Addressing the Opioid Epidemic through a Public Health Lens

MONICA BHAREL, MD, MPH

MASSACHUSETTS COMMISSIONER OF PUBLIC HEALTH
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
The range of DPH

300+ DATA SETS
DIFFERENT LANGUAGES
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.
The opioid epidemic burden in Massachusetts

57% associated with fentanyl
The opioid epidemic burden in Massachusetts

Unintentional Opioid Deaths by Gender

Unintentional Opioid Deaths by Age
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.
Action Plan to Address the Opioid Epidemic in the Commonwealth

June 22, 2015

Based Upon the Recommendations of the Governor’s Opioid Working Group
**Vision:** Curb the rate of increase of opioid related overdose deaths.

**Goal:** Decrease the number of opioid overdose deaths through a multi-prong approach, including increasing the number of providers actively using the Prescription Monitoring Program by 80%; increase enrollments for services by 10%.

**Rationale:** Factors contributing to opioid overdose deaths include limited access to treatment and prescription drug abuse.

Notes: Estimated opioid related overdose deaths based on 5% annual decrease. PMP estimates only includes providers and not delegates.
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
Action Plan
To Address the Opioid Epidemic in the Commonwealth
June 22, 2015
Based upon the Recommendations of the Governor’s Opioid Working Group
Governor Baker’s Opioid Working Group

Prevention Intervention Treatment Recovery

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Commonwealth of Massachusetts
Department of Public Health
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
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.
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.
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.
Governor Baker’s Opioid Working Group

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www.mass.gov/stopaddiction
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.
# MA Prescription Monitoring Program County-Level Data (Q1 2016)

<table>
<thead>
<tr>
<th>County (County classifications are by patient zip code; patient state must also = MA)</th>
<th>Census Population</th>
<th>Total Schedule II Opioid Prescriptions</th>
<th>Total Number of Schedule II Opioid Solid Dosage Units</th>
<th>Individuals Receiving Schedule II Opioid Prescription</th>
<th>% of Individuals Receiving Schedule II Opioid Prescription (of total population)</th>
<th>Individuals with Activity of Concern</th>
<th>Rate of Individuals with Activity of Concern (per 1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnstable</td>
<td>214,990</td>
<td>30,181</td>
<td>1,765,042</td>
<td>13,918</td>
<td>6.5</td>
<td>34</td>
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<td>Berkshire</td>
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<td>16,277</td>
<td>899,723</td>
<td>7,470</td>
<td>5.7</td>
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<td>Bristol</td>
<td>552,780</td>
<td>83,463</td>
<td>5,124,401</td>
<td>37,439</td>
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<td>Dukes</td>
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<td>2,145</td>
<td>128,913</td>
<td>1,079</td>
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<td>&lt;5</td>
<td>NR</td>
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<tr>
<td>Essex</td>
<td>762,550</td>
<td>83,226</td>
<td>4,650,689</td>
<td>40,629</td>
<td>5.3</td>
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<td>Franklin</td>
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<td>10,446</td>
<td>609,067</td>
<td>4,515</td>
<td>6.3</td>
<td>&lt;5</td>
<td>NR</td>
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<td>Hampden</td>
<td>467,319</td>
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<td>30,831</td>
<td>6.6</td>
<td>37</td>
<td>1.2</td>
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<tr>
<td>Hampshire</td>
<td>159,596</td>
<td>18,448</td>
<td>1,152,531</td>
<td>8,164</td>
<td>5.1</td>
<td>6</td>
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<tr>
<td>Middlesex</td>
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<td>120,142</td>
<td>6,612,232</td>
<td>62,531</td>
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<td>84</td>
<td>1.3</td>
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<tr>
<td>Nantucket</td>
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<td>1,203</td>
<td>56,082</td>
<td>560</td>
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<td>&lt;5</td>
<td>NR</td>
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<tr>
<td>Norfolk</td>
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<td>85,740</td>
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<td>32,940</td>
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<td>46</td>
<td>1.4</td>
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<tr>
<td>Plymouth</td>
<td>501,915</td>
<td>64,041</td>
<td>3,863,091</td>
<td>30,611</td>
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<td>Suffolk</td>
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<td>Worcester</td>
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<td><strong>42,349,471</strong></td>
<td><strong>344,688</strong></td>
<td><strong>5.2</strong></td>
<td><strong>484</strong></td>
<td><strong>1.4</strong></td>
</tr>
</tbody>
</table>

**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).
Reversing an Overdose: Use of Naloxone
Three Key Stakeholders in Naloxone Expansion

- Bystanders
- First Responders
- Pharmacies/Prescribers
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.
Fatal opioid overdose rates reduced where OEND implemented

Naloxone coverage per 100K

Opioid overdose death rate

27% reduction
46% reduction

Three Key Stakeholders in Naloxone Expansion

- Bystanders
- First Responders
- Pharmacies/Prescribers
• 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.
Police & Fire naloxone rescues
2010-2014
Massachusetts DPH First Responder Pilot

Rescues and deaths, 2010-2014

- Signs of life, but died
- Dead on arrival
- Rescue

<table>
<thead>
<tr>
<th>Year</th>
<th>Signs of life, but died</th>
<th>Dead on arrival</th>
<th>Rescue</th>
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</thead>
<tbody>
<tr>
<td>2010</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>0</td>
<td>67</td>
</tr>
<tr>
<td>2012</td>
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<td>0</td>
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</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>0</td>
<td>160</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>0</td>
<td>318</td>
</tr>
</tbody>
</table>
● 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
• 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;
Prevention Intervention Treatment Recovery

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Unintentional Opioid Overdose Death Rate by County, January 2013 – September 2015

DRAFT

Opioid Overdose Death Rate
By county, per 100,000 people

State Rate: 13.9

1. All data updated on 12/10/2015. Unintentional poisoning/overdose deaths combine unintentional and undetermined intents.
2. Opioids include heroin, opioid-based prescription painkillers, and other unspecified opioids.
3. Please note that 2014 and 2015 death data are preliminary and subject to updates.
4. Rates computed for smaller counties (populations <10,000) are likely to vary significantly from year to year.
5. Low rates of unintentional opioid overdose deaths in a county should not be taken as an indication that there is no opioid abuse problem in that community.
6. County level opioid overdose death rates are computed by averaging the number of opioid-related deaths between January 2013 and September 2015 by the estimated population in the community in that same period. County is based on county of residence for the decedent.
7. The rate is expressed as a value per 100,000 residents.

Data source: Registry of Vital Records and Statistics, MDPH. Geographic data: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, MassIT. Map created by BEH-GIS, MDPH
Unintentional Opioid Overdose Death Rate by Community, 2013 – 2014
With Treatment & Recovery Service Type Counts

DRAFT

Number of Treatment & Recovery Service Type Categories Present

- 1
- 2
- 3
- 4
- 5

5 Mile Buffer**

** Area within 5 miles of town boundary of communities with 4 or 5 treatment & recovery service types

Crude Opioid Overdose Death Rate

per 100,000 people

- 0
- > 0 - 8.6
- 8.7 - 14.2
- 14.3 - 20.2
- > 20.3

First Responder Grant Communities

State Rate: 14.7

1. All data updated on 07/01/2015. Unintentional poisoning/overdose deaths combine unintentional and undetermined intents.

2. Opioids include heroin, opioid-based prescription painkillers, and other unspecified opioids.

3. Please note that 2013 and 2014 death data are preliminary and subject to updates.

4. Rates computed for smaller communities (populations <10,000) are likely to vary significantly from year to year.

5. Low rates of unintentional opioid overdose deaths in a community should not be taken as an indication that there is no opioid abuse problem in that community.

6. Community level opioid overdose death rates are computed by averaging the number of opioid-related deaths in 2013 and 2014 and dividing this number by the estimated population in the community in 2013 and 2014. Community is based on city or town of residence for the decedent.

The rate is expressed as a value per 100,000 residents.

Data source: Registry of Vital Records and Statistics, MDPH. Geographic data: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, MassTIGER. Map created by BEH-GIS, MDPH.
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;
• 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)
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