Addressing the Opioid Epidemic through a Public Health Lens

MONICA BHAREL, MD, MPH

MASSACHUSETTS
COMMISSIONER OF PUBLIC HEALTH

onwealth of Massachusetts
artment of Public He

VISION

Optimal health and well-being for all people in Massachusetts, supported by a strong public health infrastructure and healthcare delivery.

MISSION

The mission of the Massachusetts Department of Public Health (DPH) is to prevent illness, injury, and premature death; to ensure access to high quality public health and health care services; and to promote wellness and health equity for *all* people in the Commonwealth.

DATA

We provide relevant, timely access to data for DPH, researchers, press and the general public in an effective manner in order to target disparities and impact outcomes.

DETERMINANTS

We focus on the social determinants of health - the conditions in which people are born, grow, live, work and age, which contribute to health inequities.

DISPARITIES

We consistently recognize and strive to eliminate health disparities amongst populations in Massachusetts, wherever they may exist.

EVERYDAY EXCELLENCE

PASSION AND INNOVATION

INCLUSIVENESS AND COLLABORATION

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The Range of DPH

Prevention and Wellness – Health Access – Nutrition – Perinatal and Early Childhood – Adult Treatment – Data Analytics and Support – Housing and Homelessness – Violence and Injury Prevention – Office of Statistics and Evaluation – Childhood Lead Poisoning Prevention – Community Sanitation – Drug Control – Occupational Health Surveillance – PWTF – SANE Program – Interagency Initiatives – Planning and Development – Prevention – Problem Gaming – Quality Assurance and Licensing – Youth and Young Adults – Early Intervention – Children and Youth with Special Needs – Epidemiology Program – Immunization Program – Global Populations and Infectious Disease Prevention – STI Prevention – HIV/AIDS – Integrated Surveillance and Informatics Services – Clinical Microbiology Lab – Chemical Threat, Environment and Chemistry Lab – Childhood Lead Screening – Environmental Microbiology and Molecular Foodborne Lab – STD/HIV Laboratories – Biological Threat Response Lab – Central Services and Informatics – Quality Assurance – Safety and Training – Health Care Certification and Licensure – Health Professional Licensure – Office of Emergency Medical Services – DoN – Medical Use of Marijuana – Shattuck Hospital – Mass Hospital School – Tewksbury Hospital – Western MA Hospital – State Office of Pharmacy Services – Office of Local and Regional Health – Office of Health Equity – Accreditation and Performance Management – ODMOA – OPEM – HR and Diversity – Office of General Counsel – Office of CFO – Commissioner's Office

Massachusetts DPH will be a **national leader** in innovative, outcomes-focused public health based on a **data-driven** approach, with a focus on **quality public health and health care services** and an emphasis on the social determinants and **eradication of health care disparities**.

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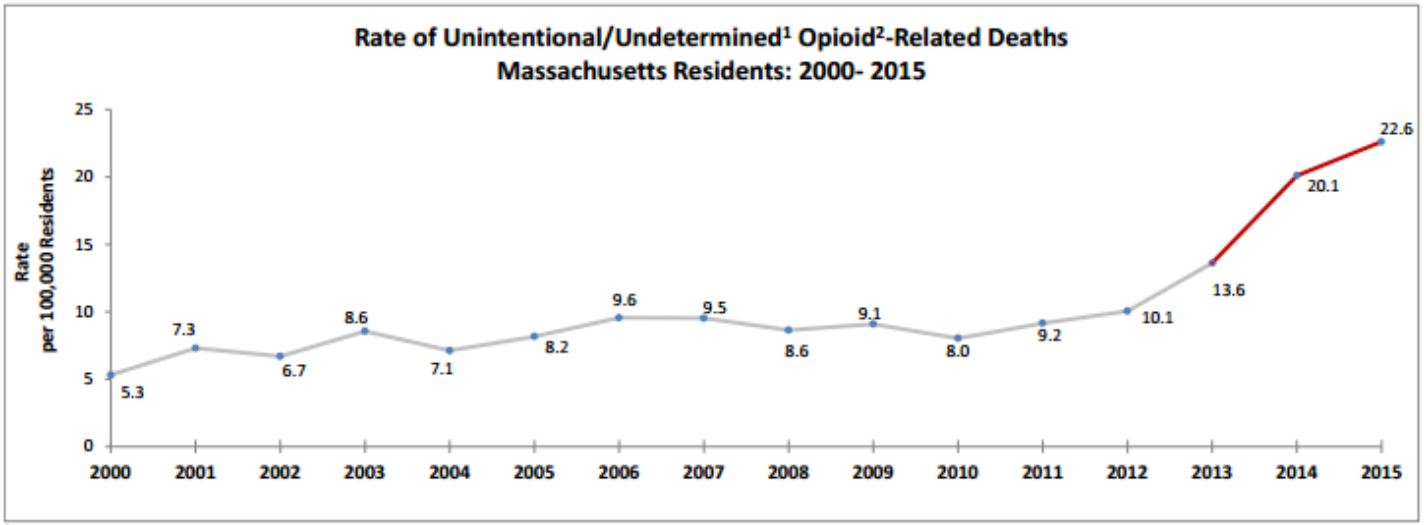
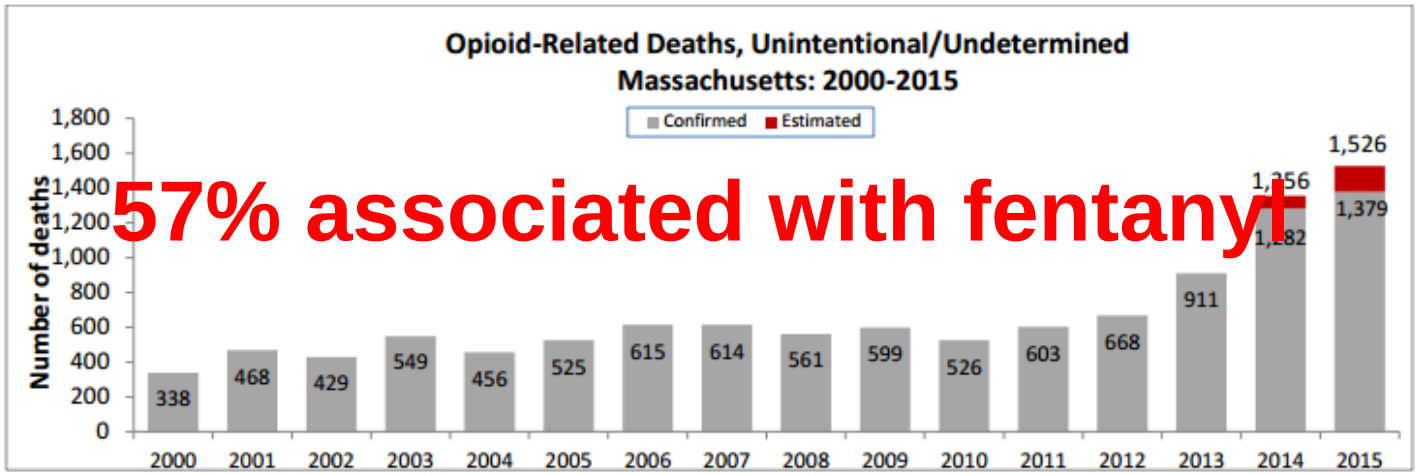
The opioid epidemic burden in Massachusetts



[1]Unintentional poisoning/overdose deaths combine unintentional and undetermined intents to account for a change in death coding that occurred in 2005. Suicides are excluded from this analysis.

[2] Opioids include heroin, opioid-based prescription painkillers, and other unspecified opioids. This report tracks opioid-related overdoses due to difficulties in identifying heroin and prescription opioids separately.



57% associated with fentanyl

Note: Counts for 2000 – 2013 are complete as of the date that the state's statistical file was closed. Each year, a small number of cases receive a cause of death after the file is closed. We are currently reviewing these cases. The 2014 and 2015 numbers are higher than previously reported following a review of toxicology data and cause of death for previously "undetermined" cases. These cases were excluded in the last report but included in this report as confirmed opioid-related cases.

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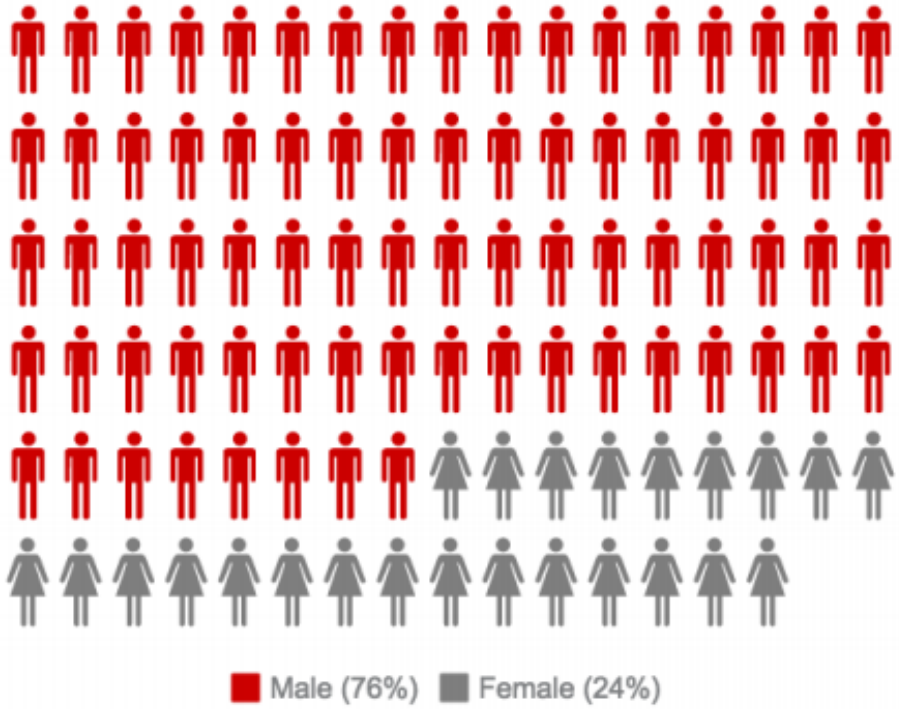
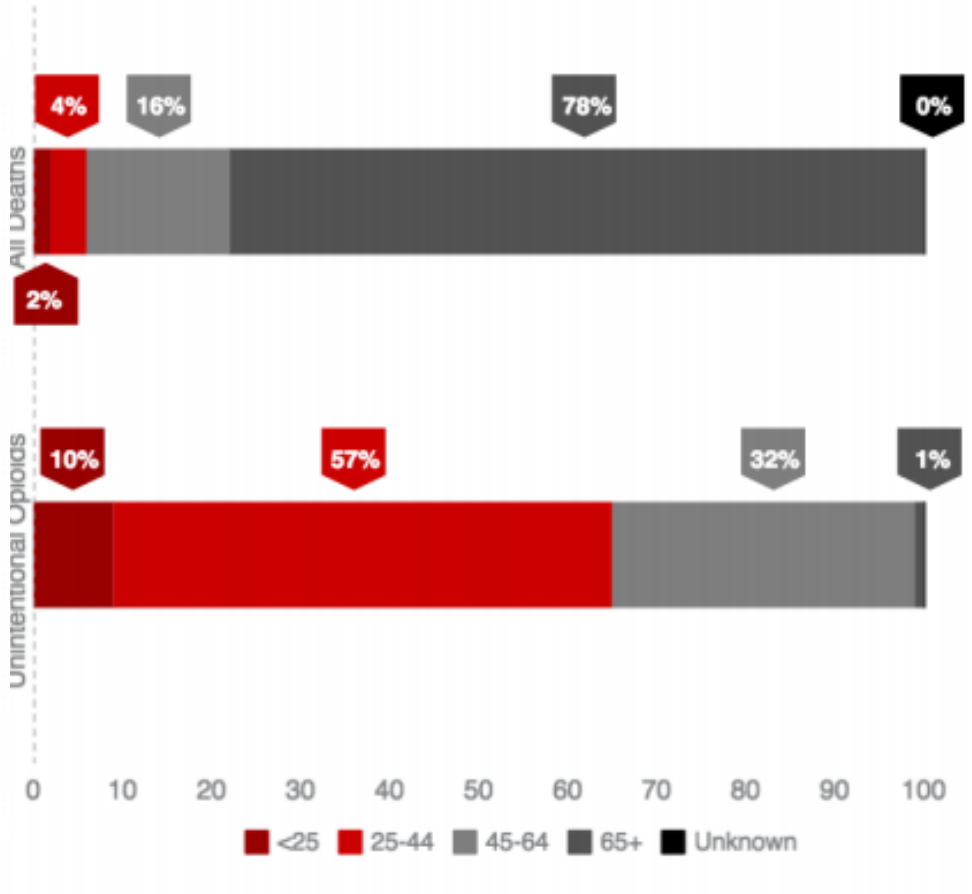
The opioid epidemic burden in Massachusetts

Unintentional Opioid Deaths by Gender



Unintentional Opioid Deaths by Age



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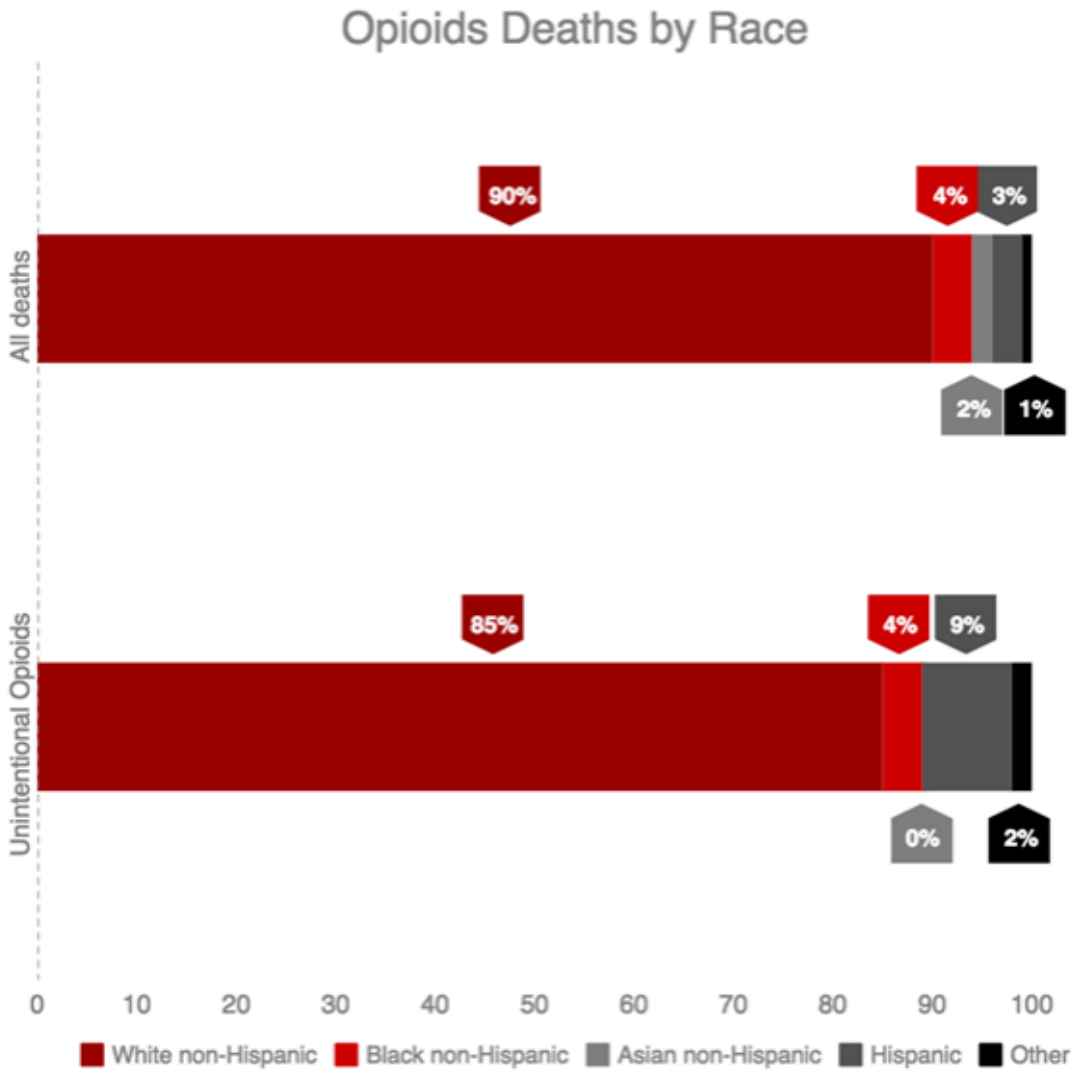
The opioid epidemic burden in Massachusetts



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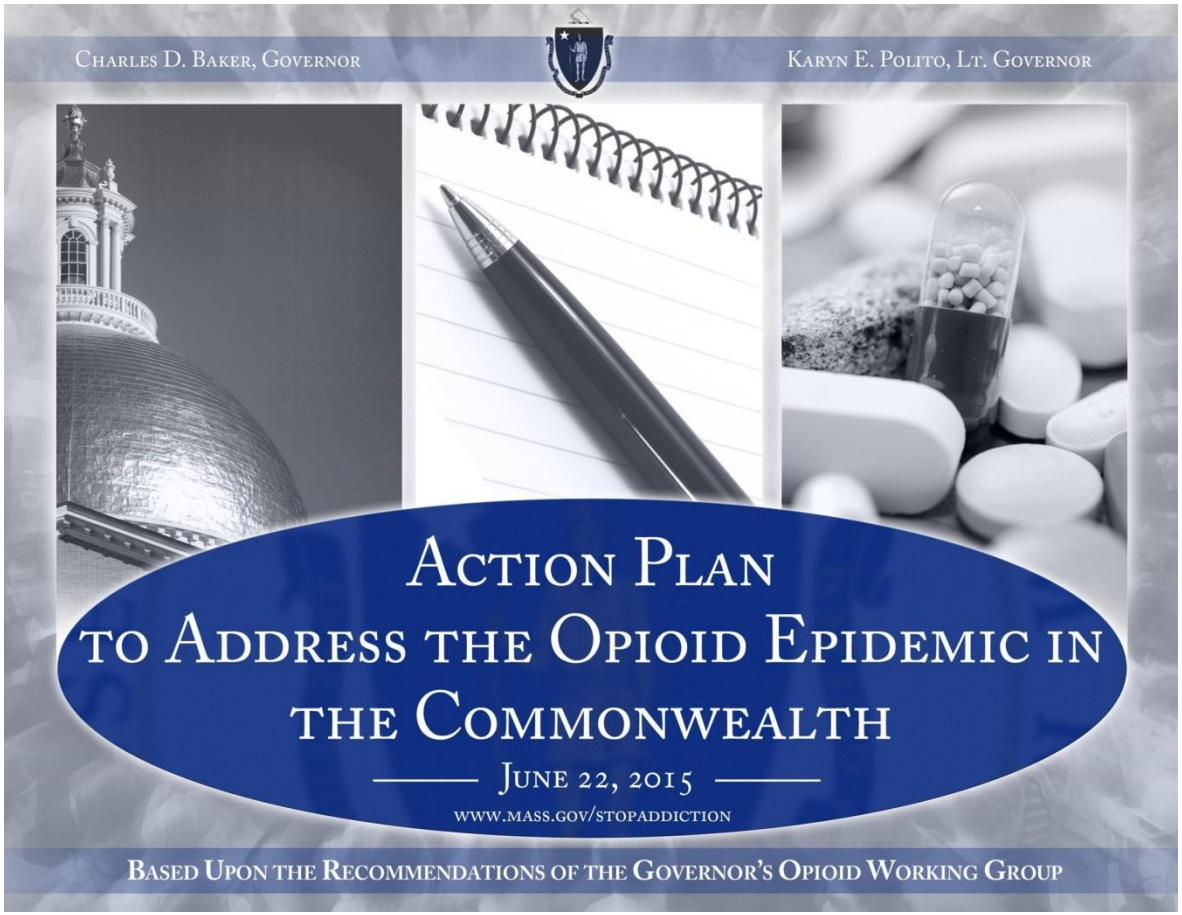
Prevention Intervention Treatment Recovery



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Progress To-Date

- Adding over 200 new treatment beds across the state;
- Working to redesign, redevelop and relaunch the Prescription Monitoring Program (PMP) online system;
- Passing legislation requiring pharmacists to enter data into the PMP within one business day (24 hours), down from 7 days of receipt of prescription;
- Establishment of a cross-institutional agreement by the Commonwealth's four medical schools and the Massachusetts Medical Society in developing a first-in-the-nation, cross-institutional set of core competencies that will be incorporated in all of the medical school's curriculum for medical students, ensuring critical and necessary best practices for prescription drug use and management are taught;
- Establishment of a cross-institutional agreement by the Commonwealth's three dental medicine schools and the Massachusetts Dental Society mirroring the medical schools in developing a cross-institutional set of core competencies;
- Holding Drug Take-Back Day at 133 sites across the Commonwealth to collect unused prescription drugs for safe disposal;
- Convening of the state's Drug Formulary Commission;
- Reinforcing the requirement that all DPH licensed addiction treatment programs must accept patients who are on methadone or buprenorphine medication;
- Planning for the transfer of women civilly committed under Section 35 at MCI Framingham to Taunton State Hospital by Spring 2016;
- Issuance of Division of Insurance guidelines to commercial insurers on the implementation of the substance use disorder recovery law (Chapter 258) which requires insurers to cover the cost of medically necessary clinical stabilization services for up to 14 days without prior authorization;
- Improving the affordability of naloxone for all 351 Massachusetts communities through a state bulk purchasing arrangement;
- Strengthening the state's commitment to residential recovery programs through rate increases

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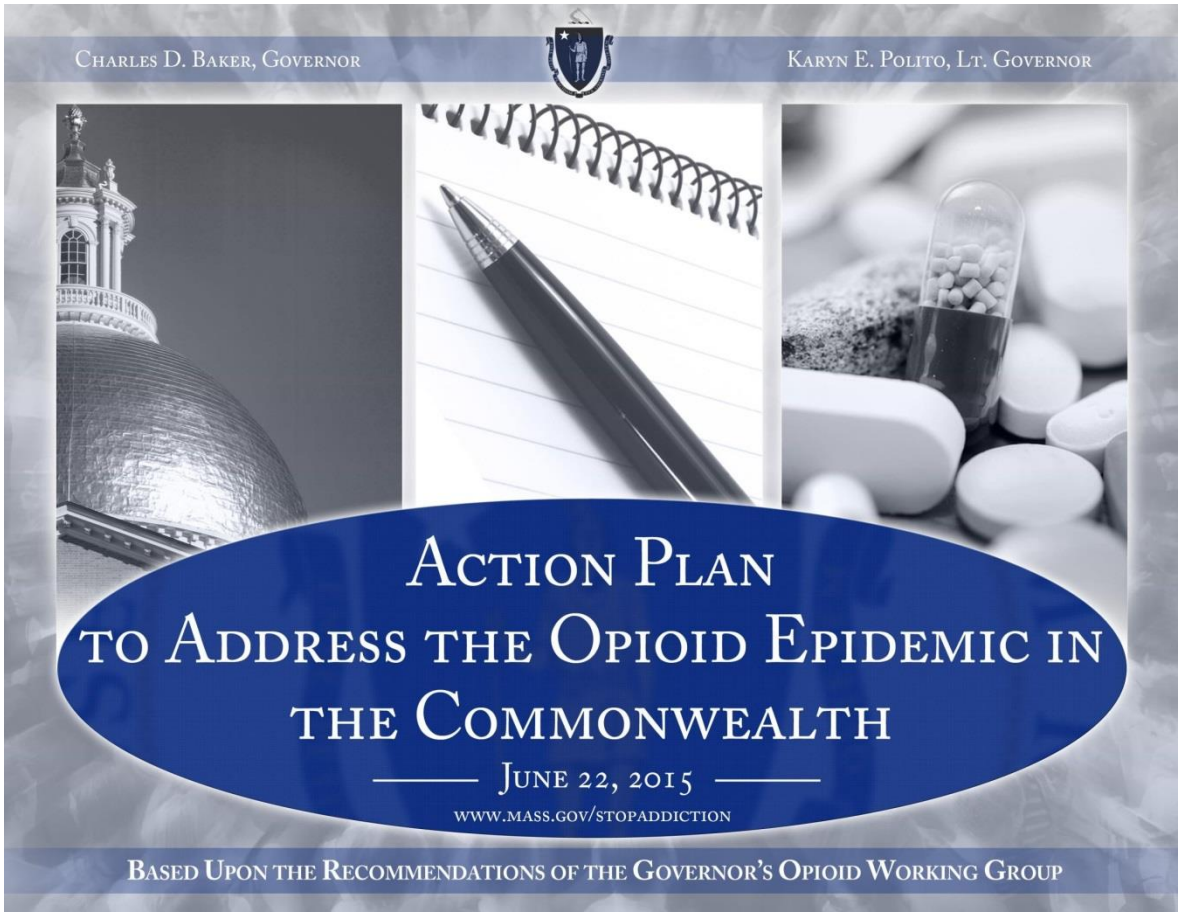

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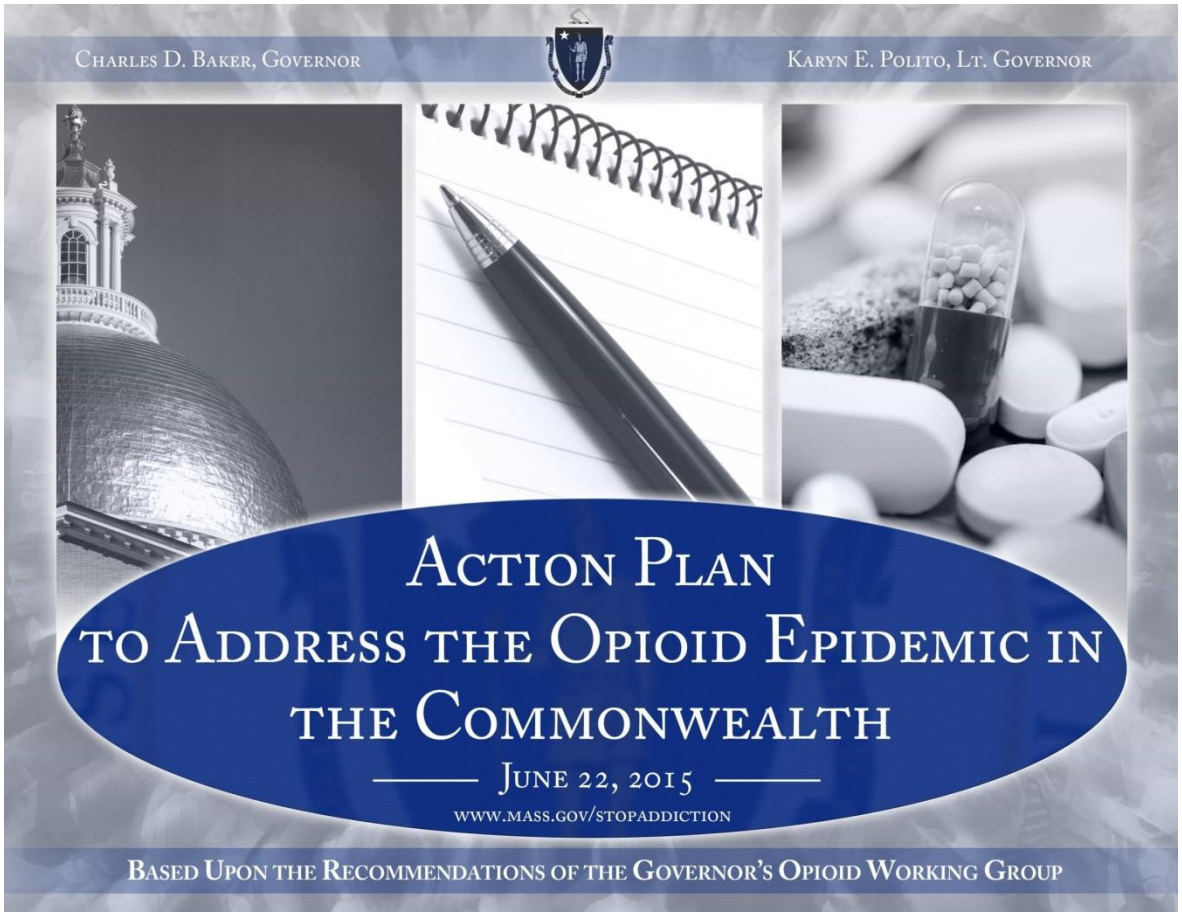

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WHAT IS STIGMA?

TAKE THE PLEDGE

TAKE THE QUIZ

SHOW YOUR SUPPORT

FOR HELP: 1-800-327-5050 (tty: 1-800-439-2370)

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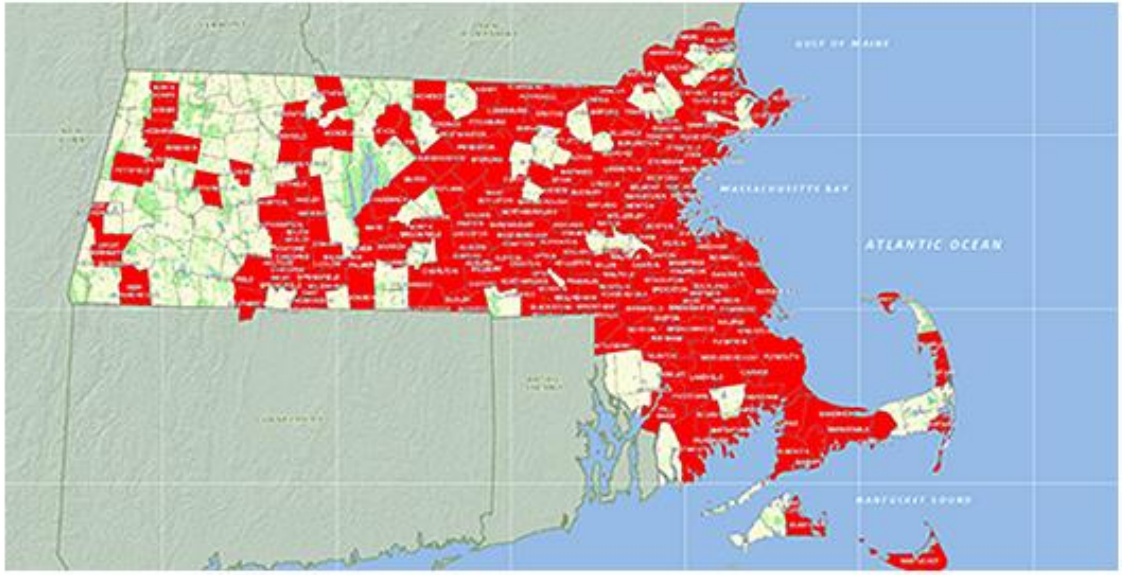
Let's Make Massachusetts a #StateWithoutStigMA!

Residents of cities and towns across Massachusetts are using social media to join the movement to make us a #StateWithoutStigMA! Don't see your city or town represented? Make it happen with just a few simple steps. See below!



Check out the #StateWithoutStigMA hashtag on ALL social media outlets and see what people are saying or doing.

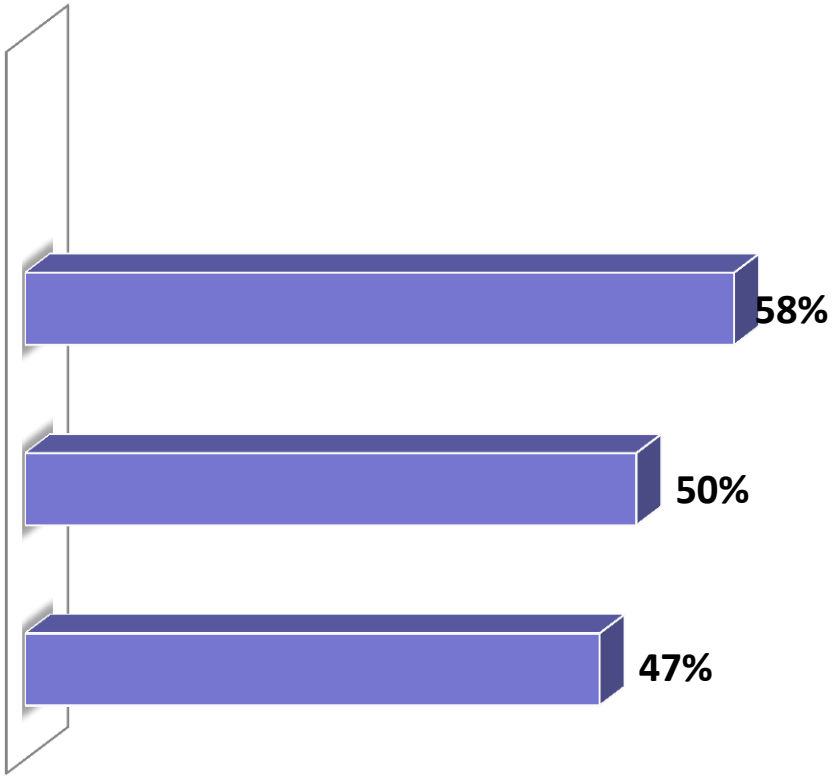
Join the Movement for a #StateWithoutStigMA

Survey: reason for prescription painkiller misuse

Too easy to buy prescription painkillers illegally

Painkillers are prescribed too often or in doses that are bigger than necessary

Too easy to get painkillers from those who save pills



Source: Boston Globe and Harvard T.H. Chan School of Public Health, Prescription Painkiller Abuse: Attitudes among Adults in Massachusetts and the United States

Medical Core Competencies: Primary Prevention Domain

❑ Preventing Prescription Drug Misuse:

Screening, Evaluation, and Prevention

1. Evaluate a patient's pain using age, gender, and culturally appropriate evidence-based methodologies.

2. Evaluate a patient's risk for substance use disorders by utilizing age, gender, and culturally appropriate evidence-based communication skills and assessment methodologies, supplemented with relevant available patient information, including but not limited to health records, family history, prescription dispensing records (e.g. the Prescription Drug Monitoring Program or "PMP"), drug urine screenings, and screenings for commonly co-occurring psychiatric disorders (especially depression, anxiety disorders, and PTSD).

3. Identify and describe potential pharmacological and non-pharmacological treatment options including opioid and non-opioid pharmacological treatments for acute and chronic pain management, along with patient communication and education regarding the risks and benefits associated with each of these available treatment options.

Medical Core Competencies: Secondary Prevention Domain

❑ **Treating Patients At-Risk for Substance Use Disorders:** *Engage Patients in Safe, Informed, and Patient-Centered Treatment Planning*

4. Describe substance use disorder treatment options, including medication-assisted treatment, as well as demonstrate the ability to appropriately refer patients to addiction medicine specialists and treatment programs for both relapse prevention and co-occurring psychiatric disorders.

5. Prepare evidence-based and patient-centered pain management and substance use disorder treatment plans for patients with acute and chronic pain with special attention to safe prescribing and recognizing patients displaying signs of aberrant prescription use behaviors.

6. Demonstrate the foundational skills in patient-centered counselling and behavior change in the context of a patient encounter, consistent with evidence-based techniques.

Medical Core Competencies: Tertiary Prevention Domain

❑ Managing Substance Use Disorders as a Chronic Disease:

Eliminate Stigma and Build Awareness of Social Determinants

7. Recognize the risk factors for, and signs of, opioid overdose and demonstrate the correct use of naloxone rescue.

8. Recognize substance use disorders as a chronic disease by effectively applying a chronic disease model in the ongoing assessment and management of the patient.

9. Recognize their own and societal stigmatization and biases against individuals with substance use disorders and associated evidence-based medication-assisted treatment.

10. Identify and incorporate relevant data regarding social determinants of health into treatment planning for substance use disorders.

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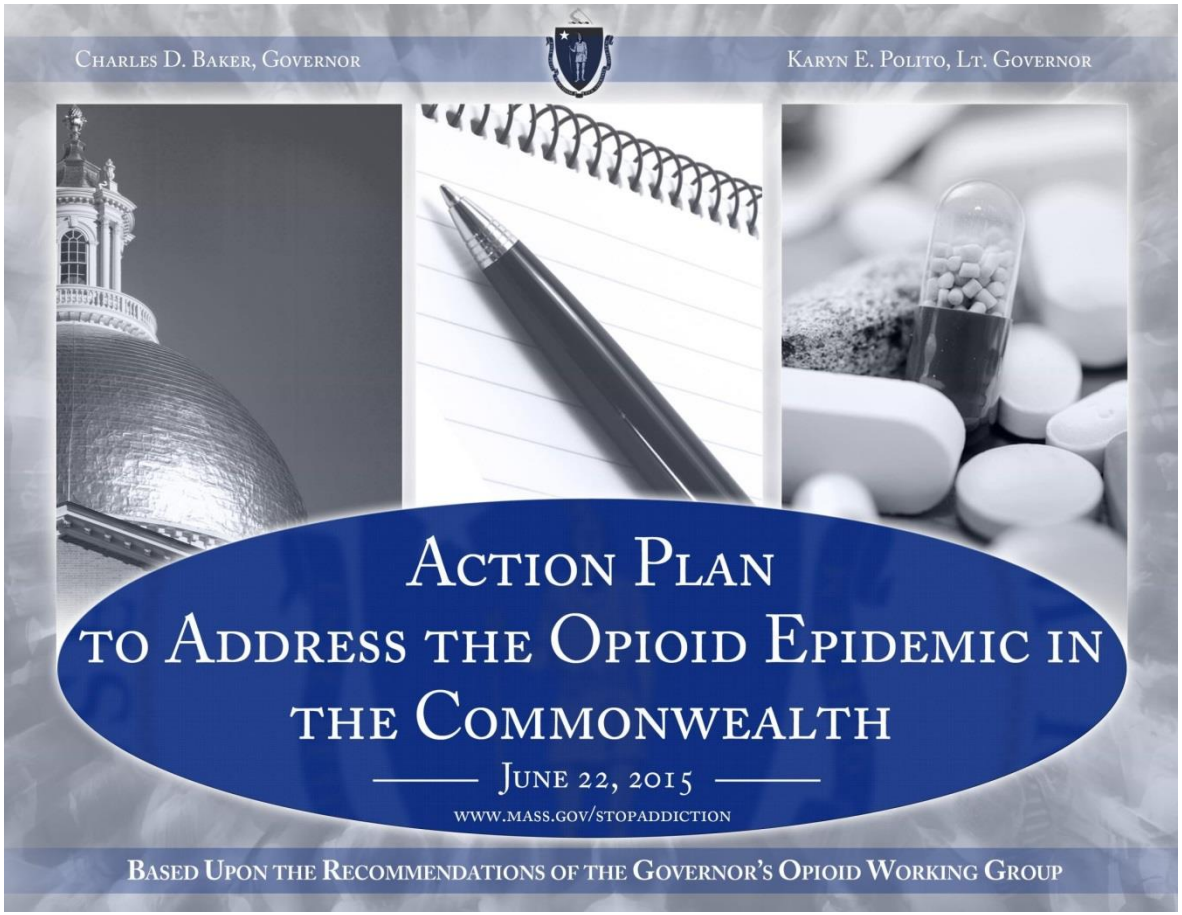

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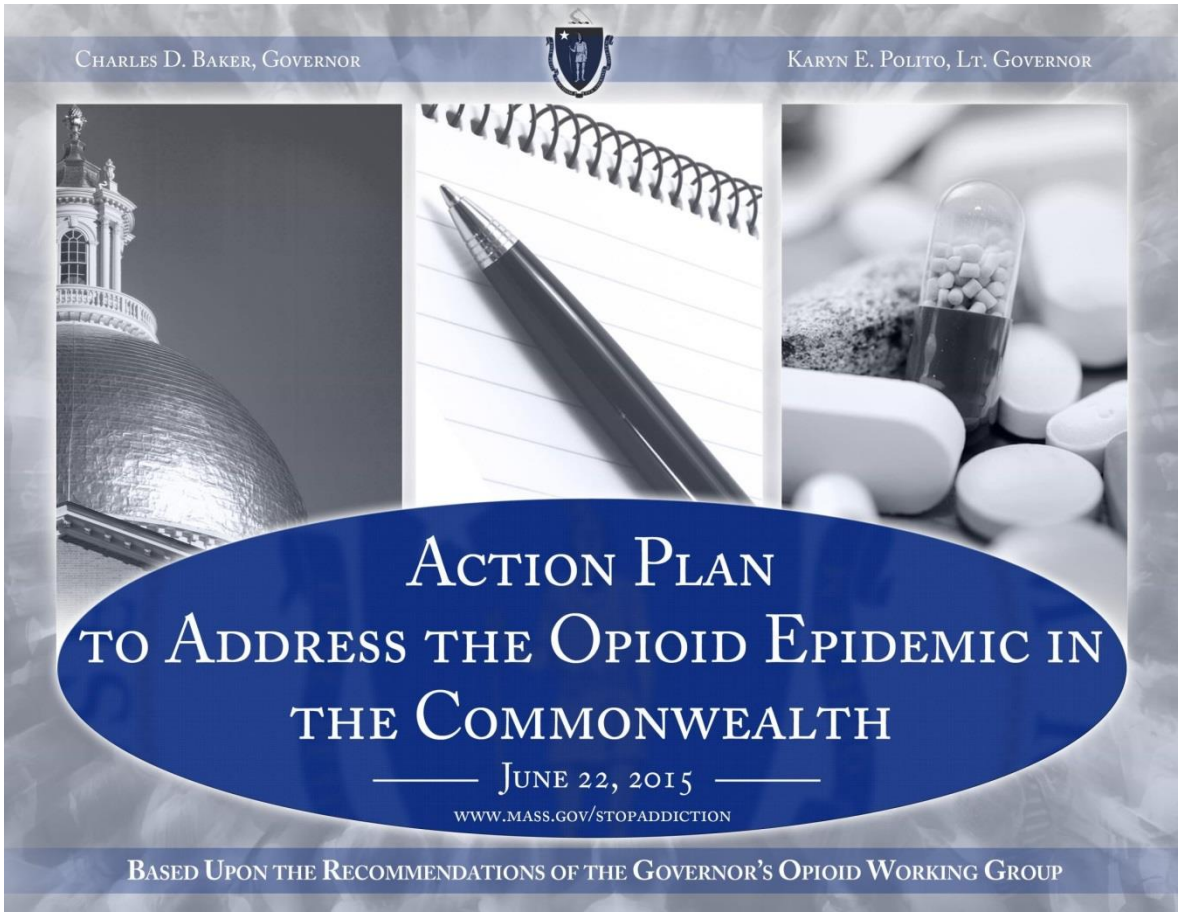

Quantity of Prescriptions Annually

This table includes all Schedule II and III opioid prescriptions dispensed and reported to the MA Online PMP, for both in- and out-of-state residents.

CY 2011-2014 Schedule II and III Opioids (# Prescriptions & Solid Quantity)		
Calendar Year	# Prescriptions	Solid Quantity
2011	4,617,213	259,867,988
2012	4,813,484	270,462,288
2013	4,770,214	266,456,043
2014	4,664,391	255,725,951

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Quantity of Prescriptions Annually

MA Prescription Monitoring Program County-Level Data (Q1 2016)

County (County classifications are by patient zip code; patient state must also = MA)	Census Population	Total Schedule II Opioid Prescriptions	Total Number of Schedule II Opioid Solid Dosage Units	Individuals Receiving Schedule II Opioid Prescription	% of Individuals Receiving Schedule II Opioid Prescription (of total population)	Individuals with Activity of Concern	Rate of Individuals with Activity of Concern (per 1,000)
Barnstable	214,990	30,181	1,765,042	13,918	6.5	34	2.4
Berkshire	130,016	16,277	899,723	7,470	5.7	11	1.5
Bristol	552,780	83,463	5,124,401	37,439	6.8	50	1.3
Dukes	17,256	2,145	128,913	1,079	6.3	<5	NR
Essex	762,550	83,226	4,650,689	40,629	5.3	55	1.4
Franklin	71,221	10,446	609,067	4,515	6.3	<5	NR
Hampden	467,319	67,827	3,969,917	30,831	6.6	37	1.2
Hampshire	159,596	18,448	1,152,531	8,164	5.1	6	0.7
Middlesex	1,552,802	120,142	6,612,232	62,531	4.0	84	1.3
Nantucket	10,399	1,203	56,082	560	5.4	<5	NR
Norfolk	681,845	65,740	3,788,473	32,940	4.8	46	1.4
Plymouth	501,915	64,041	3,863,091	30,611	6.1	42	1.4
Suffolk	755,503	57,275	3,486,339	28,860	3.8	44	1.5
Worcester	809,106	96,719	6,242,971	45,141	5.6	68	1.5
MA	**6,687,298**	**717,133**	**42,349,471**	**344,688**	**5.2**	**484**	**1.4**

Note 1: Individuals with activity of concern "thresholds" for this report are based ONLY on a 3-month time period; see notes on previous page; CY16-Q1

Note 2: Counts greater than 0 but less than or equal to 5 are not reported. Rates based on these small values also are not reported (NR).

Note 3: Rates of individuals with activity of concern are based on the population of individuals who have received one or more Schedule II opioid prescriptions during the specified time period.

Note 4: PMP data are preliminary and subject to updates. The MA PMP database is continuously updated to allow for prescription record correction data submitted by pharmacies. This data were extracted on 04/08/2016; Release Date: April 2016.

Note 5: National Center for Health Statistics. Postcensal estimates of the resident population of the United States for July 1, 2010-July 1, 2013, by year, county, age, bridged race, Hispanic origin, and sex (Vintage 2013).

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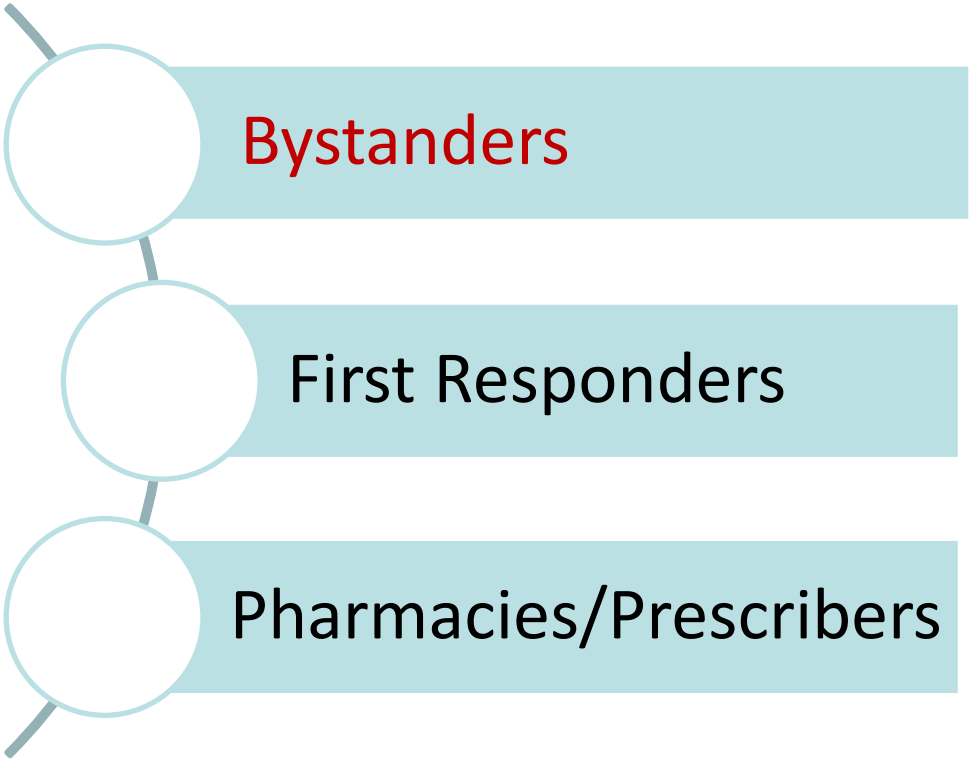
Reversing an Overdose: Use of Naloxone

Three Key Stakeholders in Naloxone Expansion



Bystander program model

- One statewide medical director who authorizes the training and distribution under a standing order.
- The naloxone is purchased by the DPH State Office of Pharmacy Services with funds from the DPH Bureau of Substance Abuse Services under the Medical Director's license.

- Programs receive naloxone and atomizers from DPH BSAS program.
  - Assemble kits, and then train/distribute.
  - Full kit is two doses, two nasal atomization delivery devices, and instructions for use.

- Training includes how to reduce risk and prevent an overdose, recognize signs of an overdose, access emergency medical services, and administer intra-nasal naloxone.
- Bystanders are instructed to deliver naloxone when opioid overdose occurs in addition to other prevention/intervention. After being trained, each participant receives a naloxone kit.

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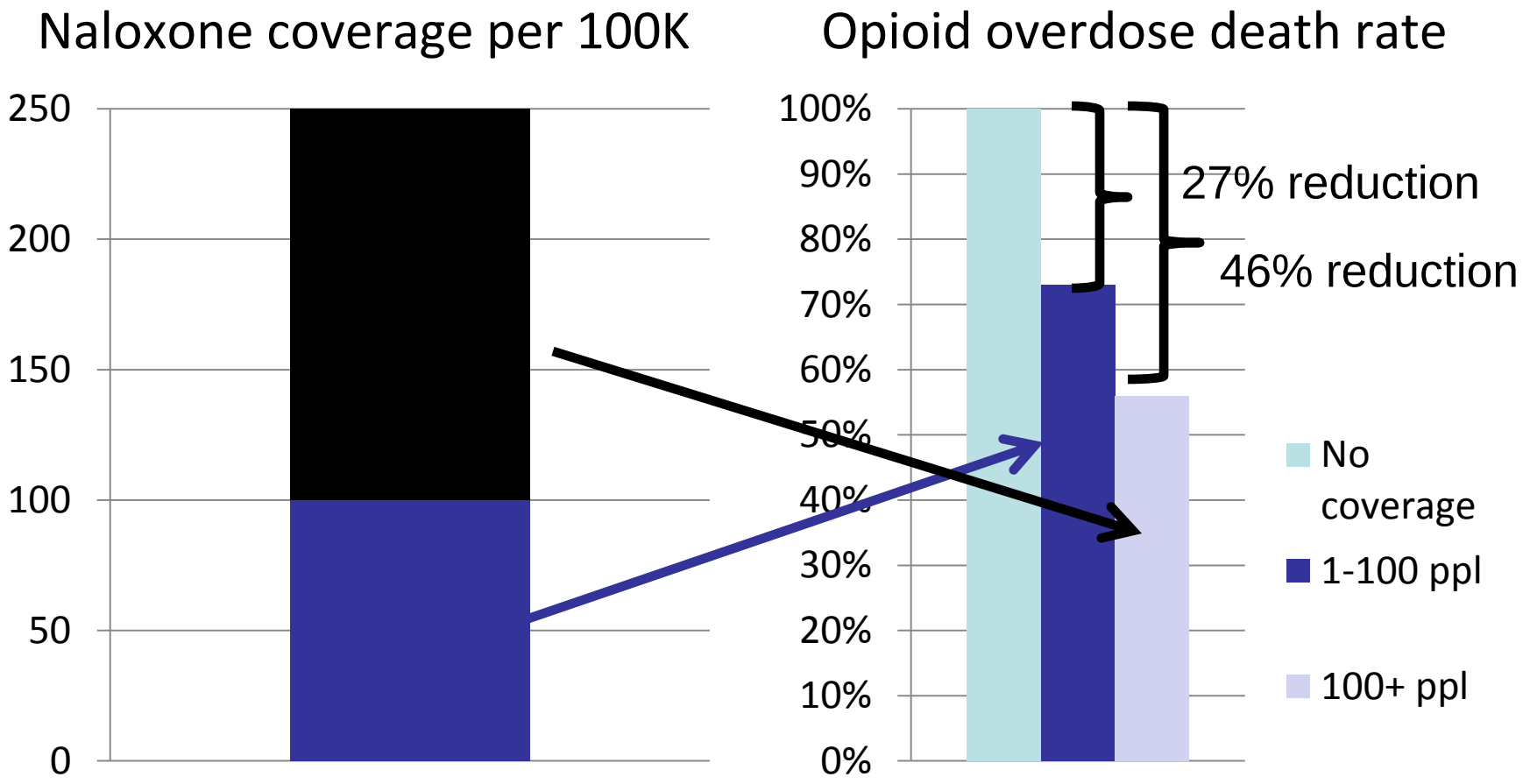
Fatal opioid overdose rates reduced where OEND implemented



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

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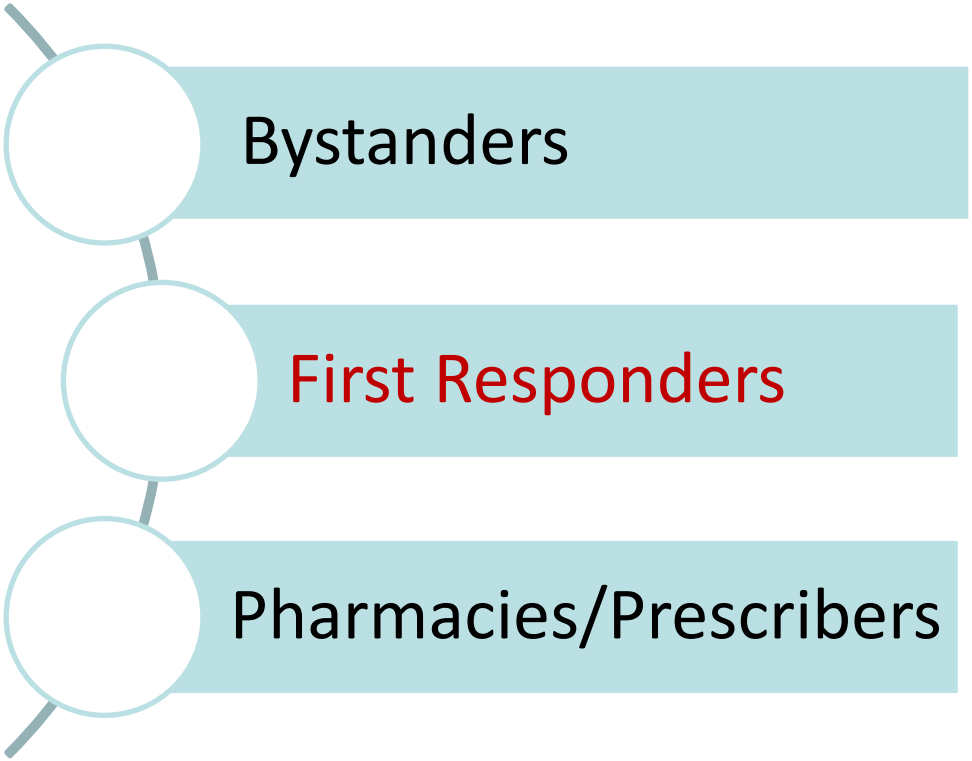
Three Key Stakeholders in Naloxone Expansion



First responders model

- In emergency situations, historically only paramedics have administered naloxone via injection in the event of an overdose.
- 2005, the Boston EMS applied for a Special Project Waiver from the DPH Office of Emergency Medical Services (OEMS)
  - allow EMT's to administer naloxone via intra-nasal spray.
  - first use of intra-nasal administered naloxone in Massachusetts.
- 2010 DPH began a pilot program to equip First Responders with intra-nasal naloxone.
- 2014 regulations amended to allow first responders to carry naloxone with medical director oversight

First responders

- In the FY2015 budget, $1,000,000 for first responder and bystander naloxone programs funded 37 police or fire departments in 23 municipalities to implement first responder naloxone administration.
- Police and Fire Departments work with local hospitals or other medical directors for the medical control of their naloxone administration.
- In FY2016, Governor Baker filed to create a naloxone municipal bulk purchase trust fund, expanding availability of naloxone in Massachusetts.

Three Key Stakeholders in Naloxone Expansion

- Bystanders
- First Responders
- Pharmacies/Prescribers

Pharmacies and prescribers model

- Historically, writing a prescription for naloxone to a person at risk of an overdose not common clinical practice and pharmacies were not equipped to fill prescriptions for naloxone.
- Some inpatients, emergency departments, health centers developed standing orders for hospital pharmacies to furnish naloxone on discharge
- 2014: DPH regulation change to permit standing order narcan in pharmacies
  - Allow pharmacists to establish a standing order with a prescriber for dispensing naloxone rescue kits.
- MassHealth and other insurers cover prescriptions for naloxone.
- When a pharmacy has an established standing order for naloxone, customers do not need a prescription to be dispensed a naloxone rescue kit. The customer's insurance will be billed and a co-pay or full price will be charged depending on the insurance coverage.

Other Highlighted Intervention Progress to date

- Redesigning, redeveloping and relaunching the Prescription Monitoring Program (PMP) online system;
- Passing legislation requiring pharmacists to enter data into the PMP within one business day (24 hours), down from 7 days of receipt of prescription;
- Holding Drug Take-Back Day at 133 sites to collect unused prescription drugs for safe disposal;
- Convening of the state's Drug Formulary Commission;

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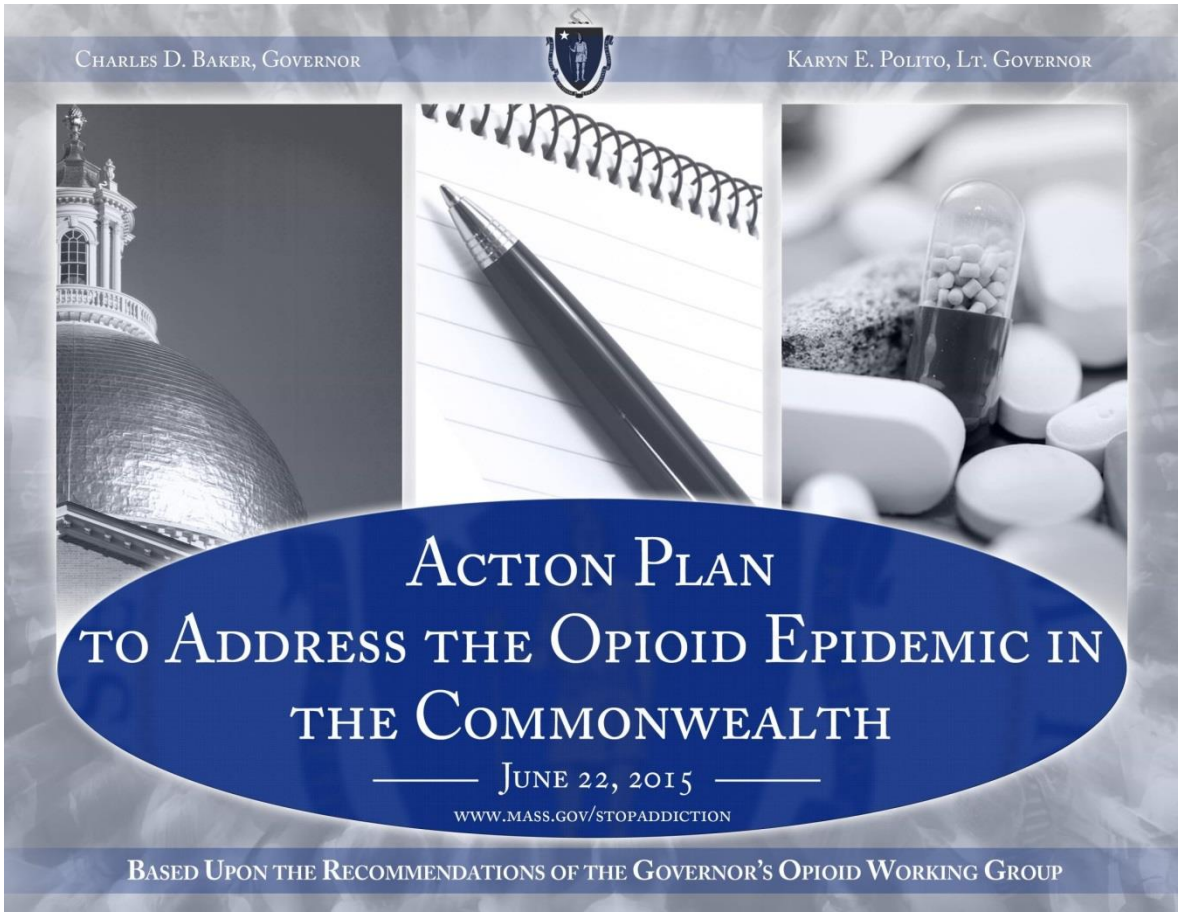

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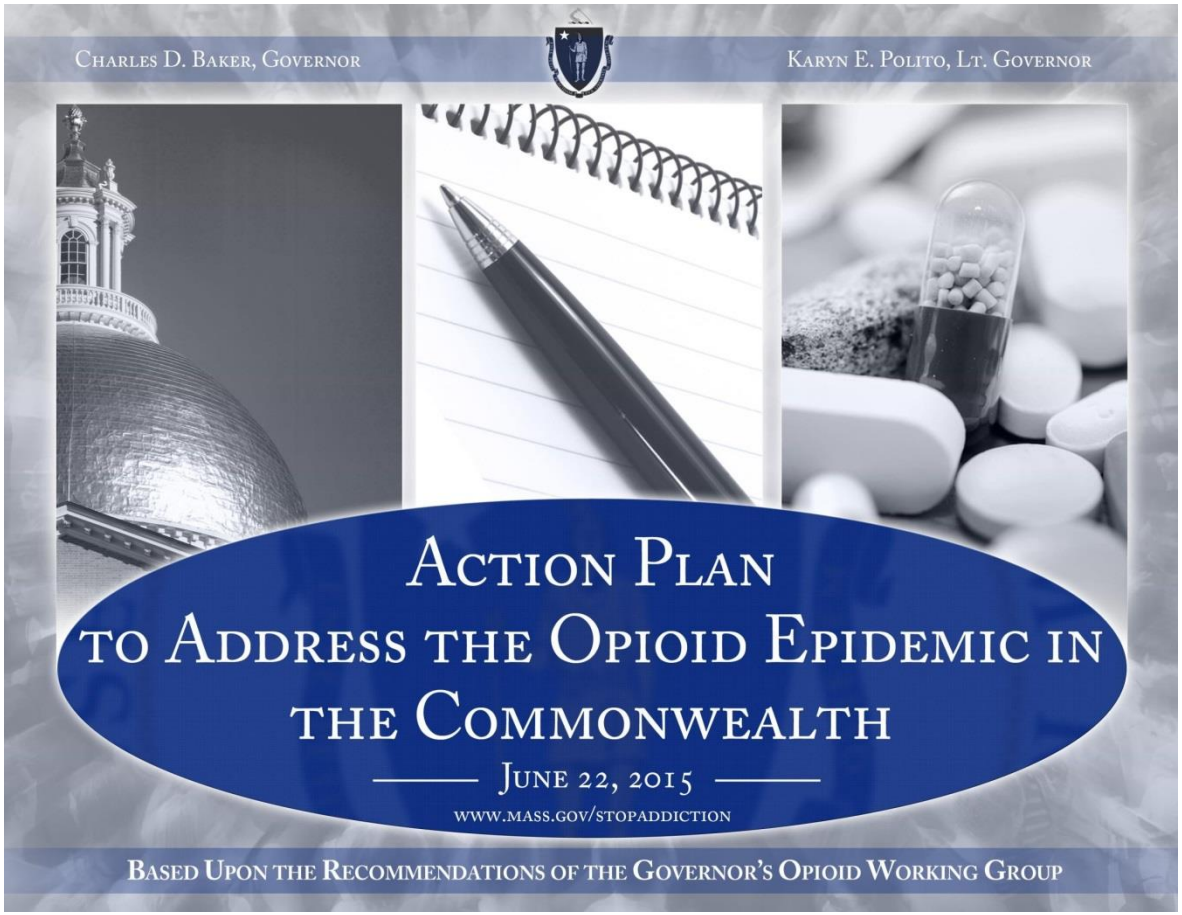

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Treatment and Recovery: Progress To-Date

- ❑ Adding over 200 new treatment beds across the state;
- ❑ Planning for the transfer of women civilly committed under Section 35 at MCI Framingham to Taunton State Hospital by Spring 2016;
- ❑ Reinforcing the requirement that all DPH licensed addiction treatment programs must accept patients who are on methadone or buprenorphine medication;
- ❑ Strengthening the state's commitment to residential recovery programs through rate increases.
- ❑ Issuance of Division of Insurance guidelines to commercial insurers on the implementation of the substance use disorder recovery law (Chapter 258) which requires insurers to cover the cost of medically necessary clinical stabilization services for up to 14 days without prior authorization;

Substance Use, Treatment, Education and Prevention Law (STEP)

Ch. 52 of the Acts of 2016

- 7 day limit on a first time opioid prescription; allows for a pharmacist partial fill
- Patient voluntary non-opioid directive (12/16)
- Allows the Municipal Police Training Committee to establish a course within the recruit basic training curriculum to train officers on response to calls for assistance on drug related overdoses
- Amends the Civil Liberties law so that any person who administers naloxone is not liable for injuries resulting from the injection
- Requires substance abuse evaluation in ED when present for an OD (start 7/16)

Addressing the Opioid epidemic through a Public Health Lens

MONICA BHAREL, MD, MPH

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