Massachusetts Health Policy Forum: Student Forum

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Associate Commissioner
Massachusetts Department of Public Health
Friday, April 6, 2018
The Administration

Baker Administration

Governor’s Office
Charlie Baker
Karen Polito

EOHHS Secretariat
Marylou Sudders

DPH Commissioner
Monica Bharel
About DPH

1799
History of department dates to Paul Revere

8 Bureaus, 6 Offices
DPH covers a range of issues from birth until death

15 sites, 3000 employees
DPH is located across the Commonwealth, and partners with local boards of health

$1 billion
Annual budget, comprised of federal, state, and grant funding
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 inequities.
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
A FOCUS ON HEALTH EQUITY
Massachusetts was ranked the #1 healthiest state in the US in the 2017 America’s Health Rankings Annual Report.
U.S. Infant Mortality Rate 2011

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

Statewide rate = 4.26

**All Causes of Death - Infant Deaths (ICD 10)
Boston Neighborhoods with High Rates of Chronic Disease Hospitalizations

Keep your eye on “the crescent”

*2012 CHIA Hospital Discharge Data, age adjusted
Boston Neighborhoods with Poor Perceived Safety

Legend
- **Orange**: Lower than Boston Overall
- **Light Orange**: Same as Boston Overall
- **Light Orange with Black Border**: Higher than Boston Overall

*Boston Neighborhood Survey (BNS), 2008; Harvard Youth Prevention Center through Cooperative agreement with the CDC*
Boston Neighborhoods with a High Rent Burden

Legend
- Higher than Boston Overall
- Same as Boston Overall
- Lower than Boston Overall

* American Community Survey, 2008-2012, US Census Bureau
Boston Neighborhoods with Low Access to Healthy Food (mRFEI)

Legend
- Lowest Quartile
- 2nd Lowest Quartile
- 2nd Highest Quartile
- Highest Quartile

* Modified Retail Food Environment Index, CDC
But put them all together and...
High rates of Chronic Disease
Chronic Disease + Poor Safety + High Rent
Chronic Disease + Poor Safety + High Rent + Poor Food Access
What else is going on in “the crescent”...
Place Matters

(1 dot = 100 residents)

Map Source: 2011 Health of Boston Report
Data Source: Census 2000, US Census Bureau
Redlining of Boston Neighborhoods

Racial Inequities in Health

<table>
<thead>
<tr>
<th>Black vs. White Death Rate Disparities</th>
<th>White, NH</th>
<th>Black, NH</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Causes</td>
<td>686.3</td>
<td>784.1</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>157.9</td>
<td>177.3</td>
</tr>
<tr>
<td>Cancer</td>
<td>176.9</td>
<td>191.4</td>
</tr>
<tr>
<td>Stroke</td>
<td>31.7</td>
<td>44.5</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>13.0</td>
<td>27.8</td>
</tr>
</tbody>
</table>

Categories of White, Black, and Asian/Pacific Islander do not include persons of Hispanic origin
ICD-10 codes for selected causes of death (b)
Death rates for counts less than 30 are unstable and should be interpreted with caution
NH=Non-Hispanic, PI=Pacific Islander
The Counts and Rates are 3 year aggregates
- See Notes on Population Data
- 2008-2010 Mortality (Vital Records) ICD-10 based
Health Priorities
Social Determinants of Health

- Education
- Employment
- Violence
- Housing
- Social Environment
- Built Environment
Case Study: Opioid Data

Analyzing data, determinants and disparities to produce good policy
Opioid Related Deaths

Figure 1. Opioid1-Related Deaths, All Intents
Massachusetts Residents: January 2000 - December 2016

450% increase in 16 years

Confirmed

Estimated
Opioid Overdose Death Rates by County

2011 - 2013 vs. 2014 - 2016
The rate of fentanyl present in the toxicology of opioid-related overdose deaths continues to rise, reaching \textbf{81 percent} this year, while the rate of prescription opioids and heroin present in opioid-related overdose deaths continues to decline.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure4}
\caption{Percent of Opioid Deaths with Specific Drugs Present \textit{MA: 2014-2017}}
\end{figure}
Chapter 55 Report & Data Brief

An Assessment of Fatal and Nonfatal Opioid Overdoses in Massachusetts (2011 – 2015)
Data Mapping

**Data Sources**
- Public Health
- Medical Claims & Hospital
- MassHealth
- Mental Health
- Public Safety
- Jails & Prisons
- Other Law Enforcement
- DHCD (Homelessness)
- Veterans’ Services
- Service Flags
- Aggregate (Town, Zip, etc.)

**Community Level Data**
- NARCAN Distribution
- Needle Exchange
- Town & Zip Census Data
- I.C.E. Measures
- Drug Seizure Data
- MDPHnet Depression
- Hospital and ED
- Veterans’ Services
- DMH
- DHCD
- MassHealth
- Cancer Registry
- Birth Records
- MATRIS (EMS)
- BSAS Treatment
- PDMP

**Chapter 55 Data Structure**
- APCD Spine
- Death Records
- Toxicology
- OCME Intake
- State Police Opioid
- MA Prisons
- MA Jails
- MassHealth
- Veterans’ Services
- DMH
- DHCD
- Hospital and ED
- Medical Claims

**System Attributes**
- Linkage at individual level
- Longitudinal (5 year history)
- Data encrypted in transit & at rest
- Limited data sets unlinked at rest
- Linking and analytics “on the fly”
- No residual files after query completed
- Analysts can’t see data
- Automatic cell suppression

**Service Indicator Flags**
- Children & Families
- Dept Dev Services
- Transitional Assistance
- Youth Services
- Commission for Blind
Chapter 55: Partners Coming Together

Academic
- Brandeis University
- Boston University
- Brown University
- Harvard Medical School
- Harvard School of Public Health
- Massachusetts College of Pharmacy and Health Sciences
- Massachusetts Institute of Technology
- Northeastern University
- Tufts University
- University of Massachusetts Amherst
- University of Massachusetts Boston
- University of Massachusetts Medical School

Hospitals & Private Industry
- Baystate Health
- Beth Israel Deaconess Medical Center
- Boston Medical Center
- Brigham & Women’s Hospital
- Children’s Hospital
- GE
- IBM
- Liberty Mutual
- Massachusetts General Hospital
- Massachusetts League of Community Health Centers
- McKinsey & Company
- The MITRE Corporation
- Partners Healthcare
- PwC
- Rand Corporation

State and Federal Government Agencies
- Boston Public Health Commission
- Center for Health Information and Analysis
- Department of Housing and Community Development
- Department of Mental Health
- Department of Correction
- Department of Public Health
- Executive Office of Health and Human Services
- Executive Office of Public Safety and Security
- Federal Bureau of Investigation
- High Intensity Drug Trafficking Area (NE)
- Health Policy Commission
- Massachusetts Sheriffs’ Association
- MassIT
- Office of the Chief Medical Examiner
- State Auditor’s Office
Opioid Use Disorder (OUD)

Time From Initial Rx to Overdose Death

Average Survival Time For Those Who Died of Opioid Overdose was 36 Months
Persons with Histories of Incarceration

Opioid Death Rate 120 Times Higher for Individuals with Histories of Incarceration
The age-adjusted opioid-related overdose death rate for Hispanics doubled in three years (2014-2016)
Persons Experiencing Homelessness

Opioid Death Rate **30 Times Higher** for the Homeless Individuals

Death Rate Per 100,000

- Homeless (Modeled)
- Not Homeless

Death Rate Per 100,000
Pregnant and Postpartum Risk

Rate of Opioid Overdose Events Increase Sharply After Delivery for OUD Mothers

- 1 year before delivery, prior to conception: 2.1
- First Trimester: 1.9
- Second Trimester: 0.7
- Third Trimester: 0.7
- 0—42 days after delivery: 2.5
- 43—180 days after delivery: 2.4
- 181—365 days after delivery: 3.6

Overdose Events / 1 Million Person Days
Governor Baker’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)

www.mass.gov/StateWithoutStigma
Parent Campaign Launched

- Rx opioid misuse
- Parents of middle and high school age kids
- Tips for how to start conversation
Safe Prescribing

- Rx 7-day limit
- Check Prescription Monitoring Tool
- Prescriber Education
Core Competencies

- Medical Schools
- Dental Schools
- Advance Practice Nursing
- Physician Assistants
- Community Health Centers
- Social Work Programs
Access to Naloxone (Narcan®)

- First Responders
- Bystanders
- Pharmacies
- Community Bulk Purchasing Program
Treatment and Recovery

• 600 more Tx beds since 2015
• Expanded Office Based Treatment
• Treatment for High-Risk Populations
• 2000 + sober home beds certified
Prescription Monitoring Program – Data Trends

Figure 1. Schedule II Opioid Prescriptions and MassPAT\textsuperscript{1} Search Activity\textsuperscript{2} Trends
MA: 2015 - Q3 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>Dec 7</td>
<td>STEP bill signed into law (7-day supply requirements go into effect)</td>
</tr>
<tr>
<td>2016</td>
<td>Mar 15</td>
<td>Mass PAT GoLive</td>
</tr>
<tr>
<td></td>
<td>Aug 22</td>
<td>Mass PAT GoLive</td>
</tr>
<tr>
<td>2017</td>
<td>Oct 15</td>
<td>MA prescribers required to look up patient when prescribing a Schedule II or III opioid medication</td>
</tr>
</tbody>
</table>

\textsuperscript{1} MassPAT is the Massachusetts Prescription Awareness Tool (Online PMP)
\textsuperscript{2} Search activity includes prescribers, delegates, and pharmacists registered in MassPAT and in the previous MA Online PMP system
\textsuperscript{3} Pharmacies required to report daily
\textsuperscript{4} STEP bill signed into law (7-day supply requirements go into effect)
\textsuperscript{5} MA prescribers required to look up patient when prescribing a Schedule II or III opioid medication
Opioid-related overdose deaths declined by an estimated 10% in the first nine months of 2017 compared to the first nine months of 2016.

Figure 1. Opioid-related Deaths, All Intents by Month
Massachusetts Residents: January 2016 - September 2017

Estimated 1637 deaths

Estimated 1470 deaths
QUESTIONS AND DISCUSSION
SOCIAL DETERMINANTS OF HEALTH PANEL

Glory Song, MPH, Epidemiologist, Office of Statistics and Evaluation

Ben Wood, MPH, Director, Office of Community Health Planning and Engagement

Jean Zotter, JD, Manager, Prevention and Wellness Trust Fund
Capacity Building Using a SDoH Framework

Source: Bay Area Regional Health Inequities Initiative
address the immediate health related social needs caused by these unjust systems ex: housing assistance, food vouchers

mitigate the impact of the increased risk caused by these unjust systems ex: cancer screening for men of color, youth development initiatives

address policies and environments to change these unjust systems ex: more equitably improve transit, food retail financing

Source: Bay Area Regional Health Inequities Initiative
Clinical-Community Partnerships for Prevention

- $42.75 million for 4 years (2013-17)
  - Funded as part of Prevention and Wellness Trust Fund

Goals: reduce rates of prevalent and preventable health conditions and control costs

- Pediatric Asthma
- Tobacco Use
- Hypertension
- Older Adult Falls
Retooling DoN for Today’s Health Care Market

Determination of Need: Community Health Initiative

Hospital Health Care System

Health Care Facility

Need to Expand / Improve Health Care Facilities

Determination of Need Project

$5%$

Community Health Initiative Funding

Project’s Maximum Capital Expenditure
DPH’s SDoH/Health Priorities

Source: Massachusetts State Health Assessment, 2017
Retooling DoN for Today’s Health Care Market

**DoN Health Priorities:**
*Selecting Strategies that Impact the Social Determinants of Health*

1. **Impact on Health Priorities**
   - One or more
   - Logic model/causal pathway
   - Literature/evidence documenting impact of strategy on SDH(s)

2. **Evidence**
   - One or more
   - Proven (evidence-informed)
   - Prove It (evidence-based)

3. **Bucket of Prevention**
   - One or more
   - Innovative
   - Community/Clinical Linkage
   - Total Population or Community-Wide Prevention

4. **Strategy Feasibility & Impact**
   - Account for all
   - Reach
   - Population/community to be impacted
   - Political will/community support

Community Engagement Standards for Community Health Planning Guideline

Introduction to Community Engagement for Community Health Planning Guideline

What is Community Engagement?

Community engagement processes are ongoing relationships between stakeholders, communities, organizations, consumers, residents, local public health providers, and others. Different levels of engagement can be most appropriate for different project stages and goals. Engagement processes vary in the decision-making process based on goals, needs, resources, and other important factors. This is very true of community engagement in a Resident.
Community Engagement: Spectrum of Public Participation

Throughout a community health planning process levels of engagement will likely vary. Based on the International Associations Public Participation’s spectrum of engagement (with DPH adaptation), DoN Applicants use this tool to assess their approach to community engagement.

<table>
<thead>
<tr>
<th>Community Goal</th>
<th>Inform</th>
<th>Consult</th>
<th>Involve</th>
<th>Collaborate</th>
<th>Delegate</th>
<th>Community Driven / -led</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Goal</td>
<td>To provide the community with balanced &amp; objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions</td>
<td>To obtain community feedback on analysis, alternatives, and/or solutions</td>
<td>To work directly with community throughout the process to ensure their concerns and aspirations are consistently understood and considered</td>
<td>To partner with the community in each aspect of the decision including the development of alternatives and identification of the preferred solution</td>
<td>To place the decision-making in the hands of the community</td>
<td>To support the actions of community initiated, driven and/or led processes</td>
</tr>
<tr>
<td>Promise to the community</td>
<td>We will keep you informed</td>
<td>We will keep you informed, listen to and acknowledge concerns, aspirations, and provide feedback on how community input influenced decisions</td>
<td>We will work with you to ensure that your concerns &amp; aspirations are directly reflected in the alternatives developed and provide feedback on how that input influenced decisions</td>
<td>We will look to you for advice &amp; innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible</td>
<td>We will implement what you decide, or follow your lead generally on the way forward</td>
<td>We will provide support to see your ideas succeed</td>
</tr>
</tbody>
</table>
| Examples | •Fact sheets  
•Web sites  
•Open Houses | •Public comments  
•Focus groups  
•Surveys  
•Community meetings | •Workshops  
•Deliberative polling  
•Advisory groups | •Advisory groups  
•Consensus building  
•Participatory decision making | •Advisory groups  
•Volunteers/stipended  
•Ballots  
•Delegated decision | •Community-based processes  
•Stipended roles for community  
•Advisory groups |

The Mass in Motion Municipal Wellness and Leadership Initiative is a movement to lower the risk of chronic disease by supporting equitable food access and active living opportunities in cities and towns throughout Massachusetts. Working with a diverse network of partners, MiM communities implement proven policies and practices to create environments that support healthy living.
focus on the environments and causes

Smallest Impact

- Traditional Public Health
- Examples from Other Sectors

Largest Impact

- Complete streets, speed limits, walkability, access to green space
- Housing, Zoning, Economic Development

Counseling & Education

Clinical Interventions

Long-Lasting Protective Interventions

Changing the Context to make individuals’ default decisions healthy

Socioeconomic Factors

- “Eat healthy, be physically active”
- Rx for high blood pressure, high cholesterol, diabetes
- Vaccinations, cessation treatments (e.g. for smoking)
- Fluoridation, tobacco tax, smoke-free laws
- Income, Race, Education

Source: CDC Health Impact Pyramid, A Framework for Public Health Action: The Health Impact Pyramid, Thomas R. Frieden. Adapted by Metropolitan Area Planning Council
WHAT DO WE DO?

- Build Evidence Base
  - Identify best practices, conduct

- Strategic Planning
  - Inform structural changes, prioritization, and resource allocation

- Inequities
  - Regularly identify groups disproportionately impacted by an issue or left out of solutions

- Surveillance
  - Provide a snapshot of key health issues/conditions for the commonwealth

- Evaluation
  - Measure program progress and successes; grant reporting

- QI/QA
  - Ongoing feedback to ensure high quality program implementation and data collection

- Monitoring Service Delivery
  - Accountability of sites and grantees

HOW DO WE DO IT?

- Collect data
- Analyze
- Prioritize
- Disseminate
- Provide data to the public
- Collaborate

- Program successes
- Infographics
- Quality peer reviewed manuscripts
- Regular data reports/briefs
- Data portals
- Data requests
- with other bureaus/programs
- with external data providers
- Stakeholders/partners

HEALTH EQUITY
QUESTIONS AND DISCUSSION