

Addiction, Advocacy, and Healthcare Services: A Deep Dive into Population Health

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Population of Focus

Population of Focus: Individuals in the Greater Worcester area with Substance Use Disorder*

Geographic Distribution: Greater Worcester (Worcester, Shrewsbury, Grafton, Leicester, Millbury, Holden, West Boylston)

Population Distribution (based on fatal and non-fatal overdoses in Worcester from July 2017- July 2018)¹

- 66% men, 34% women
- 55% white, 14% Hispanic, 4% black, 1% Asian/ Pacific Islander, 26% unknown
- Age: 15-71; average: 37

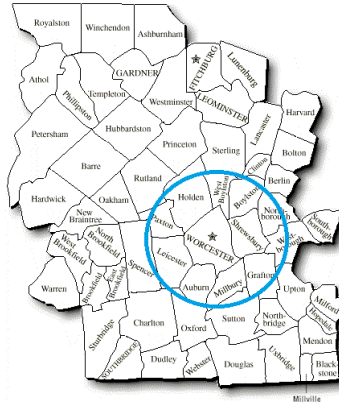


Figure 53: People Served in BSAS Contracted/Licensed Facilities (Service Area), 2014

	MA	Grafton	Holden	Leicester	Millbury	Shrewsbury	W.Boylston	Worcester
Number of People Served	85,832	161	101	126	223	253	0-100	4,915
Client Characteristics								
White (%)	81	91	94	91	91	91	97	70
Black or African American (%)	7	4	M/U	M/U	M/U	M/U	M/U	6
Multi-Racial or Other (%)	12	4	M/U	M/U	8	7	M/U	24
Hispanic (%)	12	M/U	M/U	6	4	4	M/U	25
Less than HS Diploma (%)	24	15	22	26	15	13	10	25
Under 18 (%)	2	M/U	M/U	M/U	M/U	M/U	M/U	1
18-25 (%)	21	33	43	59	23	47	28	16
26-30 (%)	21	16	16	10	16	18	20	20
31-40 (%)	26	27	23	15	36	15	24	28
41-50 (%)	19	17	9	11	19	10	15	13
51 and Older (%)	12	7	9	7	7	9	11	13
Homeless (%)	18	8	9	14	7	5	11	25
Unemployed (%)	76	71	75	78	76	64	68	87
Had Prior Mental Health Treatment (%)	44	37	49	35	45	44	50	45
Primary Drug of Use								
Alcohol (%)	32	34	29	30	28	35	35	25
Heroin (%)	53	56	55	44	62	54	57	62
All Other Opioids* (%)	6	6	10	13	5	5	ND	5
Crack/Cocaine (%)	3	M/U	M/U	M/U	3	3	M/U	4
Marijuana (%)	4	M/U	M/U	10	M/U	3	M/U	3
Other** (%)	2	M/U	M/U	M/U	M/U	M/U	M/U	3

M/U = Value is missing or unknown

*Includes prescription Methadone, other opiates, Oxycodone, non-prescription Suboxone, prescription opiates, and non-prescription opiates

**Includes PCP, hallucinogens, methamphetamine, amphetamines, stimulants, benzodiazepines, tranquilizers, barbiturates, sedatives, inhalants, over-the-counter drugs, club drugs, and other.

Source: Massachusetts Bureau of Substance Abuse Services

Population of Focus: Why It Matters for Our Community

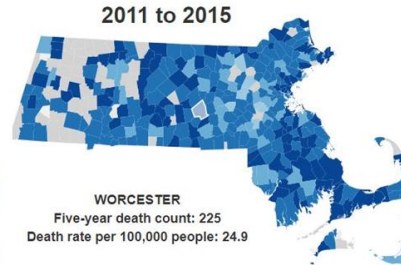
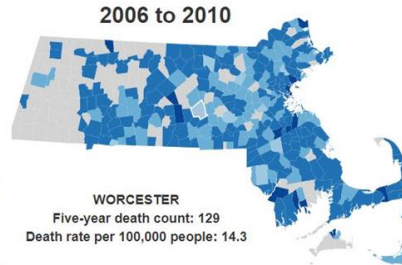
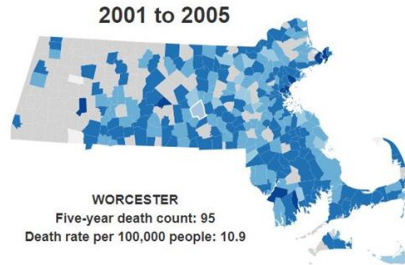
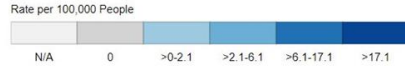
- In 2014, opioid related fatal overdose was the 7th leading cause of death in the city of Worcester
- Average annual opioid-related death rate per 100,000 people (2015)
 - Worcester: 24.9
 - MA: 23.3
 - USA: 9.7

Worcester: Age-Adjusted Rates for Select Causes of Death, 2014	
Mortality (All Cause)	860.1
Cancer	204.7
Heart Disease	165.3
Chronic Lower Respiratory	42.9
Stroke	34.4
Diabetes	28.9
Pneumonia/Influenza	26.8
Opioid-Related Fatal Overdose	24.8
Suicide	6.5
Motor Vehicle	3.9
Homicide	3.1

Source: Massachusetts Department of Public Health.

Average Annual Opioid-related Death Rate per 100,000 People^{1,2,3,4,5}

The maps below, representing average annual rates of opioid-related deaths across five-year spans, demonstrate the increase in both the spread and intensity of the problem across Massachusetts.

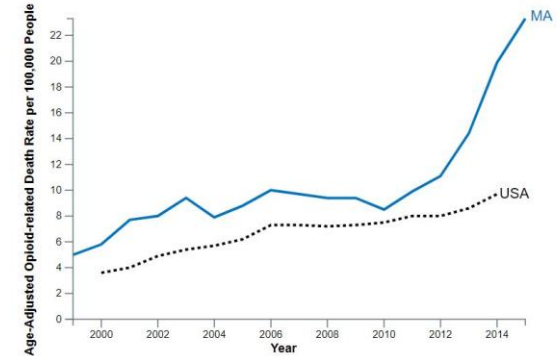


[View the dataset powering this visualization](#)

Sources: [Massachusetts Registry of Vital Records and Statistics](#), [Massachusetts Department of Public Health](#)

Age-Adjusted Opioid-related Death Rate by Year^{4,7,8}

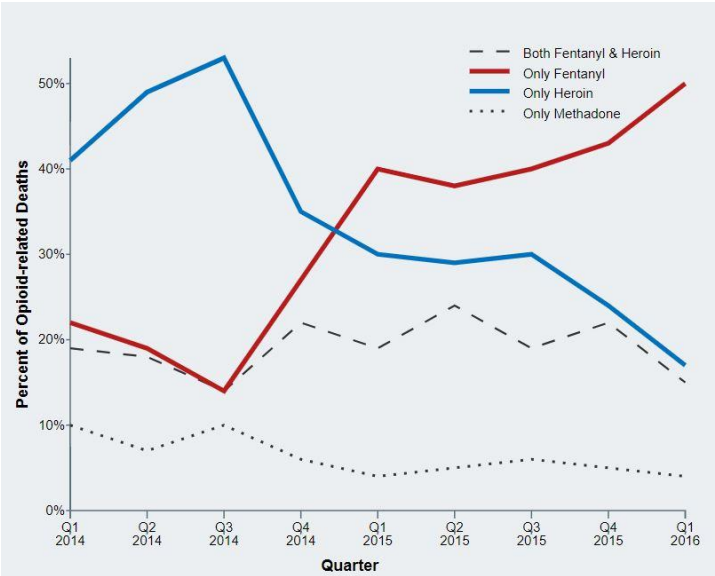
Comparing the opioid-related death rate of Massachusetts to the nation overall.



[View the dataset powering this visualization](#)

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. [Multiple Cause of Death 1999-2014 on CDC WONDER Online Database](#), released 2015. [Massachusetts Registry of Vital Records and Statistics](#), [Massachusetts Department of Public Health](#)

Population of Focus: Why It Matters for Health Care Providers



Of opioid-associated deaths from 2013-2014, an estimated 65-68% had a legal opioid prescription within the past three years



[View the dataset powering this visualization](#)

Sources: [Massachusetts Office of the Chief Medical Examiner](#)

Figure 54: Substance Use (Service Area), Age-adjusted rates per 100,000

	MA	Grafton	Holden	Leicester	Millbury	Shrewsbury	W.Boylston	Worcester
Alcohol/Substance Use								
Related hospitalizations (2008-2012)	337.5	136.9	145.5	194.7	198	122.0	164.7	338.8
Related ED discharges (2008-2012)	858.8	426.6	389.6	426.3	649.2	372.3	488.0	1,209.2
Opioids								
Hospitalizations (2008-2012)	315.5	150.6	118.4	170.6	224.1	122.2	158.3	452.8
Related ED discharges (2008-2012)	259.6	158.2	125.3	166.4	203.7	148.8	184.1	315.6
Opioid-related fatal overdoses (2015)*	24.6	--1	--1	--1	--1	--1	0	43.6

Source: Massachusetts Hospital Inpatient and Emergency Visit Discharges (Accessed through MassCHIP)

*Source is Massachusetts Vital Records, 2015 || A value of --1 means data is suppressed due to low counts

Shading represents statistical significance compared to the Commonwealth. Figures highlighted in red are statistically higher compared to the Commonwealth overall, while figures highlighted in blue are significantly lower.

Population of Focus: Medical Risk Factors

- Compared to the state of MA, higher incidence of:
 - Low birthweight
 - Births to teen mothers
 - Infant mortality
 - General mortality rates
- Specific to SUD and substance use:
 - Higher incidence of opioid overdose deaths
 - Significantly higher HIV/AIDS prevalence
 - Higher admission rates to DPH SUD programs

Recent Demographic Behavior

Indicator	Worcester	Gateway Cities	State
Birth Rate (per 1,000 females 15-44)	59.0	62.1	52.8
Low birthweight (<2.5 kg. % of births)	8.0	8.0	7.7
Births to teen mothers (15-19 years)†	7.2	6.0	3.8
Birth rate of teen mothers‡	23.3	22.3	12.0
Infant mortality (per 1,000 live births)	5.7	4.9	4.4
Mortality rate (per 100,000 residents)	862	844.9	800.0

†As percent of all births
‡Per 1,000 females aged 15-19 years

Mortality and Health

	Worcester	Gateway Cities	State
Lung Cancer Deaths (per 100,000 people) †	56.7	61.3	54.1
Cardiovascular Disease Deaths (per 100,000) †	223.0	254.7	237.4
Opioid Overdose Deaths (per 100,000)‡	22.9	25.5	13.0
HIV/Aids Prevalence Rate (per 100,000 people) 2010†	501.6	317.0	282.3
Admissions to DPH Substance Abuse Programs (per 100,000 people) †	2695	2189	1568
Hospital Discharges for Asthma (per 100,000) 2009	240.6	208.8	162.0
Percent overweight or obese children in grade 10 †	41.7	38.2	32.3
Percent of population on some form of non-private insurance 2013	36.6	36.1	17.2

†2010

‡2014

Mosakowski Institute; Brown, John C.; Krahe, Joe; and Philbrick, Sarah, "Data Profiles - Worcester" (2016). Mosakowski Institute for Public Enterprise. Paper 38.

<http://commons.clarku.edu/mosakowskiinstitute/38>

Population of Focus: Social Risk Factors

Worcester Specifics:

- Growing Black, Foreign-born and Hispanic populations
 - All of these populations experience health inequities, placing the population at risk
- Median family income: **~\$44,000/year**
 - About **\$16k less** than similar cities in MA
- Percent of families below the poverty line: **18.6%**
 - About **4.3%** higher than similar cities in MA
- Large population of homelessness, yet shrinking

More generally ACEs study showed that early childhood adversity predisposes individuals to addiction

Population Distribution by Race and Ethnicity

Subgroups of the population as a percent of the total	2000	2013	Gateway Cities 2013	State 2013
White	77.1	73.7	73.8	89.0
Black	6.9	12.4	8.0	2.8
Asian	4.9	6.1	5.3	4.8
Foreign-born	14.5	20.9	19.9	12.1
Hispanic	15.1	20.9	19.6	4.3
Origin as percent of Hispanic				
Central America	5.4	10.0	15.8	20.3
Dominican Republic	6.2	11.2	14.4	17.9
Mexico	2.7	3.6	5.5	11.4
Puerto Rico	65.3	61.0	45.5	33.6

Population of Focus: Social Risk Factors

In Massachusetts, the opioid death rate is...

- 16-30x higher for individuals experiencing homelessness [1]
- 120x higher for individuals with histories of incarceration [1]
- 3x higher among veterans [2]

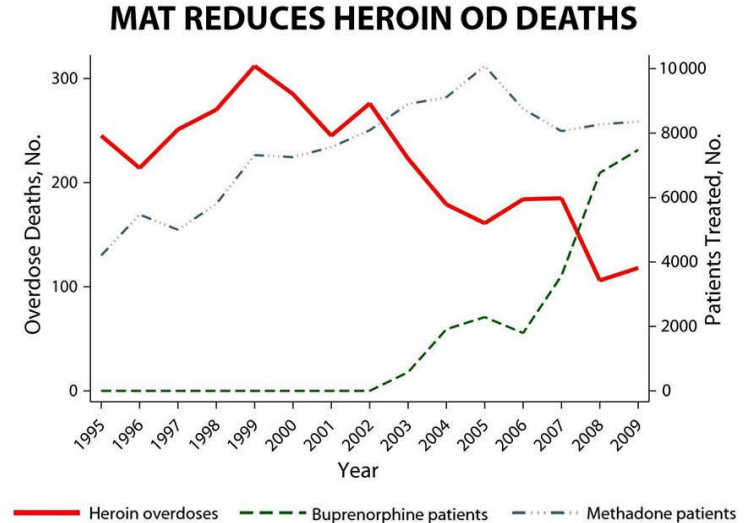
[1] Massachusetts Dept. of Public Health. Data Brief: An Assessment of Opioid-Related Overdoses in Massachusetts 2011-2015. August 2017.

[2] Massachusetts Dept. of Public Health. Data Brief: An Assessment of Fatal and Nonfatal Opioid Overdoses in Massachusetts 2011-2015. August 2017.

Population of Focus: Disparities and Strengths

In Worcester:

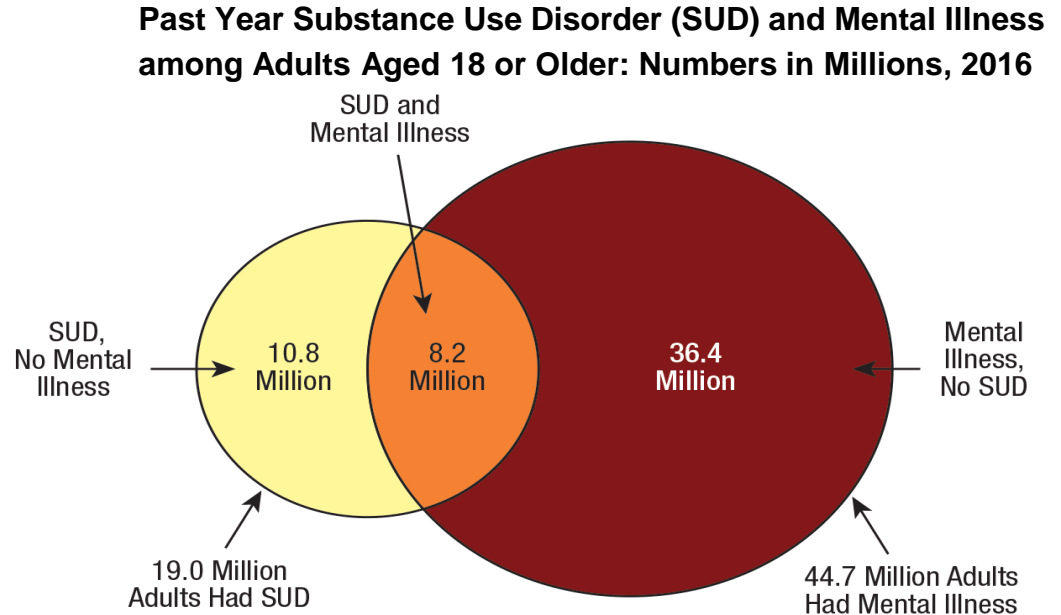
- 4 inpatient detox units
 - 1 specifically for adolescents
- 2 large hospital emergency rooms
- 6 sober-living/halfway houses
 - Only 1 considers residents who use MAT “sober”
- 1 free naloxone training site
- 1 methadone-administration site
- 1 wet shelter
 - Has availability to accommodate only ~60/night
 - 2,103 referrals through the door and only were able to find permanent housing for 337
- Worcester County jail only offers a Vivitrol shot a couple days before discharge, no MAT as an inmate



Exploring Interprofessional Teams of Care

Who is serving the population of focus?

- 1) Medical- Physicians and Nurse practitioners
 - a) Medication Assisted Treatment
 - b) Mental Health
 - c) Individual counseling



Exploring Interprofessional Teams of Care (cont)

2) Case Managers

- Housing- SMOC, AIDs Project Worcester, YWCA, The Bridge of Central Massachusetts, Hector Reyes House
- Boston Healthcare for the Homeless-SPOT, Medical Respite Care, Southeast Asian Coalition

3) Law

- Police - Diversion Program
- Drug Court - STOP program

4) Legislative

- Commissioner of Public Health
- CHIP/CHA



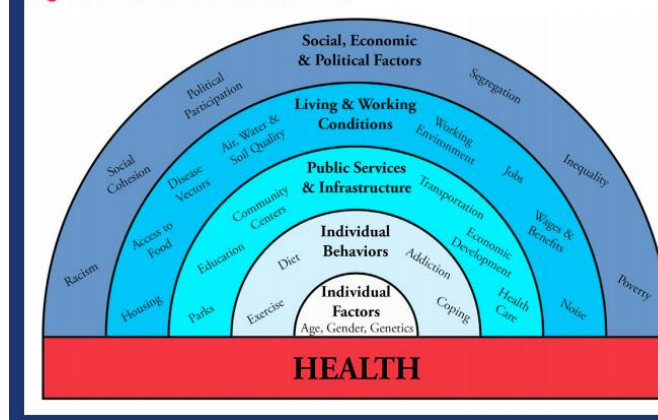
Health Advocacy

Local: City of Worcester DPH, City of Worcester Division of Youth Opportunities

County: Hampden County House of Correction, Worcester County Jail

State: MA Department of Health

Figure 1. Determinants of Health



“A healthy community is one where everyone partakes in the economic and social prosperity with no barriers. It’s one where all children have the same opportunities to be healthy and whole.” — Community Member Input

“How to be an Effective Advocate” Key Points

1. Reside/be involved within the community where you work
2. Have relationships with the resources you suggest
3. We are the gatekeepers of our patients’ health

Health Advocacy: Local

City of Worcester Division of Public Health

- CHA, CHIP
- Public Schools Flu Clinic
- Opioid Use Disorder Public Forum
- APW Needle Exchange, 7 Safe Needle Disposal Sites

"This isn't just a place to exchange used needles. It will be a place where people can access counseling and be directed to places for treatment." - Dr. Castiel

Worcester Division of Youth Opportunities

- Recreation Worcester, ages 7-13
- YouthWorks youth employment program
- "The W" free summer transportation



OPIOID ADDICTION RESOURCE SHEET

Worcester, MA

Current as of: 11/30/17

Youth Services

Community Healthlink, Inc. Services

Main Office: 68 Jacques Ave / 508-860-1000

Motivating Youth Recovery (MYR)

508-860-1244

Acute Care and Stabilization service for adolescents with substance abuse concerns. Detoxification and stabilization of physical and psychological dependency to substances. Typically 14 day program, but length of stay is determined on an individual basis.

Highland Grace House

508-860-1172

Residential treatment for adolescent females 13-17 years old working on recovery from substance abuse disorders.

For more information visit our website at:
www.communityhealthlink.org

LUK Substance Abuse Treatment Services

1-800-579-0000

Continuous Learning for Youth in Recovery (CLYR)

CLYR is an outreach treatment program for youth recovering from substance abuse or dependence using two evidence-based models

CRAFT

CRAFT provides training to caregivers on how to best respond to youth's motivation to abstain or use substances and how to improve communication and solve problems with them.

All services are provided on an outreach basis in the parent's / youth's home and community and serves all of Central MA

YOU, Inc.

81 Plantation Street / 1-800-4YOUINC

Adolescent Substance Abuse Services

For ages 13-18, most insurances accepted; intensive/daily group treatment and outpatient groups; services may include: drug screening, parent support group, comprehensive case management, access to wrap-around services

Counseling & Assessment Clinic of Worcester

51 Union St. Suite G02 / 508-756-2005

Structured Outpatient Addiction Program (SOAP)

Provides motivational interviewing, transitional age youth structured outpatient addiction program, second offender aftercare program

Rockdale Recovery High School

508-854-4939

Rockdale Recovery High School works with school districts of origin towards the goal of granting High School Diplomas to students who earn them. This type of High School is different than a typical public school as it is an academic environment that integrates recovery supports for students in recovery from chemical addiction.

Open to students of the Central Ma area; for more info or to apply go to: www.cmsec.org

Join the Regional Response to Addiction Partnership! For more information call

774-502-7027

Health Advocacy: State

Massachusetts Department of Public Health

- Bureau of Substance Abuse Services (BSAS):
 - Prevention Services
 - Residential Treatment Under/Over 30 Days
 - Ambulatory Services
 - Aftercare/ Recovery Support
 - Homeless Services
 - Driving Under the Influence

County: Hampden County House of Correction, Worcester County Jail



BSAS Resources for Communities



- **BSAS Website** (www.mass.gov/dph/bsas)
 - Prevention Information
 - Provider Guidelines for Services and Planning
 - Data and Statistics
- **MA Substance Abuse Information and Education Helpline** (www.helpline-online.com)
 - Treatment and Prevention Services
 - FREE and Confidential Information and Referrals

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BSAS Resources for Communities



- **Massachusetts Health Promotion Clearinghouse** (www.mass.gov/maclearinghouse)
 - FREE Substance Abuse Prevention Materials
- **MassTAPP Website** (www.masstapp.edc.org)
 - FREE Prevention Program Planning Tools and Guidance Documents
 - Successful Evidence-Based Strategies and Promising Practices
 - Community Resources
 - Funding Opportunities
 - Webinars, Trainings, and Events

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Worcester County Jail and House of Corrections

Worcester District Court- Drug Court

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The Western Massachusetts Regional Women's Correctional Center

Hampden County Jail

