



Massachusetts Department of Public Health
Bureau of Infectious Disease and Laboratory Sciences

Hepatitis C in Massachusetts Epidemiology and Public Health Response

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The HCV Epidemic in Massachusetts

An Overview

- There are 2 different epidemics—both in Massachusetts and nationally
 - Baby boomers: those born between 1945 and 1965
 - Young people who inject drugs (PWID)
- Between 7,000 and 9,000 new cases of HCV have been reported annually to the Massachusetts Department of Public Health (MDPH) since 2007¹
- Estimates of HCV prevalence and incidence based on state surveillance data are considerably higher than those based on national data (NHANES/CDC)²
 - Local estimate of prevalence: 200,000+ vs 65,000
 - Local estimate of incidence: 2000+ vs 354

NHANES, National Health and Nutrition Examination Survey;

1. MDPH. 2016 Integrated HIV/AIDS, STD, and Viral Hepatitis Surveillance Report. 2017. Unpublished data extracted November 2017. <https://www.mass.gov/files/documents/2018/03/15/std-surveillance-2016.docx>. Accessed August 20, 2018;
2. MDPH. Estimates based on surveillance data reported to MDPH through November 2017 (unpublished);
3. Edlin BR, et al. *Hepatology*. 2015;62(5):1353-1363.



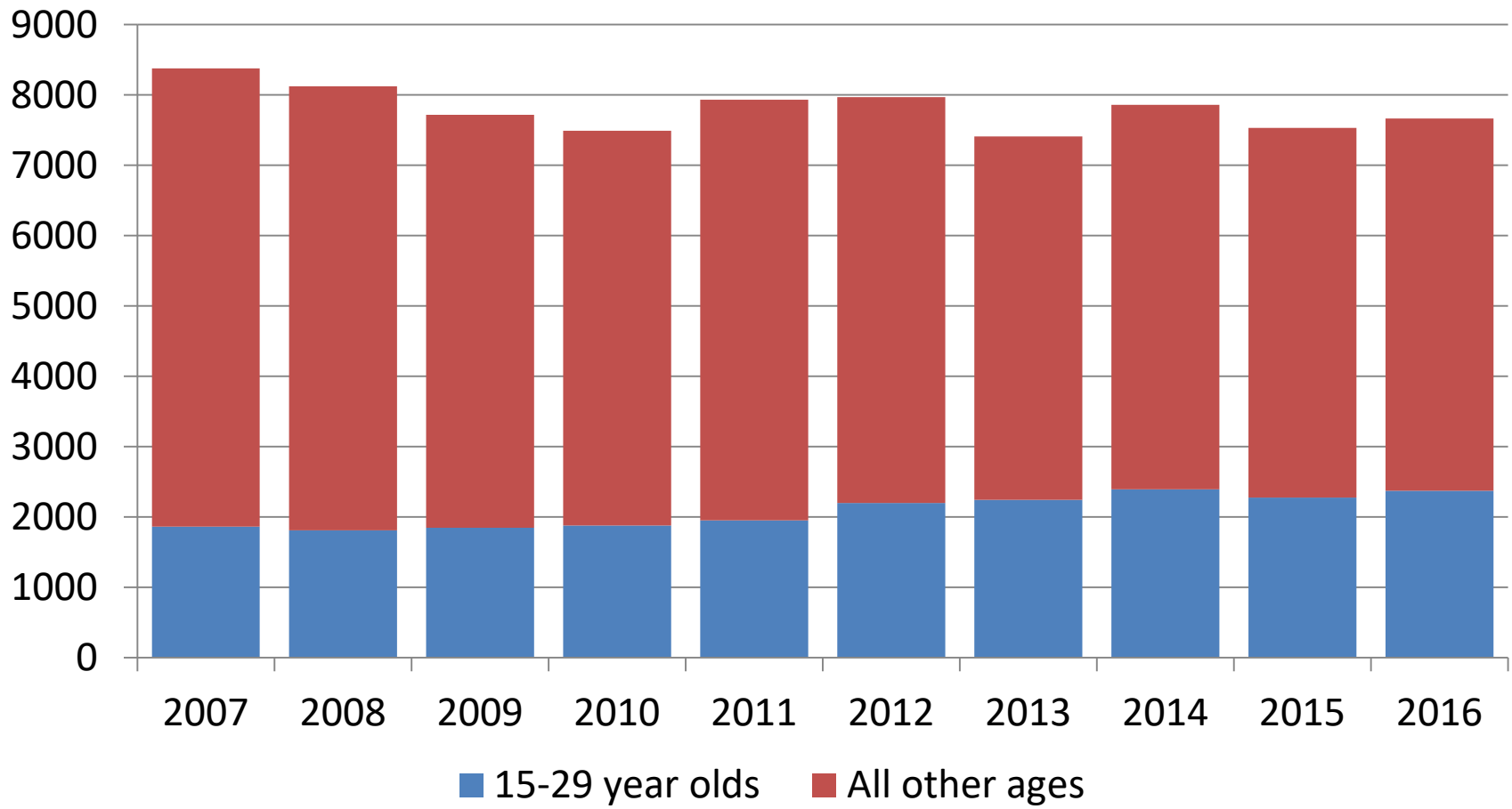
The Epidemiology of HCV in Massachusetts

- Nationally:
 - up to 75% of prevalent HCV cases are among people born between 1945 and 1965¹
 - HCV prevalence is changing, but the “baby boomer” birth cohort still comprises up to 73% of mortality associated with HCV infection
- In Massachusetts:
 - HCV has been reportable in Massachusetts since 1992
 - Between 7,000-9,000 cases have been newly reported annually since 2007
 - MDPH receives over 170,000 laboratory results on HCV annually
 - In 2007, an increasing proportion of cases reported under the age of 25 were identified
 - In 2016, 2,408 cases were reported between the ages of 15 and 29

1. Centers for Disease Control and Prevention (CDC). Last updated September 2017. <https://www.cdc.gov/hepatitis/populations/1945-1965.htm>. Accessed August 20, 2018.



Confirmed and Probable HCV Cases 2007-2016, by Age Group and Year, Massachusetts



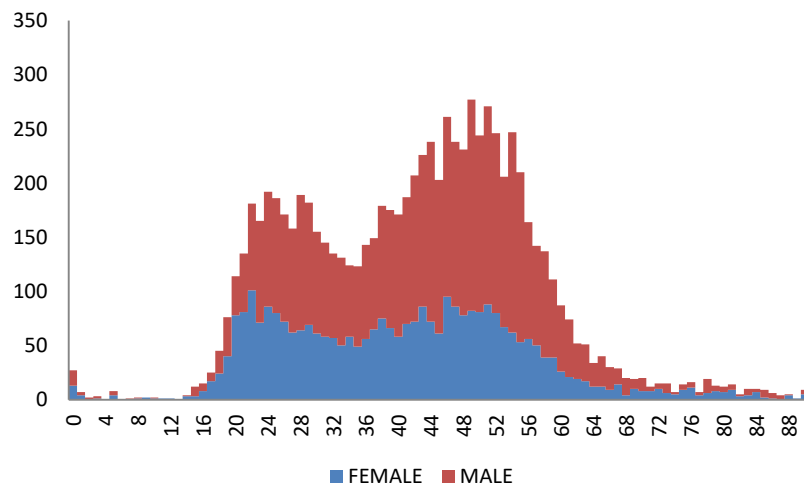
Data current as of 11/23/17 and are subject to change

Data source: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences.

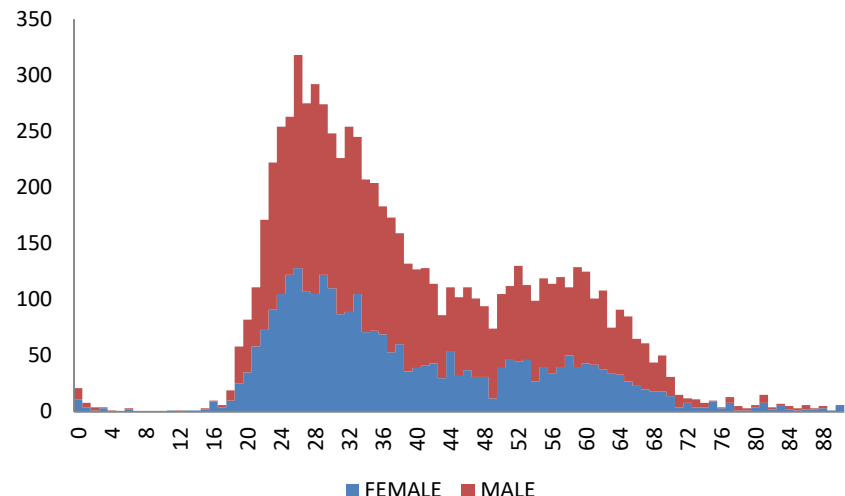
Age Distribution of New HCV Infections, 2007 – 2016, Massachusetts

The age distribution of HCV infection has shifted in the last decade, now reflecting a population predominantly under the age of 40

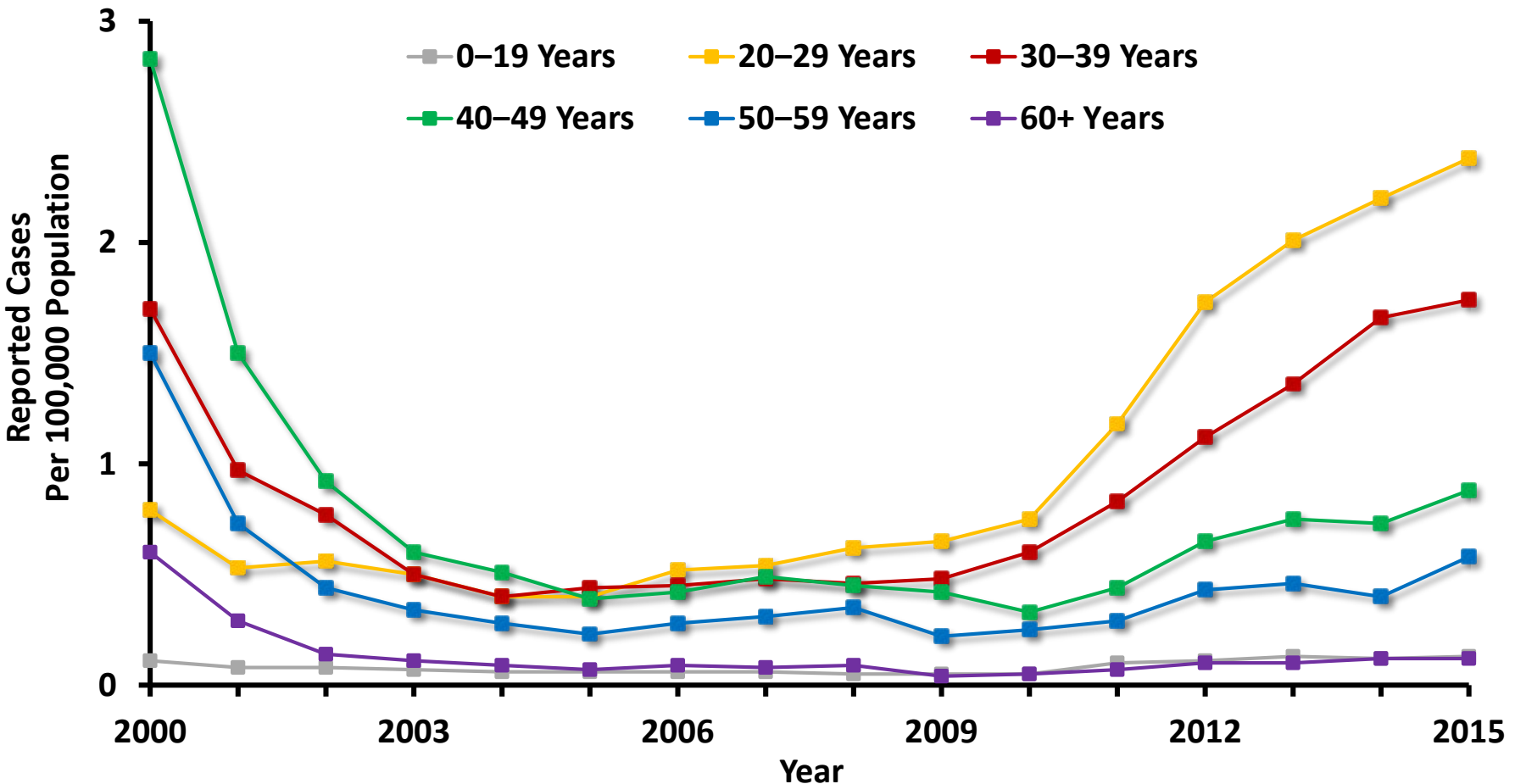
Age distribution of HCV in Massachusetts, 2007
N=8,241 (875 missing age or gender excluded)



Age distribution of HCV in Massachusetts, 2016
N=7,612 (217 missing age or gender excluded)



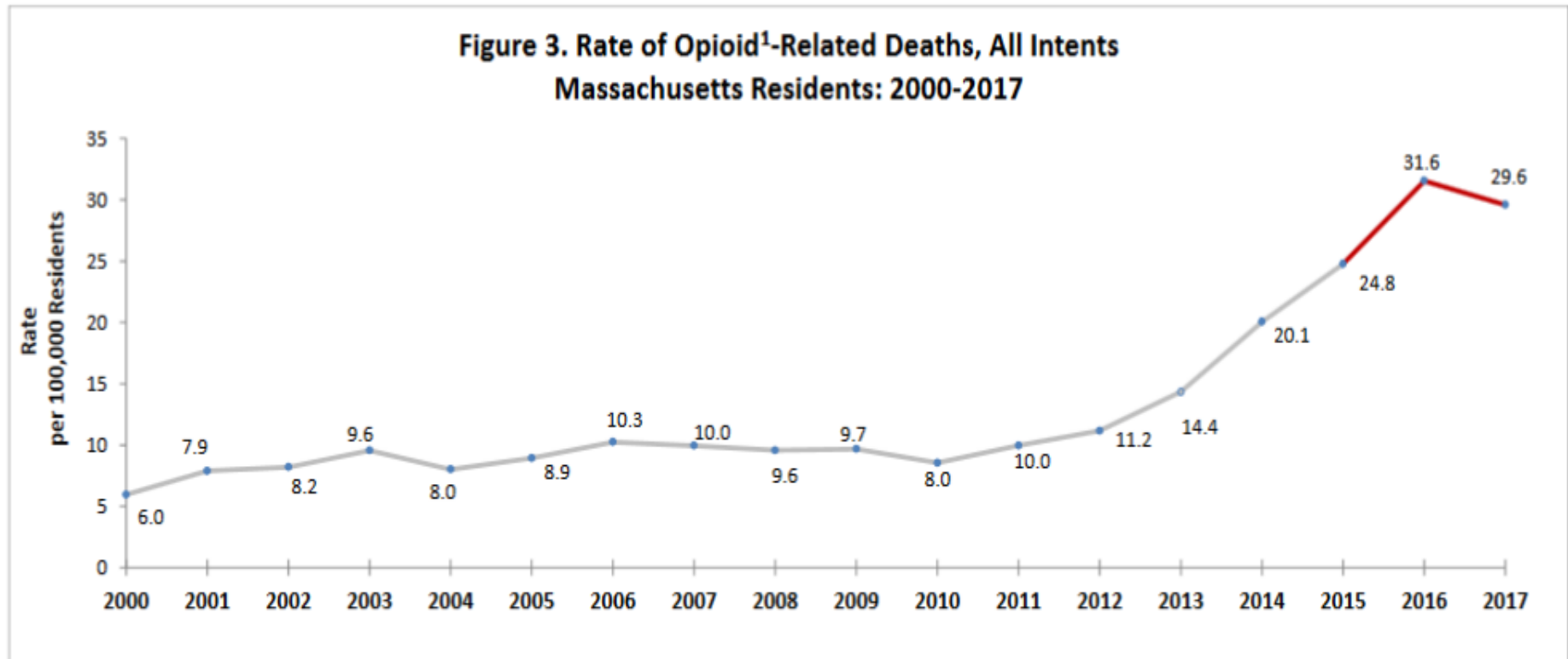
Incidence of Acute HCV, by Age Groups 2000 – 2015, United States



Centers for Disease Control and Prevention (CDC).

<https://www.cdc.gov/hepatitis/statistics/2015surveillance/index.htm#tabs-6-7>. Accessed. April 20, 2018.

Opioid Related Deaths, 2000-2017, Massachusetts



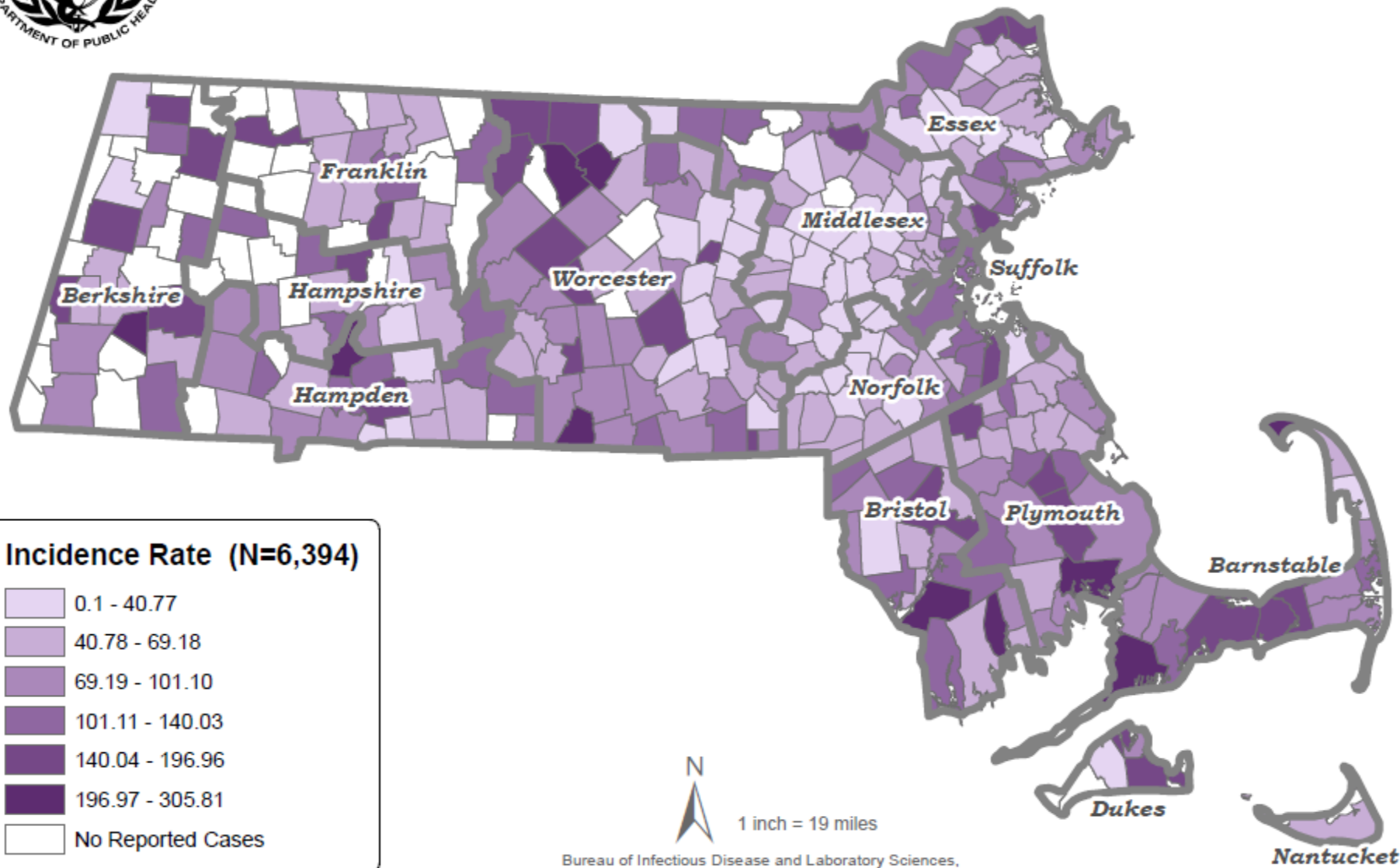
¹ Opioids include heroin, opioid-based prescription painkillers, and other unspecified opioids.

Source: Data Brief: Opioid Related Overdose Deaths Among Massachusetts Residents
MDPH, Posted May 2018: <https://www.mass.gov/lists/current-opioid-statistics#updated-data---q1-2018---as-of-may-2018->





Rate of Reported Confirmed and Probable Hepatitis C Virus Infection Cases per 100,000 Population by Official Massachusetts City/Town: 2016*



Incidence Rate (N=6,394)

- 0.1 - 40.77
- 40.78 - 69.18
- 69.19 - 101.10
- 101.11 - 140.03
- 140.04 - 196.96
- 196.97 - 305.81
- No Reported Cases

* Unknown Official City (N = 690)

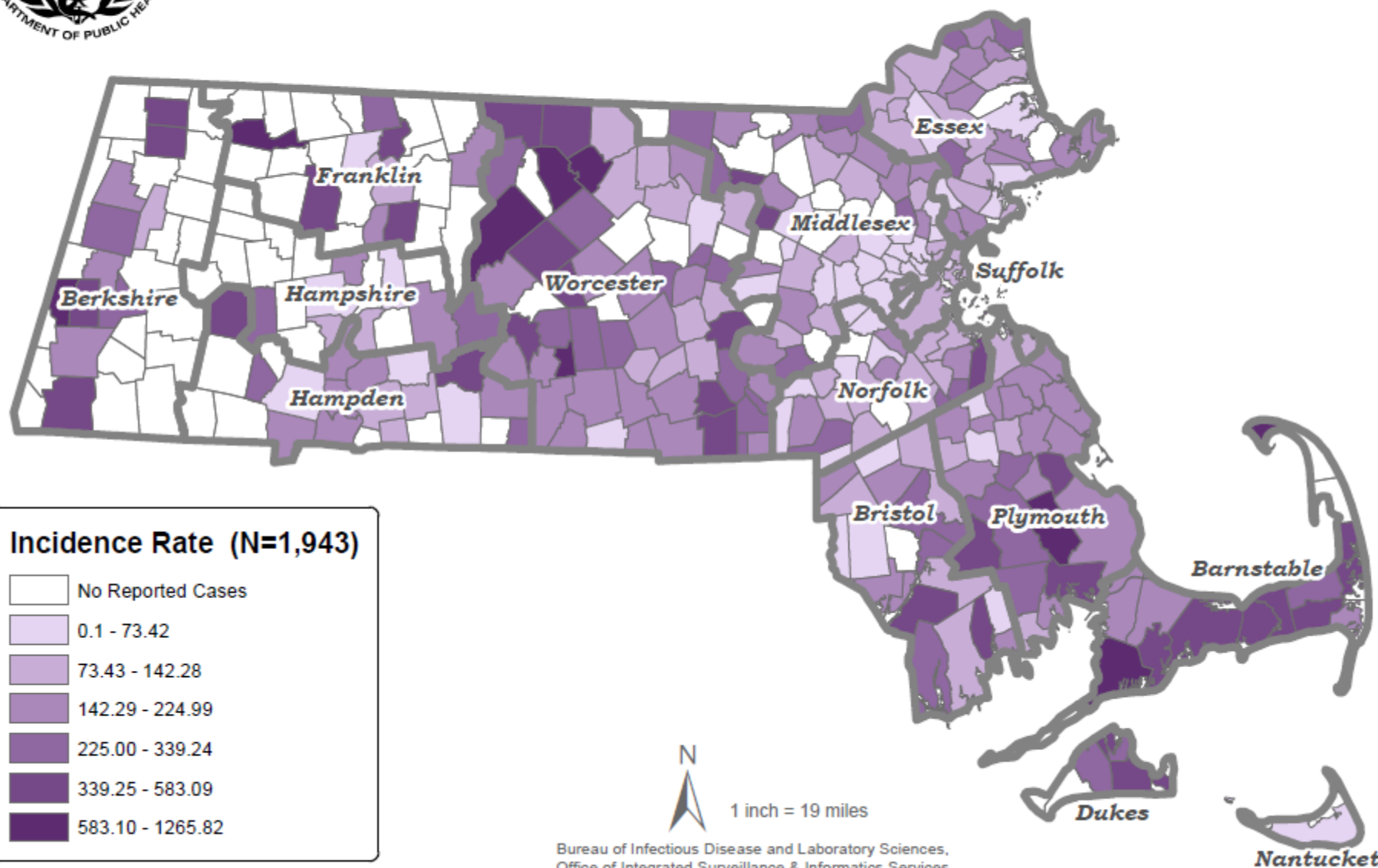
Note: 608 cases with residences listed in the 33 federal, state, and county correctional institutions in Massachusetts were excluded.

Bureau of Infectious Disease and Laboratory Sciences,
Office of Integrated Surveillance & Informatics Services

* Data as of 13 NOVEMBER 2017 and are subject to change.



Rate of Reported Confirmed and Probable Hepatitis C Virus Infection Youth Cases (15-29 Years of Age) per 100,000 Population by Official Massachusetts City/Town: 2016*



Incidence Rate (N=1,943)

- No Reported Cases
- 0.1 - 73.42
- 73.43 - 142.28
- 142.29 - 224.99
- 225.00 - 339.24
- 339.25 - 583.09
- 583.10 - 1265.82

1 inch = 19 miles
 Bureau of Infectious Disease and Laboratory Sciences,
 Office of Integrated Surveillance & Informatics Services

* Unknown Official City (N = 174)

Note: 256 cases with residences listed in the 33 federal, state, and county correctional institutions in Massachusetts were excluded.

* Data as of 13 NOV 2017 and are subject to change.

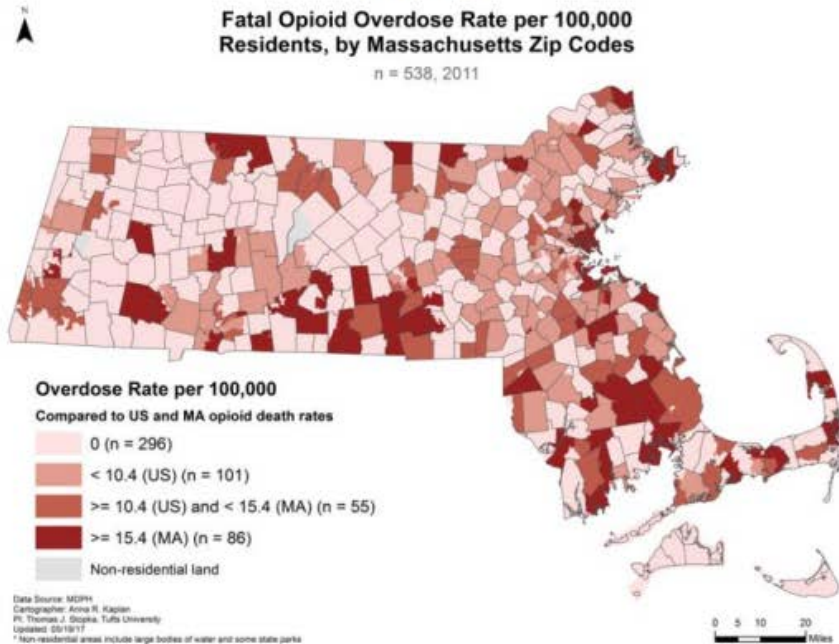
Geographic Distribution of Opioid Related Death Rates, 2011 & 2015, Massachusetts

Increasing and Spreading Opioid-Related Overdose Death Rates in Massachusetts from 2011 to 2015¹

2011

Fatal Opioid Overdose Rate per 100,000 Residents, by Massachusetts Zip Codes

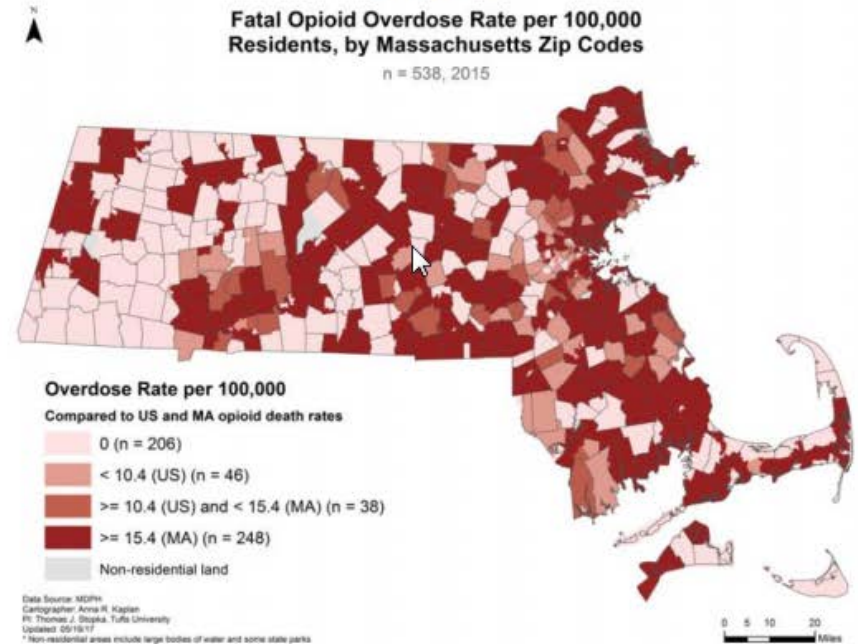
n = 538, 2011



2015

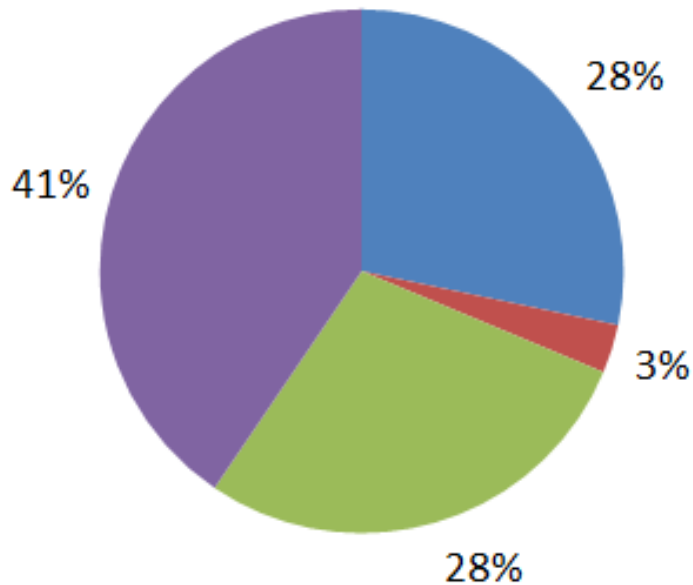
Fatal Opioid Overdose Rate per 100,000 Residents, by Massachusetts Zip Codes

n = 538, 2015

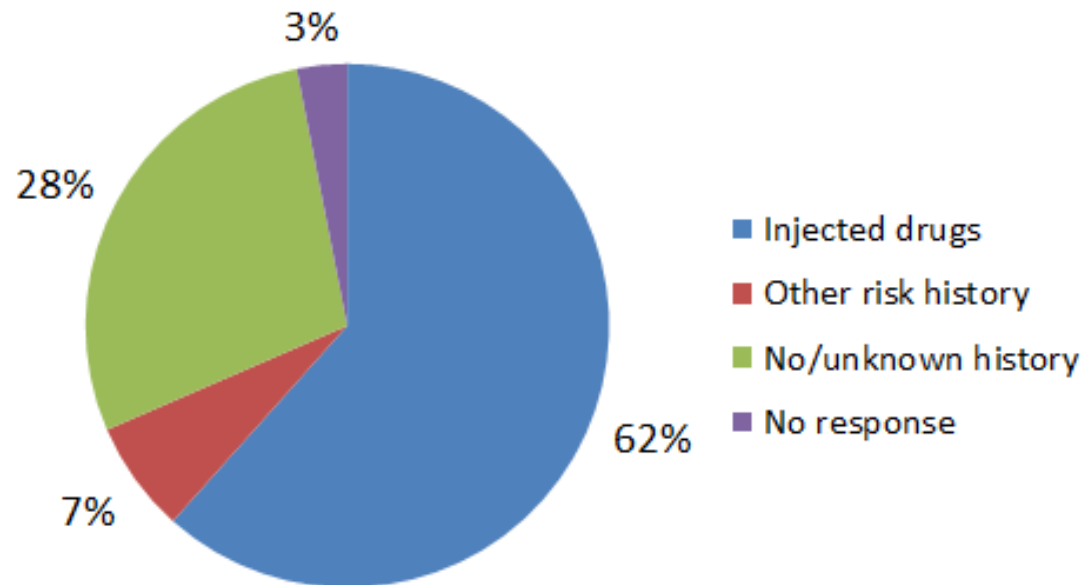


Reported risk factors for HCV infection in MA, 2007-2015

**Confirmed and Probable
HCV Cases, 2007-2015
N=76,958**



**Confirmed Acute
HCV Cases, 2007-2015
N=1,953**



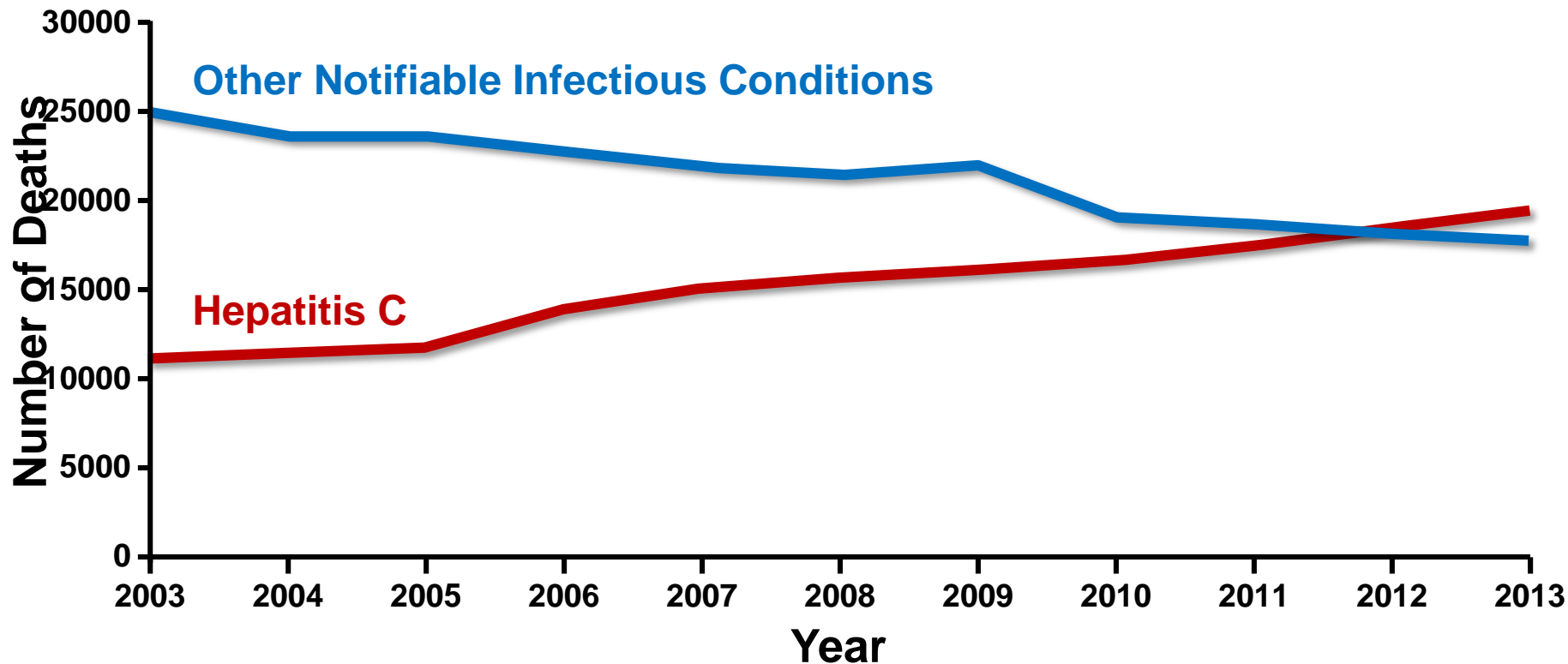
Data source: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences. *Hepatitis C Virus Infection Surveillance Report, 2007-2015*. <http://www.mass.gov/hepc>. Published January 2017.

Data as of November 16, 2016 and subject to change.

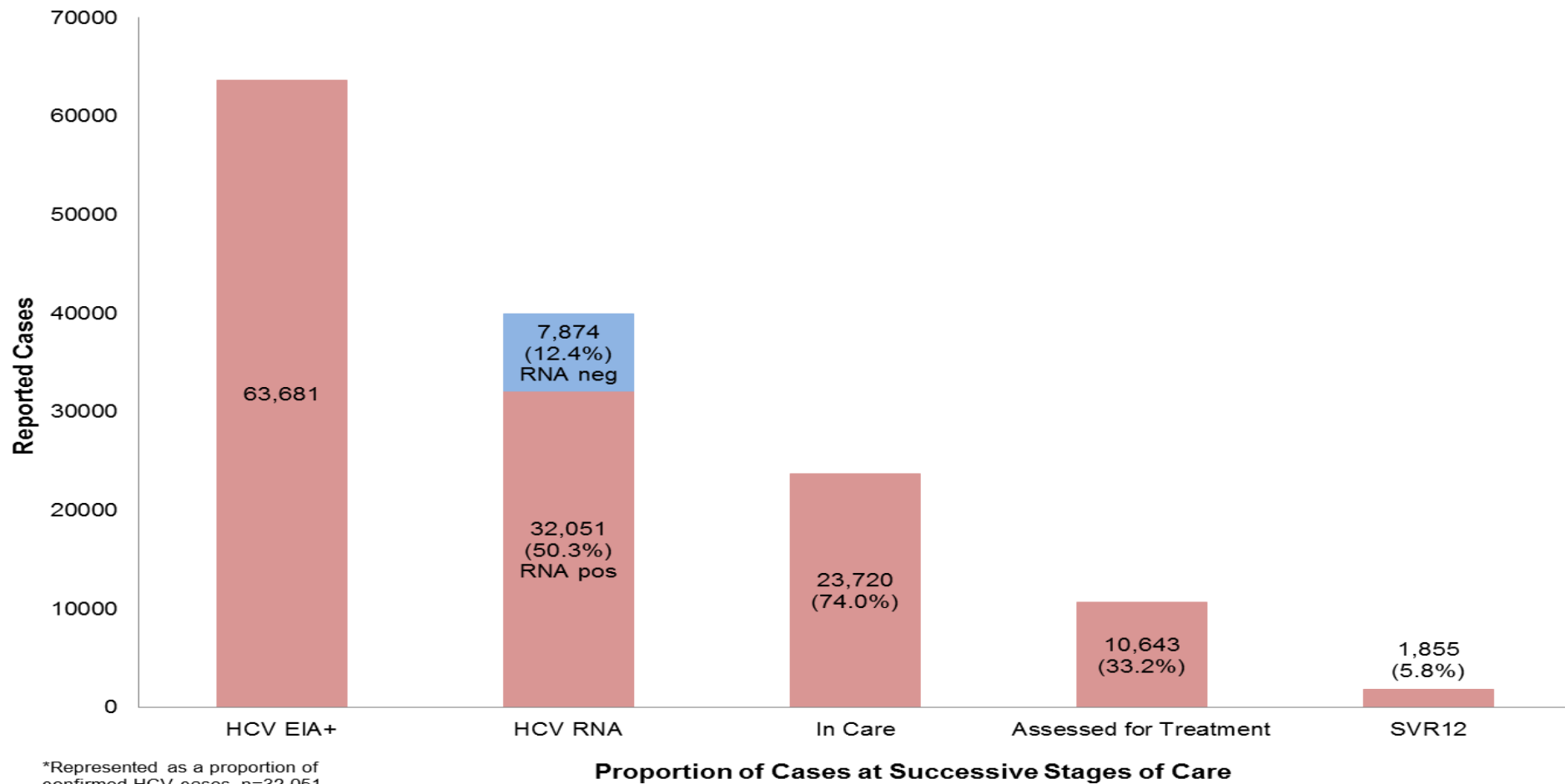


HCV Kills 20,000 Americans per Year *More Than HIV, TB, and 58 Other Infections Combined*

Annual Number of HCV-Related Deaths vs
Other Notifiable Infectious Conditions in the US, 2003–2013



HCV Care Cascade, Massachusetts



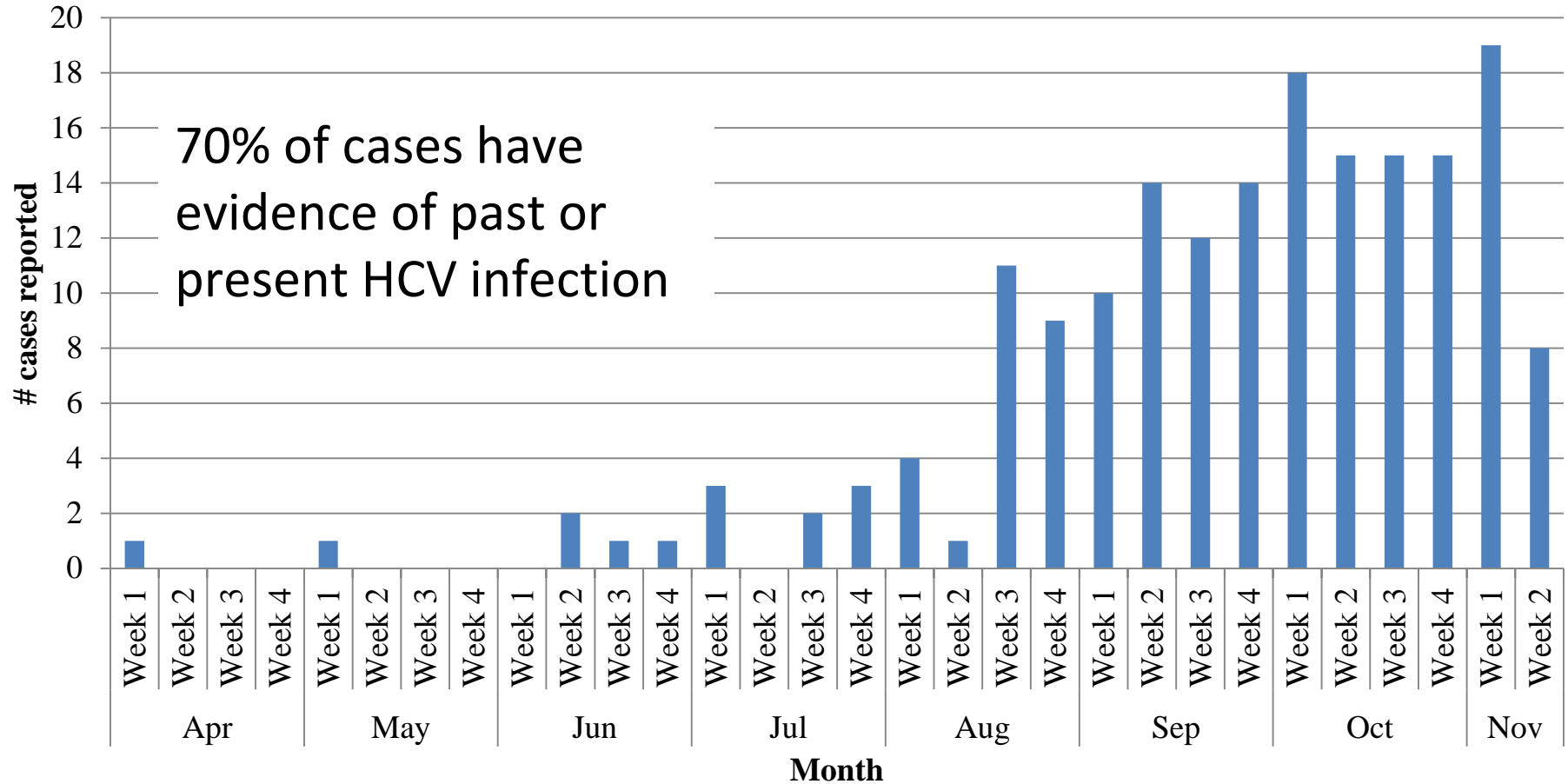
Viral Activity 2017-2018

- In October 2017, MDPH observed an increase in cases of acute HBV infection reported from a city of about 95,000 in southeastern Massachusetts.
- In November 2017, MDPH distributed a clinical alert due to an identified increase in the proportion of newly diagnosed and acute HIV infections associated with injection drug use.
- In April 2018, MDPH began seeing an increase in cases of HAV infection associated with people who were unstably housed or report substance use disorder.

HIV and HCV

- In 2017 over 64 new HIV infections among people who inject drugs
 - Represents 14% of HIV infections compared to 4%-8% in recent years
- Providers encouraged to assess risk and offer HIV and HCV testing
- Data match between HIV and HCV performed in March 2016 for cases identified through 2015
 - 4,018 individuals with evidence of HIV/HCV co-infection
 - 17% of all reported people living with HIV in MA
 - 71% male; 71% over 50
 - 74% had IDU-related exposure mode compared to 16% of HIV mono-infected

Outbreak-associated hepatitis A cases, by event date, Massachusetts, 2018



Cases occurring in November Week 3 and later excluded. Data for more recent weeks may be incomplete due to diagnosis and reporting delays.

Data source: MDPH Bureau of Infectious Disease and Laboratory Sciences. Data as of 11/23/2018 and subject to change.

National Academies

HCV Elimination Targets by 2030

- Elimination of HCV as a public health problem by 2030
 - Requires treatment without restriction based on disease severity and with focus on testing and treating people who inject drugs and incarcerated populations
 - Depends on diagnosing 70,000–110,000 cases annually
 - Requires expanded access to syringe exchange and opioid agonist therapy
 - Requires comprehensive national surveillance and epidemiologic research
- Estimated outcomes if goals are met
 - 90% reduction in HCV incidence (relative to 2015)
 - 65% reduction in HCV-related mortality
 - 29,000 HCV-related deaths averted



HCV in Massachusetts Public Health Response



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**CLINICAL ADVISORY:
ROUTINE SCREENING FOR HEPATITIS C**
Updated: October 2014

The Massachusetts Department of Public Health (MDPH) endorses recommendations of the Centers for Disease Control and Prevention, and the U.S. Preventive Services Task Force and recommends routine hepatitis C virus (HCV) screening for individuals at risk for HCV and for individuals born between 1945 and 1965, due to the significant individual and public health benefits associated with knowledge of HCV status and prompt linkage to medical care and preventive services. Pursuant to M.G.L. c. 111, § 4M as amended by Section 138 of Chapter 165 of the Acts of 2014, primary care providers shall offer hepatitis C testing to individuals born between 1945 and 1965.

This Clinical Advisory provides practice guidelines to support implementation of the recommendation along with background information about the impact of HCV in the Commonwealth, the basis for the current MDPH recommendation, and sources of additional information.

Practice Guidelines

The MDPH recommends that health care providers:

November 27, 2017

Massachusetts Department of Public Health raises level of concern about increased HIV transmission through injection drug use, in light of the current epidemic of opiate/opioid misuse and recent observations.

The Massachusetts Department of Public Health (MDPH) has noted an increase in newly diagnosed and acute HIV infections among persons who inject drugs (PWID). To date in calendar year 2017 (through November 21), there have been 64 HIV infections reported among individuals who inject drugs in Massachusetts, representing 14% of all HIV infections reported this year. Over the past 5-10 years, newly diagnosed HIV infection in PWID amounted to 32-62 cases annually, representing a stable proportion of 4-8% of all reported HIV infections. Investigation of cases is ongoing.

The potential for HIV transmission among PWID has always been a concern. Success in stemming the tide of the epidemic in the 1990s reduced that concern somewhat. There is now cause for renewed concern due to the current drug use epidemic, especially in regard to unrecognized drug use in some individuals, the rate of ongoing hepatitis C virus (HCV) transmission, the introduction of fentanyl (both

The MDPH therefore asks clinical care providers to increase vigilance for the potential for HIV infection in patients that report current or recent injection drug use. With respect to these patients, we remind you to:

1. Remain alert to the potential for HIV infection in people who inject drugs, and offer HIV testing to individuals who report current or past injection drug use;
2. Elicit behavioral risk history in your patients, encourage HIV and HCV testing for at-risk individuals, and follow current national recommendations for routine screening (see <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>),
3. Follow current national recommendations for HIV testing <https://www.cdc.gov/hiv/guidelines/testing.html>
4. Be prepared to refer patients who use injectable substances to harm reduction services in your community,

<https://www.mass.gov/hepatitis-c-hcv>

<https://www.mass.gov/hiv>

HCV in Massachusetts

Public Health Response

- 2017: Reprourement of 38 integrated programs
 - HIV, HCV, STI, and TB screening
 - Linkage to care
 - Short-term health navigation
- SPHL capacity enhancements
 - 2016 implementation of HIV and HCV co-testing
 - 2018: Implementation of reflex RNA testing for HCV EIA+ clients through BIDLs funded agencies
- Syringe services programs (SSPs)
- Transformation of 8 *Corrections-to-Community* HIV programs to focus on HCV care linkage post-release
- HDAP coverage of HCV treatment for HIV-HCV co-infected
- Capacity building, training, resource development
- Health communications
- Evaluation

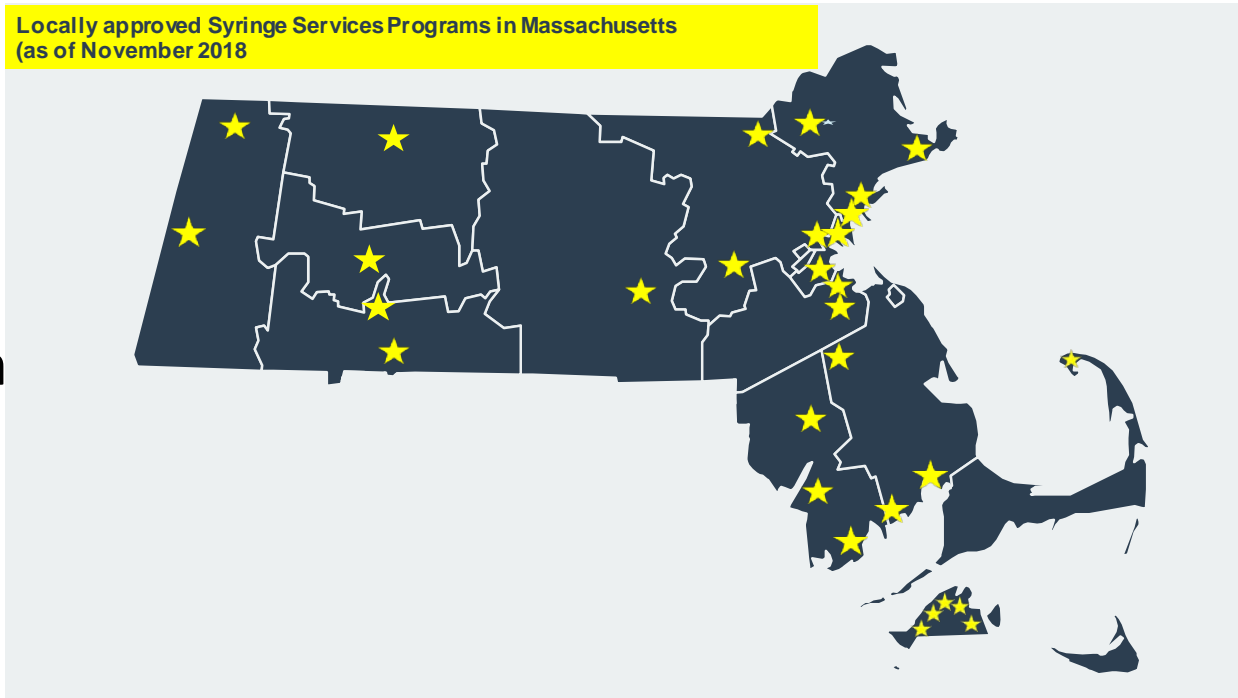
HCV in Massachusetts

Public Health Response

Syringe Services Programs

- Sterile injection equipment
- Syringe disposal
- Overdose prevention
- HIV/HCV/STI T&L
- Referral
 - SUD Tx
 - Prevention, support

Locally approved Syringe Services Programs in Massachusetts
(as of November 2018)



<https://www.mass.gov/syringe-service-programs>

HCV in Massachusetts

Public Health Response

HCV in Correctional Settings

Department of Corrections

- ID Coordinator and 4 nurses
- All HCV tests performed by BIDLS-funded staff
 - Testing by MA SPHL
- FY17: 1,337 tested (27% Ab+)

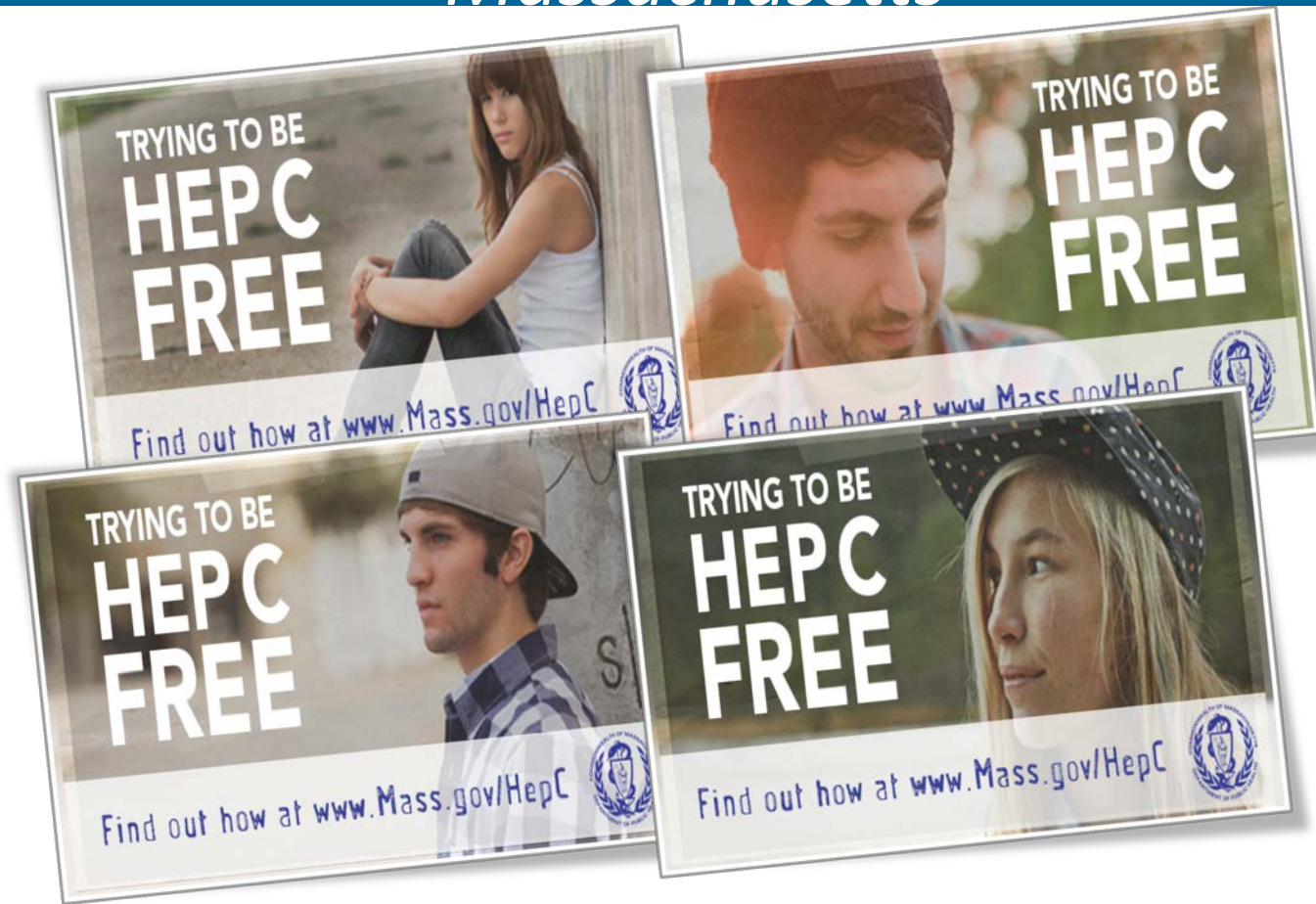
Houses of Correction

- Out-posted T&L staff at 9 of 13 HOCs
- Testing by MA SPHL
- FY17 3,500 tested (33% Ab+)

Correctional Linkage to Care

- Short-term for transitioning to community
- Assessment/planning 3-months pre-release
- Referral to harm reduction, MAT, 3 mos linkage to care/trx assistance post-release

Improving the Health of Young People Living With HCV Infection *Massachusetts*



HCV in Massachusetts Public Health Response

Tools and Resources for Providers



HEPATITIS C TREATMENT AT A GLANCE: MAY 2018

INTRODUCTION

The Hepatitis C (HCV) Treatment at a Glance tool provides an overview of the coverage of key HCV services in Massachusetts as of May 2018 in order to give health care providers quick access to basic coverage information to help inform discussions with patients about treatment. The tool provides a series of tables that outline coverage (and related costs and restrictions) for three categories of health insurance plans: (1) silver-level Qualified Health Plans (QHPs), (2) ConnectorCare plans, and (3) Medicaid (MassHealth) plans. The information in these tables is based upon publicly available information on the Massachusetts Health Connector website and individual insurer websites.

Please note that health insurance plans occasionally alter coverage, associated costs, or restrictions over the course of a plan year. Health care providers and members should therefore always confirm coverage by contacting the individual plan. To confirm the current coverage status of any service, providers and members can use the contact numbers provided under each table.

MASSACHUSETTS SILVER-LEVEL QUALIFIED HEALTH PLANS

The table below summarizes coverage of HCV services in the silver-level Qualified Health Plans (QHPs) available to individuals via the Massachusetts health insurance marketplace (a/k/a Massachusetts Health Connector). The silver-level QHPs were chosen for inclusion in this resource because they are generally representative of coverage and are often the most cost-effective choice for low-income consumers. More information on these plans is available on the Massachusetts marketplace website: <https://mahealthconnector.sptum.com/individual/>.

Please note that prior authorization requirements vary across QHPs. However, at least two insurers—Blue Cross Blue Shield and Tufts Health Plan—have announced that they will no longer apply restrictions related to fibrosis score when covering HCV medications.

Abbreviations: Cost = Patient Cost-Sharing; Labs = Diagnostic Test (X-Ray, blood work); PA = Prior Authorization; PCP = Primary Care Provider; QL = Quantity Limit; ST = Step Therapy;

Util. Mgmt. = Utilization Management Requirements

Plan Name	Services		Epclusa (sofosbuvir /velpatasvir)			Daklinza (daclatasvir)			Harvoni (ledipasvir, sofosbuvir)			Mavyret (glecaprevir /sofosbuvir)			Sovaldi (sofosbuvir)			Zepatier (elbasvir and grazoprevir)		
	PCP Cost	Labs Cost	Covered (Y/N)	Cost	Util. Mgmt.	Covered (Y/N)	Cost	Util. Mgmt.	Covered (Y/N)	Cost	Util. Mgmt.	Covered (Y/N)	Cost	Util. Mgmt.	Covered (Y/N)	Cost	Util. Mgmt.	Covered (Y/N)	Cost	Util. Mgmt.
BCBSMA Standard Silver/HMO Blue Blue	\$30	\$25	Yes	\$60	PA, QL	No	N/A	N/A	Yes	\$60	PA, QL	No	N/A	N/A	No	N/A	N/A	No	N/A	N/A
BMC HealthNet Standard Silver A II	\$30	\$25	Yes	\$90	PA, QL	Yes	\$90	PA, QL	Yes	\$90	PA, QL	Yes	\$90	PA	Yes	\$90	PA, QL	Yes	\$90	PA
RMC HealthNet Non-Standard Silver B II	\$30	30%	Yes	35%	PA, QL	Yes	35%	PA, QL	Yes	35%	PA, QL	Yes	35%	PA	Yes	35%	PA, QL	Yes	35%	PA



TECHNICAL ASSISTANCE APPLICATION HCV SCREENING AND TREATMENT IN PRIMARY CARE

Bureau of Infectious Disease and Laboratory Sciences, Massachusetts Department of Public Health
and
New England AIDS Education and Training Center

Individualized technical assistance will be made available to selected clinical partners to develop the capacity to deliver HCV screening and treatment in primary care. Individualized technical assistance will

Hepatitis C (HCV)

Hepatitis C virus information, screening and treatment guidelines, and educational materials

Hepatitis C is a liver infection caused by the hepatitis C virus. Without treatment most people with hepatitis C will have it forever and can pass it to others. Over time hepatitis C will cause liver damage, and can cause cancer and death. Hepatitis C can be cured. While there is no vaccine to prevent hepatitis C, but there are strategies that can help to keep from getting or transmitting hepatitis C.

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Bureau of Infectious Disease and Laboratory Sciences +

What you need to know

Hepatitis C information for the public +

Hepatitis C information for health care providers and public health professionals +

Hepatitis C screening and treatment guidelines and recommendations +

Hepatitis C educational materials and other resources +

<https://www.mass.gov/hepatitis-c-hcv>

Contact

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