



PUBLIC HEALTH ISSUE BRIEF

# Opioid Overdose in Western Massachusetts

*Springfield and Western Counties compared to statewide data*

October 2015

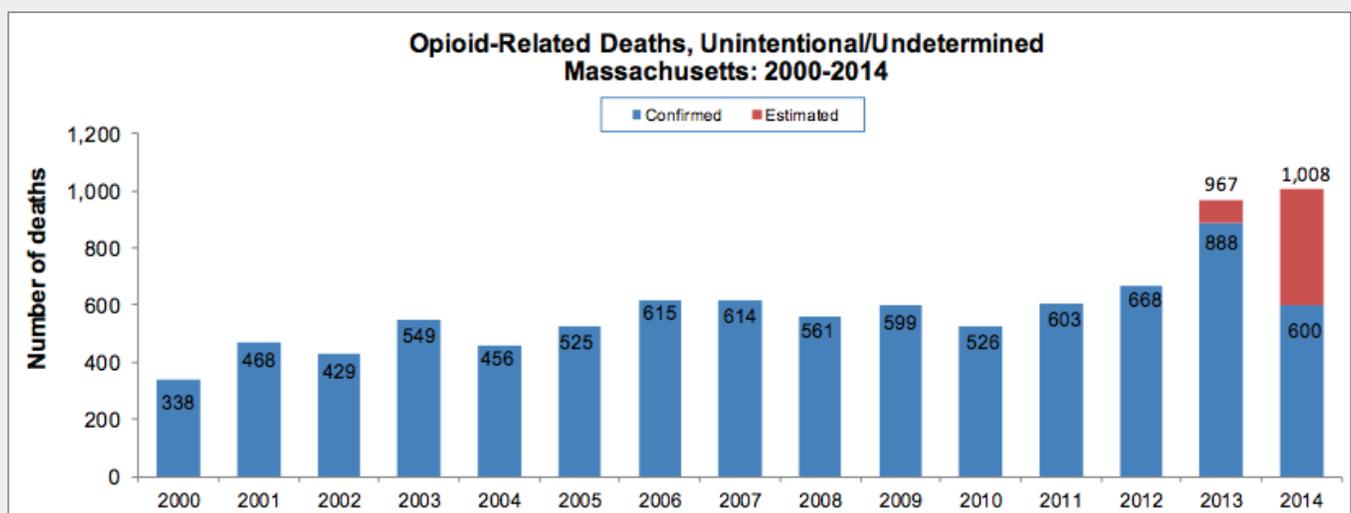
*Partners for a Healthier Community, Inc. authored this summary of surveillance data and findings from the Massachusetts Department of Public Health to assess the impact of opioid overdose. This report was commissioned and funded by the Office of Public Health and Community Relations, Baystate Health, Inc.*



## Background

Opioid addiction is a serious public health problem that includes the abuse of prescription pain relievers, morphine, and heroin. Rising rates of addiction and overdoses led the U.S. Department of Health and Human Services to declare prescription opioid overdose deaths an epidemic in 2013. A year later, Governor Deval Patrick declared opioid addiction a public health emergency in Massachusetts. Figure 1 illustrates the sudden rise in opioid deaths from 2000-2014. In the United States, an estimated 1.9 million people suffer from opioid pain reliever substance abuse and 517,000 suffer from heroin dependency or addiction. The rate of unintentional prescription pain reliever overdose deaths has quadrupled since 1999.<sup>1,2</sup>

**Figure 1. Fatal Opioid-related Overdose among Massachusetts Residents\***



Source: MDPH Data Brief: Fatal Opioid-related Overdose among MA residents, April 2014

\*Estimated deaths based on predicted modeling

Dr. Nora Volkow, the Director of National Institutes of Health's National Institute on Drug Abuse and a leading drug abuse researcher, has attributed several causes to the severity of prescription pain reliever abuse:

- large increases in prescriptions written;
- increased social acceptability of drug use for a variety of purposes; and
- aggressive pharmaceutical company marketing.<sup>2</sup>

Prescription pain relievers are in the same class of drugs as heroin – opioids – and act on the same brain systems and thus have a similar potential for addiction. Recent trends show a shift from use of prescription pain relievers to heroin in some communities. This may be a result of both increased physical tolerance to prescription pain relievers after repeated use, as well as challenges to obtaining prescription pain relievers legally.<sup>2</sup>

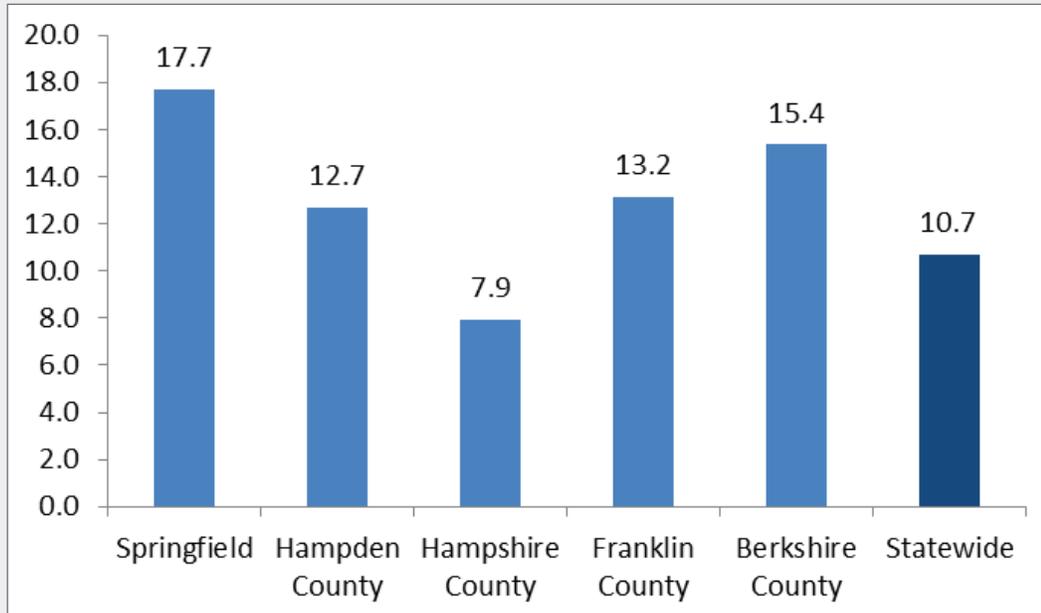
The Massachusetts Department of Public Health (MDPH) and the Massachusetts Opioid Task Force recently released a report with recommendations on priorities for prevention, treatment, and recovery services in response to the public health emergency.<sup>3</sup> Prioritized actions included:

- increased education for youth, families, and prescribers;
- improved safe prescribing and dispensing of controlled substances;
- development of centralized treatment resources and more accessible treatment services;
- increased treatment services offered at correctional facilities;
- development of a peer support recovery network; and
- expanded recovery services statewide.

## Fatal Overdose

Western Massachusetts residents are also experiencing the impact of the opioid epidemic. Opioid-related age-adjusted death rates in 2013 were higher in Western Massachusetts' Hampden, Franklin, and Berkshire counties and the City of Springfield than that of the state overall (Figure 2). Springfield had the highest opioid-related death rate, which was 65% higher than the state overall. Hampshire County was the only Western Massachusetts county that had a lower opioid-related death rate than that of the state.

**Figure 2. Opioid Overdose Death Rates, Age-Adjusted per 100,000, 2013\***



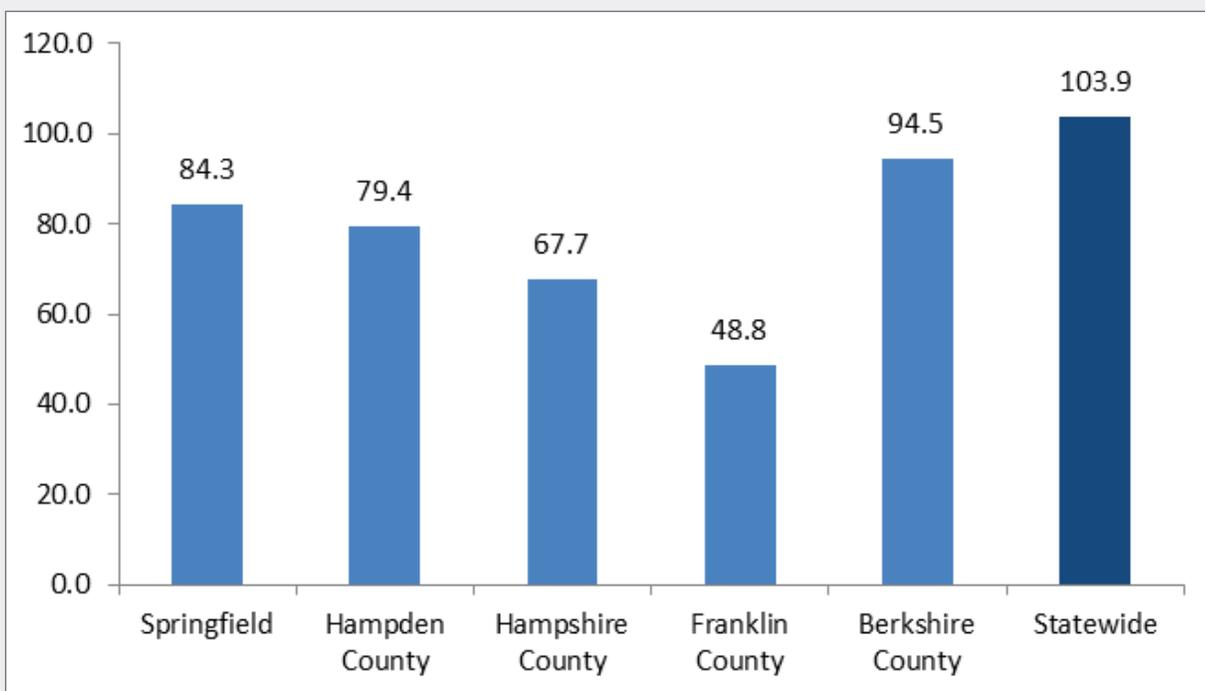
Source: Registry of Vital Records and Statistics, MDPH (MassCHIP 4/14/15; 5/1/15); provided courtesy of the Injury Surveillance Program, OSE, MDPH

\*Includes all intents (unintentional, suicide, undetermined)

### Nonfatal Overdose

Nonfatal opioid overdose age-adjusted hospitalization (including both inpatient admissions and outpatient observation stays) and ER visit rates were lower among residents in the four Western Massachusetts’ counties than among Massachusetts residents overall in 2013 (Figure 3). Among the Western Massachusetts counties, the highest rate occurred in Berkshire county, which was 10% lower than that of the state, and the lowest rate in Franklin county, which was less than half the state rate. It is important to note that both the death and nonfatal overdose data include unintentional, intentional, and undetermined intent overdoses.

**Figure 3. Nonfatal Opioid Overdose Hospitalization and ER Visit Rates, Age-Adjusted per 100,000, 2013\***



Source: MA Inpatient Hospital Discharge, MA Emergency Department Discharge, MA Observation Stay Databases, Center for Health Information and Analysis (CHIA); provided courtesy of the Injury Surveillance Program, OSE, MDPH  
 \*Includes all intents (unintentional, suicide, undetermined); hospitalization includes both inpatient admissions and outpatient observations stays

## Nonfatal Overdose by Age and Sex

Males had higher rates of nonfatal opioid overdose hospitalization and ER visits than females among all the Western Massachusetts counties examined and statewide (Table 1). When examining age-specific nonfatal overdoses, 25-34 year olds had the highest hospitalization and ER visit rates. Within each county, these rates were generally more than two times greater than any other age group. This trend was not observed in Springfield, where rates among the 35-44 year olds were almost comparable (147.5 vs. 151.7 per 100,000 among 25-34 year olds). Rates in Franklin County could not be examined because counts were suppressed by MDPH due to confidentiality and estimate stability concerns that arise with small counts.

**Table 1: Nonfatal Opioid Overdose Hospitalization & ER Visit Rates by Sex and Age, per 100,000, 2013\***

	Springfield		Hampden County		Hampshire County		Franklin County		Berkshire County		Statewide	
	Count	Rate**	Count	Rate**	Count	Rate**	Count	Rate**	Count	Rate**	Count	Rate**
<b>TOTAL</b>	123	84.3	358	79.4	104	67.7	38	48.8	112	94.5	6,841	103.9
<b>Sex</b>												
Male	63	93.8	196	91.3	52	73.6	24	73.6	56	101.8	4,194	130.8
Female	60	77.2	162	68.1	52	61.7	14	31.1	56	87.2	2,647	77.8
<b>Age Group</b>												
Ages 0-14	***	--	12	13.5	***	--	***	--	***	--	76	6.6
Ages 15-24	16	57.9	54	77	16	41.1	***	--	21	118.6	1,291	137.6
Ages 25-34	31	151.7	109	201.3	31	190.1	***	--	43	333.4	2,270	268.6
Ages 35-44	28	147.5	53	90.7	11	62.8	***	--	***	--	1,122	126.5
Ages 45-54	20	101.5	51	73.3	13	56.9	13	107.1	12	56.7	1,112	109.8
Ages 55-64	12	75.9	43	75.7	17	81.1	***	--	13	66.7	632	78.7
Ages 65+	12	71.6	36	54.8	14	69.9	***	--	10	41	338	37.4

Source: MA Inpatient Hospital Discharge, MA Emergency Department Discharge, MA Observation Stay Databases, Center for Health Information and Analysis (CHIA); provided courtesy of the Injury Surveillance Program, OSE, MDPH

\* Includes all intents (unintentional, suicide, undetermined); hospitalization includes both inpatient admissions and outpatient observation stays

\*\*Rates per 100,000 population; age-adjusted rates are given for totals and sex, age-specific rates for age groups

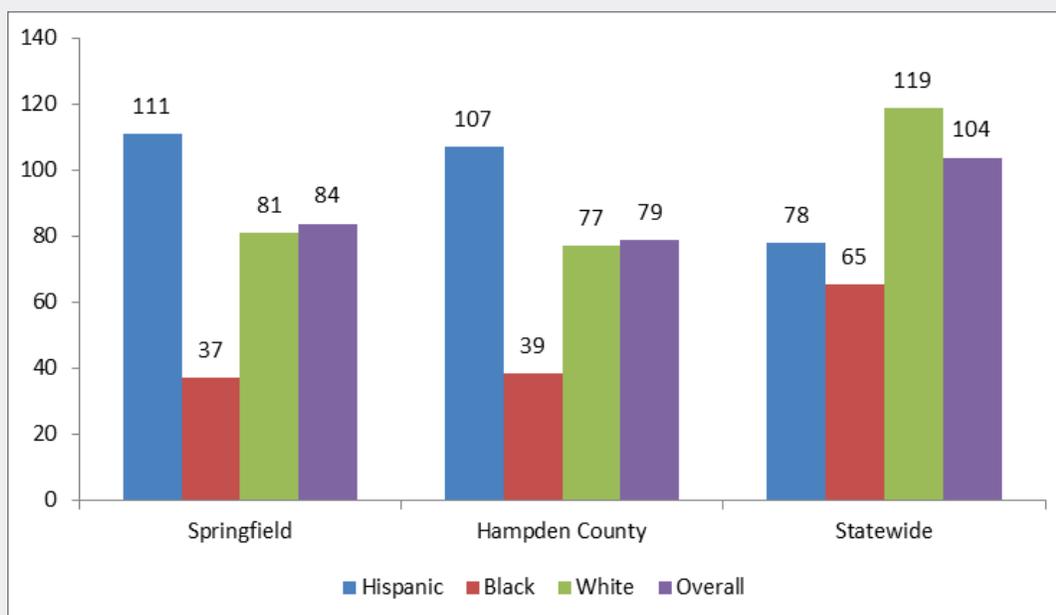
\*\*\*Suppressed because counts are less than 11; rates based on counts less than 20 may be unstable

## Nonfatal Overdose by Race/Ethnicity

Rates of nonfatal opioid overdose hospitalization and ER visits also vary by race/ethnicity. Figure 4 illustrates differences in rates among Whites, Hispanics, Blacks, and the overall population in Springfield, Hampden County, and Massachusetts overall. Asians were not included because rates were low and could not be included in the figure. The other Western Massachusetts counties were not included because they have few people of color and counts were suppressed due to low numbers.

At a state level, age-adjusted rates were highest among Whites with rates over 50% higher than that of Hispanics or Blacks. However, in Springfield and Hampden County, age-adjusted nonfatal opioid overdose rates were highest among Hispanics, with rates over 35% higher than Whites in each respective location. These rates were higher than Hispanics statewide and are comparable to the higher overall statewide rate. The lowest rates occurred among Blacks.

**Figure 4. Nonfatal Opioid Overdose Hospitalization and ER Visits Rates by Race/Ethnicity, Age-Adjusted per 100,000, 2013\***



Source: MA Inpatient Hospital Discharge, MA Emergency Department Discharge, MA Observation Stay Databases, Center for Health Information and Analysis (CHIA); provided courtesy of the Injury Surveillance Program, OSE, MDPH

\*Includes all intents (unintentional, suicide, undetermined); hospitalization includes both inpatient admissions and outpatient observations stays

## References

<sup>1</sup>Substance Abuse and Mental Health Services Administration. *Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings*, 2013.

<sup>2</sup>National Institute on Drug Abuse, National Institutes of Health. *America's Addiction to Opioids: Heroin and Prescription Drug Abuse*. Testimony to Congress' Senate Caucus on International Narcotics Control, 5/14/14. [http://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2014/americas-addiction-to-opioids-heroin-prescription-drug-abuse#\\_ftn2](http://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2014/americas-addiction-to-opioids-heroin-prescription-drug-abuse#_ftn2), Accessed 5/1/15.

<sup>3</sup>Massachusetts Department of Public Health. *Findings of the Opioid Task Force and Department of Public Health Recommendations on Priorities for Investments in Prevention, Intervention, Treatment and Recovery*, 2014.

## CALL TO ACTION

This inaugural edition of the Baystate Health “Public Health Issue Brief” aim is to instigate dialogue and action on a public health issue where there are proven scientific evidence-based public solutions, which are often and routinely withheld from vulnerable populations because of ideological reasons, lack of public will, barriers of care and resulting health inequity, and institutionalized ‘isms’ (race, gender, sexual preference). The simple call for the reader is to answer the following questions:

- What are the public health issues revealed in this data?
- What am I doing to address the selected issue? What are we doing to address the selected issue?
- Is what I/we are doing working? Is it sufficient to get the results we seek?
- What’s needed to maximize our success?

### WHAT ARE BAYSTATE AND THE COMMUNITY DOING?

#### **“We are mounting a “Harm Reduction Campaign” to save lives and money!”**

Baystate Franklin Medical Center has secured a \$100,000 grant to support a campaign to get Naloxone into the hands of the police, families, and addicts in Franklin County through the Franklin County and the North Quabbin Opioid Task Force. A large body of scientific evidence demonstrates that harm reduction programs, such as providing access to naloxone (also known as Narcan®), the substance that can reverse the effects of an otherwise-lethal heroin overdose. It is an “opioid antagonist” used to counter the effects of opioid overdose, to counteract life-threatening depression of the central nervous system and respiratory system, allowing an overdose victim to breathe normally. Baystate Franklin Medical Center in its anchor institution community partnership with the Task Force will help reduce opioid and heroin addiction, prevent overdose deaths.

### WHAT ELSE CAN BAYSTATE AND THE COMMUNITY ADDRESS?

#### **“Step forward and take on the next “Harm Reduction Campaign.” Save lives and money in the fight against HIV/AIDS”**

Sadly, ideological debate about harm reduction continues, despite widespread agreement among health authorities, including the World Health Organization, that such programs are essential to the fight against HIV/AIDS and other drug-related harms. It is time to renew efforts to establish Springfield needle-exchange program, perhaps located in the middle of this city’s poorest and most challenged neighborhoods, operating right alongside Springfield’s “C3” community policing initiative. Given that most rural areas do not have active syringe exchange programs in place, HIV/AIDS and hepatitis C transmission in rural districts is a ticking public health time bomb.

Imagine helping to create a one-stop shop in both urban and rural settings for the services addicts need: treatment referrals, information about detox centers, and whatever else might help them live their lives with health and dignity.

Frank Robinson, PhD, Vice President  
*Public Health and Community Relations, Baystate Health*