Drug Overdose Deaths Remain a Public Health Crisis

### This Data Brief summarizes overdose deaths from all drugs in Massachusetts from 1999-2013. Drug overdoses are the leading cause of injury death in Massachusetts and the US. Drug overdoses may involve one or more over-the-counter, prescription and/or illegal drugs. In 2013, a total of 1,157 MA residents died from a drug overdose; an average of three people each day.

### Between 1999 and 2013, the annual death rate due to drug overdoses in MA more than doubled (7.4 to 17.1 deaths per 100,000 persons)1.

### Over the same time period, the death rate from motor vehicle crashes2 decreased by 25% (6.7 to 5.0 deaths per 100,000 persons).

### In 2013, the death rate due to drug overdoses among MA residents was 3.4 times higher than the death rate from motor vehicle crashes (17.1 vs. 5.0 deaths per 100,000 persons). (Fig. 1)

**Figure 1. Drug Overdose and Motor Vehicle CrashDeath Rates1, MA Residents, 1999-2013**

### Between 1999 and 2012, the annual rate of fatal drug overdoses in MA increased by 74% (7.4 to 12.9 per 100,000 persons), while rates of fatal motor vehicle crashes1 decreased by 24% (6.7 to 5.1 per 100,000 persons).

### Among MA residents in 2012, the death rate due to drug overdoses was 2.5 times higher than that from motor vehicle crashes (12.9 vs. 5.1 per 100,000 persons). (Fig. 1)

**Drug Overdoses**

**Drug Overdoses**

**Motor Vehicle Crashes2**

Characteristics of MA Drug Overdose Deaths

**Of the 1,157 drug overdose deaths of MA residents in 2013:**

**Table 1. Characteristics of Drug Overdose Deaths, MA Residents, 2013 (N = 1,157)**

* Two-thirds of victims were male (66%, n=768) and one-third were female (34%, n=389).
* Three-quarters were adults ages 25 to 54 years old (76%, n=882).
* The majority of these overdoses were classified as unintentional (86%, n=999). One in ten were classified as suicides (10%, n=114).
* Many overdose deaths involved more than one type of drug. Eight in ten (82%, n=947) involved at least one opioid-related drug. Opioids include prescription pain killers, heroin and other narcotics.
* One in five overdose deaths involved cocaine (22%, n=254) and one in six involved benzodiazepines (16%, n=190), with or without other drugs. (Table 1)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Characteristic | | Number | | | Percent | |
| Sex | Male | | 768 | 66% | |
|  | Female | | 389 | 34% | |
| Age Group3 | 15-24 | | 95 | 8% | |
| (years) | 25-39 | | 408 | 35% | |
|  | 40-54 | | 474 | 41% | |
|  | 55-64 | | 140 | 12% | |
|  | 65+ | | 39 | 3% | |
| Intent4 | Unintentional | | 999 | 86% | |
|  | Suicide | | 114 | 10% | |
|  | Undetermined | | 43 | 4% | |
| Drug Type5 | Opioids | | 947 | 82% | |
|  | Cocaine | | 254 | 22% | |
|  | Benzodiazepines | | 190 | 16% | |
|  | Other/unknown only | | 127 | 11% | |

1. Rates are age-adjusted rates per 100,000 MA residents.

2. Motor vehicle crash deaths include motor vehicle occupants, motorcyclists, pedestrians and pedal cyclists.

3. 0-14 age group not included due to low count (n = 1). Percentage may not total 100% due to rounding.

4. Homicide not included due to low count (n = 1).

5. Includes all intents. Categories are not mutually exclusive, therefore percents do not total 100%. See reverse side for drug definitions.

Overdose categories are based on CDC definitions and may differ from those used in other DPH publications.

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Opioid Overdose Deaths

Opioid drugs, which include prescription pain killers, heroin and other narcotics, have contributed to an increasing number of fatal drug overdoses among MA residents over the past decade. Figure 2 compares the number of drug overdose deaths (of any intent) between 1999 and 2013 that involved an opioid drug with the number that were not known to involve an opioid drug.6

* The number of fatal overdoses involving one or more opioid drugs nearly tripled between 1999 and 2013, increasing from 327 to 947 deaths.
* The number of opioid overdose deaths increased an average of 5% per year between 1999 and 2013.
* The number of drug overdose deaths not known to involve opioids increased an average of 6% per year through 2006, then decreased at a similar rate through 2013.

6. Categories are mutually exclusive. Non-opioid overdoses include those involving unspecified drugs. Counts include all intents and therefore differ from counts in other DPH reports that focus on drug overdoses of unintentional or undetermined intent only.

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**Figure 2. Opioid and Non-Opioid Drug Overdose Deaths,**

**All Intents6, MA Residents, 1999-2013**

**947**

**Opioid-Related**

**327**

**210**

**158**

**308**

**Non-Opioid/Unspecified Drugs Only**

**Data sources:** Deaths -MA Registry of Vital Records and Statistics, MDPH. Cases include MA residents who die in or out-of-state.

**Definitions:** Drug categories are based on CDC definitions and may differ from those used in other DPH publications.

***Drug overdose*** *(or “poisoning”)* **-** an ICD-10 underlying cause of death code of X40-X44, X60-X64, X85 or Y10-Y14.

***Opioids -*** poisoning cases with an ICD-10 code of T40.0-T40.4 or T40.6 in any contributing cause-of-death field.

***Cocaine –*** poisoning cases with an ICD-10 code of T40.5 in any contributing cause-of-death field.

***Benzodiazepines –*** poisoning cases with an ICD-10 code of T42.4 in any contributing cause-of-death field.

Additional drug overdose prevention information and resources available at: [**www.mass.gov/opioids**](http://www.mass.gov/opioids) and

**www.mass.gov/dph/bsas**

Additional overdose/poisoning data available at: [**www.mass.gov/dph/isp**](http://www.mass.gov/dph/isp), under “Injury Reports and Publications”

**Massachusetts Department of Public Health**

**www.mass.gov/dph/isp**