Massachusetts DPH by the numbers

History dates back to 1799

8 Bureaus
6 Offices

~3000 Employees

More than 15 sites in Massachusetts

~$1 billion budget
The Range of DPH

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 disparities.
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 healthcare 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
Social determinants of health refer to conditions of society that reflect root causes of community and individual health and well-being.

- There may be significant differences in the distribution of these social and environmental resources, with a significant association between these resources and health outcomes.
- These determinants drive health inequities.

Determinants of Health

Individual resources
Education, occupation, income, wealth

Neighborhood resources
Housing, food choices, public safety, transportation, parks and recreation, political clout

Social determinants of health (contexts)

Individual behaviors

Hazards and toxic exposures
Pesticides, lead, reservoirs of infection

Opportunity structures
Schools, jobs, justice

CDC: Social Determinants of Health and Social Determinants of Equity, the Impacts of Racism on the Health of our Nation
CDC’s Health Impact Pyramid

- **Smallest impact**
  - Counseling and education
  - Clinical interventions
  - Long-lasting protective interventions
  - Changing the context to make individuals’ default decisions healthy
  - Socioeconomic factors

- **Largest impact**
  - Eat healthy, be physically active
  - Rx for high blood pressure, high cholesterol, diabetes
  - Immunizations, brief interventions
  - Fluoridation, no trans fat, smoke-free laws
  - Poverty, education, housing, inequality
The Spending Mismatch: Health Determinants vs. Health Expenditures

Determinants
- Access to Care: 8%
- Genetics: 20%
- Socioeconomic and Physical Environments: 22%
- Healthy Behaviors: 37%
- Interactions Among Determinants: 15%

National Health Expenditures: $2.6 Trillion
- Medical Services: 90%
- Healthy Behaviors: 9%
- Other: 1%

Source: NEHI and University of California, San Francisco, 2013.
<table>
<thead>
<tr>
<th>Expenditure Group</th>
<th>Users (N=6,493)</th>
<th>Expenditures ($149 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 – 100%</td>
<td>10%</td>
<td>48.0%</td>
</tr>
<tr>
<td>75 – 90%</td>
<td>15%</td>
<td>25.5%</td>
</tr>
<tr>
<td>50 – 75%</td>
<td>25%</td>
<td>18.6%</td>
</tr>
<tr>
<td>25 – 50%</td>
<td>25%</td>
<td>6.5%</td>
</tr>
<tr>
<td>0 – 25%</td>
<td>25%</td>
<td>1.4%</td>
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</tbody>
</table>
The gap in life expectancy between the richest 1% & poorest 1% of individuals: 14.6 years
U.S. Infant Mortality Rate 2011

Commonwealth of Massachusetts
Department of Public Health

U.S. rate = 6.15

CDC Vital Statistics
Infant Mortality Rates in Massachusetts’ Largest Cities 2012

**Infant Mortality, 2012**

<table>
<thead>
<tr>
<th>City</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somerville</td>
<td>2.05</td>
</tr>
<tr>
<td>Cambridge</td>
<td>2.36</td>
</tr>
<tr>
<td>Quincy</td>
<td>3.19</td>
</tr>
<tr>
<td>Lowell</td>
<td>3.6</td>
</tr>
<tr>
<td>Springfield</td>
<td>3.78</td>
</tr>
<tr>
<td>New Bedford</td>
<td>3.79</td>
</tr>
<tr>
<td>Framingham</td>
<td>4.41</td>
</tr>
<tr>
<td>Boston</td>
<td>4.73</td>
</tr>
<tr>
<td>Newton</td>
<td>4.93</td>
</tr>
<tr>
<td>Brockton</td>
<td>5.17</td>
</tr>
<tr>
<td>Fall River</td>
<td>5.49</td>
</tr>
<tr>
<td>Lawrence</td>
<td>6.03</td>
</tr>
<tr>
<td>Lynn</td>
<td>7.32</td>
</tr>
<tr>
<td>Worcester</td>
<td>7.47</td>
</tr>
<tr>
<td><strong>Massachusetts</strong></td>
<td><strong>4.26</strong></td>
</tr>
</tbody>
</table>

**Statewide rate = 4.26**

**All Causes of Death - Infant Deaths (ICD 10)**

Mortality data courtesy of MA DPH. Map created by BEH-GIS, MDPH
74% OF OPIOID DEATHS IN 2016 HAD THE PRESENCE OF FENTANYL
The opioid epidemic burden in Massachusetts

Unintentional Opioids Deaths by Gender

Male (75%)  Female (25%)
The opioid epidemic burden in Massachusetts
The opioid epidemic burden in Massachusetts
The opioid epidemic burden in Massachusetts
From 2004 to 2013 the Incidence of NAS increased from <3/1000 hospital births to >16/1000 hospital births per year.

Sources:
Governor Baker’s Opioid Working Group

Prevention Intervention Treatment Recovery

Action Plan to Address the Opioid Epidemic in the Commonwealth

June 22, 2015

Based upon the recommendations of the Governor’s Opioid Working Group
#StateWithoutStigMA

WHAT IS STIGMA?

TAKE THE PLEDGE

TAKE THE QUIZ

SHOW YOUR SUPPORT

FOR HELP: 1-800-327-5050 (tty: 1-800-439-2370)
Survey: reason for prescription painkiller misuse

- Too easy to buy prescription painkillers illegally: 58%
- Painkillers are prescribed too often or in doses that are bigger than necessary: 50%
- Too easy to get painkillers from those who save pills: 47%

Source: Boston Globe and Harvard T.H. Chan School of Public Health, Prescription Painkiller Abuse: Attitudes among Adults in Massachusetts and the United States
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.
Governor Baker’s Opioid Working Group

Prevention **Intervention** Treatment Recovery

**Action Plan**
**To Address the Opioid Epidemic in the Commonwealth**

June 22, 2015

Based Upon the Recommendations of the Governor’s Opioid Working Group

**Website:** www.mass.gov/stopaddiction
# MassPAT: The new PMP

## Summary
- Prescriptions: 14
- Prescribers: 1
- Pharmacies: 3
- Private Pay: 4
- Active Daily MME: 0.0

## Prescriptions

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<thead>
<tr>
<th>Filled</th>
<th>ID</th>
<th>Written</th>
<th>Drug</th>
<th>QTY</th>
<th>Days</th>
<th>Prescriber</th>
<th>Rx #</th>
<th>Pharmacy</th>
<th>Refills</th>
<th>MME/D</th>
<th>Pymt Type</th>
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<td>03/22/2016</td>
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<td>02/16/2016</td>
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<td>KMART (8665)</td>
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<td>01/19/2016</td>
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<td>01/17/2016</td>
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<td>01/10/2016</td>
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<td>01/02/2016</td>
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<td>JO BOG</td>
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<td>Other</td>
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<td>11/21/2015</td>
<td>2</td>
<td>07/18/2015</td>
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<td>FITCH (2622)</td>
<td>5</td>
<td></td>
<td>Comm Ins</td>
<td>MA</td>
</tr>
</tbody>
</table>
IF YOU SEE AN OVERDOSE CALL 911

THE LAW PROTECTS YOU.

mass.gov/MakeTheRightCall
Governor Baker’s Opioid Working Group

Prevention Intervention Treatment Recovery

Action Plan to Address the Opioid Epidemic in the Commonwealth

June 22, 2015

Based Upon the Recommendations of the Governor’s Opioid Working Group
Adding hundreds of new treatment beds across the state;
Beginning the transfer of women civilly committed under Section 35 at MCI Framingham to Taunton State Hospital;
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)
• SBIRT must be implemented in schools by June 2018
• 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 (7/16)
Chapter 55 – Data mapping

Data Sources
- DPH
- CHIA (MassHealth)
- EOPSS
- Jails & Prisons

System Attributes
- Data **encrypted** in transit & at rest
- Limited data sets **unlinked** at rest
- Simplified structure using **summarized** data
- Linking and analytics “on the fly”
- No residual files after query completed
- Analysts can’t see data
- Automatic cell suppression
- Possible resolution to issues related to 42 CFR part 2

Chapter 55 Data Structure

All Doors Opening
- Significant coordination within DPH
- Financial and technical support from MassIT’s Data Office
- CHIA takes on role as linking agent
- Coordination across agencies (legal & evaluation)
- Volunteer analytic support from academia and industry

* Note: Houses of Correction data was unavailable at the time this report was written. As such, assessment does not reflect HOC inmate outcomes.
Patients treated with methadone and/or buprenorphine (Opioid Agonist Treatment or “OAT” that block the effect of opioids) following a non-fatal overdose were significantly less likely to die; however, very few patients (~5%) engage in OAT following a non-fatal overdose.
The risk of opioid overdose death following incarceration is 56 times higher than for the general public.
Monica Bharel, MD, MPH
Commissioner of Public Health