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 2007\(^1\)

• 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

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NHANES, National Health and Nutrition Examination Survey;
2. MDPH. Estimates based on surveillance data reported to MDPH through November 2017 (unpublished);
The Epidemiology of HCV in Massachusetts

• Nationally:
  – up to 75% of prevalent HCV cases are among people born between 1945 and 1965\(^1\)
  – 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

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

0 1000 2000 3000 4000 5000 6000 7000 8000 9000


15-29 year olds  All other ages

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.
The age distribution of HCV infection has shifted in the last decade, now reflecting a population predominantly under the age of 40.
Incidence of Acute HCV, by Age Groups 2000 – 2015, United States

Reported Cases Per 100,000 Population

Year


Centers for Disease Control and Prevention (CDC).
Opioid Related Deaths, 2000-2017, Massachusetts

Source: Data Brief: Opioid Related Overdose Deaths Among Massachusetts Residents
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.

* 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

* 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.
Increasing and Spreading Opioid-Related Overdose Death Rates in Massachusetts from 2011 to 2015

Source: Data Brief: An Assessment of Opioid-Related Overdoses in Massachusetts 2011-2015
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 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

Data source: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences. June 30, 2017.
• 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

70% of cases have evidence of past or present HCV infection

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

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
250 Washington Street, Boston, MA 02108-4619

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 1946 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:

1. Remain alert to the potential for HCV infection in people who inject drugs, and offer HCV 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/mm6252a1.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: Reprocurement 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

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

Data from July 1, 2016-June 30, 2017, MA SPHL
Improving the Health of Young People Living With HCV Infection

Massachusetts

HCV in Massachusetts
Public Health Response

Tools and Resources for Providers

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