

## Section 12: Substance Abuse

Substance abuse involves the excessive use of alcohol or use of drugs in a non-prescribed manner to achieve an altered physiological state. People who choose to use drugs or alcohol in this way do so to experience physical and mental sensations that are considered pleasurable when compared to their normal 'unaltered' state. But because alcohol and drugs directly affect the central nervous system of the body, they can cause severe immediate consequences including cardiac arrest and the loss of life. In addition, abuse of alcohol or other drugs over time can lead to physical and/or psychological dependence on these substances whereby the user continues to use the substance in order to satisfy intense cravings for the substance.

When dependence occurs, an individual often feels agitated in their unaltered state and uses the substance to relieve the agitation. An individual is said to have an addiction to a substance when the nature and intensity of the cravings for the substance contribute to a pattern of unhealthy or self-destructive decisions in order to satisfy the perceived need for the substance. As a result, people with addictions may sacrifice their physical health, personal relationships, jobs, personal morals and values in efforts to maintain access to the substance.

Fortunately, effective treatment for drug and alcohol dependence exists. Treatment providers offer a wide array of services and medications that aim to help the individual break his or her dependence on the substance.

This section considers three types of indicators of substance abuse: admissions to publicly funded substance abuse treatment programs, hospitalizations due to substance abuse, and substance abuse mortality

(deaths in which alcohol or drugs are believed to play a causal role).



For explanation of symbols within charts (\* † ‡ § || ¶ \*\* ††) and for notes, data sources, and data analysis, see Notes, Data Source, and Data Analysis at the end of this section.

Additional data can be found on the Boston Public Health Commission website at [www.bphc.org/hob](http://www.bphc.org/hob).

The number of substance abuse treatment admissions increased 4.7% from 2007 to 2008.

The percentage of treatment admissions for White residents increased 43.3% from 2001 to 2008.

The percentage of Black treatment admissions decreased 36.8% from 2001 to 2008.

In 2008, about three-fourths of all treatment admissions were male and one-fourth were female.

Figure 12.1 Substance Abuse Treatment Admissions, 2001-2008

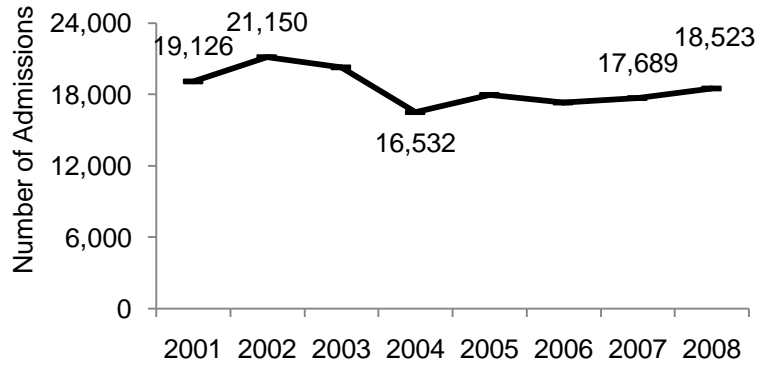


Figure 12.2 Substance Abuse Treatment Admissions by Race/Ethnicity, 2001-2008

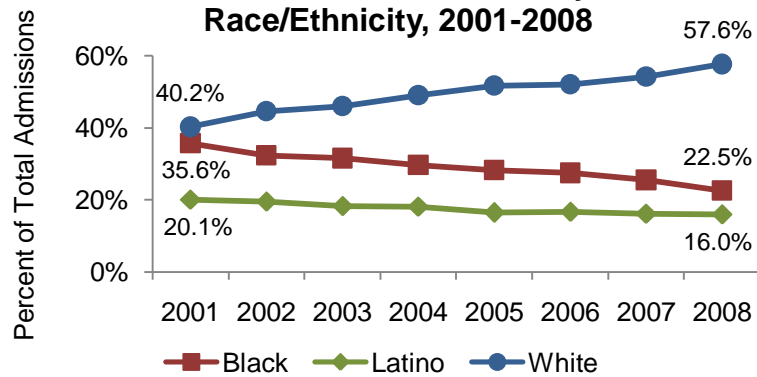


Figure 12.3 Substance Abuse Treatment Admissions by Gender, 2008

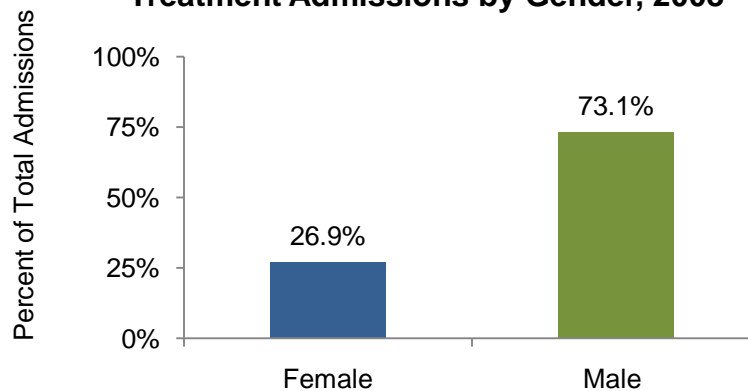
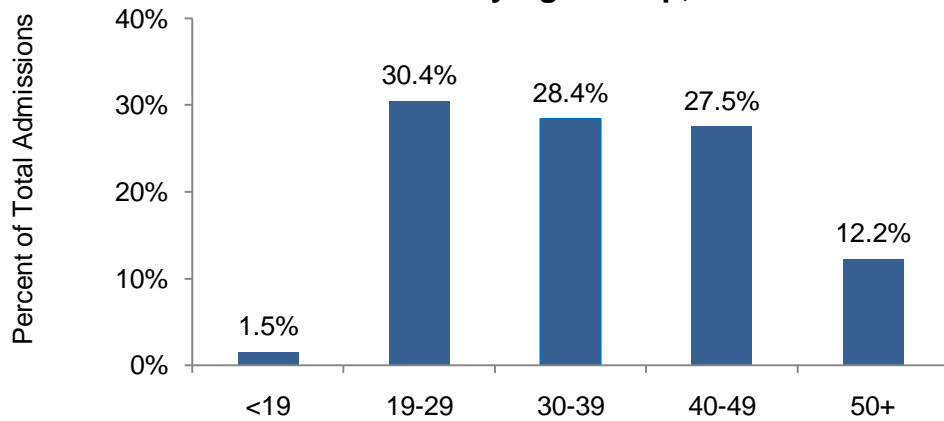


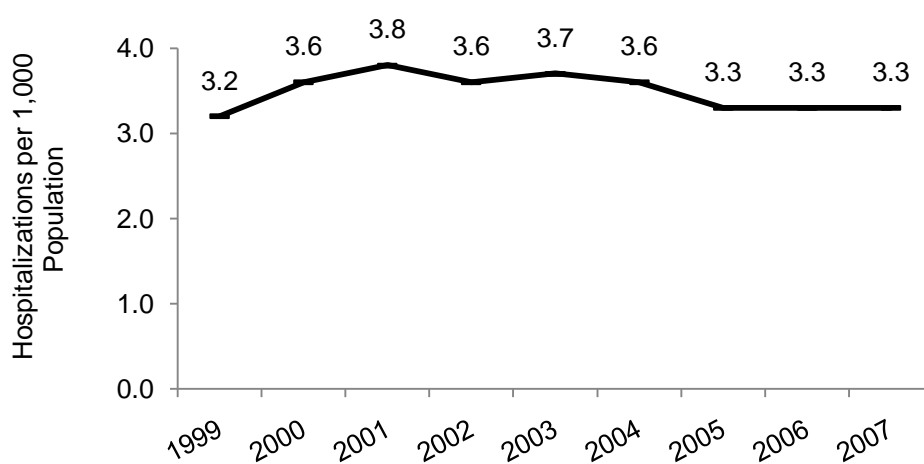
Figure 12.4 Substance Abuse Treatment Admissions by Age Group, 2008



Eighty-six percent of all substance abuse treatment admissions were spread relatively evenly across three age groups: 19-29, 30-39, and 40-49.

The substance abuse hospitalization age-adjusted rate was similar from 1999-2007 among Boston residents.

Figure 12.5 Substance Abuse Hospitalizations, 1999-2007



For explanation of symbols within charts (\* † ‡ § || ¶ \*\* ††) and for notes, data sources, and data analysis, see Notes, Data Source, and Data Analysis at the end of this section.

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In 2007, the substance abuse hospitalization rate was highest for Boston residents ages 35-44, 45-54, and 55-64. Teens and young adults ages 15-24 had the lowest rate, along with residents ages 65 and over.

The substance abuse hospitalization age-adjusted rate for Boston males was 3.5 times the rate for females in 2007.

The substance abuse mortality age-adjusted rate decreased 6.9% from 2006 to 2007.

The 2007 rate of 31.2 per 100,000 population is 77.3% higher than the 1999 rate of 17.6.

Figure 12.6 Substance Abuse Hospitalizations by Age Group, 2007

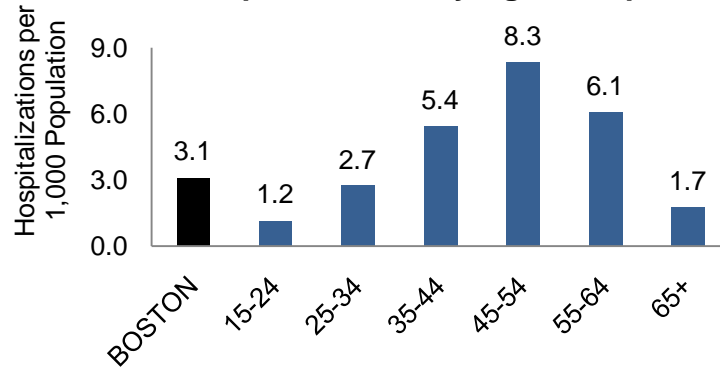


Figure 12.7 Substance Abuse Hospitalization by Gender, 2007

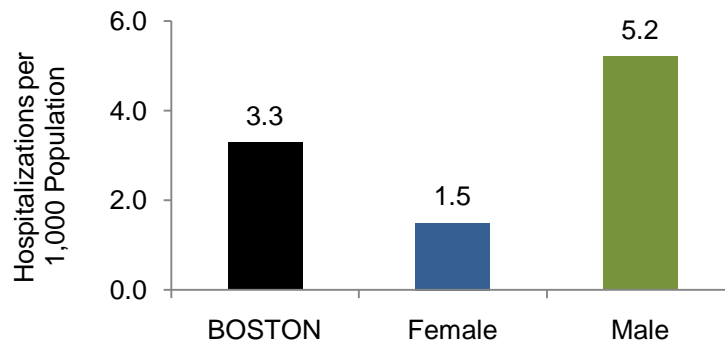


Figure 12.8 Substance Abuse Mortality, 1999-2007

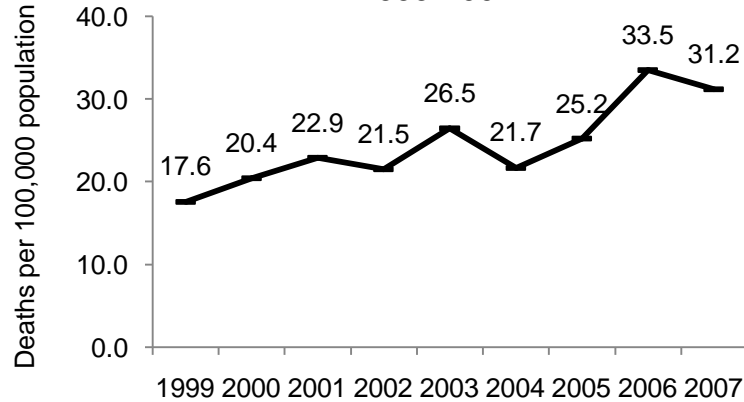
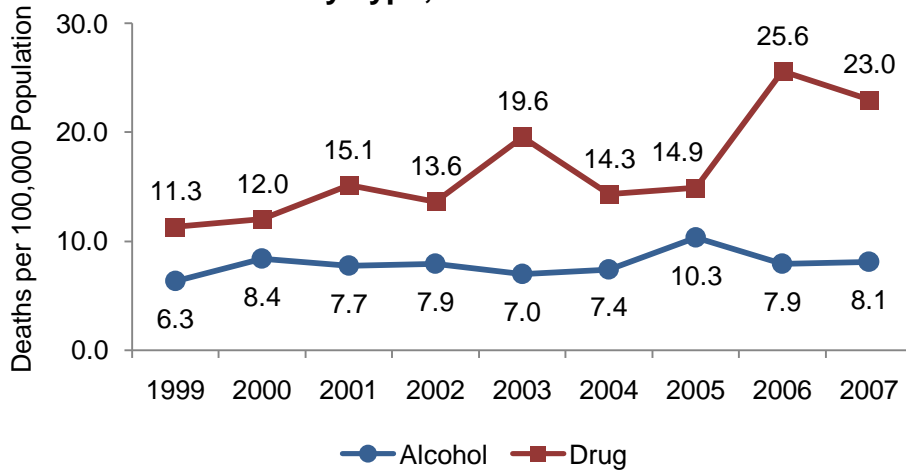


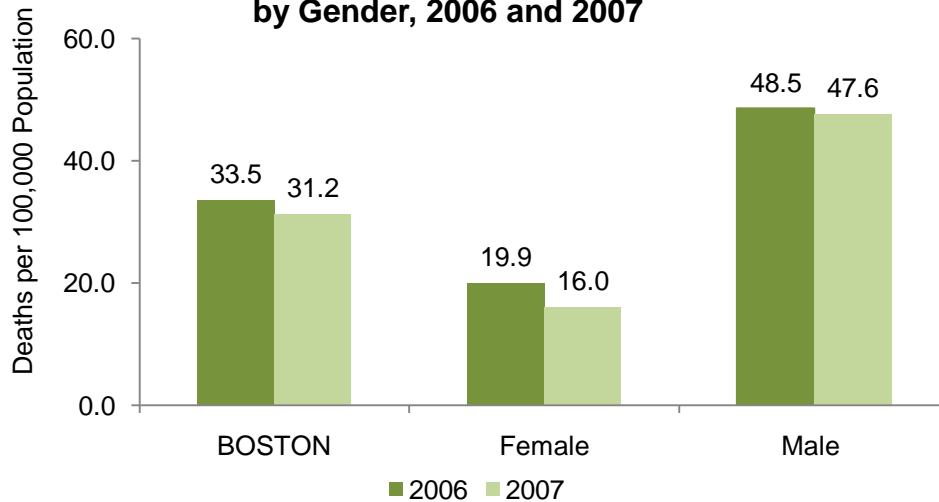
Figure 12.9 Substance Abuse Mortality by Type, 1999-2007



Though the alcohol-related mortality rate has remained fairly stable from 1999 to 2007, the drug-related mortality rate has more than doubled during the same period.

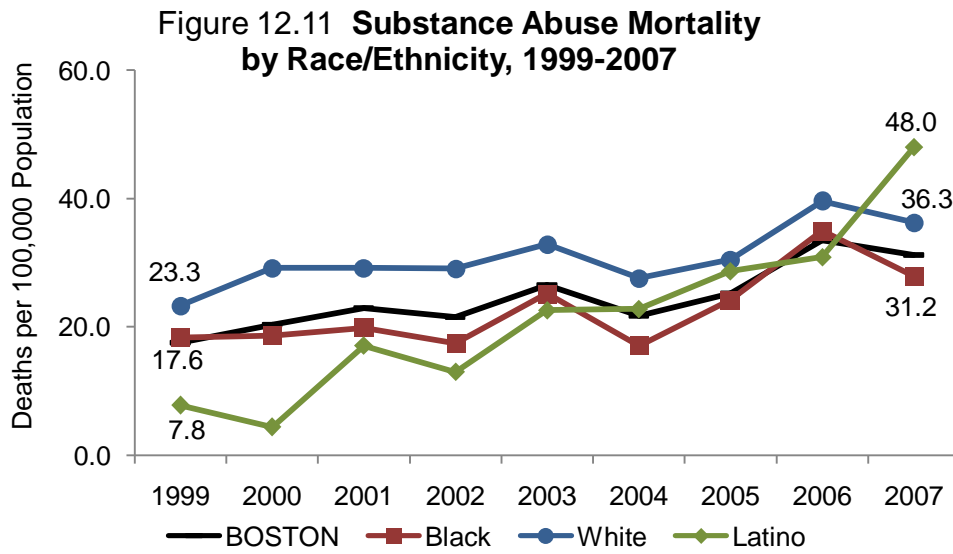
In 2007, the male substance abuse mortality rate was approximately three times the female rate.

Figure 12.10 Substance Abuse Mortality by Gender, 2006 and 2007



For explanation of symbols within charts (\* † ‡ § || ¶ \*\* ††) and for notes, data sources, and data analysis, see Notes, Data Source, and Data Analysis at the end of this section.

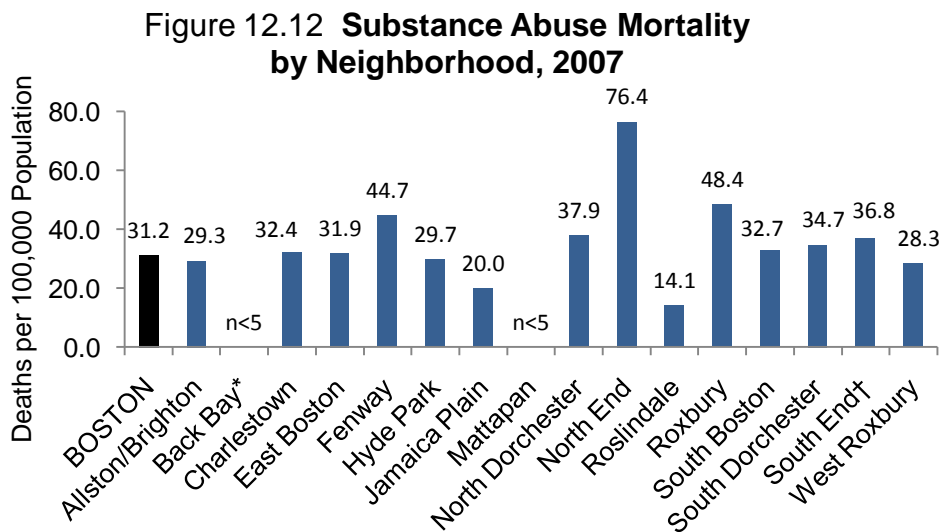
Additional data can be found on the Boston Public Health Commission website at [www.bphc.org/hob](http://www.bphc.org/hob).



In 2007, Latino's had the highest substance abuse mortality rate among all the racial/ethnic groups. From 1999 to 2007, the Latino rate increased more than 500%.

The rate for Blacks and Whites decreased 20.3% and 8.3%, respectively, from 2006 to 2007, but remains well above their 1999 levels.

In 2007, the North End experienced the highest substance abuse mortality rate among Boston neighborhoods.



## Summary: Substance Abuse

From 2006 to 2007 there was little change in the overall substance abuse treatment, hospitalization and mortality rates. Though the mortality rate decreased 6.9% from 2006 to 2007, the rate remained well above levels for earlier years (e.g., 77.3% higher than the 1999 rate).

Because of its social consequences, substance abuse continues to adversely impact residents of all ages, all racial/ethnic groups and genders. However, the data presented here show differences among various demographic groups within substance abuse indicators. Overall, Boston males accessed the treatment system, were hospitalized due to substance abuse, and died as a consequence of substance abuse at rates approximately three times those for females.

In general, White residents experience high substance abuse rates. The percentage of treatment admissions who were White residents increased steadily from 40% in 2001 to 58% in 2008. From 1999 to 2006, Whites consistently had the highest substance abuse death rate among Boston's racial/ethnic groups.

In 2007, Latinos experienced the highest substance abuse mortality rate (48.0 per 100,000 population) among the racial/ethnic groups. The Latino rate in 2007 was more than ten times the 2000 rate. No similar increase was observed in the Latino treatment admissions data.

Among Boston neighborhoods, Fenway, the North End and Roxbury had the highest substance abuse mortality rates. The North End rate was more than twice the overall Boston substance abuse mortality rate.

The 2007 data summarized in this section demonstrate persistent disparities in

substance abuse treatment admissions, hospitalization rates and mortality among racial/ethnic groups, gender groups, and neighborhoods.



## Notes, Data Source, and Data Analysis

### Figure 12.1

NOTES: An individual client may have more than one admission per year. The data shown are for fiscal years July 2000 - June 2008.

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

### Figure 12.2

NOTES: Data for Asians was unavailable. An individual client may have more than one admission per year. The data shown are for fiscal years July 2000 - June 2008.

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

### Figure 12.3

NOTES: An individual client may have more than one admission per year. The data shown are for fiscal year 2008: July, 2007-June, 2008.

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

### Figure 12.4

NOTES: An individual client may have more than one admission per year. The data shown are for fiscal year 2008: July, 2007-June, 2008.

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

### Figure 12.5

NOTE: Data are presented as age-adjusted rates.

DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

### Figure 12.6

NOTE: Data are presented as age-specific rates.

DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

### Figure 12.7

NOTE: Data are presented as age-adjusted rates.

DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care, Finance and Policy

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

### Figure 12.8

NOTE: Data are presented as age-adjusted rates.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

**Figure 12.9**

NOTE: Data are presented as age-adjusted rates.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

**Figure 12.10**

NOTE: Data are presented as age-adjusted rates.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

**Figure 12.11**

NOTES: Data are presented as age-adjusted rates. There were too few substance abuse deaths among Asians to permit the presentation of rates.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

**Figure 12.12**

\*Includes Beacon Hill, Downtown, and West End.

† Includes Chinatown

NOTES: Data are presented as age-adjusted rates. There were too few substance abuse deaths among residents of Back Bay\* and Mattapan to permit the presentation of rates.

Rates are not presented for Back Bay and Mattapan due to the small number of substance abuse deaths.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

