCEPTION.

BMC EMERGENCY DEPARTMENT
850 Harrison Ave, Boston, MA 02118

DISCHARGE STANDING ORDER FOR NASAL NALOXONE KIT
FAX to Pharmacy and Place Original in Patient's CHART

Patient Name:
MRN: (place patient sticker here)
DOB and Age:

Date:_____Time:_____ TUBE to ED Station #:_____

Height:_____

Weight:_____

Allergies:_____

BMC Standing Order Protocol for Nasal Naloxone
Pursuant to the Nasal Naloxone Standing Order Protocol, approved by BMC Medical Executive Committee, September 13, 2013, Nasal Naloxone Kits will be dispensed from Inpatient Pharmacy to patients at risk for opioid overdose who are being discharged from the BMC Emergency Department when the BMC Outpatient Pharmacies are closed.

Dispense:
ONE Nasal Naloxone Kit for reversal of opioid overdose in the setting of respiratory depression or unresponsiveness

Nasal naloxone kit contains:

- Two 2ml Luer-Jet™ luer-lock syringes prefilled with naloxone (concentration 1mg/ml)
- Two mucosal atomization devices
- DPH Opioid Overdose and Prevention Programs Information Sheets*
- Step-by-step instructions for administration of nasal naloxone*
- "Get the SKOOP" overdose prevention pamphlet

Administer as directed to a person suspected of an opioid overdose with respiratory depression or unresponsiveness.

No Refills

Under this protocol, prescriptions are considered to be signed by Alexander Walley, MD and the requirement for an actual signature is waived.

Alexander Y. Walley Mass Lic #221133
Physician's Name (Print) Physician's License Number

* DPH Opioid Overdose and Prevention Programs Information Sheets and Step-by-step instructions are available for download from the Pharmacy Department website.

BMC NNRK Policy– Who was important to collaborate with when writing the policy?

- Engaged key stakeholders by first engaging administration
- Director of Boston Public Health Commission (BPHC) sent a letter to the President of BMC President to propose a meeting on Boston's Opioid OD Epidemic
- BMC President convened a meeting with Public Health and ED and BMC leadership
- Stakeholders charged with drafting the new policy and sections assigned to the relevant parties (Director of Pharmacy)

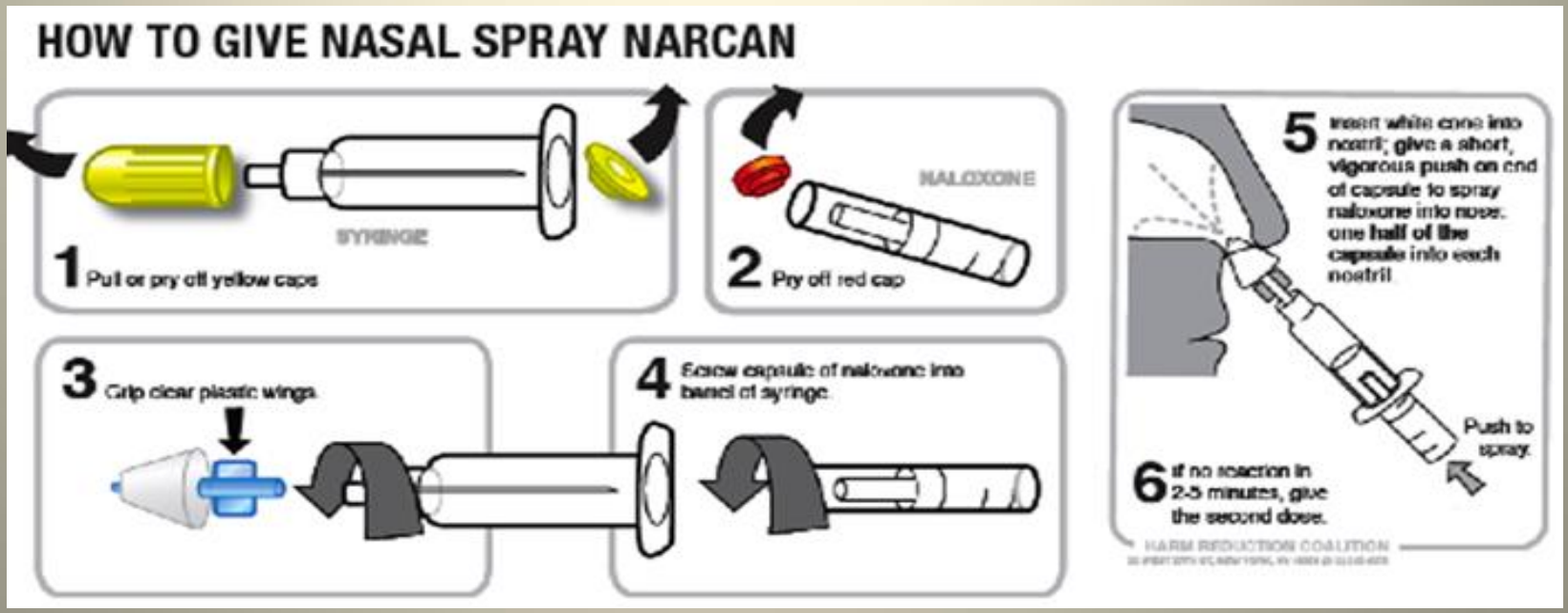
Policy Development Process

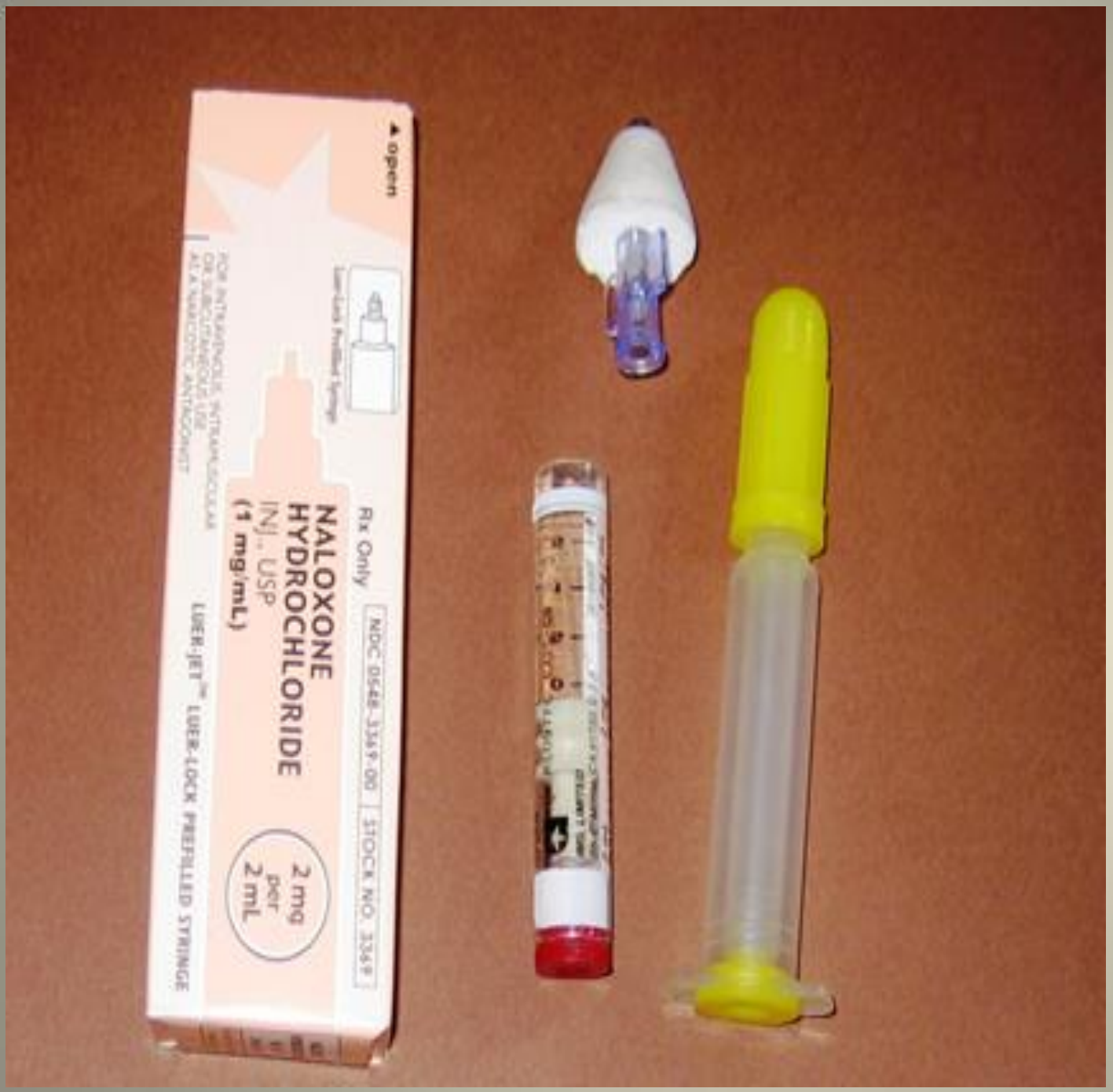
- The MA DPH program permits dispensing of NNRK under a standing order by state program medical director which permits community-based programs such as our ED Project ASSERT, Detox and Syringe Exchange to dispense.

- The hospital's barrier was that dispensing rules are not flexible and when we asked the critical question the right way… there was no waiver or allowance that permitted us to just "hand out" these medications. Federal and State law required a prescription, and a pharmacist review like any other.

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





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.

Intranasal Vs. IM Naloxone

- 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
- Cost $40-50/kit
- Massachusetts chose intra-nasal naloxone

Project ASSERT Respected Members of BMC ED Social Work and Care Management.

Project ASSERT: acronym for improving **A**lcohol and **S**ubstance abuse **S**ervices, **E**ducation and **R**eferral to **T**reatment. Since 1993 the LADCs, peer health promotion advocates, provide health information, support, and access to primary care, treatment and others services.

Opioid overdose education and naloxone distribution program is implemented in accordance with the Massachusetts Department of Public Health (MDPH) Overdose Prevention Pilot Program protocol.

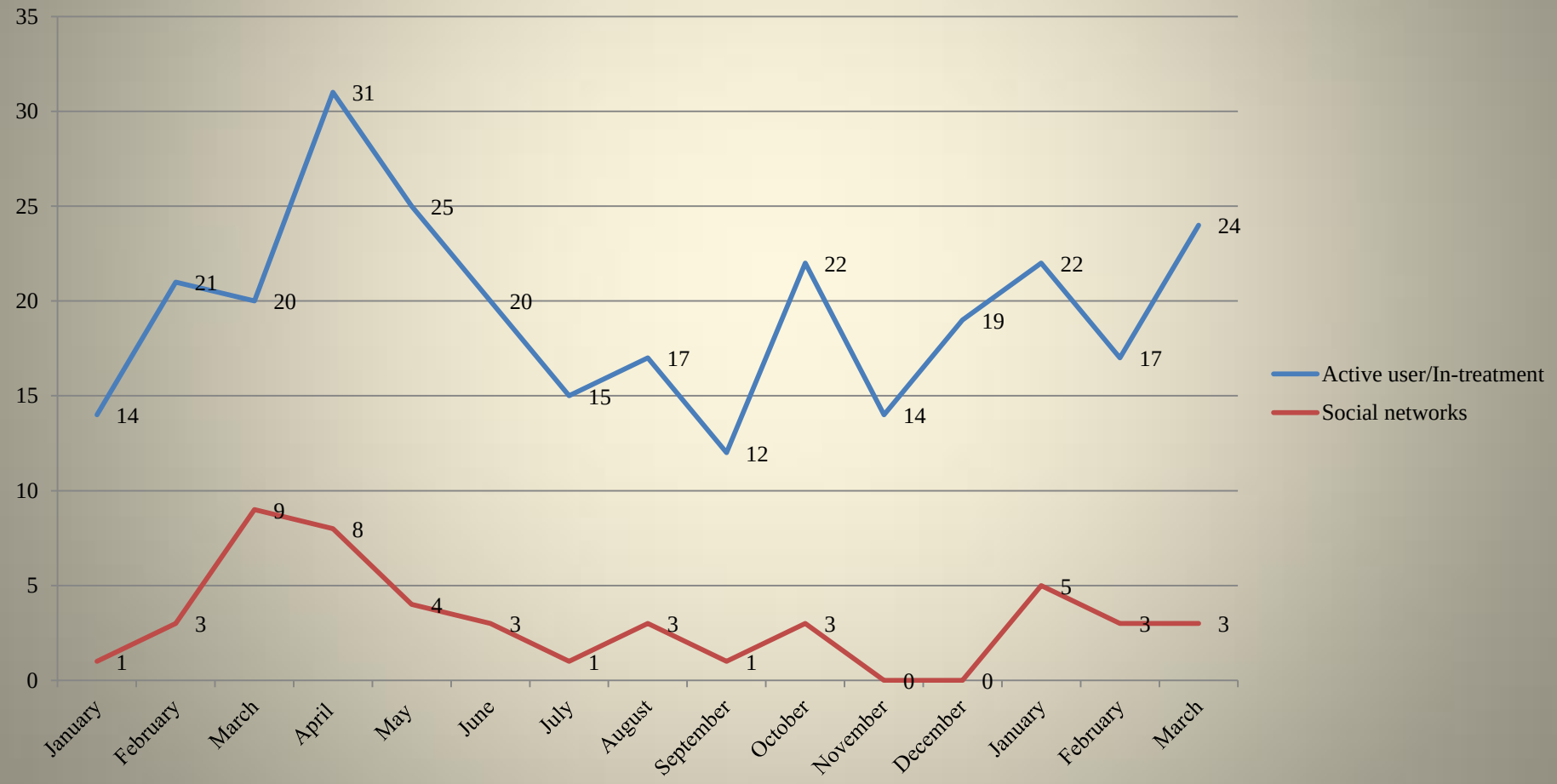
Staff were trained by overdose prevention experts at the Boston Public Health Commission

Project ASSERT OEND Program

- Intra-nasal naloxone rescue kits are dispensed at no cost to patient under a standing order from the MPDH overdose prevention program Medical Director.

- Patients educated on risks and recognition of an overdose, and overdose response behaviors including: calling 911, delivering rescue breaths, and staying with the person until EMS arrives and use of naloxone (NNRK).

In 2012, Project ASSERT distributed NNRK to 29 patients and 4 members of pts' social network. In contrast with institutional support from January 2013 – March 2014 distribution increased to 293 NNRK to patients and 47 to patients' social network.



Project Assert OEND in 2012
12 month follow-up phone interviews

Overdose responses among those participants who witnessed an overdose			
	Witnessed OD (n=27)	**OEN (n=19)**	**OE Only (n=8)**
Called 911	63% (17)	74% (14)	38% (3)
Rescue breathing	26% (7)	26% (5)	25% (2)
Administered nasal naloxone	22% (6)	32% (6)	0
Stayed with the victim	93% (25)	95% (18)	88% (7)

Dwyer K, et al. Opioid Education and Nasal Naloxone Rescue Kit Distribution in the Emergency Department. ACEP Research Forum 2013 iposter 346 http://acep.posterview.com/

Staff Training in BMC Policy

- The nursing staff in the Adult ED, UC, and Pedi ED were in-serviced on the new policy and procedure. DPH educational videos were added to the nursing webpage for staff and patient education.

- Residents and Faculty received e mail information on policy and had several EM conferences that addressed the policy

Resident and Faculty Survey on BMC Policy 4/23/14

N=41/81 Residents 64% Faculty 36%	YES	No
Are you aware of policy?	85%	15%
Have you reviewed policy?	57.5%	42.5%
Have you called Project ASSERT to provide NNRK and OE who had opioid overdose	77.5%	22.5%
Have you called Project ASSERT to provide NNRK and OE to patients with opioid related visits without OD?	57.5%	42.5%
Have you written an RX for NNRK	20%	80%
Have you ordered naloxone from inpatient Pharmacy after project ASSERT hours?	25%	75%

Resident and Faculty Survey on BMC Policy 4/23/14

PERCEIVED BARRIERS	%	#
Not enough time	22.2%	8
Patients don’t want to stay for education/kits	30.6%	11
Didn’t think about it	61.1%	22
Didn't know how	27.8%	10
Disagree with the policy on moral grounds	0%	0
Don’t understand why this is my responsibility	0%	0
I don’t perceive there to be any barriers	13.9	5

We will now proceed to Q&A…

<u>If you want to continue the conversation afterward</u>:

1. **Email** **dchambers@acep.org** - he will link you with the panelists
2. **Join** the Trauma & Injury Prevention Section **http://www.acep.org/sections/**
3. **Talk about this** in your group, your hospital, your region
4. **Tell us how we can help**! Email **megan_ranney@brown.edu** or **laurenkw@uw.edu**

THANK YOU!

American College of Emergency Physicians®
ADVANCING EMERGENCY CARE

ACEP Trauma & Injury Prevention Section

How are patients informed about the need to call 911?

- The ED Overdose Education and Naloxone Distribution (OEND) program encourages patients to call EMS if they have or witness an overdose

- Brochure included with NNRK states clearly the importance of calling 911, instituting rescue breathing and staying with patient and is reviewed with every patient/family member.

- Patients receive overdose education and use of NNRK by Project ASSERT during their office hours and after hours by night SW and providers.

How much do NNRK cost patients or BMC ?

- Hospital outpatient/ inpatient pharmacy cost to a patient under a normal circumstance would be ~ $60 for a 2 vial / two atomizer “kit” with brochure
  - Our cost for this is ~ $50
  - If the patient is 340B eligible, our cost is lower and as you know when a patient can’t afford the drug or device, we find a way to get it to them free of charge.

Phillip O. Coffin, MD, and Sean D. Sullivan, PhD
Cost-Effectiveness of Distributing Naloxone to Heroin Users for Lay Overdose Reversal *Ann Intern Med.* 2013;158:1-9.

On March 27th 2014, MA. Gov. Deval Patrick Declared a Opioid O.D. Public Health Emergency

- 140 Opioid Overdose Fatalities since 11/1/2013
- Expanded access to drug treatment and NNRK for first responders and the lay public;
- Authorized pharmacists to dispense naloxone rescue kits to person at risk for an opioid overdose or friend or family member witnessing an overdose.
- Available directly through pharmacies without a prescriber interaction, but requires a standing orders arranged with a prescribing physician and filed with the Board of Registration

Evaluation of Policy Implementation

- Data collected from our electronic medical record for the denominator of the number of ED visits with primary, secondary or tertiary ICD diagnosis of opioid related visit codes 305.
- Data from pharmacy on the numerator on the number of kits dispensed
- Project Assert submits forms on every kit dispensed to state that are incorporated in a data base and added to the numerator
- Qualitative staff interviews and Quantitative data collection will soon be launched for ongoing evaluation of policy

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. JSAT 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
  - Doe-Simkins et al. BMC Public Health 2014, accepted.
- 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