THE HEALTH OF BOSTON 2006

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prepared by
THE BOSTON PUBLIC HEALTH COMMISSION
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PREFACE

In 1995, the Legislature passed and the Governor signed legislation establishing the Boston Public Health Commission and requiring it to submit annual reports on various matters related to public health in the city of Boston:

Sect. 8. (b) ... *the commission shall prepare and file with the mayor, the president of the city council and the city clerk an annual assessment of the public health needs of the city. The annual public health assessment shall include an evaluation of existing local, state and federal programs and services to address the public health needs of the city and the adequacy of funding sources available for such programs and services, an assessment of programs, services and other activities provided by private public health providers to address the public health needs of the city, including identification of all vulnerable populations in the city, the performance of providers under contract with the commission in accordance with this act, and proposals by the commission to enlarge or enhance its response to the public health needs of the city including new, expanded or revised programs or services to be provided by the commission or by public health providers under contract with it for the ensuing fiscal year.*

The Health of Boston 2006 report is the tenth in a series of annual reports in response to this legislation.

ACKNOWLEDGMENTS

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This online version of The Health of Boston 2006 may be slightly different from the printed version of March 8, 2006 and is the most recent.

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THE HEALTH OF BOSTON 2006

INTRODUCTION

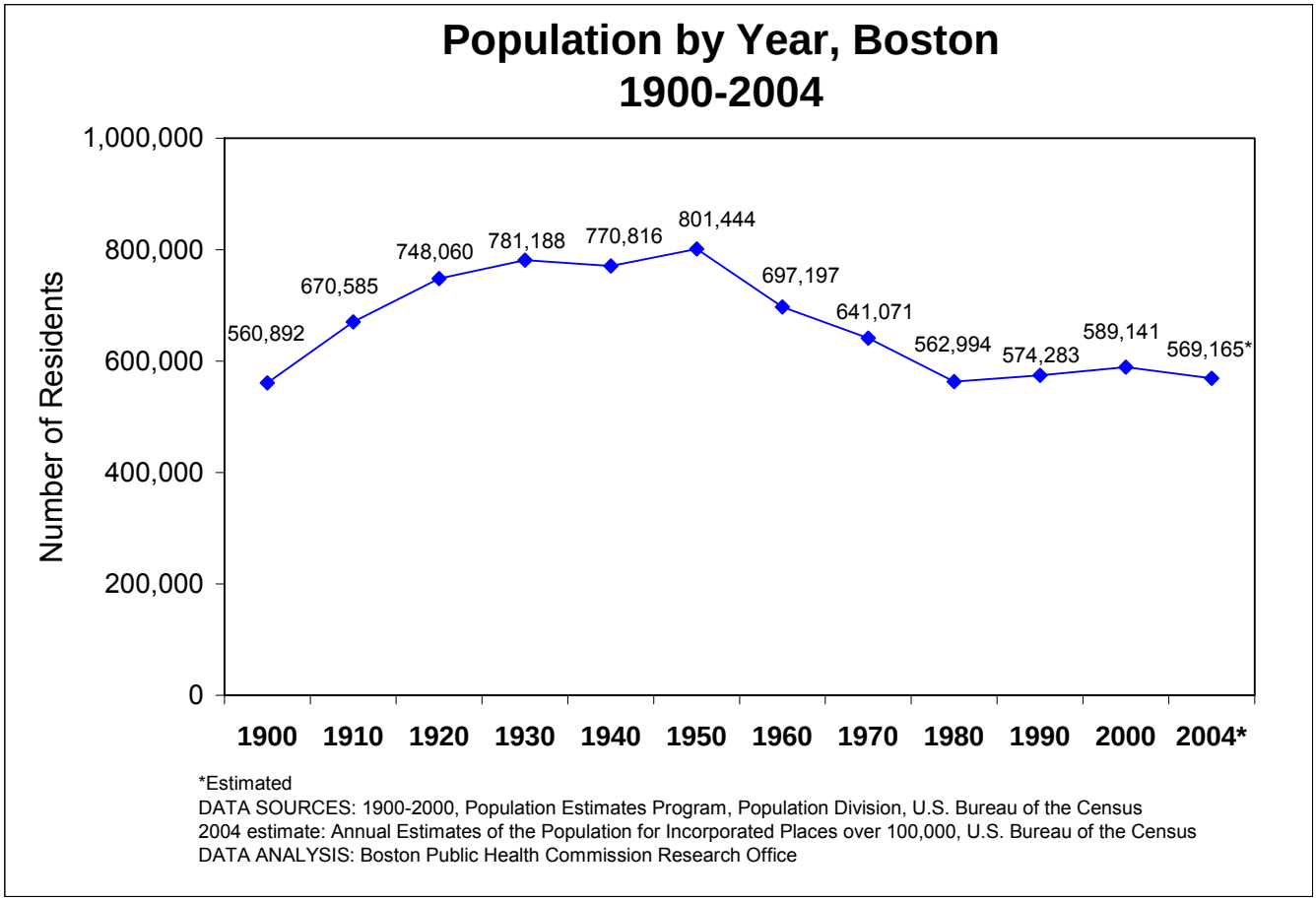
Welcome to *The Health of Boston 2006*. This annual report has been prepared for readers who want an extensive yet readily usable source of Boston health data. We hope that readers will find the report to be a good resource for grant proposal preparation, community program development, monitoring of health trends, general reference, and similar purposes.

The data presented in this report are the most recent available as of late autumn 2005. State birth and death data in particular are subject to delays, and data from 2003 were the most recent available for publication.

Background information about Boston's 16 neighborhoods has been added to provide readers with a context for understanding the health data presented in *The Health of Boston 2006*. Details about rate calculations, data quality, and related issues can be found in the Technical Notes section.

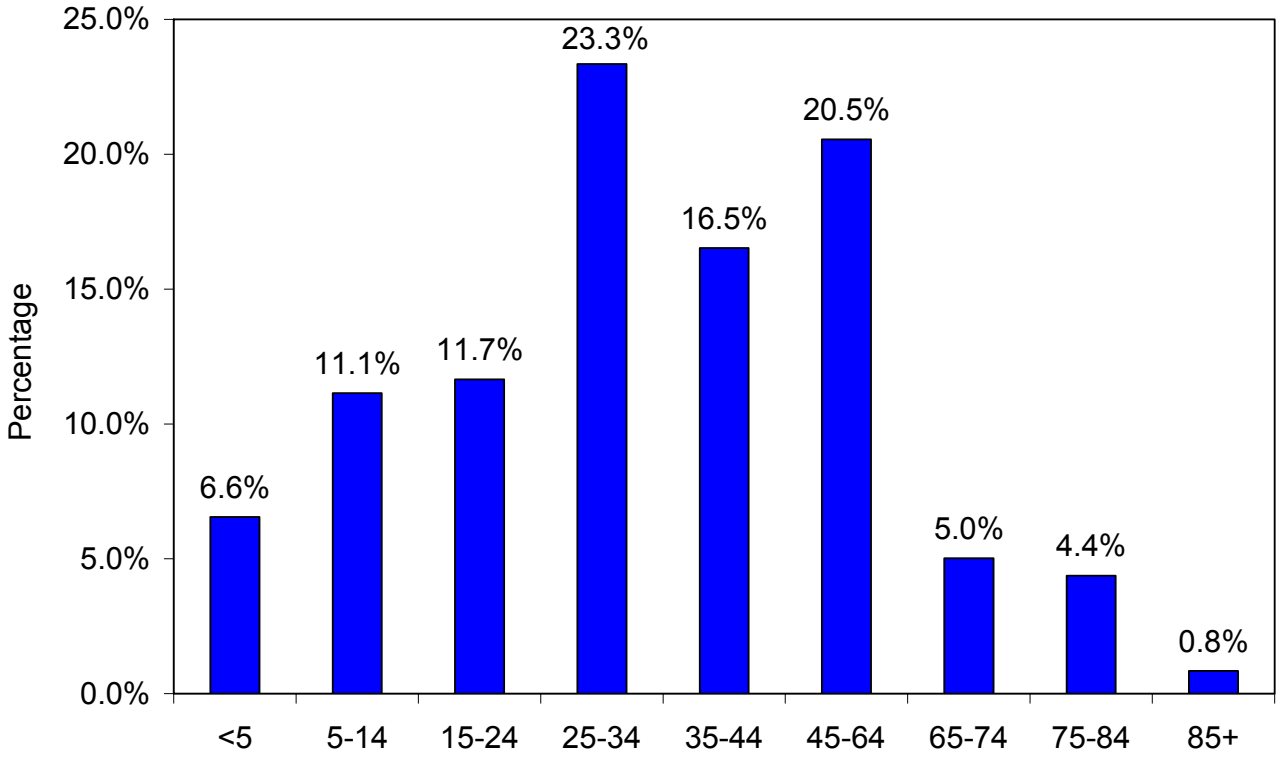
We always welcome comments from readers, and all Boston Public Health Commission reports can be found online at www.bphc.org. Our phone number is (617) 534-4757.

Population Characteristics



- Over the past century, Boston's population changed dramatically in size, growing by 42.9% during the first fifty years, shrinking 29.8% over the next thirty years, and then slowly regaining ground with a 4.6% increase in population over the final twenty years.
- At its recent low point in 1980, the city's population (562,994) was similar to its level in 1900 (560,892).
- The most recent census count, in 2000 (589,141), represented a ten-year increase of 2.6%.
- The U.S. Bureau of the Census estimates that Boston's 2004 population decreased to approximately 569,165 as of 2004. If this estimate proves accurate, the change would represent a 3.4% drop over four years.

Population Characteristics



	<5	5-14	15-24	25-34	35-44	45-64	65-74	75-84	85+
Count	34,315	58,348	61,039	122,278	86,517	107,613	26,294	22,876	4,403

DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, American FactFinder, 2004 American Community Survey
DATA ANALYSIS: Boston Public Health Commission Research Office

- The U.S. Bureau of the Census estimate of 569,165 for Boston's overall population in 2004 is not available by age, race/ethnicity, sex, and neighborhood, but the Census does make available survey data that provides these breakdowns, based on an estimated total population of 523,683[1].
- Using this survey estimate, Boston residents ages 25-64 accounted for about sixty percent of the population in 2004.
- Children under the age of 5 were 6.6%, and adults ages 65 and over 10.2%, of the estimated 2004 Boston population.

[1] See Technical Notes for further information on population estimation.

Population Characteristics

Population by Race/Ethnicity and Year: Counts and Percentage Distributions Boston, 1900-2004								
American Indian, Eskimo, and Aleut			**Asian and Pacific Islander**			**Black**		
Year	**Count**	**Percentage**	**Year**	**Count**	**Percentage**	**Year**	**Count**	**Percentage**
1900	3	0.0%	**1900**	1,215	0.2%	**1900**	11,591	2.1%
1910	51	0.0%	**1910**	1,274	0.2%	**1910**	13,564	2.0%
1920	34	0.0%	**1920**	1,191	0.2%	**1920**	16,350	2.2%
1930	43	0.0%	**1930**	1,789	0.2%	**1930**	20,574	2.6%
1940	76	0.0%	**1940**	1,595	0.2%	**1940**	23,679	3.1%
1950	208	0.0%	**1950**	2,202	0.3%	**1950**	40,057	5.0%
1960	549	0.1%	**1960**	4,210	0.6%	**1960**	63,165	9.1%
1970	1,047	0.2%	**1970**	8,218	1.3%	**1970**	104,707	16.3%
1980*	1,302	0.2%	**1980***	14,910	2.7%	**1980***	122,203	21.7%
1990*	1,531	0.3%	**1990***	29,640	5.3%	**1990***	136,887	23.8%
2000*	1,517	0.3%	**2000***	44,009	7.5%	**2000***	140,305	23.8%
2004*	*711*	*0.1%*	***2004****	*46,395*	*8.9%*	***2004****	*138,439*	*26.4%*
Hispanic Origin (of any Race)			**Other Race**			**White**		
Year	**Count**	**Percentage**	**Year**	**Count**	**Percentage**	**Year**	**Count**	**Percentage**
1900	--	--	**1900**	--	--	**1900**	548,083	97.7%
1910	--	--	**1910**	--	--	**1910**	655,696	97.8%
1920	--	--	**1920**	--	--	**1920**	730,485	97.7%
1930	26	0.0%	**1930**	--	--	**1930**	758,756	97.1%
1940	877	0.1%	**1940**	--	--	**1940***	744,589*	96.6%
1950	--	--	**1950**	277	0.0%	**1950**	758,700	94.7%
1960	--	--	**1960**	569	0.1%	**1960**	628,704	90.2%
1970	--	--	**1970**	2,390	0.4%	**1970***	509,768*	79.5%
1980	36,068	6.4%	**1980***	6,473	1.1%	**1980***	382,123	67.9%
1990	61,955	10.8%	**1990***	5,536	1.0%	**1990***	338,734	59.0%
2000	85,089	14.4%	**2000***	8,215	1.4%	**2000***	291,561	49.5%
2004*	*74,627*	*14.3%*	***2004****	*8,986*	*1.7%*	***2004****	*247,784*	*47.3%*

-- Data not collected in this census
* Non-Latino residents of the specified race group only ** An estimate based on sample data
NOTES: In 2000, an additional 18,174 Boston residents reported belonging to two or more race groups. Population figures for 2004 are estimates. In 2004, an additional 6,741 Boston residents were estimated to belong to two or more race groups.
DATA SOURCES: Population Division, Working Paper No. 76, U.S. Census Bureau; Census 2000 Redistributing (Public Law 94-171) Summary File, U.S. Census Bureau, as reported in Boston Redevelopment Authority, Report #541, March 2001
DATA ANALYSIS: Boston Public Health Commission Research Office

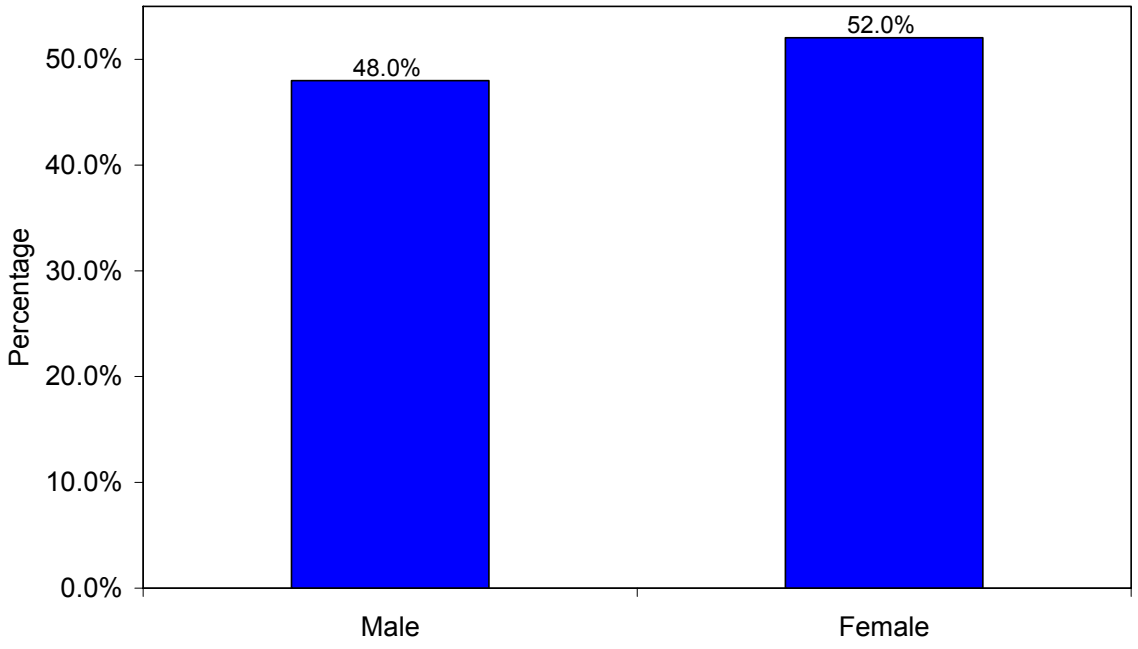
- The U.S. Bureau of the Census has used a variety of classifications to report on race and ethnicity, modifying them as the American population has changed. (See Technical Notes for details.)

- The population of Boston has become increasingly diverse. In 1900, 97.7% of Boston's 560,892 residents reported that they were White, 2.1% said they were Black, and 0.2% reported being Asian or Pacific Islander. Boston had only 3 American Indian, Eskimo or Aleut residents, and Hispanic or Latino ethnicity was not recorded separately.

- One hundred years later, just under half of the population (49.5%) were non-Latino White, one in four (23.8%) were non-Latino Black, 14.4% were Latino, and 7.5% were Asian or Pacific Islander.

Population Characteristics

Estimated Population by Sex: Counts and Percentage Distribution, Boston, 2004



	Male	Female
Count	251,223	272,460

DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, American FactFinder, 2004 American Community Survey
DATA ANALYSIS: Boston Public Health Commission Research Office

- A slightly higher number of females than males made up the estimated Boston population of in 2004.

Population Characteristics

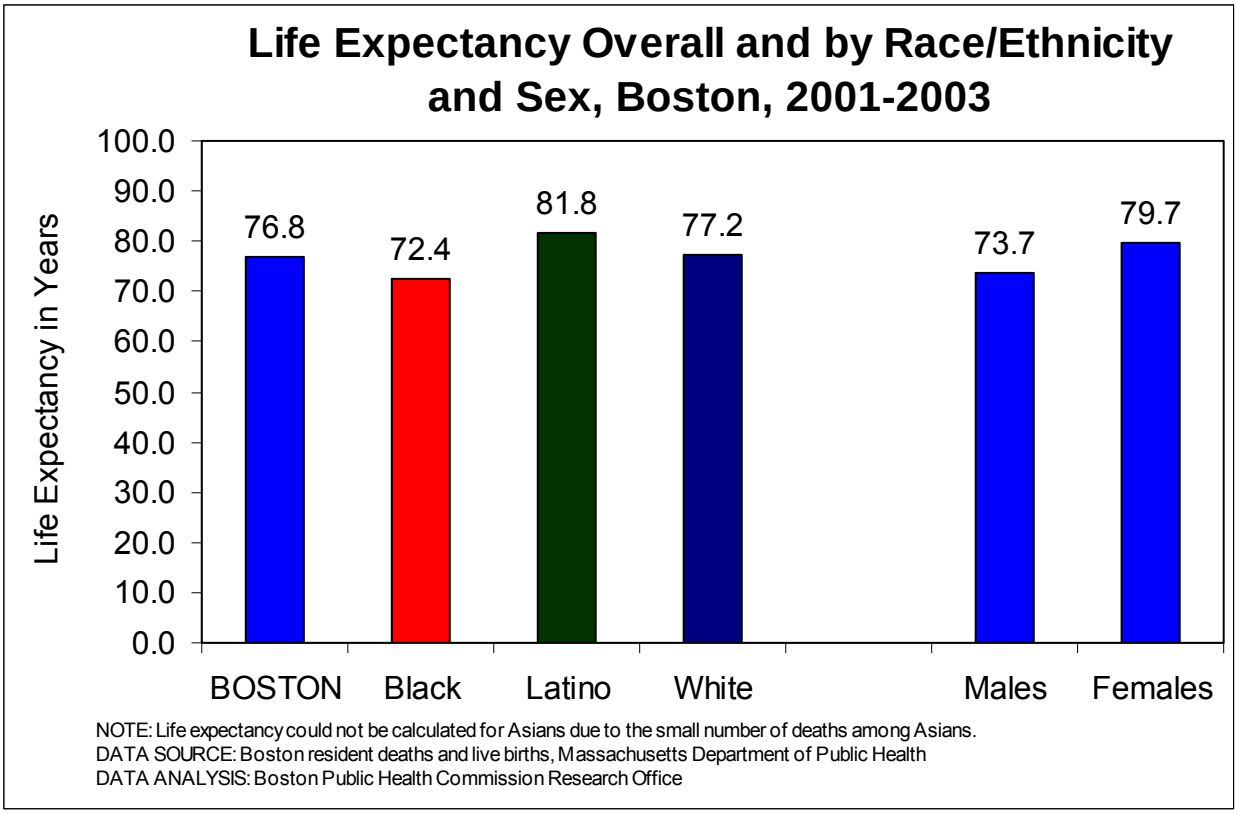
Population by Neighborhood, Boston 1990 and 2000			
Neighborhood	**Total Population 1990**	**Total Population 2000**	**Percentage Change 1990-2000**
Allston/Brighton	70,284	69,648	-0.9%
Back Bay/Beacon Hill/West End	35,690	36,235	1.5%
Charlestown	14,718	15,195	3.2%
East Boston	32,941	38,413	16.6%
Fenway	27,333	29,823	9.1%
Hyde Park	32,644	34,420	5.4%
Jamaica Plain	32,032	29,482	-8.0%
Mattapan	19,585	19,724	0.7%
North Dorchester	77,348	83,212	7.6%
North End	12,152	12,114	-0.3%
Roslindale	33,185	35,047	5.6%
Roxbury	53,828	50,349	-6.5%
South Boston	29,433	29,938	1.7%
South End	30,926	33,502	8.3%
South Dorchester	43,663	45,291	3.7%
West Roxbury	27,239	26,108	-4.2%
TOTAL	**574,283**	**589,141**	**2.6%**

DATA SOURCE: Census 2000, US Department of Commerce, Bureau of the Census, American FactFinder
DATA ANALYSIS: Boston Public Health Commission Research Office

- Between 1990 and 2000, Boston's overall population increased 2.6%. However, across Boston neighborhoods, population changes between 1990 and 2000 ranged from a 16.6% increase in East Boston to an 8.0% decrease in Jamaica Plain.

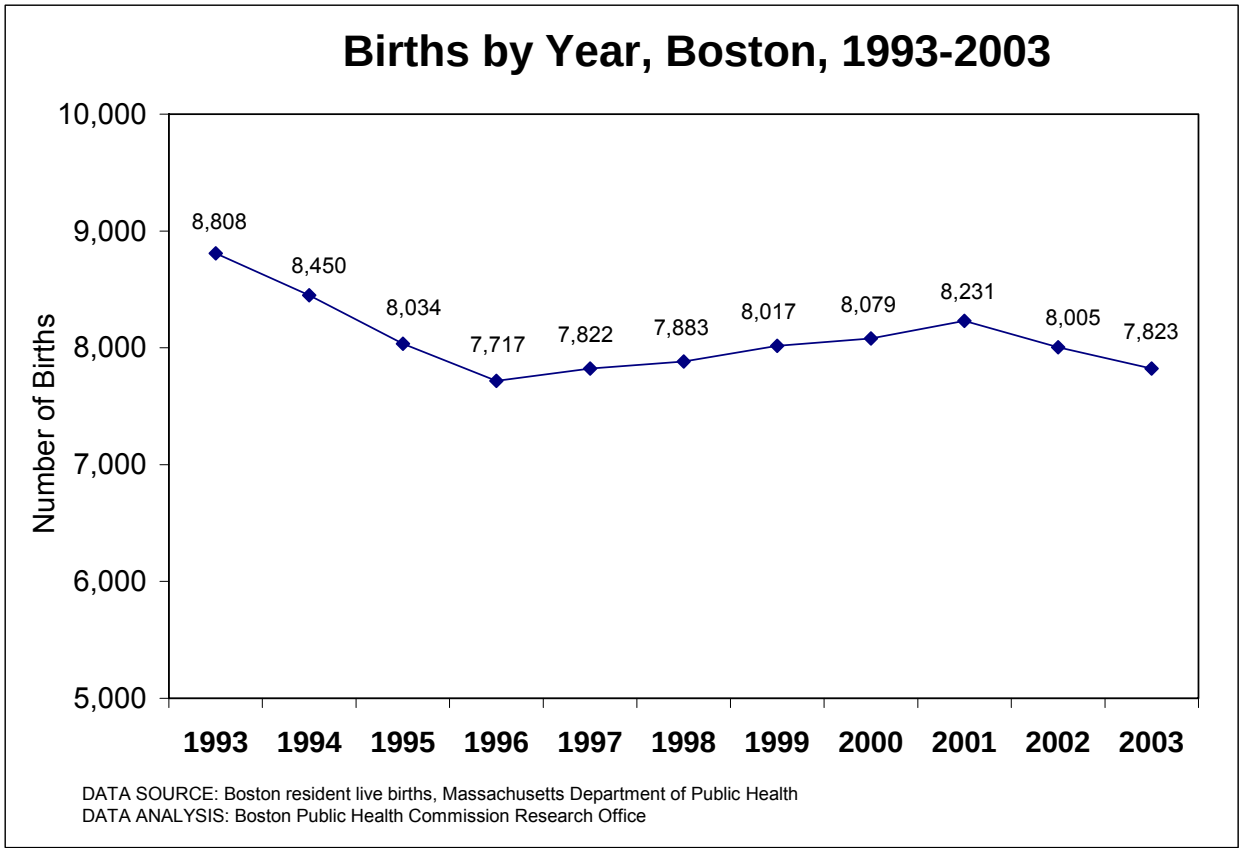
- Eleven of Boston's 16 neighborhoods experienced an increase in population between 1990 and 2000.

Population Characteristics



- Life expectancy is close to seventy-seven years for the Boston population overall.
- Boston females born in 2001 to 2003 could expect to live approximately eighty years, while Boston males born during the same period have an expected lifespan of 73.7 years.
- Estimated life expectancy is higher for Boston's Latino and White populations than for its Black residents.

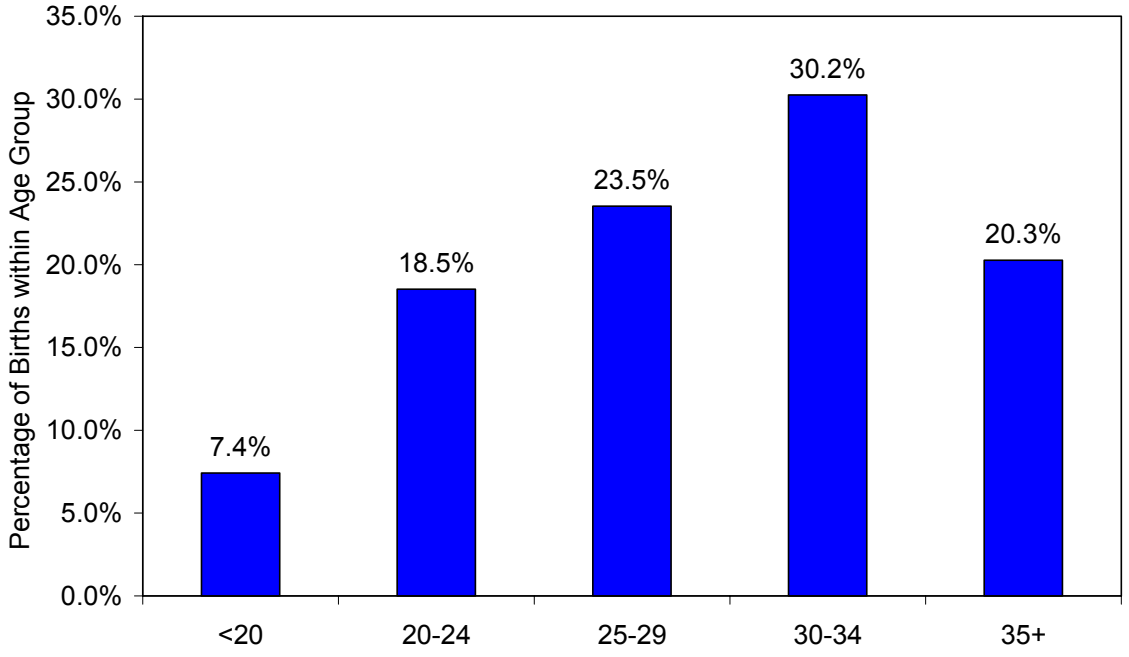
Population Characteristics



- The number of births to Boston residents fell in 2003 to 7,823, down 5.0% from the most recent high of 8,231 in 2001.
- Between 1993 and 2003, the number of Boston births fell 11.2% despite an annual increase in births between 1996 and 2001.

Population Characteristics

Births by Maternal Age: Counts and Percentage Distribution, Boston, 2003



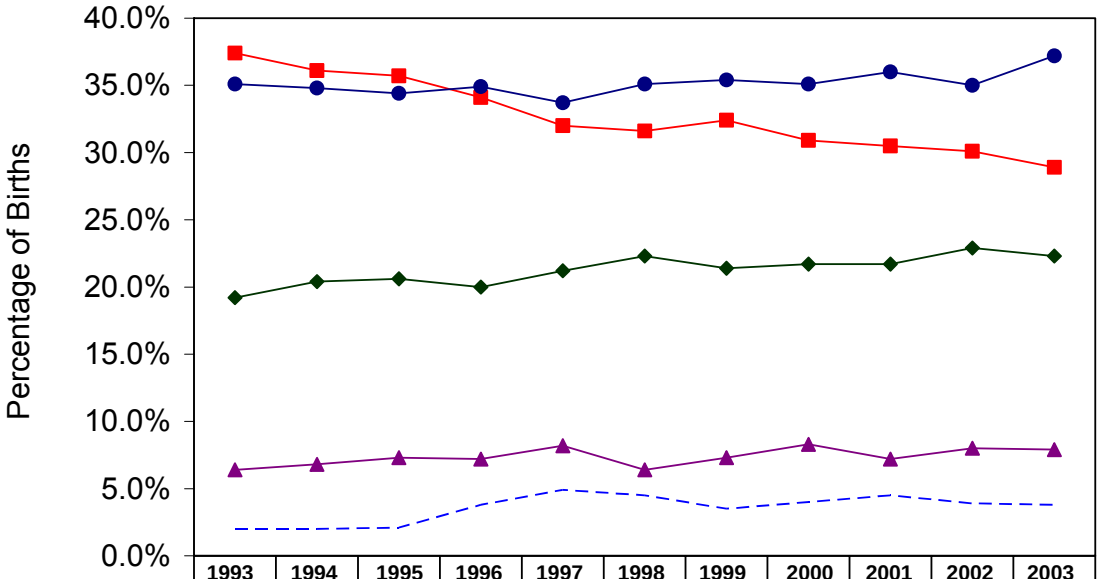
	<20	20-24	25-29	30-34	35+
Count	580	1,448	1,840	2,364	1,584

NOTE: These data do not include persons whose age was not reported.
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Of the Boston women who gave birth in 2003, about one-half were women ages 30 and over. One in every fourteen births was to a teenager.

Population Characteristics

Births by Race/Ethnicity and Year: Counts and Percentage Distribution, Boston, 1993-2003



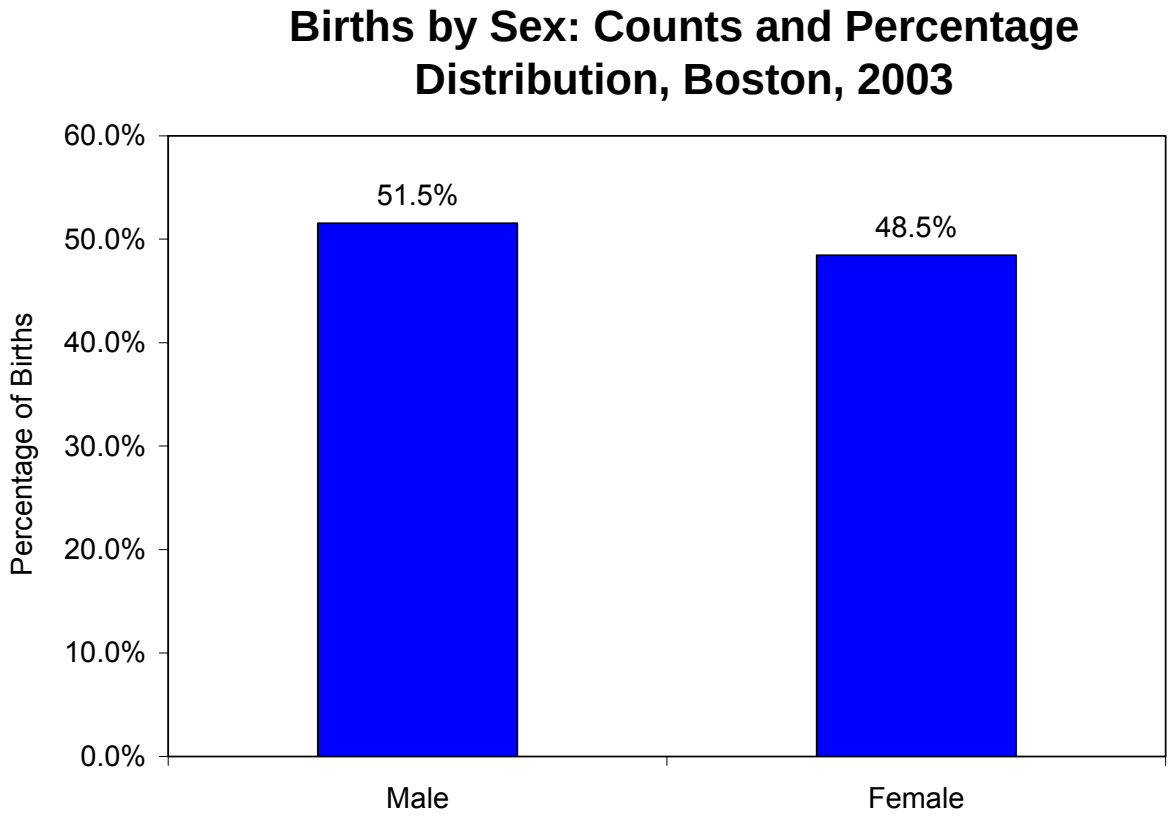
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Asian	6.4%	6.8%	7.3%	7.2%	8.2%	6.4%	7.3%	8.3%	7.2%	8.0%	7.9%
Black	37.4%	36.1%	35.7%	34.1%	32.0%	31.6%	32.4%	30.9%	30.5%	30.1%	28.9%
Latino	19.2%	20.4%	20.6%	20.0%	21.2%	22.3%	21.4%	21.7%	21.7%	22.9%	22.3%
White	35.1%	34.8%	34.4%	34.9%	33.7%	35.1%	35.4%	35.1%	36.0%	35.0%	37.2%
Other/Unknown	2.0%	2.0%	2.1%	3.8%	4.9%	4.5%	3.5%	4.0%	4.5%	3.9%	3.8%

Count	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Asian	558	570	580	555	640	508	584	668	593	642	615
Black	3,275	3,035	2,850	2,635	2,506	2,493	2,601	2,498	2,512	2,412	2,256
Latino	1,682	1,715	1,646	1,542	1,662	1,761	1,716	1,750	1,786	1,834	1,742
White	3,074	2,925	2,746	2,696	2,634	2,764	2,835	2,837	2,966	2,804	2,907
Other/Unknown	178	166	170	290	380	357	281	326	374	313	297
BOSTON	8,808	8,450	8,034	7,717	7,822	7,883	8,017	8,079	8,231	8,005	7,823

DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, the highest proportion of Boston births was to White residents (37.2%).
- The proportion of Boston births that were to Asian women, Latinas, and White women was higher in 2003 than in 1993 while the proportion that were to Black women was lower.

Population Characteristics



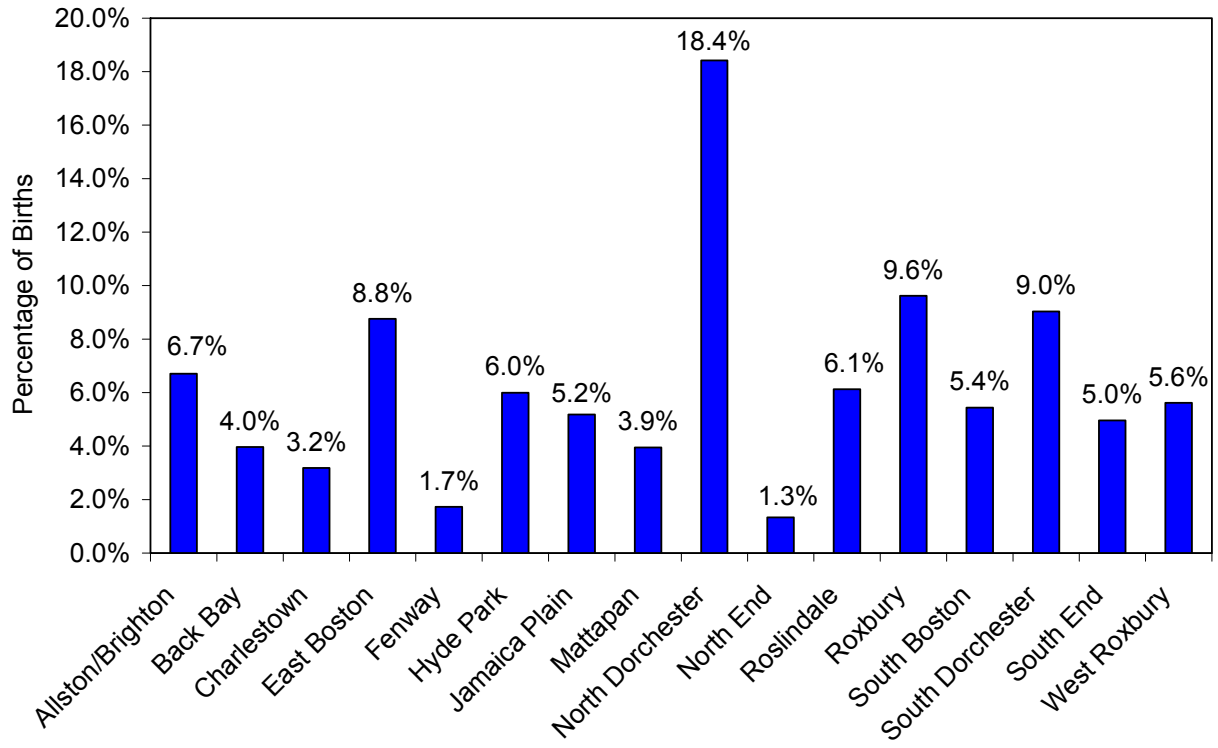
	Male	Female
Count	4,029	3,788

NOTE: These data do not include persons whose sex was not reported.
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, 51.5% of Boston births in which the baby's sex was reported were male infants and 48.5% were female.

Population Characteristics

Births by Neighborhood: Counts and Percentage Distribution, Boston, 2003



	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	523	309	248	683	135	467	404	308	1,436	104	478	750	424	704	387	438

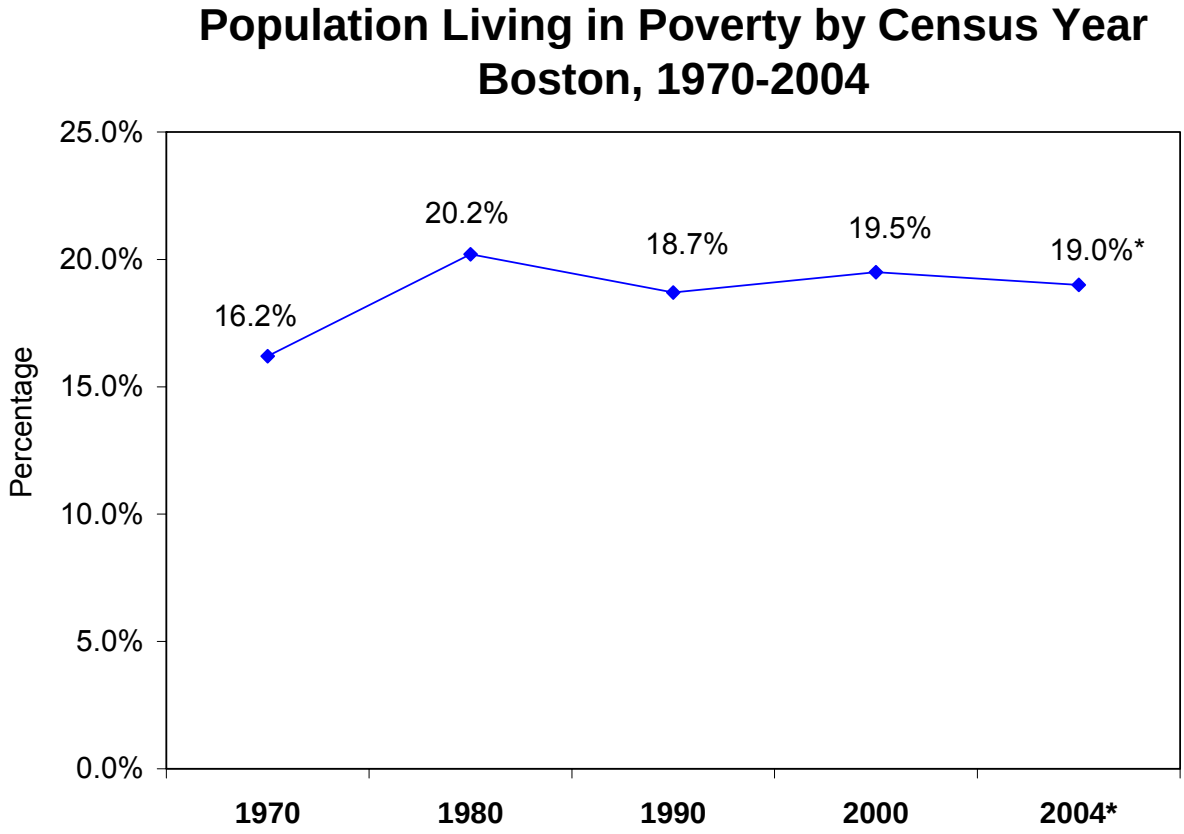
NOTES: Counts and percentage distributions include women between the ages of 15-44 only. These data do not include homeless persons or individuals whose neighborhood of residence was not reported.
ABBREVIATIONS KEY: A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- North Dorchester, with 12.9% of Boston's women of childbearing age[2], had 18.4% of the city's births in 2003. Allston/Brighton, conversely, with 15.0% of the childbearing population, had 6.7% of the births (population data not shown).

- The North End and the Fenway accounted for the smallest proportions of all Boston births, each with under two percent of the total.

[2]Defined here as ages 15 through 44

Population Characteristics



	1970	1980	1990	2000	2004*
Count	99,262	106,770	102,092	109,128	98,989*

* Estimated
DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, American FactFinder, 2004 American Community Survey, Census 2000, Census 1990 Summary File-Sample Data, Census 1980, Census 1970
DATA ANALYSIS: Boston Public Health Commission Research Office

- The federal poverty threshold for a family of four was $ 19,307 in 2004. The figures shown in the chart, however, have been adjusted by the Census to account for different family sizes and family compositions. (Additional children, for instance, affect a family's status less than additional adults).

- In 2000, 19.5% of the overall Boston population lived in households with income below the federal poverty threshold. In 2004, the U.S. Census Bureau estimated the percentage living in poverty to be 19.0%.

Population Characteristics

Population Living in Poverty by Age: Counts and Percentages of Population, Boston, 2004

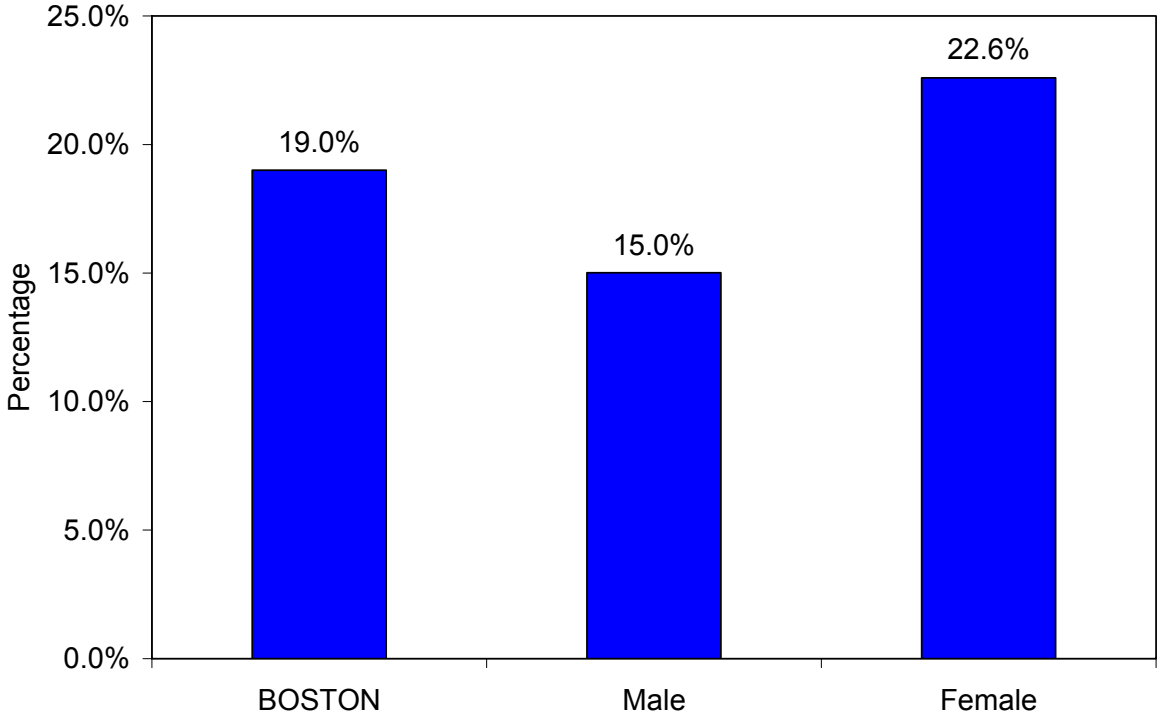
	Percentage
All ages	19.0%
Less than 18 years	26.9%
18-64 years	15.7%
65+ years	25.6%

	Count
All ages	98,989
Less than 18 years	28,447
18-64 years	56,805
65+ years	13,737

DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, American FactFinder, 2004 American Community Survey
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, an estimated 19.0% of the Boston population lived in households with income below the federal poverty threshold. Estimated poverty rates were similar for children (26.9%) and the elderly (25.6%), but the estimated number of children in poverty was more than twice that of people 65 years of age and older.

Population Characteristics

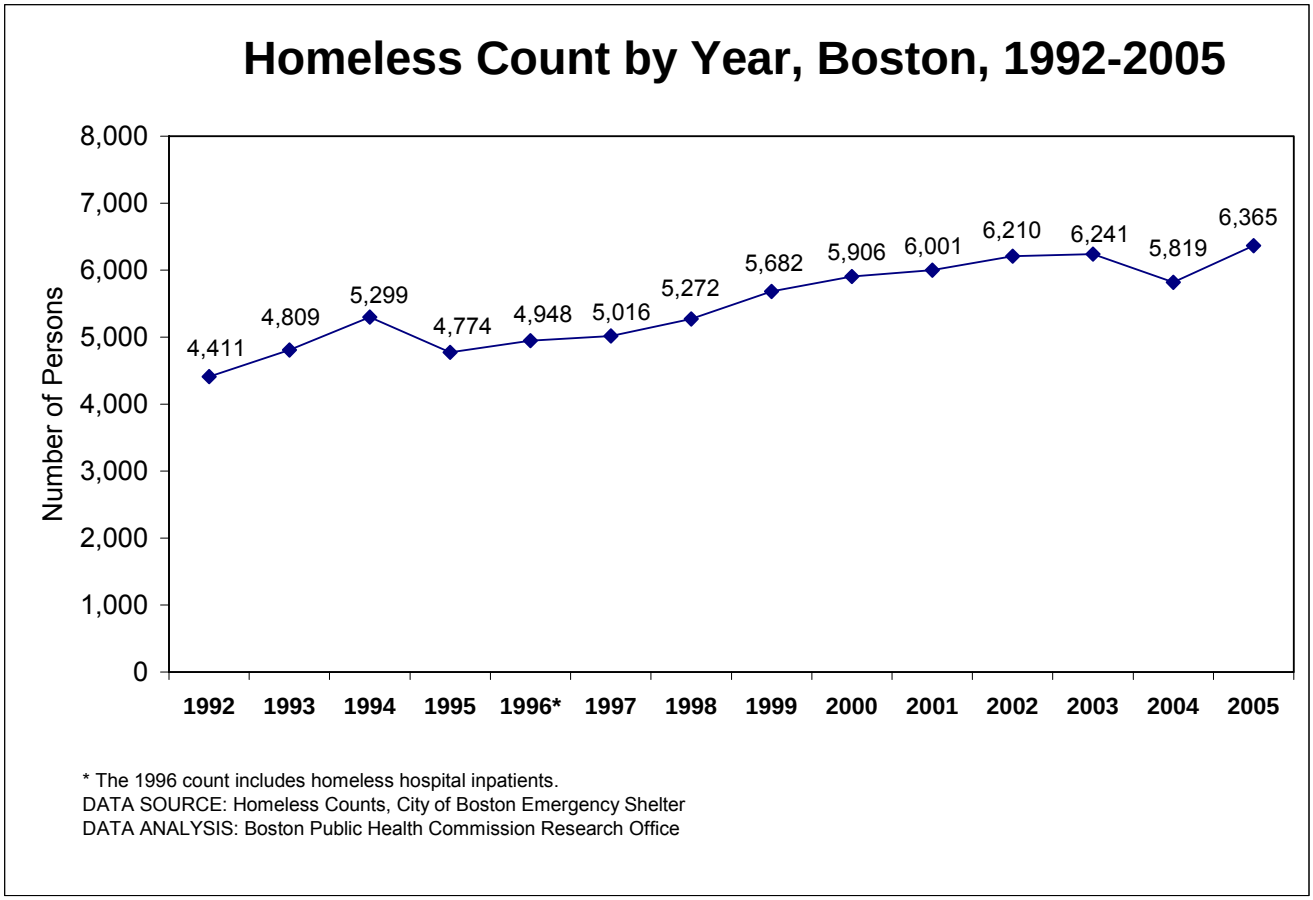


	BOSTON	Male	Female
Count	98,989	37,488	61,501

DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, American FactFinder, American Community Survey
DATA ANALYSIS: Boston Public Health Commission Research Office

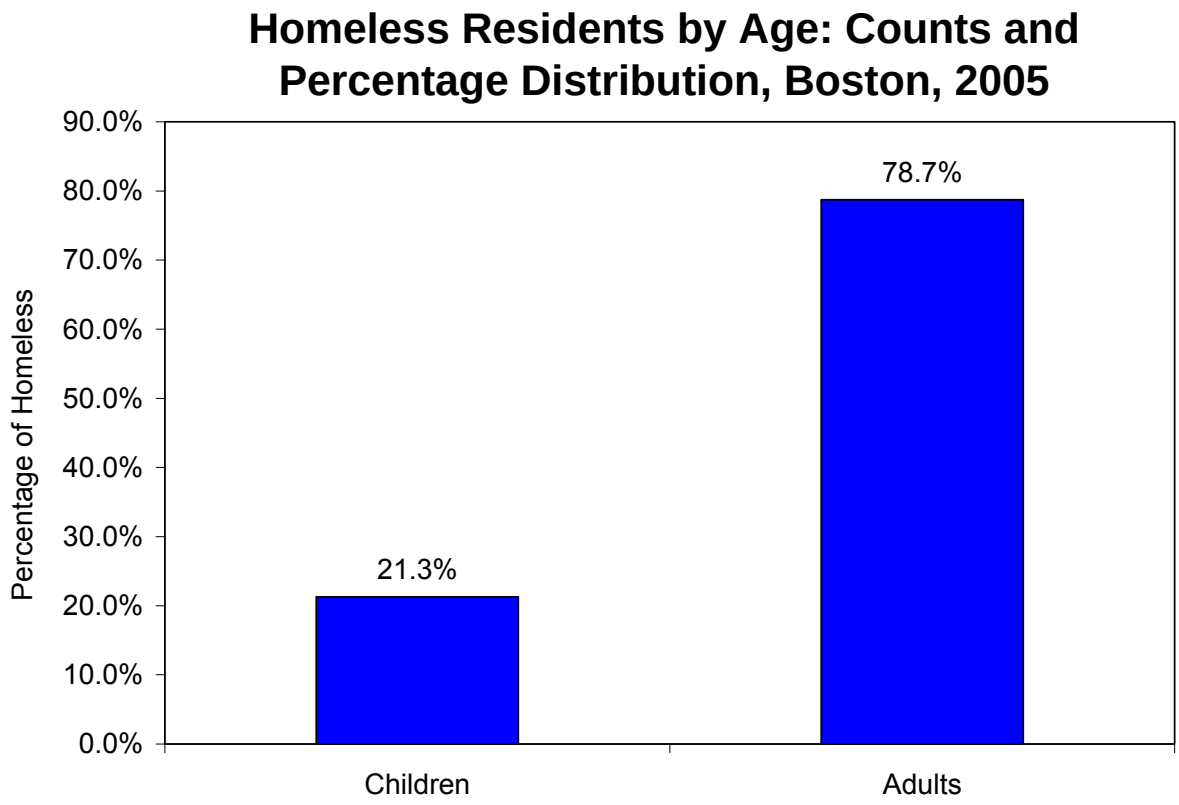
- In 2004, an estimated 22.6% of Boston females and 15.0% of Boston males had incomes below the federal poverty threshold.
- Of the nearly one hundred thousand Bostonians estimated to be living in poverty, six in ten were female.

Population Characteristics



- Homelessness is defined here as residency on the streets, in a shelter, or temporarily in a medical facility but without permanent housing.
- According to the 2005 homeless census, there were 6,365 women, men, and children who were homeless.
- Between 2004 and 2005, the number of homeless persons in Boston increased 9.4%, from 5,819 to 6,365.

Population Characteristics



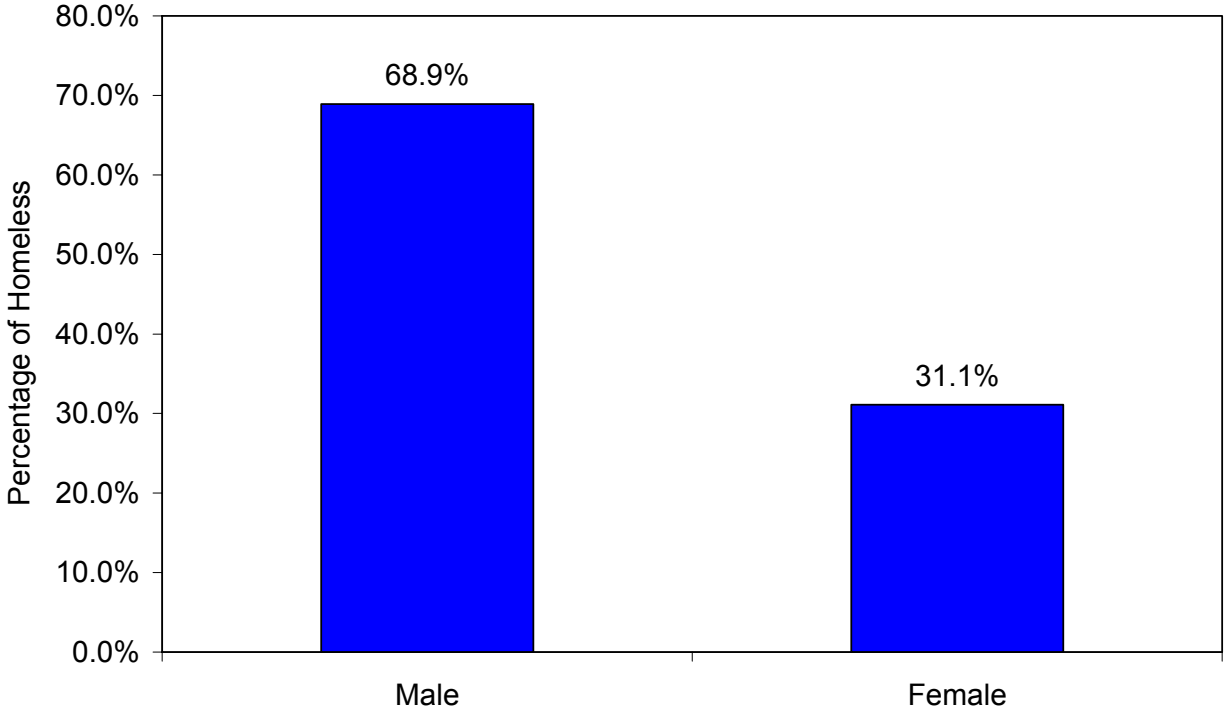
	Children	Adults
Count	1,355	5,010

NOTE: Children are defined in this chart as Boston residents under the age of 18.
DATA SOURCE: Homeless Counts, City of Boston Emergency Shelter
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2005, adults accounted for 78.7% of homeless Boston residents, and children, 21.3%.
- Between 2004 and 2005, the percentage of Boston's homeless residents who were children increased from 19.9% to 21.3%.

Population Characteristics

Homeless Residents by Sex: Counts and Percentage Distribution, Boston, 2005



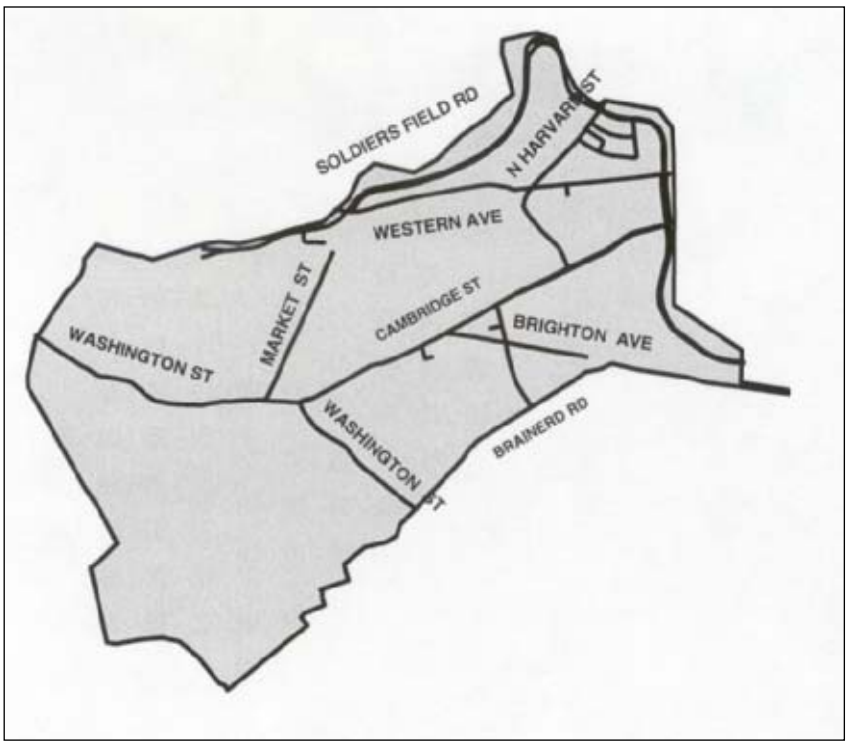
	Male	Female
Count	3,452	1,558

NOTE: These data do not include homeless residents under the age of 18.
DATA SOURCE: Homeless Counts, City of Boston Emergency Shelter
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2005, there were more than twice as many homeless men as homeless women among Boston residents. Among those whose sex was reported, males accounted for 68.9% of homeless Boston residents and females, 31.1%.
- Between 2004 and 2005, the percentage of Boston's adult homeless residents who were female increased from 28.8% to 31.1%.

INTRODUCTION TO BOSTON NEIGHBORHOODS

Allston/Brighton



Allston/Brighton was first a part of Watertown and then a section of Cambridge called Little Cambridge. In 1807, the neighborhood ceded from Cambridge and took the name Brighton. Allston was created as a section of Brighton in 1868 when a new post office branch was named for painter Washington Allston. In 1873, Allston/Brighton was annexed to Boston.

With a population of 69,648, Allston/Brighton is one of Boston's largest neighborhoods. It has a large college student presence drawn by its proximity to several major universities including Boston College, Boston University, and Harvard University. According to the 2000 census, almost one-third (29.8%) of the neighborhood's population was age 18 to 24, and 3,720 persons lived in group quarters, primarily college dorms.

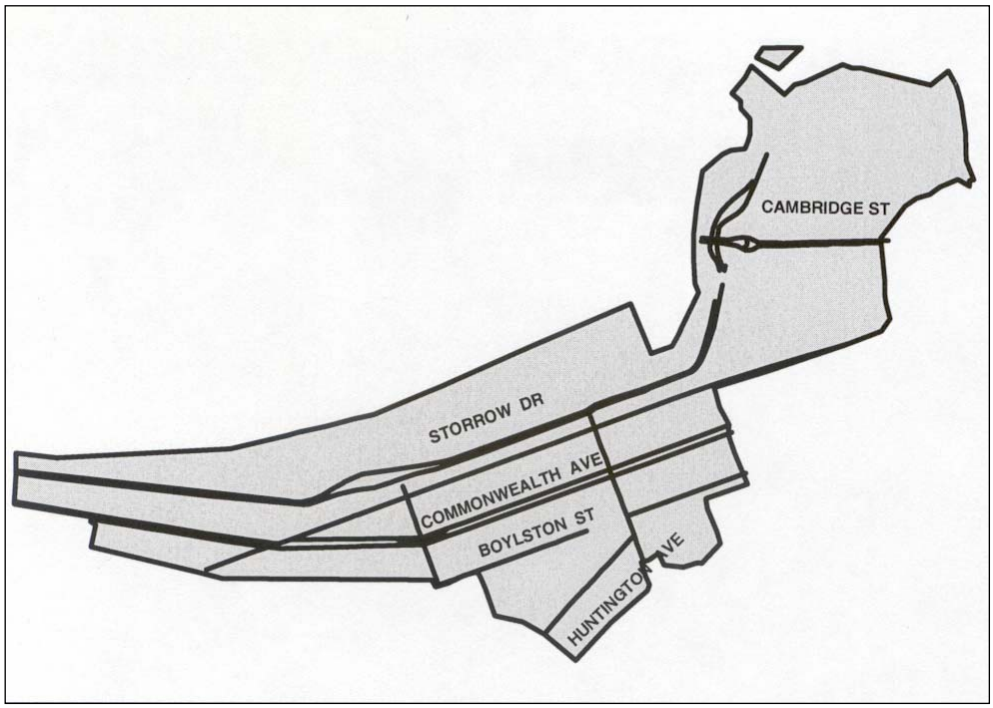
Between 1990 and 2000, the number of Asian residents increased by 2,240 while the number of Black and White residents decreased by 1,540 and 3,560, respectively. In 2000, 68.7% of the population was White, 13.8% was Asian/Pacific Islander, 9.1% was Latino, and 4.5% was Black.

Just over one-third (36.3%) of Allston/Brighton residents speak a language other than English at home. Other than English, the primary languages spoken at home are Spanish (by 8.5% of the population), Chinese (7.6%), Russian (5.3%), and Portuguese/Portuguese Creole (3.1%).

About two-thirds (68.4%) of residents were born in the United States, including 0.9% who were born in Puerto Rico. Other countries in which residents were born include China (5.5%), Brazil (2.7%), Russia (2.3%), Ireland (2.0%), Ukraine (1.7%), and El Salvador (1.0%).

Introduction to Boston Neighborhoods

The Back Bay/Beacon Hill/The West End



The Back Bay/Beacon Hill/The West End area, known as Shawmut by Native Americans, was a narrow peninsula distinguished by a three-peaked hill called Trimount. In 1625, Rev. William Blackstone, an Anglican minister, became the first European colonist to settle in the area. The Massachusetts Bay Company, a group of Puritan businessmen, arrived in 1830 and renamed the area Boston. In 1803, to accommodate a growing need for land, Trimount was reduced in height as its land was removed and used as fill to expand the land mass in the North End and other areas of Boston. In the last half of the 1800s, the tidewater flats of the Charles River were filled in to create the Back Bay. The neighborhood's famous brownstones were built on pilings sunk into this former marshland.

The total population in the Back Bay-Beacon Hill neighborhood in 2000 was 36,225, an increase of 1.5% from 1990. Relatively minor changes occurred in the racial/ethnic composition of the neighborhood between 1990 and 2000. The percentages of both White and Black residents decreased slightly from 86.2% to 80.9% for Whites, and from 3.6% to 3.4% for Blacks. At the same time, the percentage of Asian residents increased from 6.1% to 8.8% and the percentage of Latino residents increased from 4.0% to 4.7%.

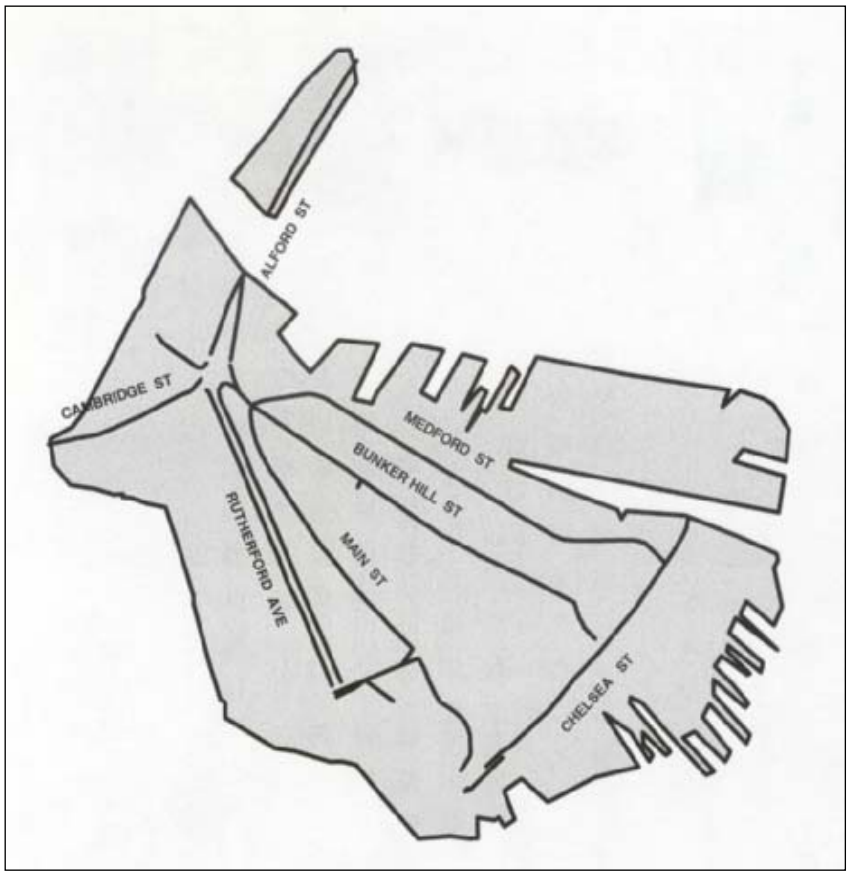
English is spoken at home by 79.4% of the residents. Other than English, the primary languages spoken at home are Spanish, by 4.3% of the population, Chinese by 2.5% of the population, and French by 2.3% of the population.

Most residents (83.4%) were born in the United States (including 0.4% who were born in Puerto Rico); 15.2% were born in another country, the largest numbers of these being from China (1.3%), The United Kingdom (1.0%), Japan (1.0%), and Korea (1.0%).

Introduction to Boston Neighborhoods

Charlestown

Charlestown was settled in 1629 (one year before Boston) and became a city in 1847. In 1874, the City of Charlestown was annexed to Boston. Two of the most visited sites on Boston's Freedom Trail are in Charlestown. The Bunker Hill Monument commemorates one of the bloodiest and most destructive battles of the 1775 Revolutionary War. In this battle, Charlestown was burned to the ground. Although the battle was won by the British, the destruction served to rally the Colonists to support the Revolutionary War.



Charlestown's history and economic development were strongly influenced by the presence of the Charlestown Navy Yard, which operated between 1801 and 1973. The U.S. Navy's oldest commissioned ship, the U.S.S. Constitution, is docked in the Navy Yard.

Charlestown's total population in 2000 was 15,195, an increase of 3.2% from 1990. Though Charlestown remains a predominately White neighborhood, the increases in its Latino, Asian, and Black populations are significant. The percentage of White residents declined from 94.6% to 78.6% between 1990 and 2000, a decrease of 1,981 residents. Corresponding increases occurred in the Latino, Asian, and Black populations. These three groups combined were 4.9% of the population in 1990; in 2000, Latinos comprised 11.6%, Asians 5.0%, and Blacks 3.5% of the Charlestown population.

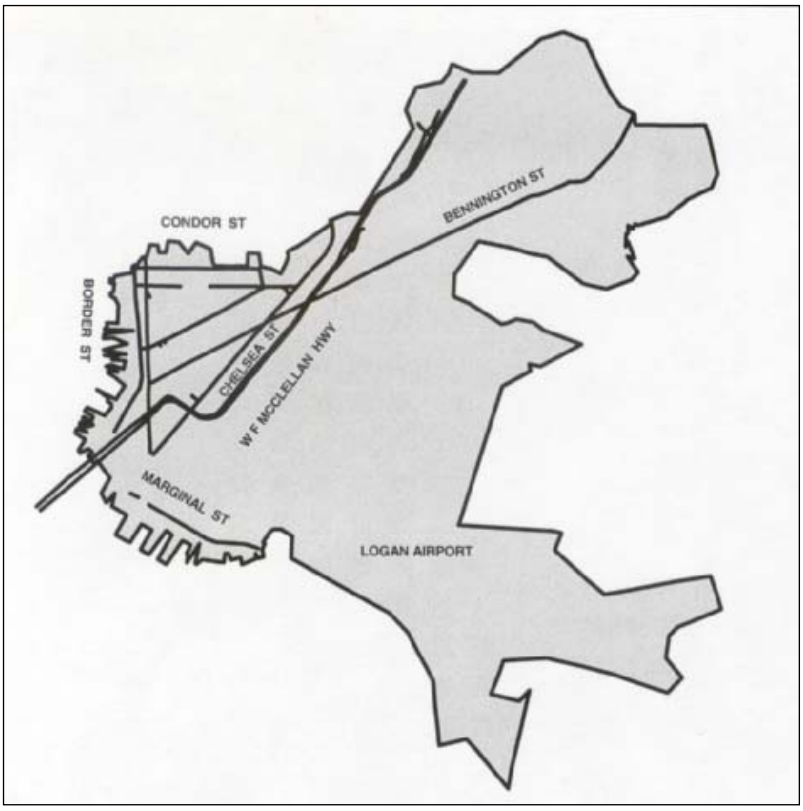
Most residents (81.5%) speak English at home; other primary languages are Spanish and Chinese, spoken by 9.8% and 3.1% of residents, respectively.

Most residents (84.7%) were born in the United States (including 1.4% who were born in Puerto Rico); 13.9% were born in another country, the largest numbers of these being from the Dominican Republic (4.2%) and China (2.4%).

Introduction to Boston Neighborhoods

East Boston

East Boston was created when five Boston Harbor Islands were expanded and connected. The project began in 1830 and took 150 years to complete. The two larger islands, Noodles and Hog Islands, now form the residential section of the neighborhood. Logan Airport, which takes up over half of the neighborhood's 2.5 miles, sits on Apple, Bird, and Governor's Islands.



Throughout its history, East Boston has served as home to various groups of immigrants. The Irish were the first group to settle in East Boston, followed by Russian Jews and Italians in the late 1800s. At the turn of the 20th century, East Boston was home to the largest Jewish community in New England. The neighborhood was predominately Italian for most of the 20th century and is now home to many immigrants from South and Central America, Asia, and the Caribbean.

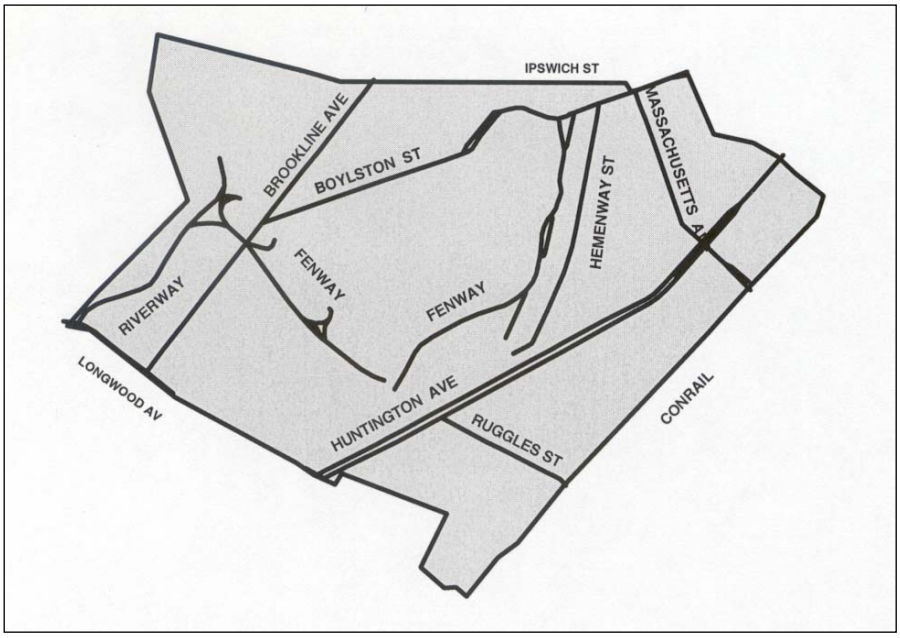
Of all Boston neighborhoods, East Boston has the highest percentage of recent immigrants; the 2000 census reported that fifteen percent of East Boston residents lived outside the United States in 1995. Between 1990 and 2000, the number of Latino residents increased by over 10,000, a 160.0% increase. In 2000, Latinos comprised 39.0% of the neighborhood, compared with 17.6% in 1990. East Boston is now home to the largest Latino community in Boston.

Over half (55.0%) of East Boston residents speak a language other than English at home. Spanish is the primary language spoken by 37.3% of residents, while 5.9% speak Italian, 4.6% speak Portuguese/Portuguese Creole, and 2.3% speak Vietnamese.

Just over half (56.4%) of East Boston residents were born in the United States, including 1.9% who were born in Puerto Rico. East Boston residents have immigrated from a number of other countries, including El Salvador (12.4%), Colombia (7.6%), Brazil (3.8%), Italy (2.6%), Vietnam (2.1%), Mexico (1.9%), Guatemala (1.6%), Peru (1.5%), and the Dominican Republic (1.3%).

Introduction to Boston Neighborhoods

The Fenway



The Fenway neighborhood was annexed to Boston in 1870 and was expanded in the same landfill project that created the Back Bay.

The number of cultural institutions located in the Fenway area (including Boston Symphony Hall, the Museum of Fine Arts, and the Isabella Stewart Gardner Museum) prompted the city to dub the neighborhood's Huntington Avenue the "Avenue of the Arts." The Longwood area includes many of the nation's leading medical institutions including Harvard Medical School, Brigham and Women's Hospital, and the Beth Israel/Deaconess Medical Center. The home of the Boston Red Sox, Fenway Park, is also located in the neighborhood.

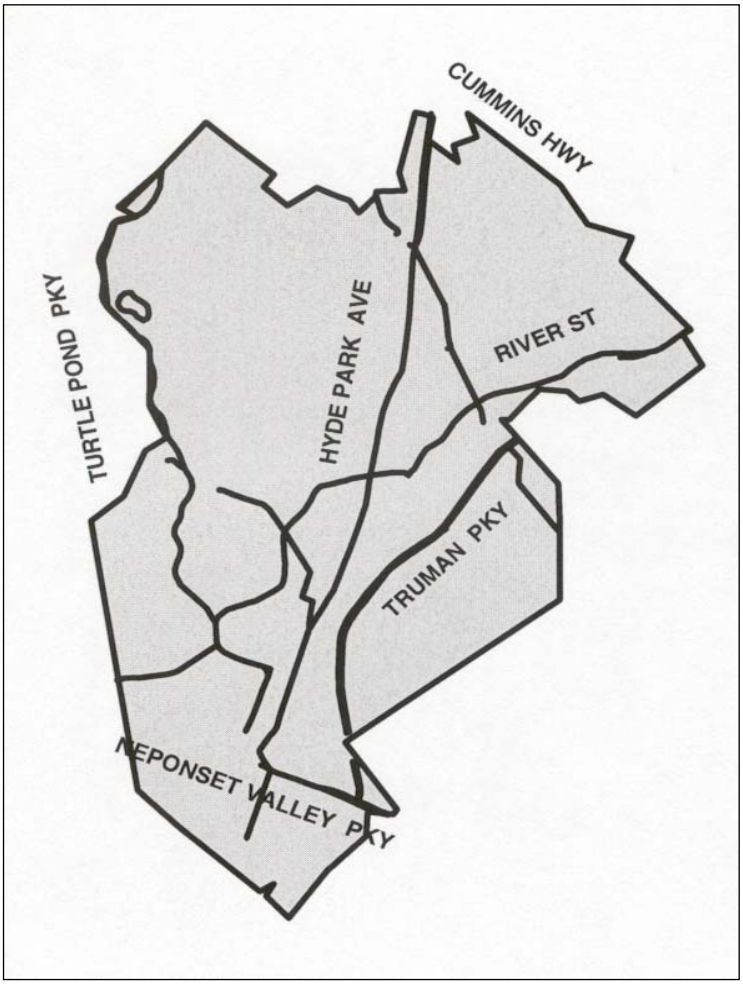
Between 1990 and 2000, the Fenway experienced a population increase of 9.3%. A total of 29,833 individuals lived in the neighborhood in 2000, compared with 27,306 in 1990. The largest increase was seen in the Asian population, which rose by 56.7%. In 1990, Asians made up 8.2% of the population, compared with 11.7% in 2000. Increases were also noted in the Latino and White populations, which increased by 28.8% and 4.0%, respectively. Although the actual number of White residents increased, their percentage share in the neighborhood decreased from 70.8% to 67.4%. The total number of Black residents decreased by 24.1% during the 1990s; their percentage share in the neighborhood also decreased from 12.4% to 8.6%.

English is the language spoken at home by 72.2% of residents followed by Spanish (7.8%), Chinese (3.0%), and Russian (2.0%).

About three-fourths (76.9%) of Fenway residents were born in the United States, including 0.4% who were born in Puerto Rico. Other countries in which residents were born include China (1.3%), Japan (1.7%), Korea (1.3%), Russia (1.0%), and India (1.0%).

Introduction to Boston Neighborhoods

Hyde Park



Hyde Park was known as "Tist" by the area's Wampanoag Indians. It was incorporated as a town in 1868 and in 1912, became the last neighborhood to be annexed to Boston.

The neighborhood has a large amount of open space, including the George Wright Golf Course and the 450-acre Stony Brook Reservation. In the 1800s, several prominent civil right activists, abolitionists and suffragists, including Sarah and Angelina Grimke and William Trotter Munroe, called this neighborhood home. The 54th Regiment, the renowned Black Civil War regiment trained at Camp Meigs in the Readville section of Hyde Park and the city's mayor, Thomas Menino, is a longtime resident of Readville as well. Camp Meigs became the site of the Readville Trotting Park, which raced horses and then cars from 1895 through 1937.

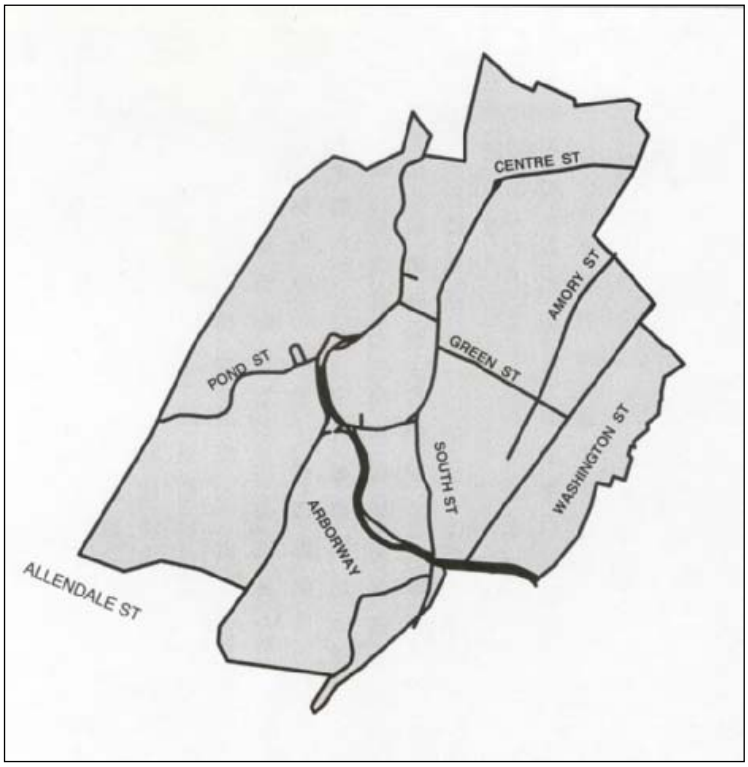
Although the total number of residents remained almost the same, Hyde Park experienced a significant shift in racial/ethnic composition during the 1990s. The total population in 2000 was 34,422, just 189 fewer than in 1990. The number of White residents decreased by 8,721, while the number of both Black and Latino residents increased by 6,265 and 2,994, respectively. Between 1990 and 2000, the percentage of White residents in Hyde Park decreased from 67.1% to 37.6%, while the percentage of Black residents rose from 20.8% to 39.1% and the percentage of Latino residents increased from 4.8% to 13.5%.

About two-thirds (65.4%) of residents speak English at home; 12.8% speak Spanish, 12.7% speak French Creole (including Haitian Creole), and 2.2% speak French.

About three-fourths (73.6%) were born in the United States, including 2.5% who were born in Puerto Rico. Other countries in which Hyde Park residents were born include Haiti (10.4%), Jamaica (1.7%), the Dominican Republic (1.6%), Nigeria (1.1%), and Trinidad/Tobago (1.0%).

Introduction to Boston Neighborhoods

Jamaica Plain



Jamaica Plain, originally part of the Town of Roxbury, was annexed to Boston in 1874. In the 1850s, breweries built on the Jamaica Plain/Roxbury line attracted German immigrants who settled around Hyde Square, and the availability of work in area factories also brought Irish immigrants to the neighborhood.

Jamaica Plain has much planned green space. In 1848, the beautiful Forest Hills Cemetery opened, with graves and monuments integrated into the natural landscape. Jamaica Pond and the Arnold Arboretum were incorporated into Boston's Emerald Necklace, Frederick Law Olmstead's world renowned linked series of parklands. Today, the neighborhood is a diverse one, with large Latino and gay and lesbian communities.

The population in Jamaica Plain showed little change in size between 1990 and 2000. The total population was 29,482, a decrease of 862, or 3.0%, from 1990. The Black population showed a large increase, 1,243 people, or 40.4%. The White and Asian populations decreased during this time. The White population fell by 1,400 residents, or 8.5%. The number of Asian residents showed a slight decrease of 26, or 3.1%.

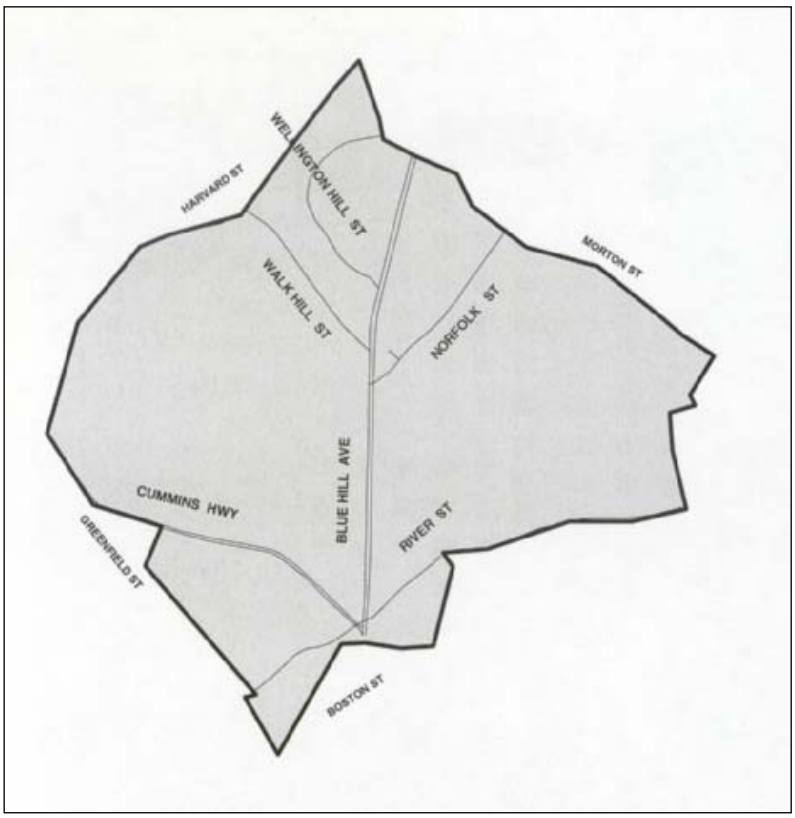
The primary languages spoken at home by Jamaica Plain residents are English (spoken by 63.1% of residents) and Spanish (spoken by 27.8% of residents).

About three-fourths (74.4%) of Jamaica Plain residents were born in the United States, including 4.8% who were born in Puerto Rico. Other countries in which residents were born include the Dominican Republic (7.2%) and China (1.1%).

Introduction to Boston Neighborhoods

Mattapan

Mattapan, originally a section of Dorchester, was annexed to Boston in 1870. Mattapan is the original Mattahunt tribe's name for the area.



At the turn of the 20th century, the neighborhood became home to Irish and Jewish immigrant groups. From the 1920s through the 1950s, Blue Hill Avenue was the center of Boston's Jewish working class culture. In the 1960s a controversial program of redlining by the banking consortium Boston Banks Urban Renewal Group, caused Mattapan to change from a predominately Jewish to a predominately Black neighborhood. To encourage home ownership, "low interest, no-money-down mortgages" were offered to Black home buyers, in the "redlined" area along Blue Hill Avenue while scare tactics were used to create panic selling among Jewish homeowners.

Over the last two decades, Mattapan has become home to many Haitian immigrants seeking to escape the turmoil in their home country. The neighborhood now has the largest Haitian community in Massachusetts.

Mattapan's population in 2000 was 19,724 residents, an increase of just 0.7% from 1990. During this time, the Latino population increased while the Black and the White populations decreased. The number of Latino residents increased by 640, or 80.6%, the number of White residents decreased by 566, or 54.9%, and the number of Black residents decreased by 1,114, or 6.4%. As a result, the percentage of Black residents dropped from 89.2% to 82.9% as the Latino resident population rose from 4.1% to 7.3%.

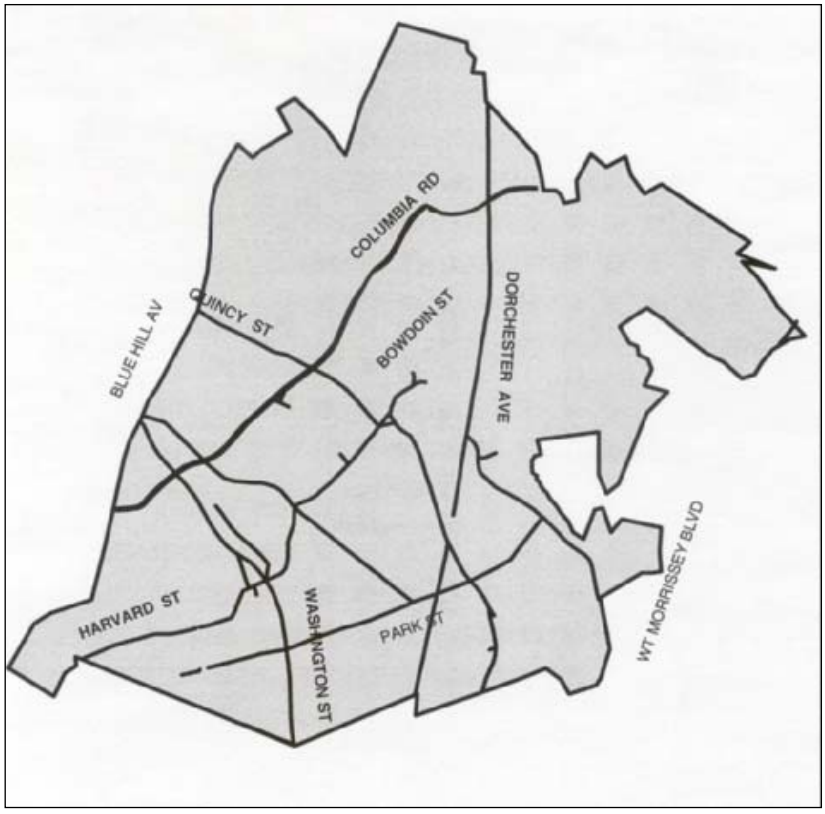
English is the language spoken at home by 69.2% of Mattapan residents; 17.8% speak French Creole (including Haitian Creole), 6.6% speak Spanish, and 3.6% speak French.

About two-thirds (65.2%) of Mattapan residents were born in the United States, including 0.9% who were born in Puerto Rico. Other countries in which Mattapan residents were born include Haiti (15.1%), Jamaica (6.8%), Barbados (1.8%), the Dominican Republic (1.8%), Trinidad (1.6%), and Sierra Leone (1.1%).

Introduction to Boston Neighborhoods

North Dorchester

Dorchester was known as Mattapan by the Wampanoag Indians; the Puritans named the area Dorchester after the English town from which they immigrated. Dorchester was annexed by Boston in 1870.



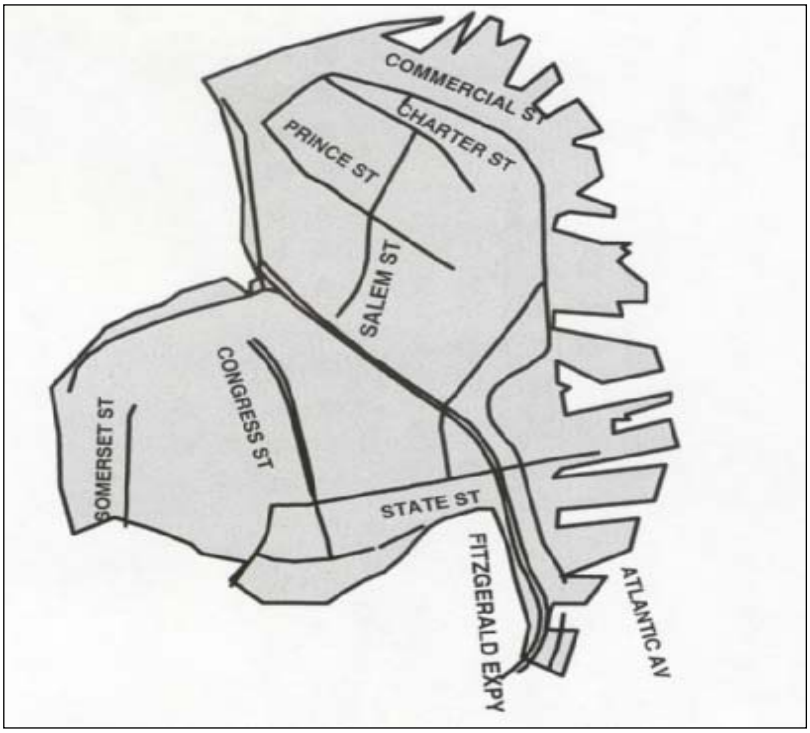
North Dorchester includes Edward Everett Square and Uphams Corner, where the Puritans' first settlement was established. Boston's oldest home, the James Blake House (built in 1648) and one of the country's oldest cemeteries, the Old Burial Ground (established in 1634) are located in this area. The John F. Kennedy Library, the University of Massachusetts/Boston, and the Massachusetts Archives and Historical Museum are located in North Dorchester's Harbor Point (formerly known as Columbia Point). Malibu Beach is also located in North Dorchester.

The total population in North Dorchester in 2000 was 83,212, a 7.6% increase when compared with 1990. A total of 36,026 Black residents lived in North Dorchester in 2000, nearly the same as in 1990. However, because the total neighborhood population increased, the Black population's percentage share decreased from 46.6% in 1990 to 43.3% in 2000. The White population declined by 7,997, or 34.4%, between 1990 and 2000. In 1990, White residents made up 30.0% of the population compared with 18.3% in 2000. In 1990, the 3,011 Asian residents made up 3.9% of the total population; in 2000, the 4,549 Asian residents made up 9.1% of the population. The Latino population grew by 3,032 (a 27.9% increase); in 2000, Latinos represented 16.7% of North Dorchester.

English is the language spoken at home by 57.4% of North Dorchester residents, followed by Spanish (16.0%), Portuguese/Portuguese Creole (7.4%), Vietnamese (7.0%), and French Creole, which includes Haitian Creole (6.3%). About three-fourths (72.8%) of North Dorchester residents were born in the United States, including 1.3% who were born in Puerto Rico. Other countries in which residents were born include Vietnam (5.9%), Haiti (3.0%), the Dominican Republic (2.9%), Jamaica (2.1%), and Trinidad/Tobago (1.8%).

Introduction to Boston Neighborhoods

The North End



The North End is known as Boston's first neighborhood. By the 1750s, it had a thriving commercial base, a busy seaport, and large estates for its wealthy merchants. Puritan Pastors, Increase and Cotton Mather ministered at North Church, which was then located in the North End. Paul Revere, known for his 1775 ride to warn of the approach of British soldiers, was born in the North End.

After the Revolutionary War, the shipping industry propelled growth in wharves, business establishments, and warehouses. Among the new structures was Quincy Marketplace and in 1830, Mill Pond was filled in to accommodate the North End's growth.

The number of Irish immigrants settling in the North End increased dramatically in the 1840s as the Famine Irish arrived. Most were desperately poor and served as servants and laborers on Boston's landfill projects. Around 1870, the Irish began moving to South Boston, and Eastern European Jews began to settle in the North End. At the turn of the century, there were five synagogues and two Jewish Schools in the neighborhood. By the 1920s, many Jews had moved to other Boston neighborhoods, and Italian immigrants became the largest immigrant group. The 1930 census reported that 44,000 residents of Italian descent lived in the North End. Though the population has decreased, the Italian influence continues in the neighborhood's wealth of Italian restaurants, stores, and social clubs.

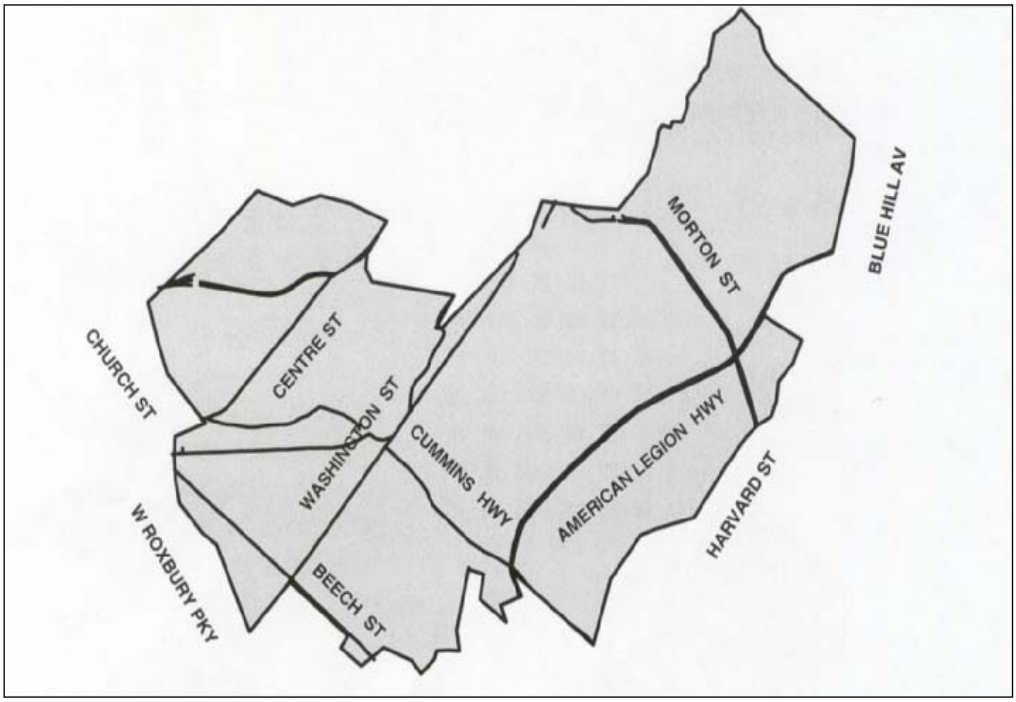
There was little change in either the total population or the racial/ethnic composition of the North End during the 1990s. In 2000, the total population was 12,114, almost identical to 1990, when it was 12,152. The North End continues to be predominately White; in 1990, 94.6% of the residents were White compared with 91.3% in 2000. The percentage of Latino residents declined slightly, from 3.1% in 1990 to 2.9% in 2000. During this time, the percentage of Black residents rose from 0.8% to 1.8%, and the percentage of Asian residents increased from 1.2% to 2.4%.

Most North End residents (81.5%) speak English as their primary language, followed by Italian (8.0%), and Spanish (3.1 %). Most residents (86.8%) were born in the United States, including 0.4% who were born in Puerto Rico; 3.2% of North End residents were born in Italy.

Introduction to Boston Neighborhoods

Roslindale

Roslindale was originally part of the City of Roxbury and was called South Street Crossing. The establishment of a post office branch in 1870 precipitated the name change when the Postal Service rejected the name South Street Crossing. Officials decided to name the area after Roslyn, a town in Scotland; "dale" was added as the area was surrounded by hills. The neighborhood was annexed to the City of Boston with West Roxbury in 1873.



For most of the 20th century, Roslindale Square was a thriving business district. The 1970s brought competition from suburban malls, which forced businesses to close, stores to remain vacant, and the Square to be devoid of shoppers. An active local revitalization effort that began in the 1980s earned Roslindale Square a "Main Street" award from the National Trust for Historic Preservation. It is known nationally as a model of neighborhood economic revitalization.

The total population in Roslindale in 2000 was 35,047, an increase of 5.6% from 1990. A significant shift in the racial composition occurred during the decade. The White population decreased by 20.8%, while the Black and Latino populations increased by 109.7% and 73.5%, respectively. In 2000, Black residents comprised 12.8% of the neighborhood compared with 6.5% in 1990, and Latinos comprised 18.4% compared with 11.2% in 1990. The Asian population also increased from 2.7% of the population to 3.8%.

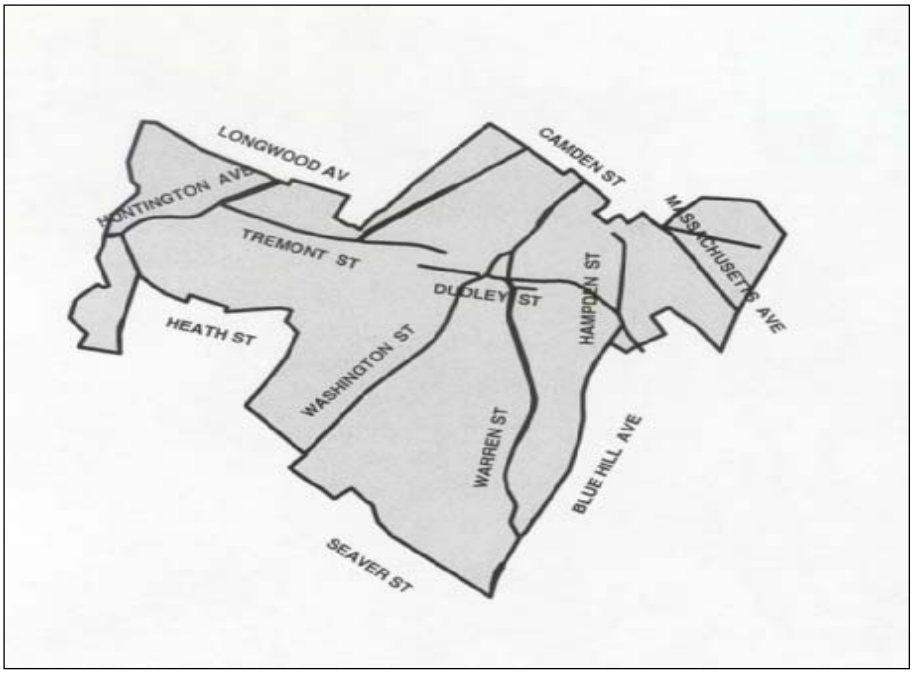
English is the language spoken at home by 63.5% of Roslindale residents; 17.0% speak Spanish, 4.5% speak French Creole (which includes Haitian Creole), and 3.0% speak Greek.

About three-fourths (73.3%) of Roslindale residents were born in the United States, including 2.5% who were born in Puerto Rico. Other countries in which residents were born include Haiti (3.5%), the Dominican Republic (2.5%), Greece (1.7%), and China (1.5%).

Introduction to Boston Neighborhoods

Roxbury

When founded in 1630, Roxbury was a large independent community. In addition to the current land area, it included Mission Hill, West Roxbury, Roslindale, and Jamaica Plain. Roxbury incorporated as a city in 1846 and was annexed to Boston in 1868.



The neighborhood contains numerous historic buildings and landmarks, including the Dillaway-Thomas House, which was built in 1750 as a parsonage and the Shirley Eustis House was built in 1747 as the Royal Governor's house.

In the 1880s, the 527-acre Franklin Park was designed by Frederick Law Olmsted as the "largest and final jewel" in Boston's Emerald Necklace, and Roxbury's Dudley Square has long served as a neighborhood commercial hub.

English, Irish, and German immigrants were the first Europeans to settle in Roxbury. In the early 1900s, a large Jewish community lived in the Grove Hall area along Blue Hill Avenue. Migration of Blacks from the South to Northern cities in the 1940s and 1950s established Roxbury as the center of the Black community in Boston.

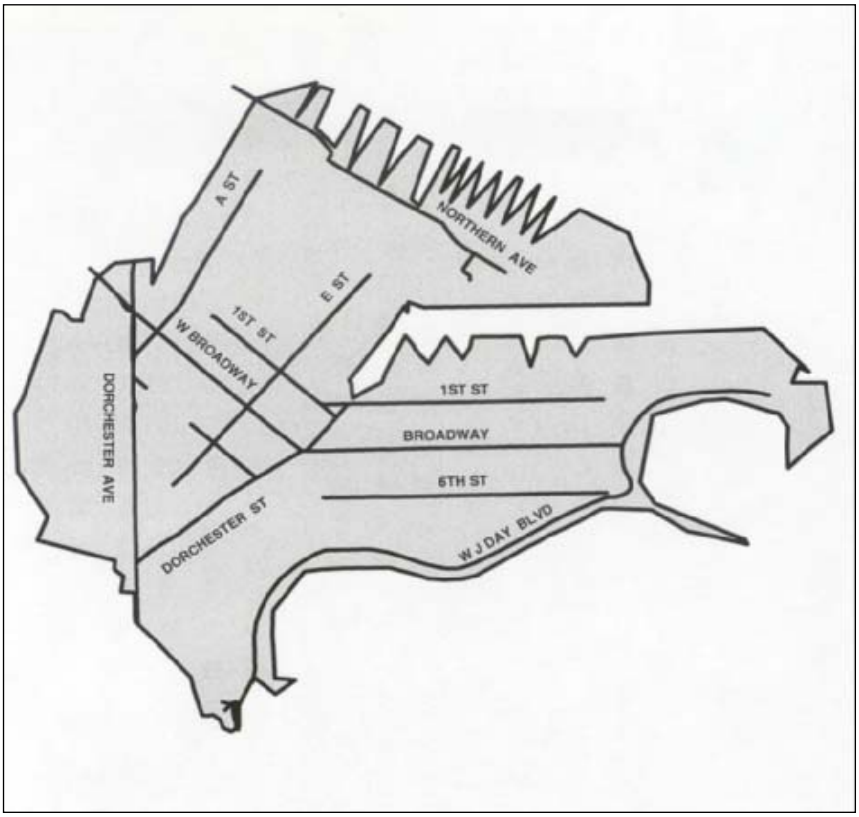
The total population in Roxbury in 2000 was 50,349, a 6.5% decrease from 1990. During this time, the Black population decreased while the Latino and Asian populations grew in size. The Black population decreased by 7,608 or 22.5%. The Latino population grew by 1,012 (a 10.1% increase); the Asian population increased by 743 or 44.7%. Roxbury is now home to the second largest Latino population in the city. The Latino population, which made up 18.7% of the neighborhood in 1990, increased to 22.0% in 2000. During this time, the Black population decreased from 62.8% of the population to 52.0%.

English is the language spoken at home by 64.8% of residents; 20.3% speak Spanish, 3.0% speak French Creole (which includes Haitian Creole), and 2.6% speak Chinese.

About three-fourths (71.4%) of Roxbury residents were born in the United States, including 5.8% who were born in Puerto Rico. Other countries in which residents were born include the Dominican Republic (4.3%), China (1.9%), and Jamaica (1.0%).

Introduction to Boston Neighborhoods

South Boston



Annexed in 1804, South Boston is one of Boston's oldest neighborhoods. During the mid-1800s, the neighborhood was a major industrial center with foundries, machine shops, shipyards, and refineries. The neighborhood's industrial growth led to an influx of Irish and other immigrants in the middle and late 1800s.

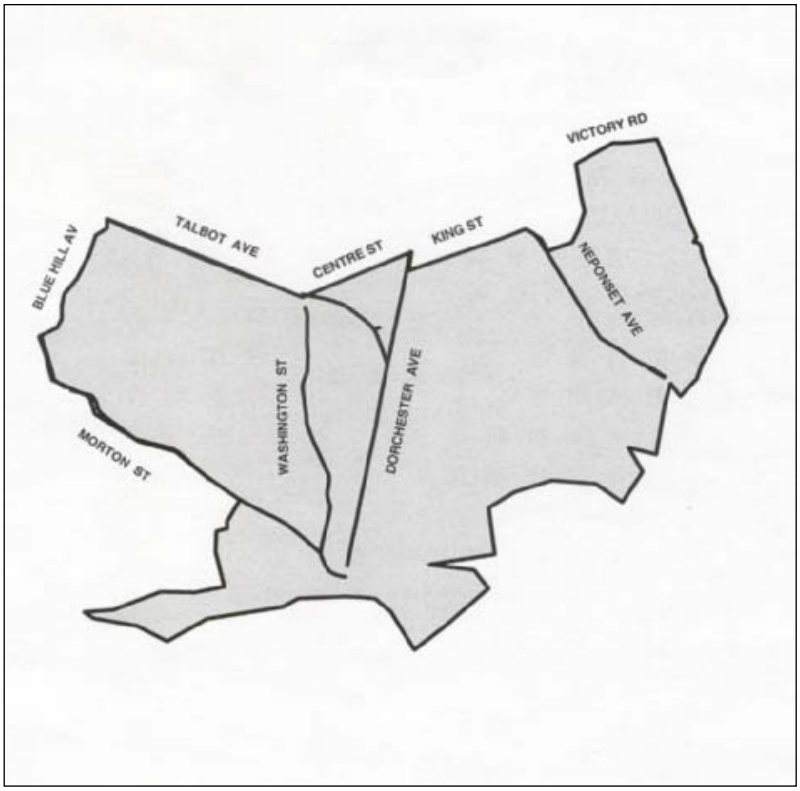
Through the 20th century, the neighborhood's connection to Boston's maritime economy, shipyard, and railroad jobs provided work for South Boston residents. The neighborhood continues to serve as the center of Boston's Irish community, hosting annual events such as the St. Patrick Day's Parade. The neighborhood has miles of beaches and waterfront parks, as well as the Strandway, a Frederick Law Olmstead-designed motorway that runs the length of the beach.

The total population in South Boston in 2000 was 29,965, an increase of only 1.3% from 1990. Although still a predominantly White neighborhood, the percentage of White residents in the neighborhood decreased from 95.5% in 1990 to 84.5% in 2000. A notable increase occurred within the Latino population, from 1.5% of the population in 1990 to 7.5% in 2000. During this time, smaller increases occurred in the size of South Boston's Asian and Black populations. The Asian population increased from 1.8% to 2.9%, and Black population increased from 0.9% to 2.5%.

English is the language spoken at home by 83.2% of residents; 7.3% speak Spanish and 2.6% speak Chinese. About two-thirds (69.1%) of South Boston residents were born in the United States, including 4.2% who were born in Puerto Rico. Other countries in which South Boston residents were born include the Dominican Republic (3.0%), China (1.8%), and Ireland (1.5%).

Introduction to Boston Neighborhoods

South Dorchester



North and South Dorchester, originally one community, were named after the town of Dorchester in England, from which Puritans emigrated. The Wampanoag Indians had called the area Mattapan. Dorchester was annexed to Boston in 1870.

Many historic sites are located in South Dorchester. The Walter Baker Chocolate Mill was established in Lower Mills in 1765. Over the last 20 years, the mill has been converted to apartments and condominiums. The Pierce House, built in 1683, is Boston's second oldest home. William J. Devine Golf Course at Franklin Park, laid out in 1892, is the country's oldest public golf course.

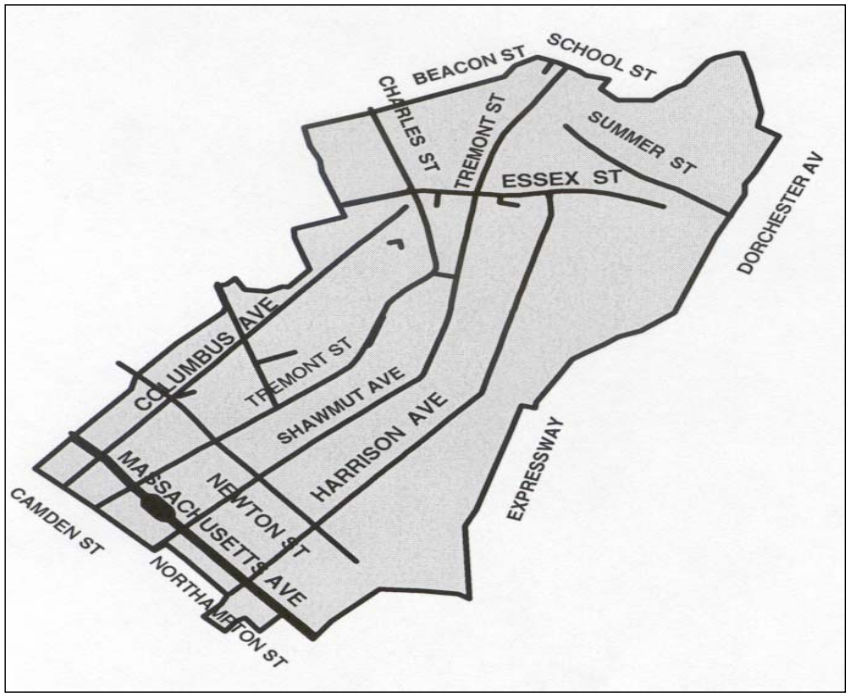
The total population in South Dorchester in 2000 was 45,281, a 3.7% increase when compared with 1990. The White population decreased by 6,794, or 31.7%, between 1990 and 2000. In 1990, White residents made up 49.1% of the population compared with 32.4% in 2000. During this time, the Black population increased by 3,777, or 17.2%. In 2000, Black residents made up 47.7% of South Dorchester, compared with 42.2% in 1990. The Asian population more than tripled, increasing from 828 in 1990 to 2,616 in 2000. In 2000, Asians constituted 5.8% of the neighborhood, compared with 1.8% in 1990. South Dorchester's Latino population also grew during this time. In 2000, the 3,770 Latino residents made up 8.3% of the neighborhood, an increase from 6.4% in 1990.

English is the primary language spoken by 73.8% of the population; 8.5% speak Spanish, 7.2% speak French Creole, and 4.3% speak Vietnamese.

About three-fourths (72.8%) of South Dorchester residents were born in the United States, including 1.3% who were born in Puerto Rico. Other countries in which residents were born include Vietnam (3.9%), Jamaica (3.3%), Haiti (2.8%), Ireland (1.8%), Trinidad/Tobago (1.4%), the Dominican Republic (1.3%), and Barbados (1.1%).

Introduction to Boston Neighborhoods

The South End



The South End was originally called "Boston Neck" as it was a narrow strip of land connecting Boston to the mainland. In the 1830s, the neighborhood was in-filled and Victorian townhouses were built for Boston's wealthy merchant class. In the 1870s, the South End developed into a lodging and boarding house district as wealthy residents moved to the newly built Back Bay. At this time, major institutions were established in the South End including Boston City Hospital (now Boston Medical Center) and the South End House (Boston's first settlement house). Churches and synagogues were built to accommodate growing congregations. Inexpensive housing and the proximity of the neighborhood to social, health, and religious services combined to bring a variety of cultures, religions, and beliefs to the South End.

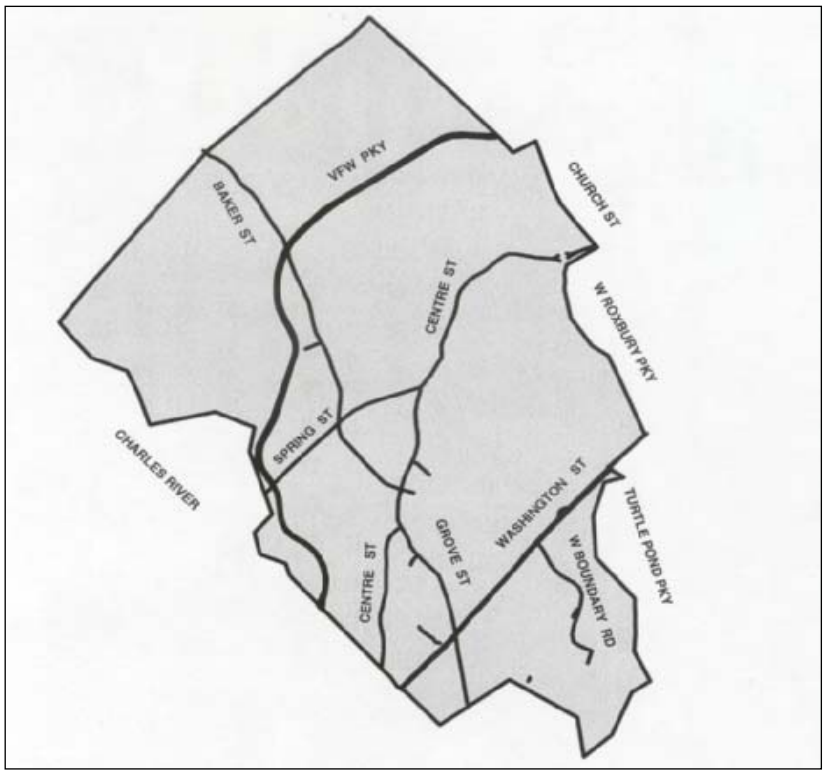
By 1900, large Jewish, Syrian, Greek, Italian, Portuguese, Chinese, West Indian, African-American, Native American, and Puerto Rican communities were established. In the 1960's, housing again shaped neighborhood demographics, as a renewed interest in urban life brought gentrification to the South End. The neighborhood is now home to a large gay and lesbian community and a mix of families and young professionals. As the largest Victorian neighborhood in the United States, the South End is a Landmark District and listed in the National Registry of Historical Places.

The total population in the South End in 2000 was 33,502, an 8.3% increase compared with 1990. The South End is one of the few Boston neighborhoods in which the number of White residents increased. In 2000, the White population grew by 2,570 (a 19.3% increase) while the Black population decreased by 1,429, or 22.2%. Little change occurred in the numbers of Latinos and Asians. The White population, which made up 43.1% of the neighborhood in 1990, increased to 47.5% in 2000; the Black population decreased from 20.8% of the population to 14.9%. The percentage of Latinos stayed about the same (11.9% in 2000 compared with 11.8% in 1990). The number of Asian residents increased by 139, although their percentage share in the neighborhood decreased from 23.8% to 22.4%.

English is the language spoken at home by 63.0% of residents; 17.8% speak Chinese at home and 11.2% speak Spanish. About two-thirds (69.1%) of South End residents were born in the United States, including 4.2% who were born in Puerto Rico. Other countries in which residents were born include China (13.9%), Vietnam (1.3%), and the Dominican Republic (1.0%).

Introduction to Boston Neighborhoods

West Roxbury



When first settled, West Roxbury was part of the town of Roxbury and included the neighborhoods of Roslindale and Jamaica Plain. In 1851, West Roxbury broke away from Roxbury and formed its own government. The neighborhood was annexed by Boston in 1874.

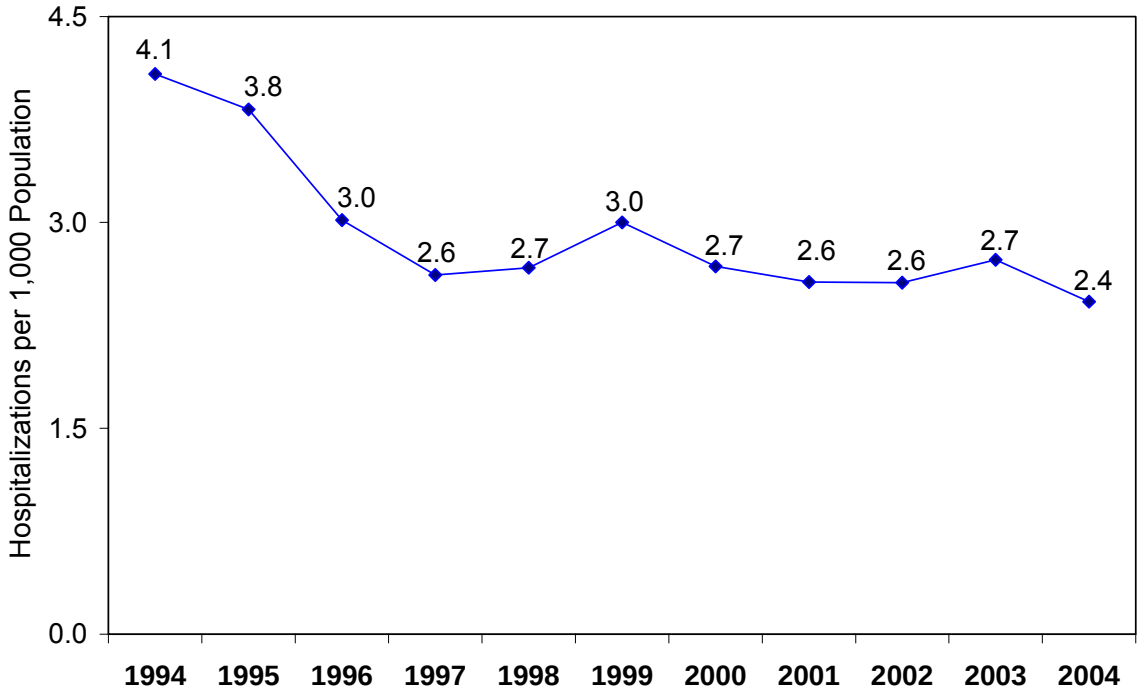
In 1841, Brook Farm was established by Transcendentalists in West Roxbury as an experimental cooperative farm. Its members and regular visitors included many 19th century progressive writers and philosophers including Nathaniel Hawthorne, Ralph Waldo Emerson, Margaret Fuller, and Horace Greeley.

The total population in West Roxbury in 2000 was 26,108, a 4.2% decrease when compared with 1990. Although the White population in West Roxbury decreased by 4,251 (16.4%), the neighborhood remained a predominately White one. In 2000, 83.1% of the population was White compared with 95.2% in 1990. Moderate increases were seen in the number and proportion of Asian, Black, and Latino populations. In 2000, the Asian population made up 3.4% of West Roxbury residents, compared with 1.7% in 1990. During this time, the Latino population grew from 1.6% to 4.7% of the total, and the Black population increased from 1.3% to 6.6% of the total.

West Roxbury has a large population of elders; in 2000, 20.1% of the population was 65 and over. The median income of $53,607 is the highest of all Boston neighborhoods.

English is the language spoken at home by 78.3% of residents; 4.8% speak Spanish, 2.8% speak Greek, and 2.0% speak Italian. Most West Roxbury residents (81.7%) were born in the United States (including 0.4% who were born in Puerto Rico). Other countries in which residents were born include Ireland (2.1%), Haiti (1.3%), Italy (1.2%), Lebanon (1.2%), and China (1.0%).

Asthma

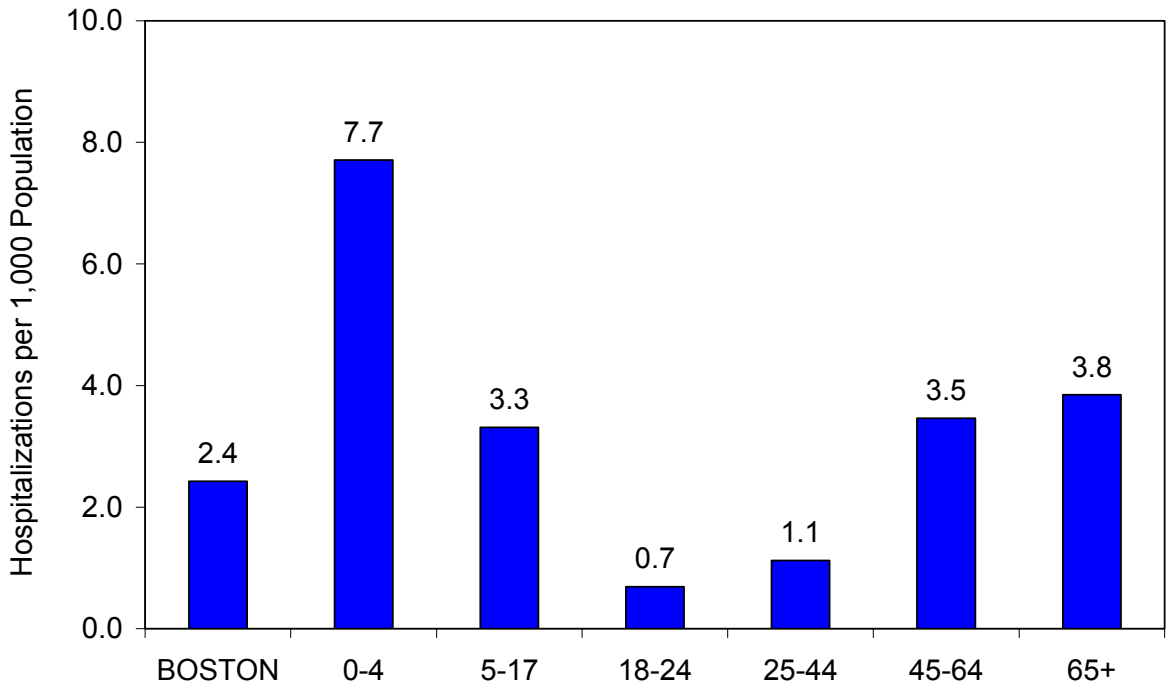


	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Count	2,248	2,135	1,678	1,455	1,482	1,666	1,579	1,512	1,509	1,607	1,428

NOTE: Rates prior to the year 2000 have been calculated using U.S. Census population estimates.
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- The number and rate of asthma hospitalizations among Boston residents has followed a downward pattern over the past decade.
- In 2004, the asthma hospitalization rate was 41.5% lower than in 1994. The 2004 rate of 2.4 hospitalizations per 1,000 is the lowest observed during this period.
- Boston's 2004 asthma hospitalization rate (2.4 hospitalizations per 1,000 population) was 11.1% lower than the rate in 2003 (2.7 per 1,000 population).

Asthma



	BOSTON	0-4	5-17	18-24	25-44	45-64	65+
Count	1,428	247	280	66	237	362	236

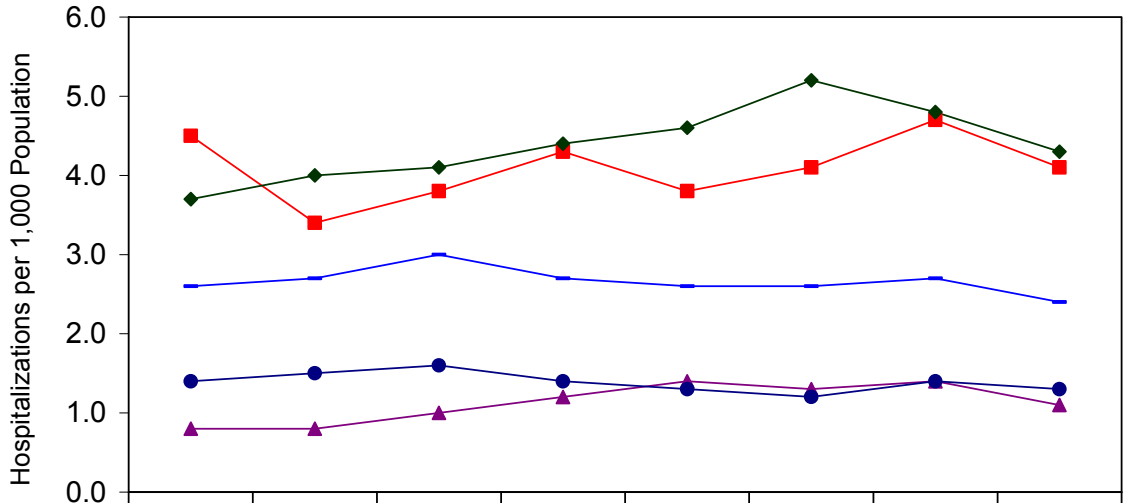
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- The heaviest burden of asthma hospitalization is borne by children under the age of 5. In 2004, the youngest Boston children had 7.7 hospitalizations per 1,000 population, more than three times the rate for Boston overall.

- Adults between the ages of 18 and 44 had the city's lowest asthma hospitalization rates, 0.7 hospitalizations per 1,000 for those 18-24 and 1.1 per 1,000 for those 25-44.

Asthma

Asthma Hospitalizations by Race/Ethnicity and Year: Counts and Age-Adjusted Rates, Boston, 1997-2004



	1997	1998	1999	2000	2001	2002	2003	2004
Asian	0.8	0.8	1.0	1.2	1.4	1.3	1.4	1.1
Black	4.5	3.4	3.8	4.3	3.8	4.1	4.7	4.1
Latino	3.7	4.0	4.1	4.4	4.6	5.2	4.8	4.3
White	1.4	1.5	1.6	1.4	1.3	1.2	1.4	1.3
BOSTON	2.6	2.7	3.0	2.7	2.6	2.6	2.7	2.4

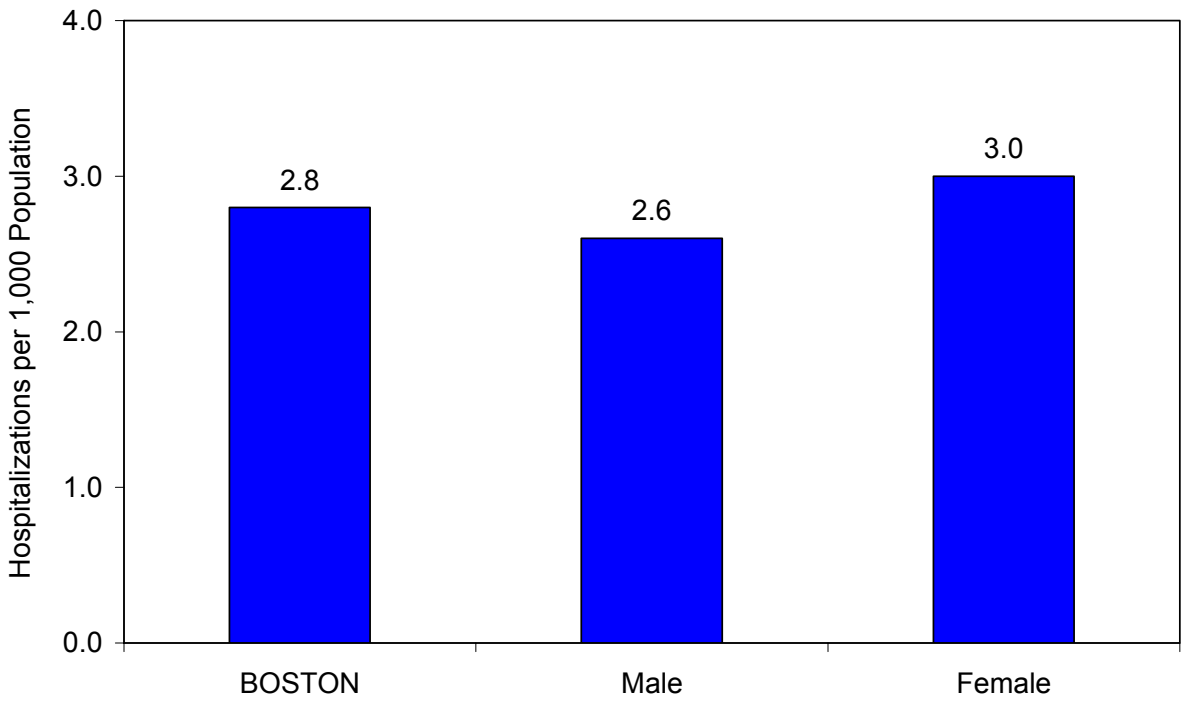
Count	1997	1998	1999	2000	2001	2002	2003	2004
Asian	24	26	31	39	46	42	45	36
Black	681	640	699	755	692	699	769	672
Latino	283	258	267	290	307	324	380	295
White	385	411	437	378	330	316	346	344
BOSTON	1,455	1,482	1,666	1,579	1,512	1,509	1,607	1,428

NOTE: People of Latino ethnicity may be reported in any of the above race/ethnicity categories. See Technical Notes for additional caveats.
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Black and Latino Boston residents have higher rates of asthma hospitalization than Asian and White residents. In 2004, the Black and Latino hospitalization rates were 3 to 4 times higher than the rates for Asians and Whites.

- There was no discernible upward or downward trend in asthma hospitalizations during the period 1997 through 2004 for any of the major race/ethnicity groups.

Asthma



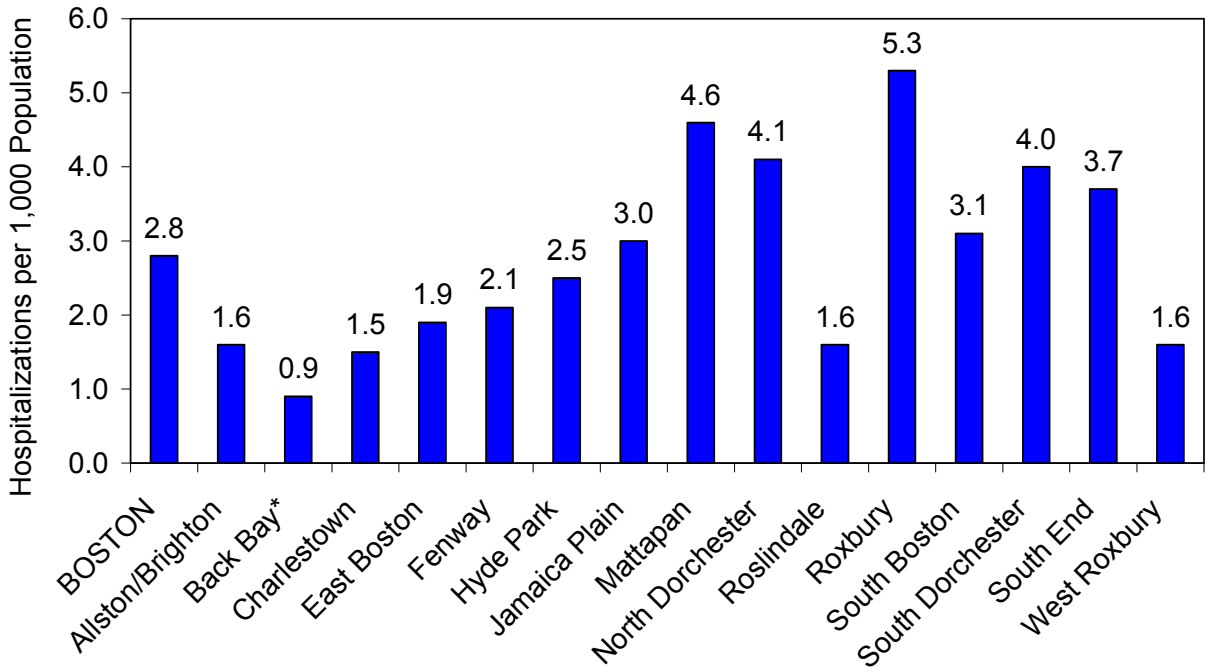
	BOSTON	Male	Female
Count	1,428	621	807

DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Overall in 2004, there were more asthma hospitalizations of female Boston residents than of males, and a slightly higher rate of asthma hospitalizations among females.
- This pattern is not consistent with that for Boston children, among whom boys typically have higher asthma hospitalization rates than girls (data not shown).

Asthma

Asthma Hospitalizations by Neighborhood: Counts and Age-Adjusted Rates, Boston, 2004



	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	1,428	67	27	20	68	29	72	88	119	231	52	167	81	288	82	37

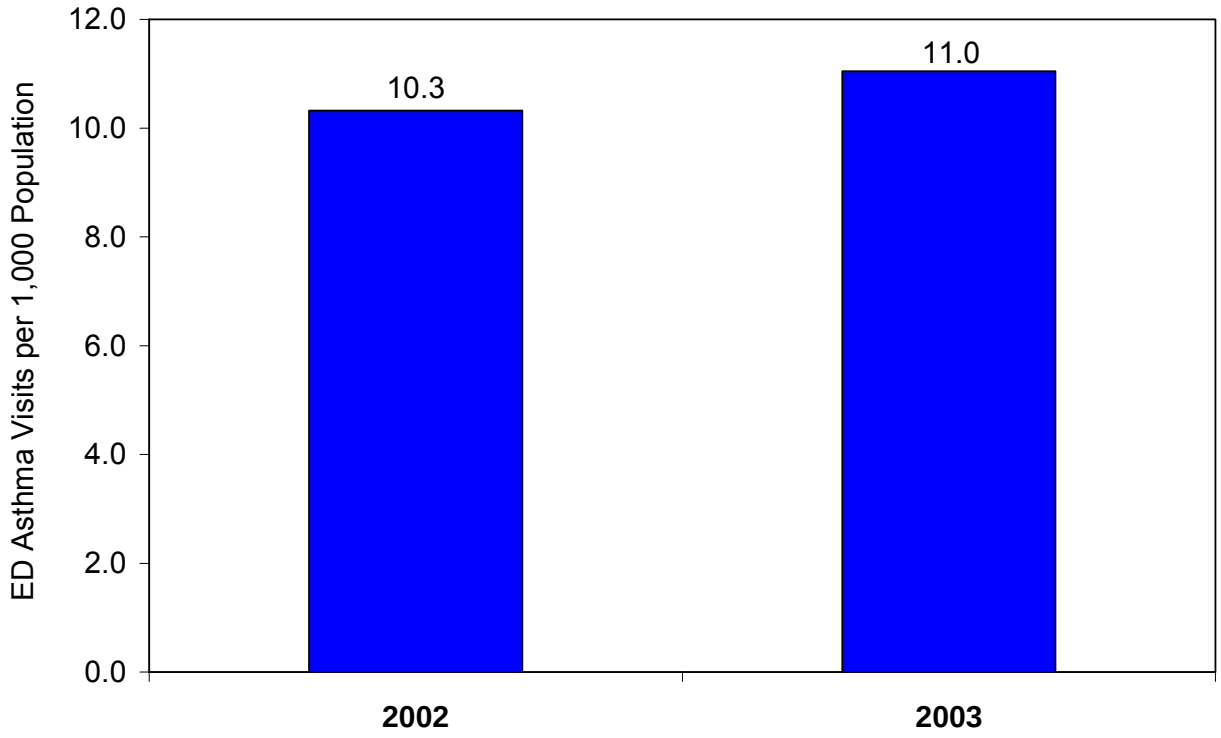
ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- The highest numbers of asthma hospitalizations in 2004 were among residents of the large North and South Dorchester neighborhoods, but the highest rates occurred in Roxbury and Mattapan.

- In 2004, Roxbury was one of several Boston neighborhoods with asthma hospitalization rates much higher than that of Boston overall. The rate of 5.3 asthma hospitalizations per 1,000 population was close to twice as high as the Boston rate (2.8 asthma hospitalizations per 1,000 population).

Asthma

Emergency Department Visits for Asthma by Year: Counts and Rates, Boston, 2002 and 2003

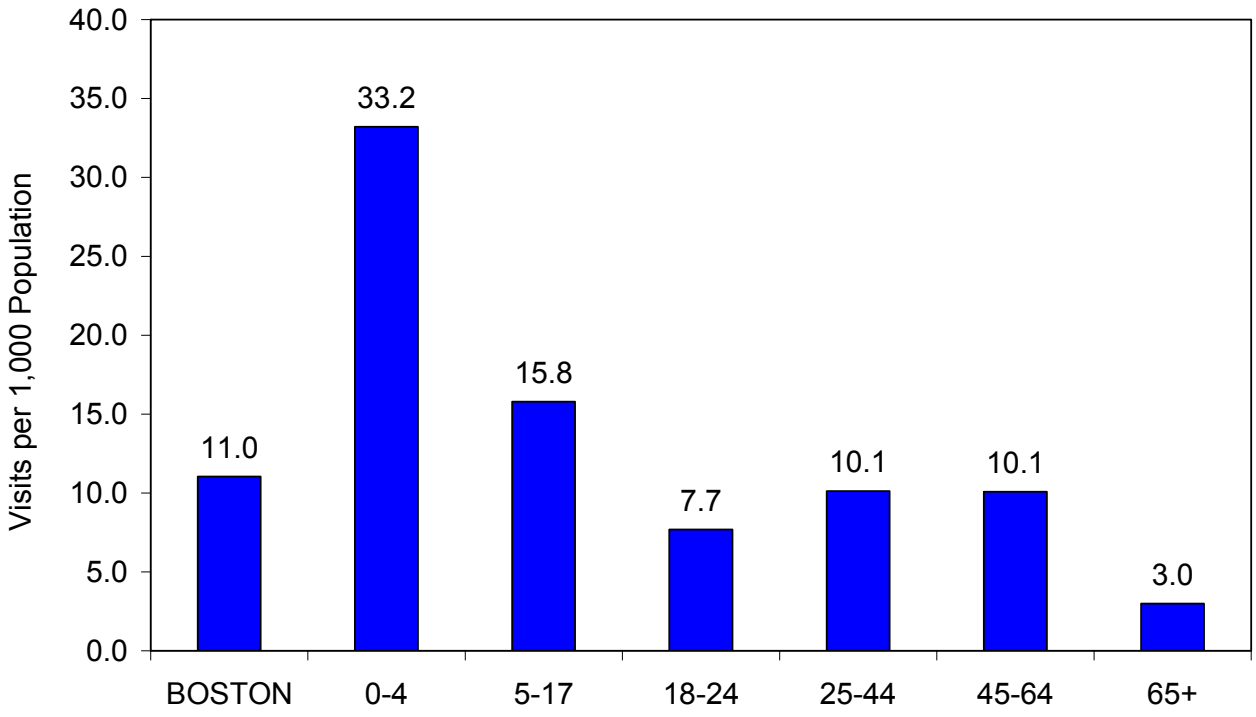


	2002	2003
Count	6,081	6,509

DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- 6,509 emergency department visits for asthma were made by Boston residents in 2003, the most recent year for which data are available.
- The rate of asthma emergency department visits by Boston residents was 6.8% higher in 2003 (11.0 visits per 1,000 population) than in 2002 (10.3 visits per 1,000 population).

Asthma



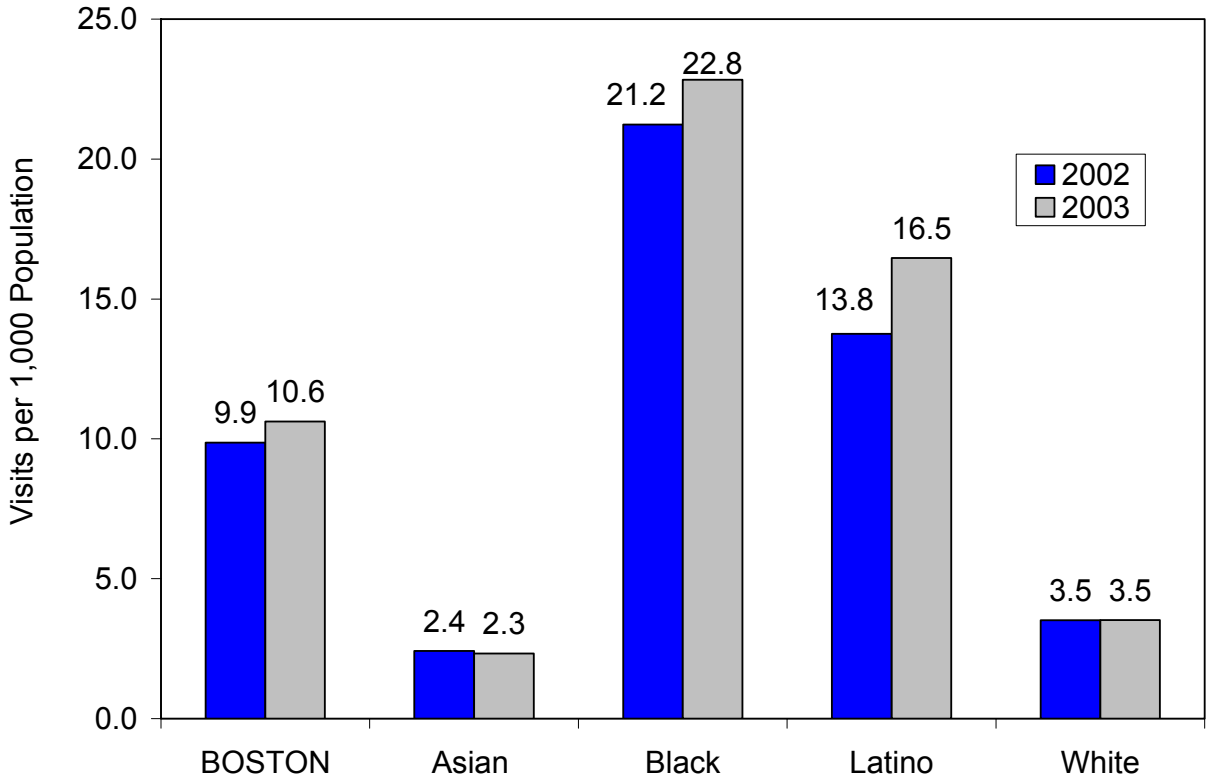
	BOSTON	0-4	5-17	18-24	25-44	45-64	65+
Count	6,509	1,064	1,335	734	2,138	1,054	184

DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- As is true of inpatient asthma care, emergency department (ED) visit rates for asthma are highest among children under age 5.
- During 2003, Boston children ages 0-4 had asthma emergency department visit rates that were more than twice as high as those of older children and youth (33.2 visits per 1,000 population vs. 15.8 visits per 1,000 population).
- Emergency department visit rates for asthma are much lower for adults of all ages than for those under the age of 18. Boston adults in 2003 had asthma ED visit rates one-tenth to one-third the rates of children under age 5.

Asthma

Emergency Department Visits for Asthma by Race/Ethnicity and Year: Counts and Rates, Boston, 2002 and 2003

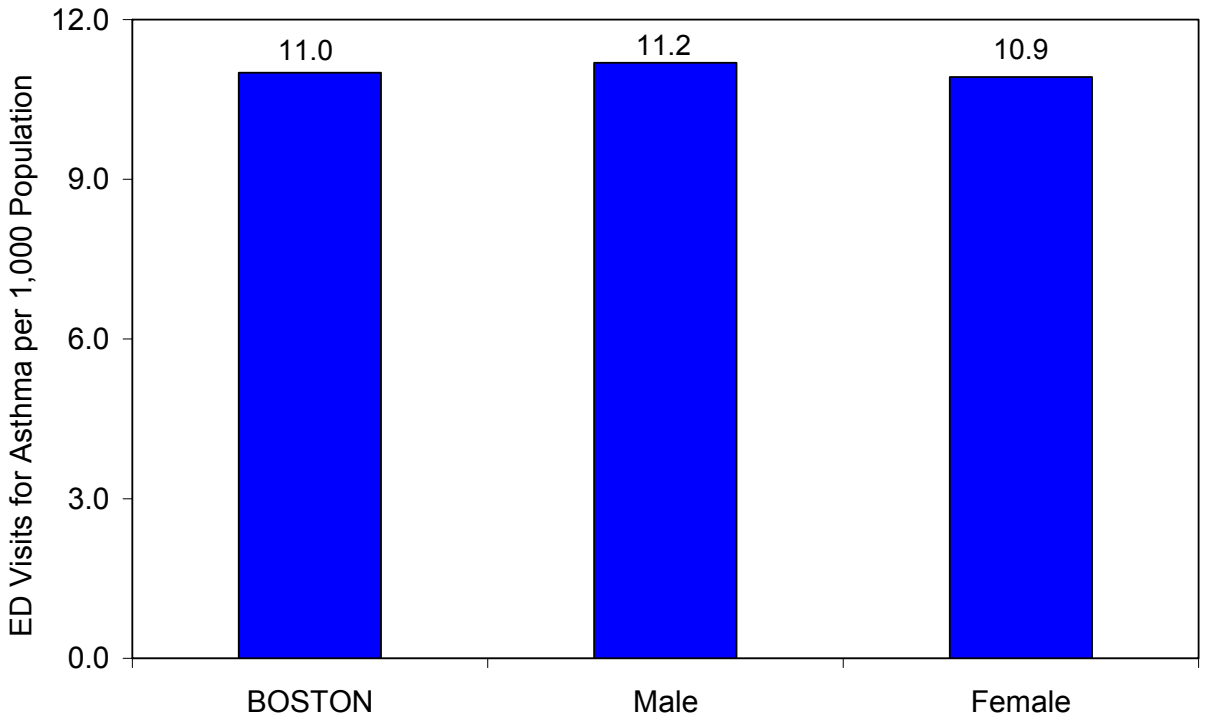


	BOSTON	Asian	Black	Latino	White
2002	6,081	105	3,174	1,170	1,128
2003	6,509	101	3,414	1,401	1,131

NOTES: People of Latino ethnicity may be reported in any of the above race/ethnicity categories. See Technical Notes for additional caveats. These data do not include persons whose race/ethnicity was not reported, except in the Boston overall counts and rates.
DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- In both 2002 and 2003, asthma emergency department visit rates for Boston's Black and Latino residents were substantially higher than for Asian and White residents.
- The city's ED visit rates for asthma fluctuated between 2002 and 2003, but no trend over time will be discernible until more years of ED data become available.

Asthma

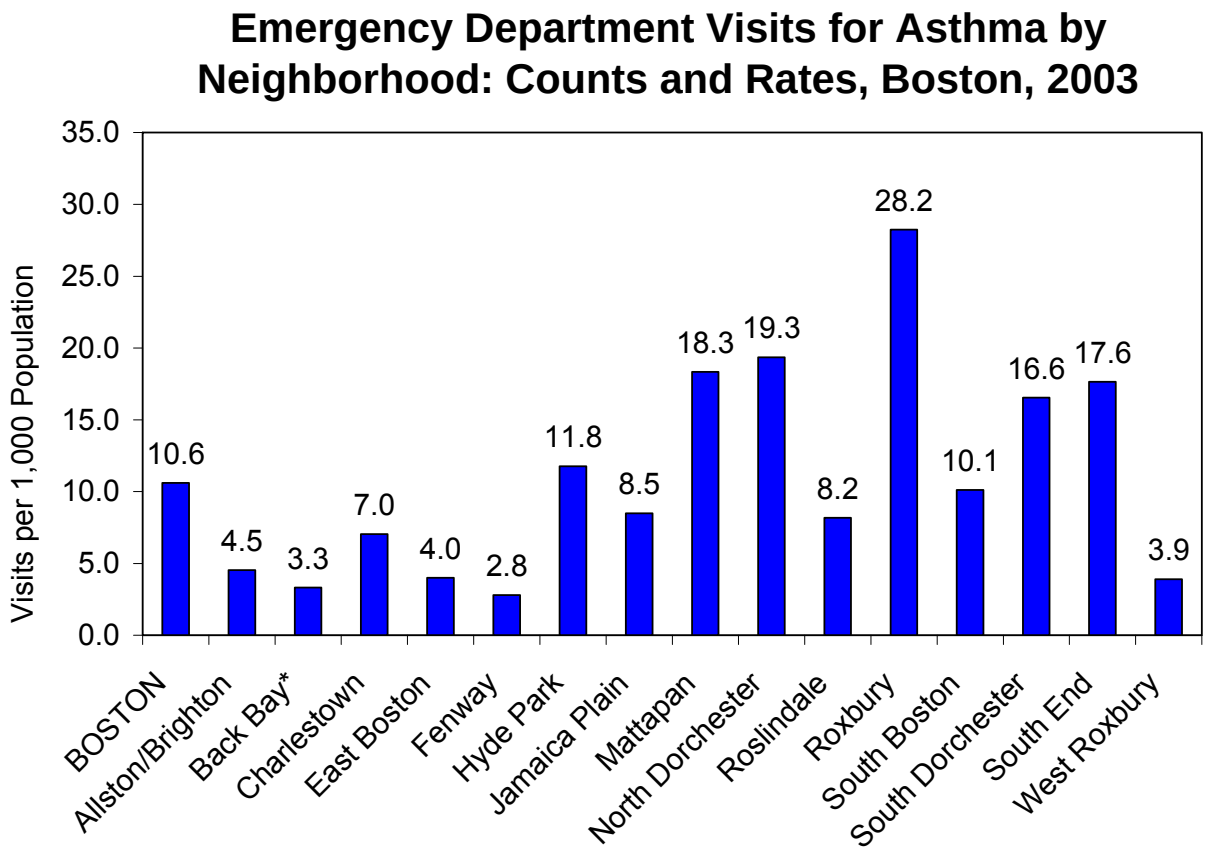


	BOSTON	Male	Female
Count	6,509	3,173	3,336

DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Slightly more emergency department visits for asthma were made by female Boston residents than male Boston residents in 2003.
- The rate of emergency department visits for asthma among Boston males (11.2 visits per 1,000 population) was similar to that among Boston females (10.9 visits per 1,000 population).

Asthma



	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	6,509	302	154	107	154	133	334	308	510	1,135	266	979	304	1,247	482	94

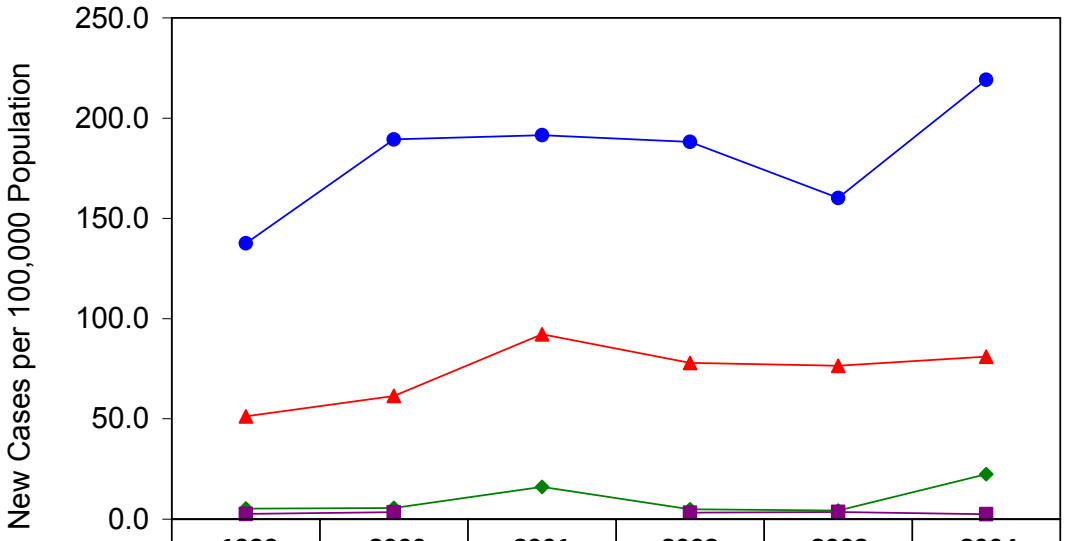
ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Like inpatient asthma care, emergency department visits for asthma were most frequent in the large neighborhoods of North and South Dorchester, but the visit rate was highest in Roxbury.

- Roxbury's rate of emergency department visits (28.2 visits per 1,000 population) was 166.0% higher than the Boston rate (11.0 visits per 1,000 population).

Hepatitis

Hepatitis Types A, B, and C Cases by Year: Counts and Incidence Rates, Boston, 1999-2004



	1999	2000	2001	2002	2003	2004
Hepatitis A	5.2	5.6	16.0	4.9	4.2	22.4
Acute Hepatitis B	2.6	3.4	--	3.2	3.6	2.5
Chronic Hepatitis B	51.3	61.4	92.2	77.9	76.5	81.0
Hepatitis C	137.5	189.4	191.5	188.1	160.2	219.1

Count	1999	2000	2001	2002	2003	2004
Hepatitis A	30	33	94	29	25	132
Acute Hepatitis B	15	11	n<5	16	20	15
Chronic Hepatitis B	311	367	538	458	449	477
Hepatitis C	793	1,106	1,115	1,087	933	1,291

DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division
GRAPHIC: Boston Public Health Commission Research Office

- Of the four types of hepatitis shown above, incidence rates for Boston residents are highest for hepatitis C. In 2004, the incidence rate for hepatitis C increased 36.8%, from 160.2 cases per 100,000 population in 2003 to 219.1 cases per 100,000 population. It is believed that many of these are long-standing infections that are now being identified through expanded testing.

- Increases also occurred for hepatitis A and chronic hepatitis B from 2003 to 2004. Between 1999 and 2004, the increases in hepatitis C and chronic hepatitis B cases were likely due in part to the identification of long-standing infections through more testing, as well as to improved reporting, while the increase in 2004 in hepatitis A was attributable to an outbreak.

Hepatitis

Hepatitis Types A, B, and C Cases by Age: Counts and Incidence Rates, Boston, 2004					
Hepatitis A			**Acute Hepatitis B**		
Age	Count	Rate	Age	Count	Rate
<10	n<5	--	<10	0	--
10-19	11	14.4	10-19	n<5	--
20-29	46	33.3	20-29	n<5	--
30-39	44	42.5	30-39	7	6.8
40-49	16	21.8	40-49	n<5	--
50-59	n<5	--	50-59	n<5	--
60-69	n<5	--	60-69	0	--
>69	n<5	--	>69	n<5	--
Chronic Hepatitis B			**Hepatitis C**		
Age	Count	Rate	Age	Count	Rate
<10	6	9.1	<10	n<5	--
10-19	30	39.4	10-19	8	10.5
20-29	136	98.4	20-29	162	117.2
30-39	113	109.3	30-39	248	239.8
40-49	98	133.4	40-49	476	647.8
50-59	48	91.5	50-59	271	516.4
60-69	29	84.9	60-69	61	178.7
>69	15	33.0	>69	55	102.9
NOTES: Incidence rates are presented only for those age groups that had at least 5 occurrences of disease. The rates shown are new cases per 100,000 population. DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division DATA ANALYSIS: Boston Public Health Commission Research Office, Communicable Disease Control Division					

- The highest incidence rates of hepatitis A and acute hepatitis B among Bostonians in 2004 were for those ages 30-39.

- The highest incidence rate of chronic hepatitis B was among Boston residents ages 40-49, with a rate 64.7% higher than for Boston overall.

- Bostonians ages 40-49 and 50-59 had the highest hepatitis C incidence rate of all age groups. For ages 40-49, the rate was three times the overall Boston rate, and for ages 50-59, 2.4 times.

Hepatitis

Hepatitis Types A, B, and C Cases by Race/Ethnicity: Counts and Incidence Rates, Boston, 2004					
Hepatitis A			**Acute Hepatitis B**		
	Count	Rate		Count	Rate
Asian	5	11.3	Asian	0	--
Black	8	5.7	Black	n<5	--
Latino	18	21.1	Latino	n<5	--
White	66	22.6	White	n<5	--
BOSTON	132	22.4	**BOSTON**	15	2.5
Chronic Hepatitis B			**Hepatitis C**		
	Count	Rate		Count	Rate
Asian	172	388.4	Asian	30	67.7
Black	91	64.9	Black	263	187.4
Latino	29	34.1	Latino	196	230.3
White	50	17.1	White	398	136.5
BOSTON	477	81.0	**BOSTON**	1,291	219.1

NOTES: Incidence rates are presented only for races/ethnicities that had at least 5 occurrences of disease. Boston totals include those for whom race/ethnicity was Other or for whom race/ethnicity information was missing.
DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission Research Office, Communicable Disease Control Division

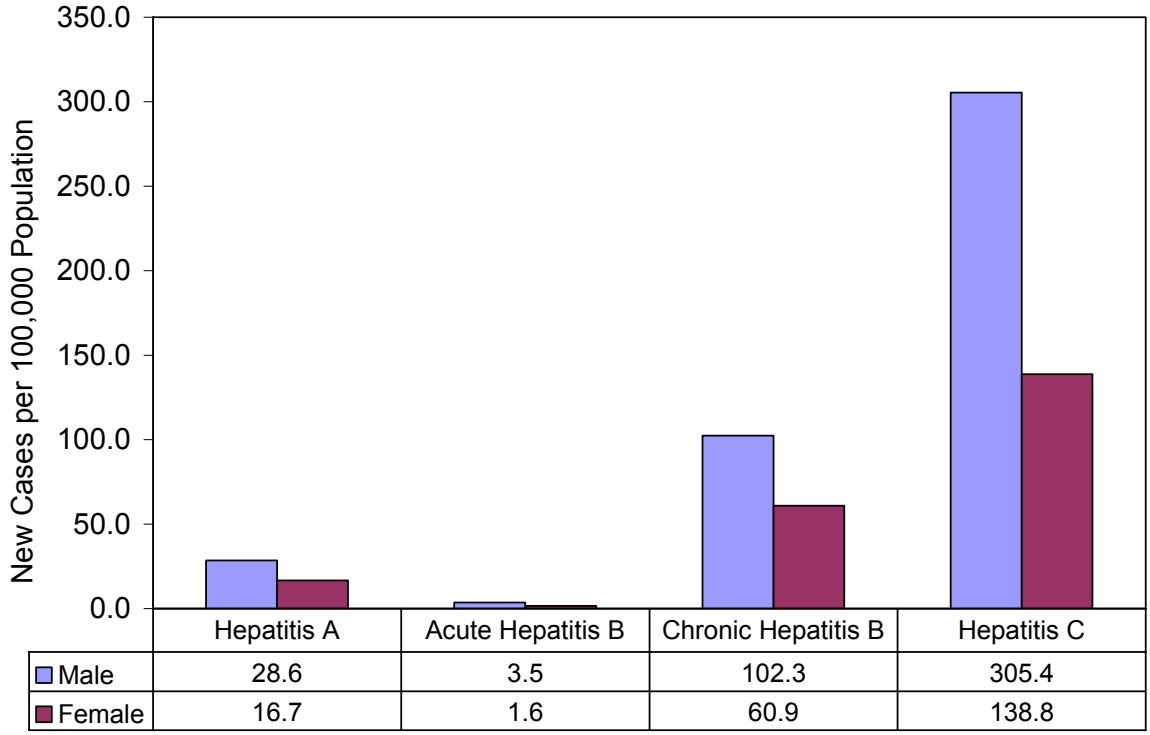
- White residents had Boston's highest incidence of hepatitis A infection in 2004, (22.6 new cases per 100,000 population), but information on race/ethnicity was unknown for 25.0% of cases.

- Asian Boston residents had the highest incidence of chronic hepatitis B infection (388.4 new cases per 100,000 population). This rate was almost five times the overall rate for Boston. However, information on race/ethnicity was unknown for 24.9% of cases.

- Latino Boston residents had the highest incidence of hepatitis C infection, 230.3 new cases per 100,000 population. However, information on race/ethnicity was unknown for 29.7% of cases.

Hepatitis

Hepatitis Types A, B, and C Cases by Sex: Counts and Incidence Rates, Boston, 2004



	Hepatitis A	Acute Hepatitis B	Chronic Hepatitis B	Hepatitis C
Male	81	10	290	866
Female	51	5	186	424

DATA SOURCE: Communicable Disease Database, Boston Public Health Commissions, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division
GRAPHIC: Boston Public Health Commission Research Office

- In 2004, the incidence rates for all four types of hepatitis shown above were higher for Boston males than for Boston females. The disparity was greatest for hepatitis C and acute hepatitis B, where the incidence rates for males were slightly more than double the rates for females.

Hepatitis

Hepatitis Types A, B, and C Cases by Neighborhood: Counts and Incidence Rates, Boston, 2004						
	Hepatitis A		Chronic Hepatitis B		Hepatitis C	
	Count	Rate	Count	Rate	Count	Rate
Allston/Brighton	5	7.2	56	80.4	69	99.1
Back Bay*	n<5	--	13	26.9	29	60.0
Charlestown	6	39.5	12	79.0	19	125.0
East Boston	18	46.9	20	52.1	64	166.6
Fenway	n<5	--	13	43.6	36	120.7
Hyde Park	n<5	--	16	46.5	40	116.2
Jamaica Plain	n<5	--	11	37.3	44	149.2
Mattapan	0	--	15	76.0	47	238.3
North Dorchester	8	9.6	91	109.4	198	237.9
Roslindale	n<5	--	12	34.2	34	97.0
Roxbury	5	9.9	42	83.4	126	250.3
South Boston	24	80.2	24	80.2	106	354.1
South Dorchester	6	13.2	36	79.5	53	117.0
South End	n<5	--	63	188.0	53	158.2
West Roxbury	n<5	--	16	61.3	17	65.1
BOSTON	132	22.4	477	81.0	1,291	219.1

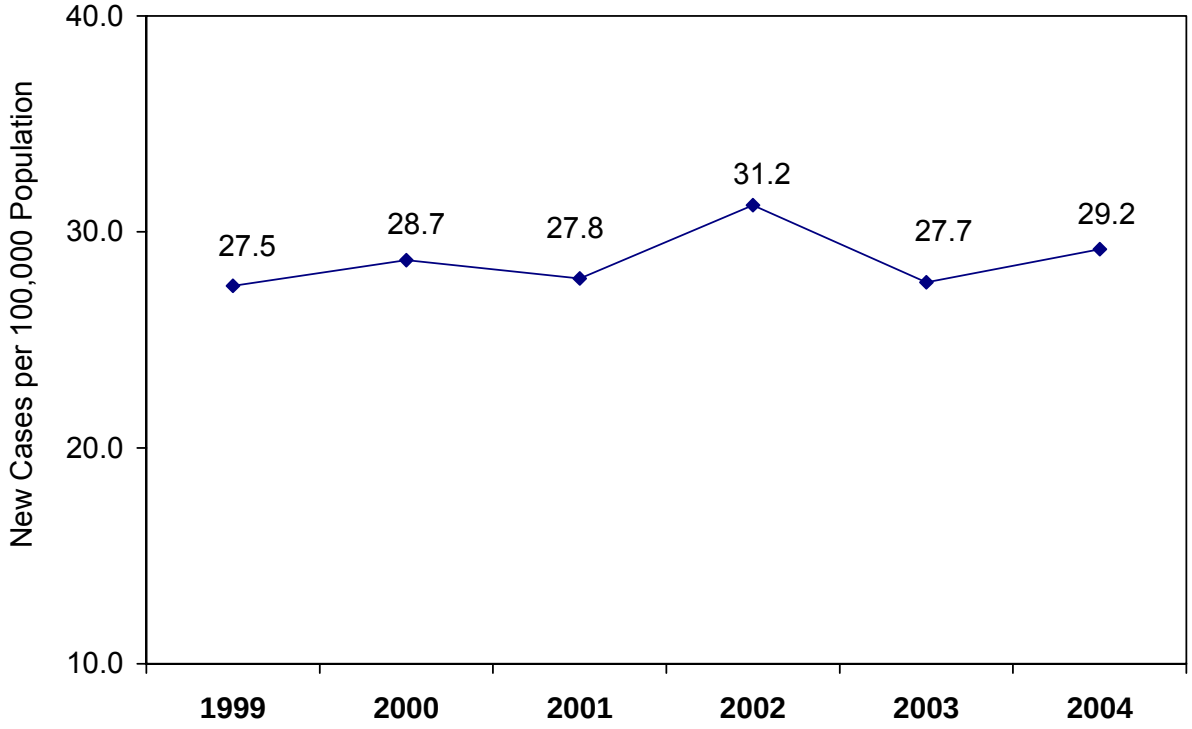
*Includes the North End
NOTES: Incidence rates are presented only for neighborhoods that had at least 5 occurrences of disease. Acute hepatitis B is not shown because most neighborhoods had less than 5 occurrences of that infection. These data do not include homeless persons or individuals whose neighborhood of residence was not reported. The rates shown are new cases per 100,000 population.
DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission Research Office, Communicable Disease Control Division

- The highest incidence rates of hepatitis A infection in 2004 were in South Boston, East Boston, and Charlestown. The higher hepatitis A incidence rates in these neighborhoods were related to an outbreak. The rate for South Boston was 3.6 times the overall Boston rate.

- The South End and North Dorchester had the city's highest incidence rates of chronic hepatitis B in 2004. In part, differences in rates may reflect differences in local screening practices and the immigration of individuals from countries with high rates of chronic hepatitis B. The rate for the South End was about double the overall Boston rate.

- The highest incidence rate of chronic hepatitis C among all Boston neighborhoods in 2004 was in South Boston. South Boston's rate (354.1 new cases per 100,000 population) was 61.6% higher than the overall Boston rate.

HIV and AIDS



	1999	2000	2001	2002	2003	2004
Count	162	169	164	184	163	172

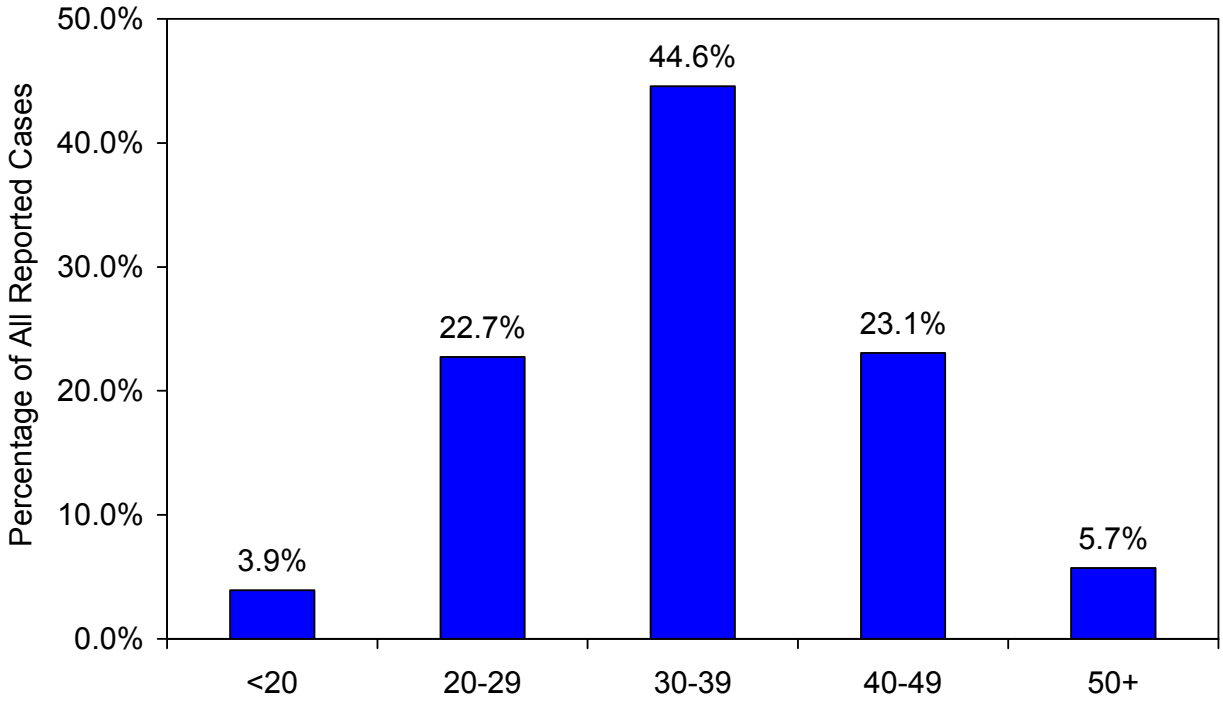
NOTE: These data do not include inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- There were 172 new cases of human immunodeficiency virus (HIV) infection[3] diagnosed and reported among Boston residents in 2004.
- The HIV incidence rate for Boston residents was 29.2 new cases per 100,000 population.
- The 2004 rate was 5.4% higher than the rate in 2003, but the trend in incidence rates has been essentially flat for several years.

[3] Does not include new cases that had already progressed to AIDS.

HIV and AIDS

HIV Cases by Age: Counts and Percentage Distribution, Boston, as of January 1, 2006



	<20	20-29	30-39	40-49	50+
Count	86	498	976	505	125

NOTE: These data do not include persons whose age was not reported, people with AIDS, or inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

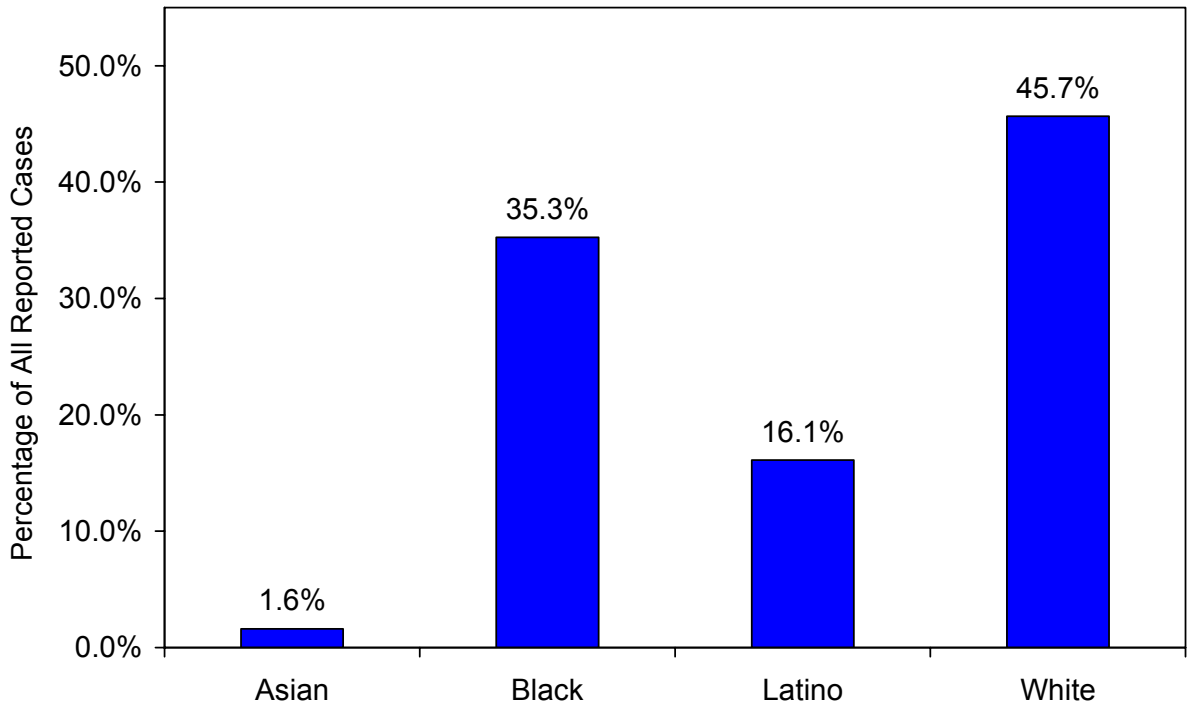
- As of January 1, 2006, 2,190 cases of HIV that had not progressed to AIDS had been diagnosed among Boston residents and reported to the state's HIV surveillance system since its inception in 1999[4]. The greatest proportion of total cases (44.6%) was among residents ages 30-39.

- The percentage of Boston HIV cases that were among people ages 30-39 was about twice that of people ages 20-29 and 40-49.

[4] As cases progress from HIV infection to AIDS, they are transferred to the AIDS surveillance data and no longer appear as part of the HIV data. Note also that cases of HIV diagnosed prior to 1999 are included in the surveillance system.

HIV and AIDS

HIV Cases by Race/Ethnicity: Counts and Percentage Distribution, Boston, as of January 1, 2006



	Asian	Black	Latino	White
Count	35	772	353	1,000

NOTE: These data do not include persons of other or unknown race/ethnicity, people with AIDS, or inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- White Bostonians comprise the highest percentage (45.7%) of all city residents diagnosed with HIV, with 1,000 cases.
- Black residents, with 772 cases of HIV diagnosed as of the beginning of 2006, make up the next largest group (35.3% of all reported cases).

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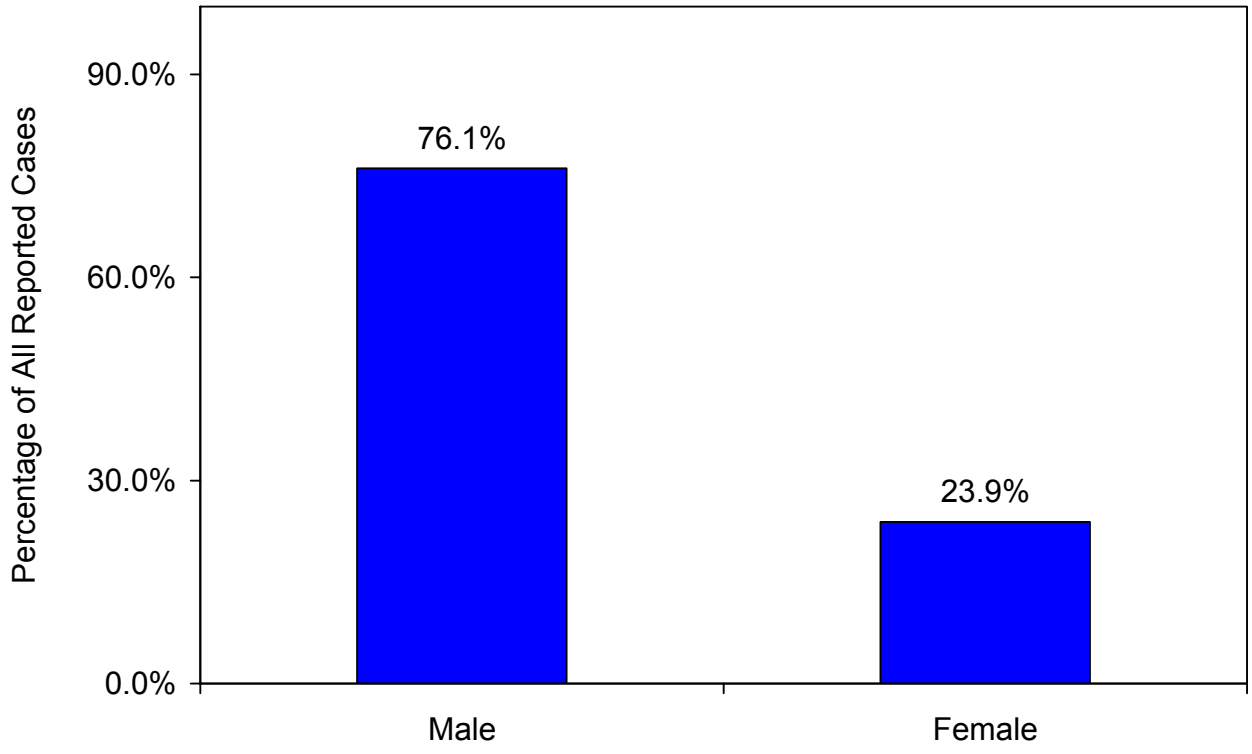
HIV and AIDS

HIV Cases by Sex: Counts and Percentage Distribution, Boston, as of January 1, 2006

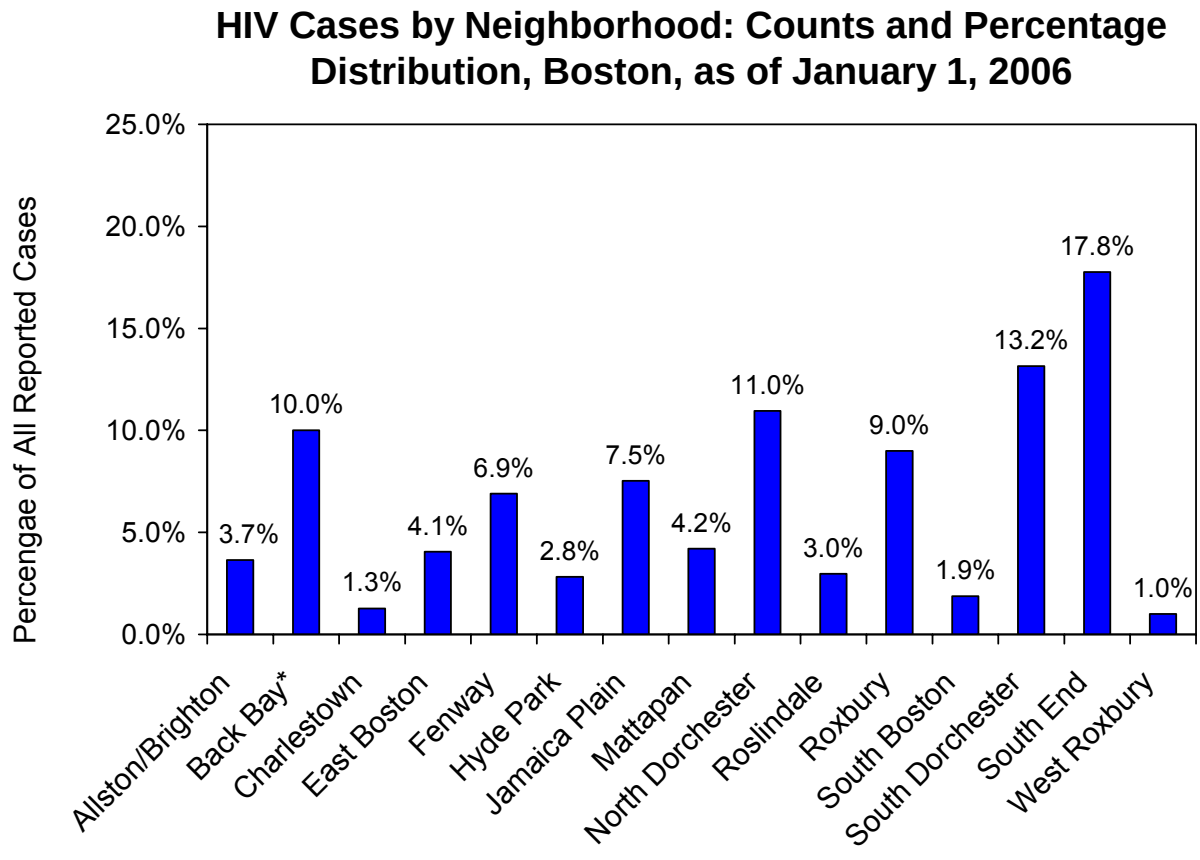


	Male	Female
Count	1,667	523

NOTE: These data do not include persons with AIDS, or inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- By sex, HIV infection continues to be more commonly found among men than women. Males account for more than three-quarters of Boston's reported HIV cases.

HIV and AIDS

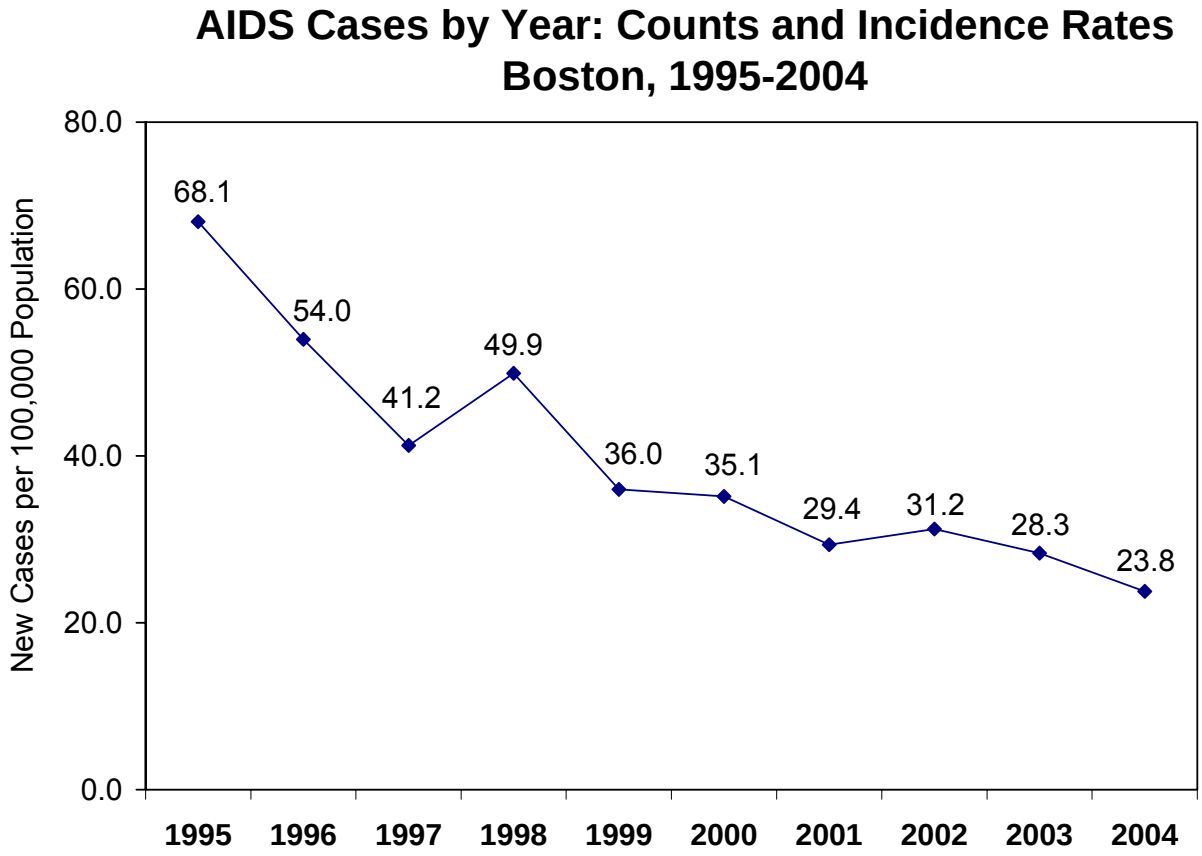


	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	80	219	28	89	151	62	165	92	240	65	197	41	288	389	22

ABBREVIATIONS KEY: A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- As of January 2006, the South End and South Dorchester had disproportionate numbers of Boston's reported HIV cases relative to their population. The South End, with 5.7% of the city's total population, had 17.8% of its HIV cases, and South Dorchester, with 7.7% of the population, had 13.2% of its HIV cases (population data not shown).

HIV and AIDS



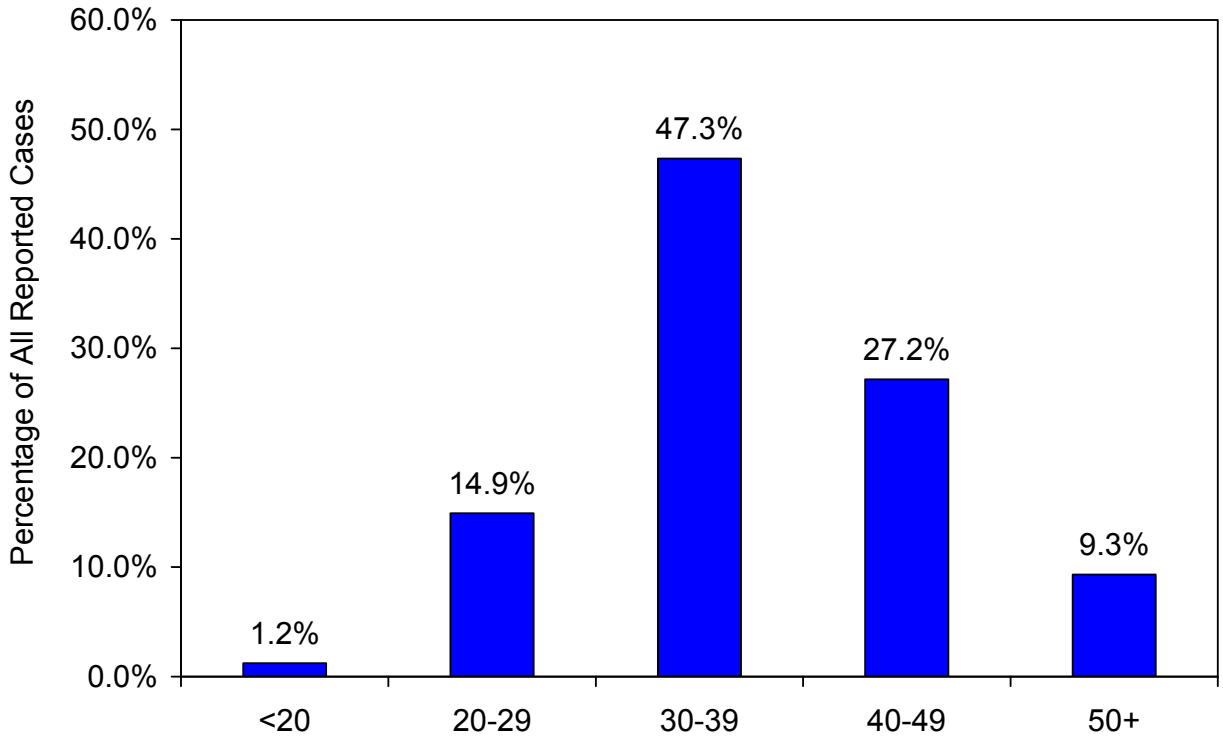
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Count	401	318	243	294	212	207	173	184	167	140

NOTE: These data do not include inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- One hundred forty new cases of AIDS were diagnosed in 2004 among Boston residents, the lowest number since surveillance began in 1987. Except for a jump in 1998, AIDS incidence rates for Boston residents have also been declining over time.
- The falling number of new AIDS cases is believed to be largely due to the effectiveness of newer HIV treatment regimens that slow the progression of HIV infection to AIDS.
- The AIDS incidence rate for 2004, 23.8 new cases per 100,000 population, is the lowest in a decade. It represents a 65.1% lower rate than the rate in 1995.

HIV and AIDS

AIDS Cases by Age: Counts and Percentage Distribution, Boston, as of January 1, 2006



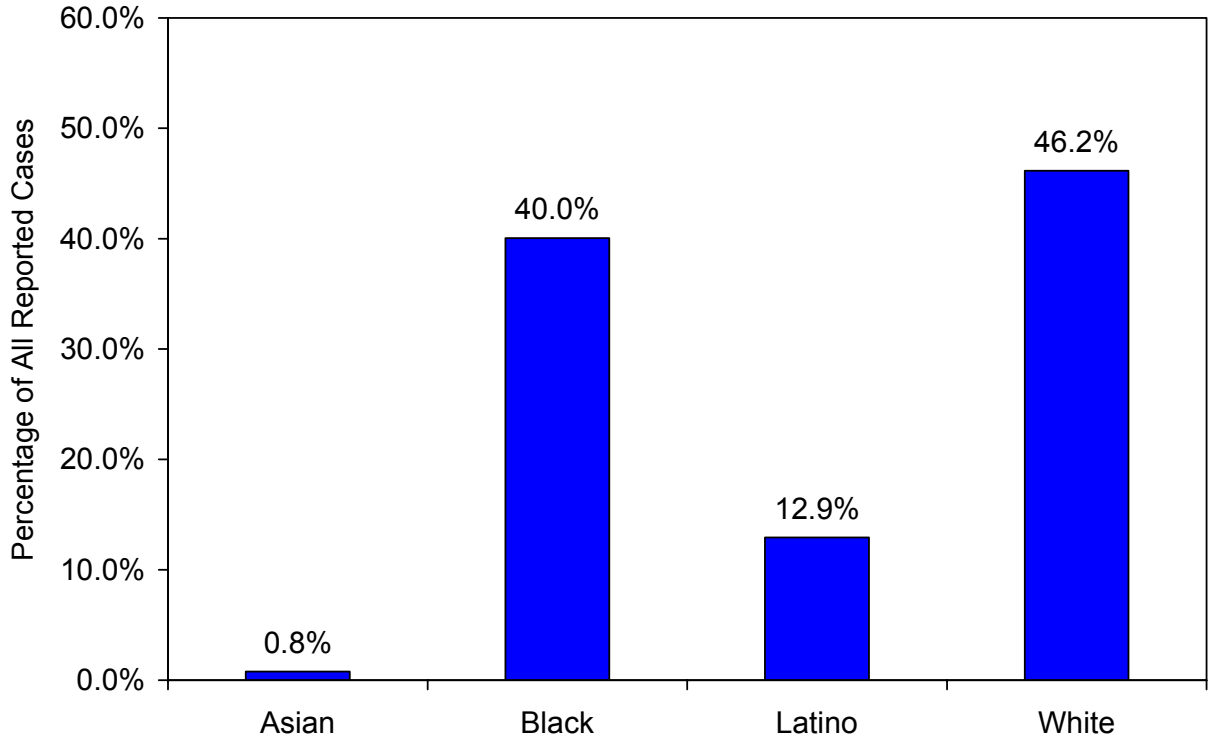
	<20	20-29	30-39	40-49	50+
Count	77	931	2,953	1,695	582

NOTE: These data do not include inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- Of the 6,238 Boston residents ever diagnosed with AIDS and reported to the surveillance system as of January 1, 2006, close to half (47.3%) were diagnosed between the ages of 30 and 39.
- Over one in every four Boston people with AIDS were diagnosed in their forties.
- The Boston data mirror a national trend toward later age at AIDS diagnosis (data not shown), as more effective medical treatment of HIV infection slows the progression of the condition in many people.

HIV and AIDS

AIDS Cases by Race/Ethnicity: Counts and Percentage Distribution, Boston, as of January 1, 2006

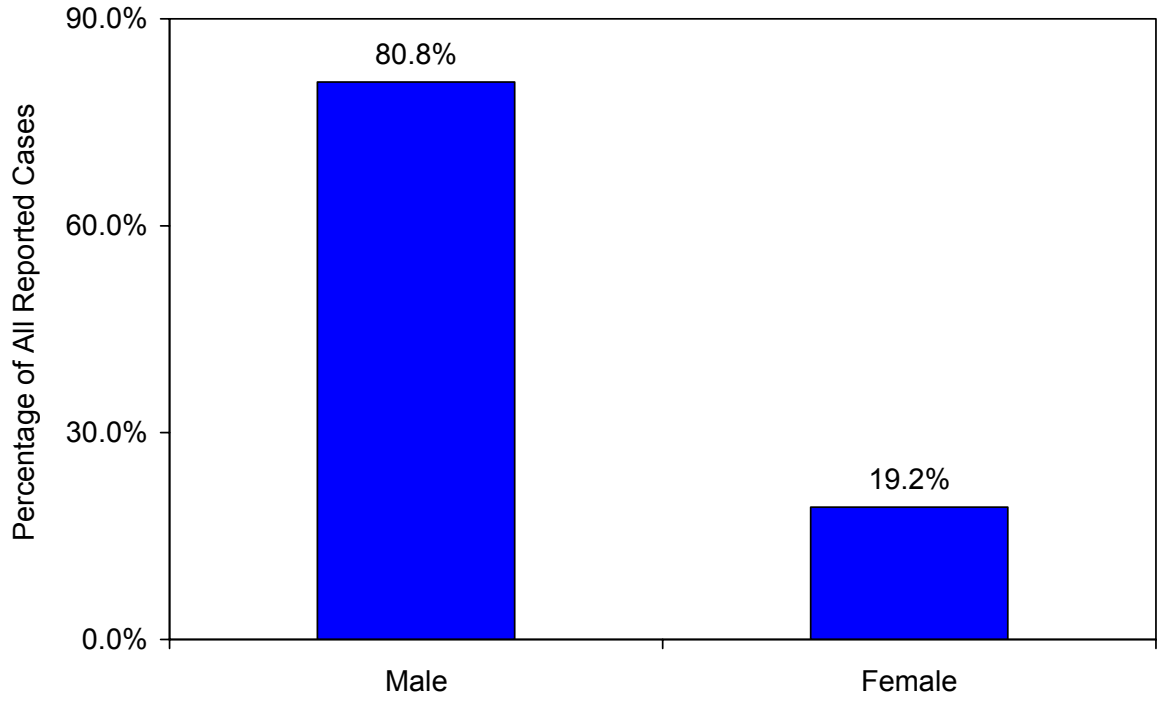


	Asian	Black	Latino	White
Count	48	2,498	806	2,879

NOTE: These data do not include persons of other or unknown race/ethnicity or inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- White residents had the highest number (2,879) and percentage (46.2%) of all reported Boston AIDS cases, and Black residents the second highest.
- Asian residents accounted for less than one percent and Latino residents 12.9% of all cases.

HIV and AIDS



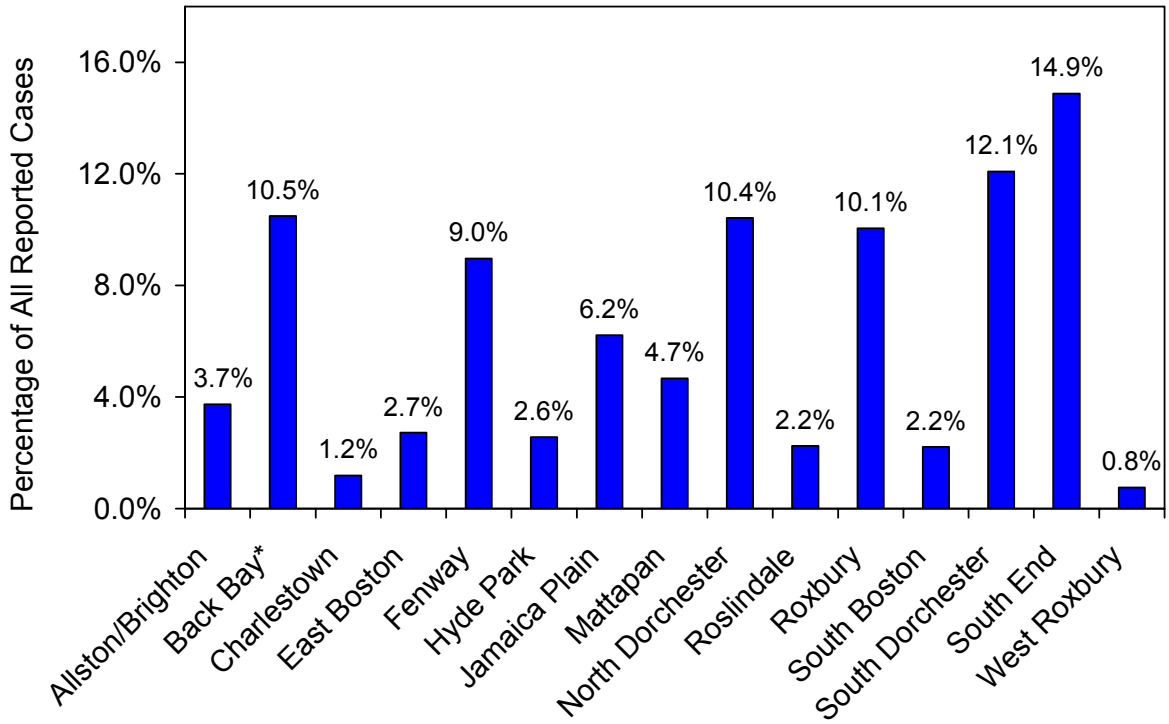
	Male	Female
Count	5,041	1,197

NOTE: These data do not include inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- The preponderance of Boston's AIDS cases are in men. Eight out of every ten cases reported as of January 1, 2006 were among males.

HIV and AIDS

AIDS Cases by Neighborhood: Counts and Percentage Distribution, Boston, as of January 1, 2006

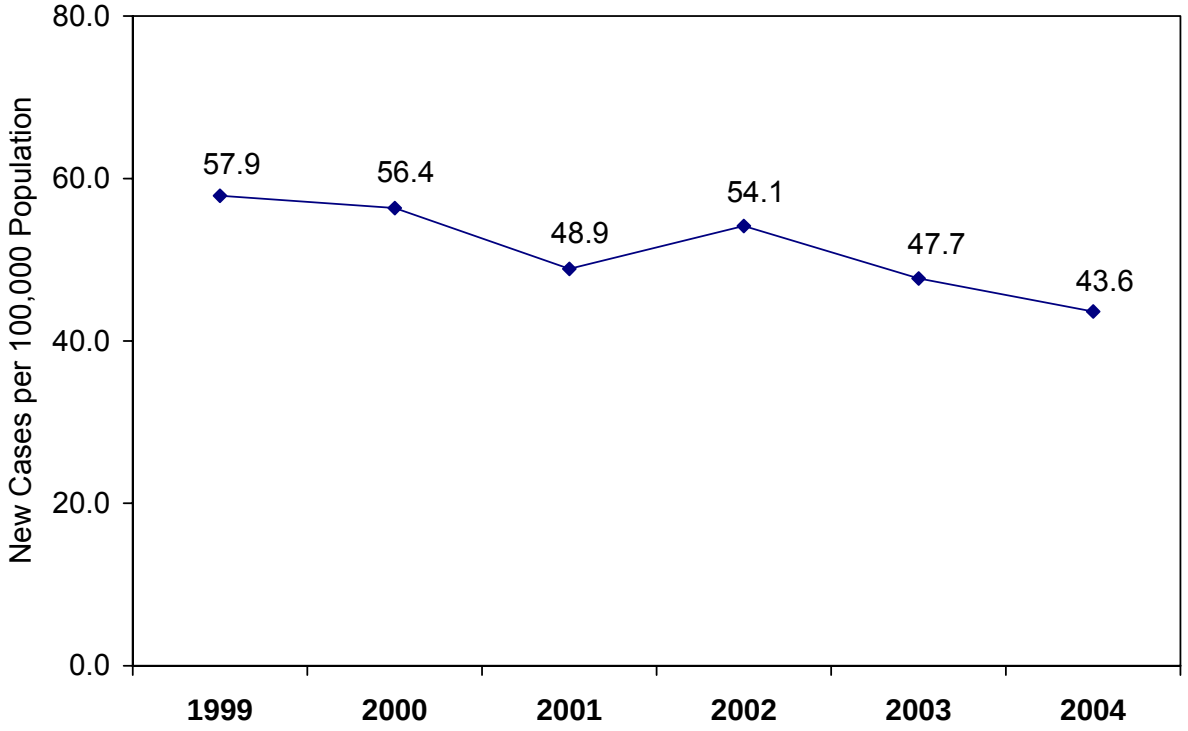


	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	233	654	74	170	559	160	388	291	650	140	627	138	754	928	47

ABBREVIATIONS KEY: A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- Relative to their populations, two Boston neighborhoods have a disproportionately high percentage of the city's AIDS cases. As of the beginning of 2006, the South End, with 5.7% of Boston's population, had 14.9% of the city's reported AIDS cases and Roxbury, with 8.5% of the population, had 10.1% of its cases (population data not shown).

HIV and AIDS

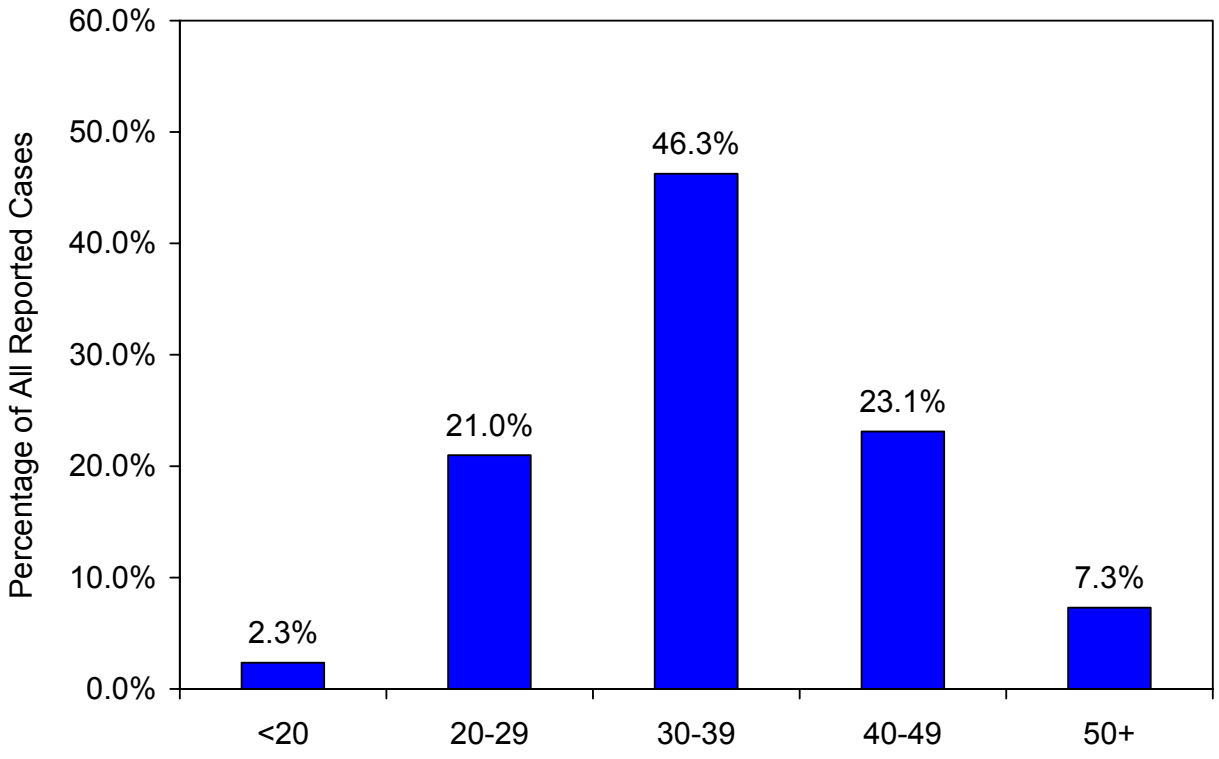


	1999	2000	2001	2002	2003	2004
Count	341	332	288	319	281	257

NOTE: These data do not include inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- New cases of either HIV or AIDS among Boston residents totaled 257 in 2004, a combined incidence rate of 43.6 cases per 100,000 population.
- The 2004 rate was the lowest during the six-year period 1999 through 2004 and was 24.7% lower than the rate in 1999 (57.9 new cases).

HIV and AIDS



	<20	20-29	30-39	40-49	50+
Count	198	1,769	3,898	1,948	615

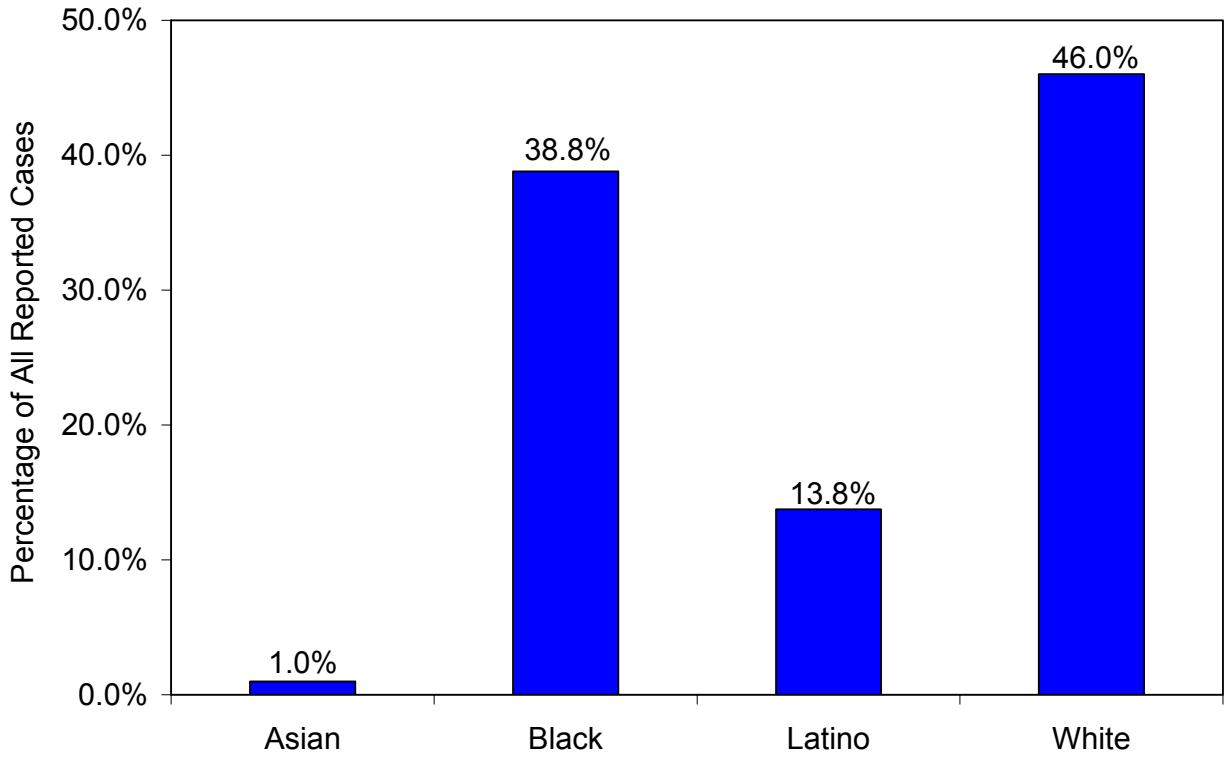
NOTE: These data do not include inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- The highest percentage of Boston's cumulative 8,428 HIV/AIDS cases reported as of January 1, 2006 was among residents ages 30-39. The number of cases for this age group was twice that for Boston residents ages 40-40.

- The lowest percentage of all Boston HIV/AIDS cases (2.3%) was among residents under the age of 20.

HIV and AIDS

HIV/AIDS Cases by Race/Ethnicity: Counts and Percentage Distribution, Boston, as of January 1, 2006

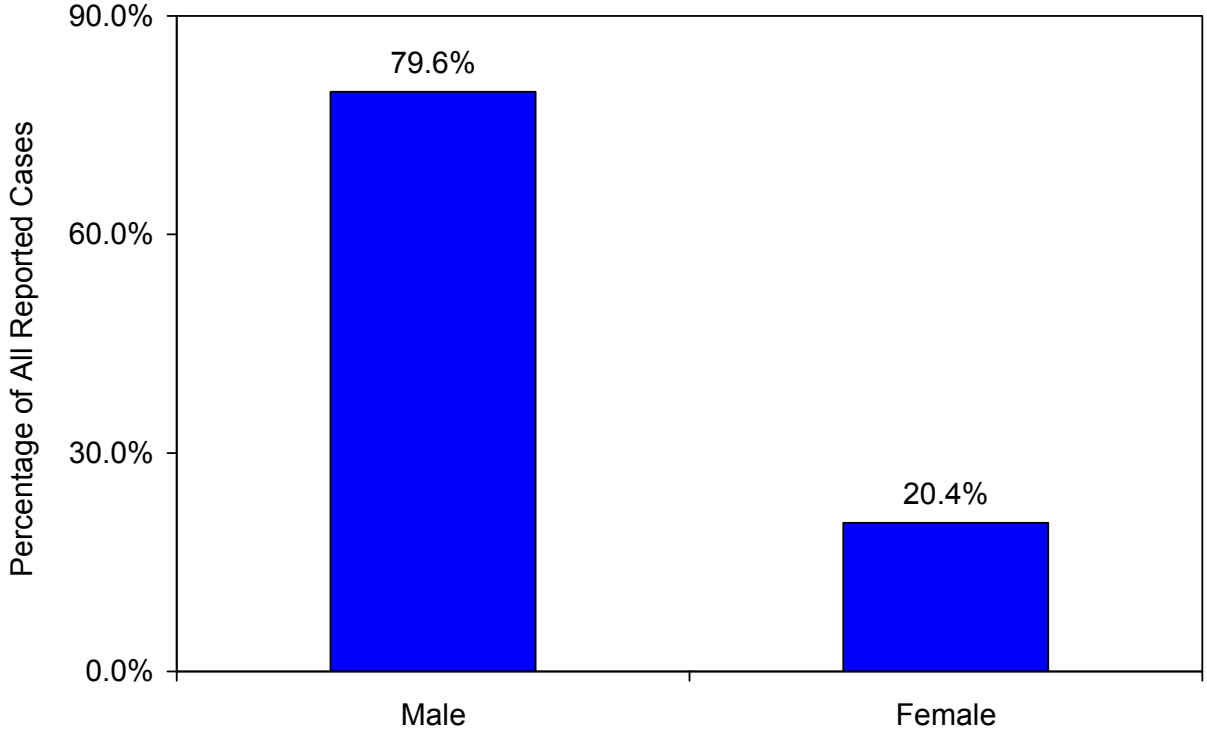


	Asian	Black	Latino	White
Count	83	3,270	1,159	3,879

NOTES: These data do not include persons of other or unknown race/ethnicity or inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- Boston residents of color accounted for more than fifty percent of all Boston HIV/AIDS cases reported as of January 1, 2006.

HIV and AIDS



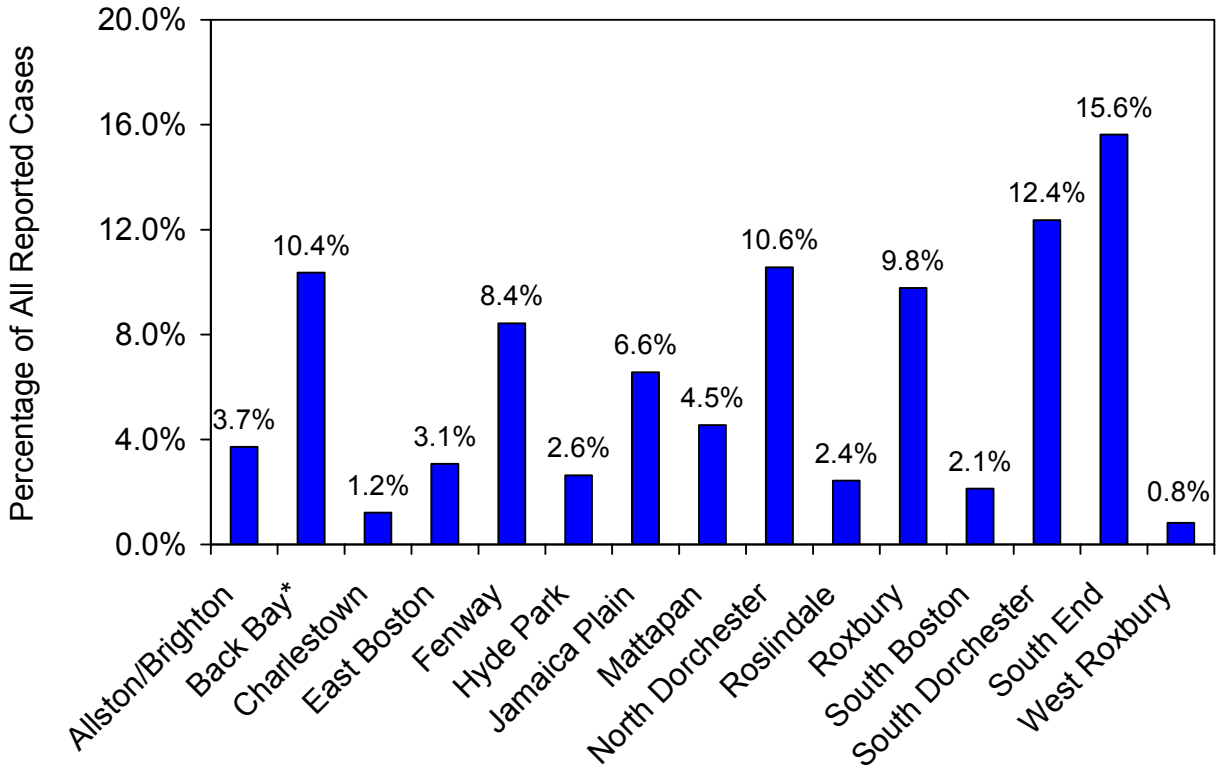
	Male	Female
Count	6,708	1,720

NOTE: These data do not include inmates of correctional facilities.
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- Four times as many Boston males as females had ever been diagnosed with HIV or AIDS and reported to the state surveillance system as of January 1, 2006. Nearly eighty percent of all Boston HIV/AIDS cases reported as of January 1, 2006 were among males.

HIV and AIDS

HIV/AIDS Cases by Neighborhood: Counts and Percentage Distribution, Boston, as of January 1, 2006

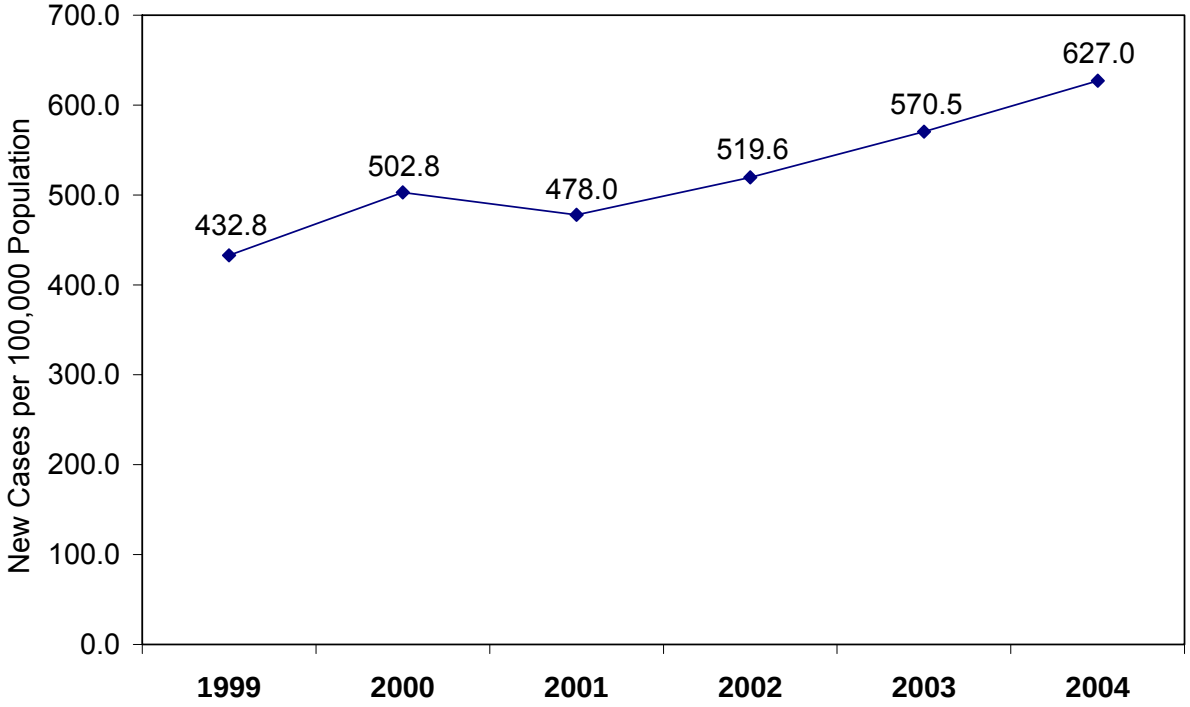


	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	313	873	102	259	710	222	553	383	890	205	824	179	1,042	1,317	69

ABBREVIATIONS KEY: A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
DATA SOURCE: Massachusetts Department of Public Health HIV/AIDS Surveillance Program
DATA ANALYSIS: Boston Public Health Commission Research Office

- Among cases reported as of January 1, 2006, the South End and South Dorchester had disproportionate numbers of Boston's HIV/AIDS cases relative to their population. The South End, with 5.7% of the city's total population, had 15.6% of Boston's reported HIV/AIDS cases, and South Dorchester with 7.7% of the population, had 12.4% of Boston's reported HIV/AIDS cases (population data not shown).

Sexually Transmitted Diseases



	1999	2000	2001	2002	2003	2004
Count	2,550	2,962	2,816	3,061	3,361	3,694

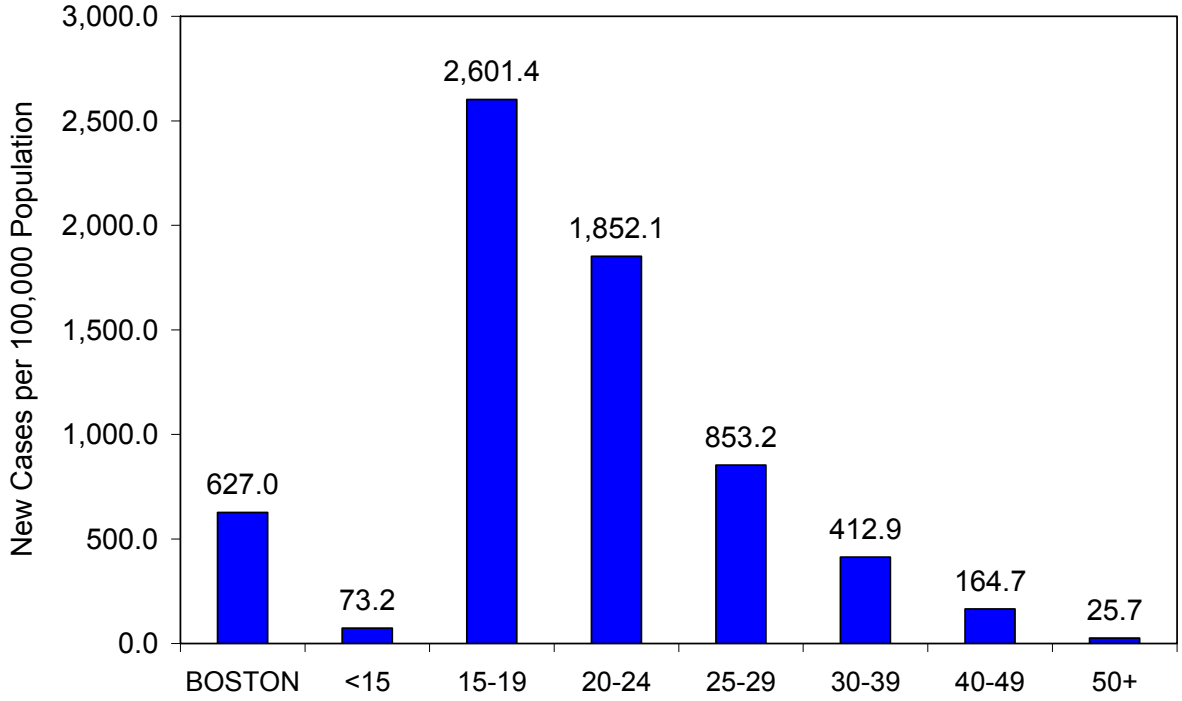
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- The number of reported new cases of chlamydia has been rising in recent years, but it is not certain how much of the increase is attributable to more chlamydia infection and how much to more screening for the condition.

- The incidence rate of chlamydia among Boston residents in 2004 was 44.9% higher than in 1999, from 432.8 new cases per 100,000 population to 627.0 new cases per 100,000.

Sexually Transmitted Diseases

Chlamydia Cases by Age: Counts and Incidence Rates, Boston, 2004



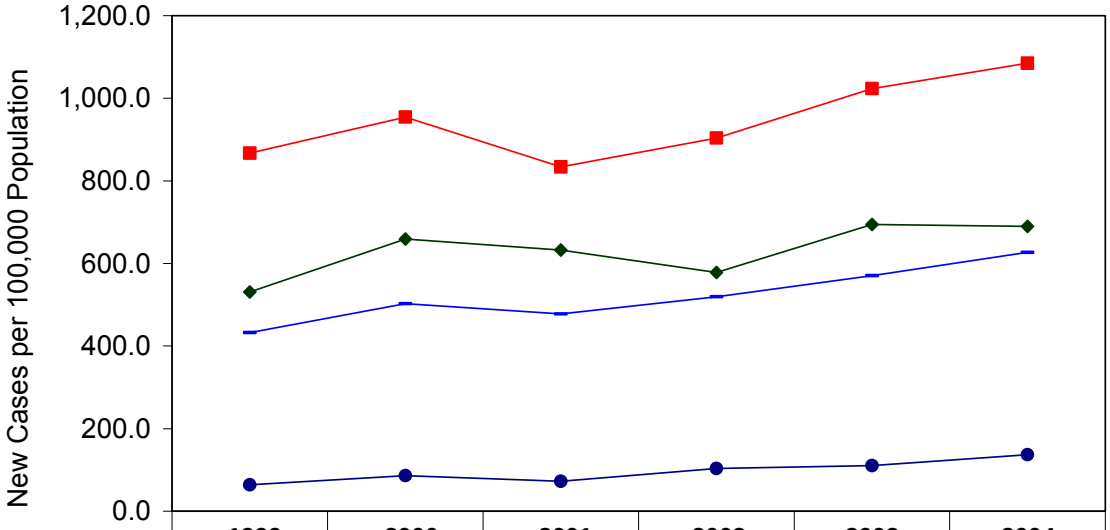
	BOSTON	<15	15-19	20-24	25-29	30-39	40-49	50+
Count	3,694	72	1,135	1,298	581	427	121	34

NOTE: These data do not include persons whose age was not reported, except in the Boston overall count and rate.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- Reported chlamydia infection is most common among young people and falls off steeply with increasing age. In Boston in 2004, the incidence rate for chlamydia was highest among people ages 15 to 19 (2,601.4 new cases per 100,000 population).

Sexually Transmitted Diseases

Chlamydia Cases by Race/Ethnicity and Year: Counts and Incidence Rates, Boston, 1999-2004



	1999	2000	2001	2002	2003	2004
Black	867.4	954.3	833.9	903.7	1,023.5	1,084.8
Latino	531.2	659.3	632.3	578.2	694.6	689.9
White	63.8	86.1	72.7	103.6	110.4	137.2
BOSTON	432.8	502.8	478.0	519.6	570.5	627.0

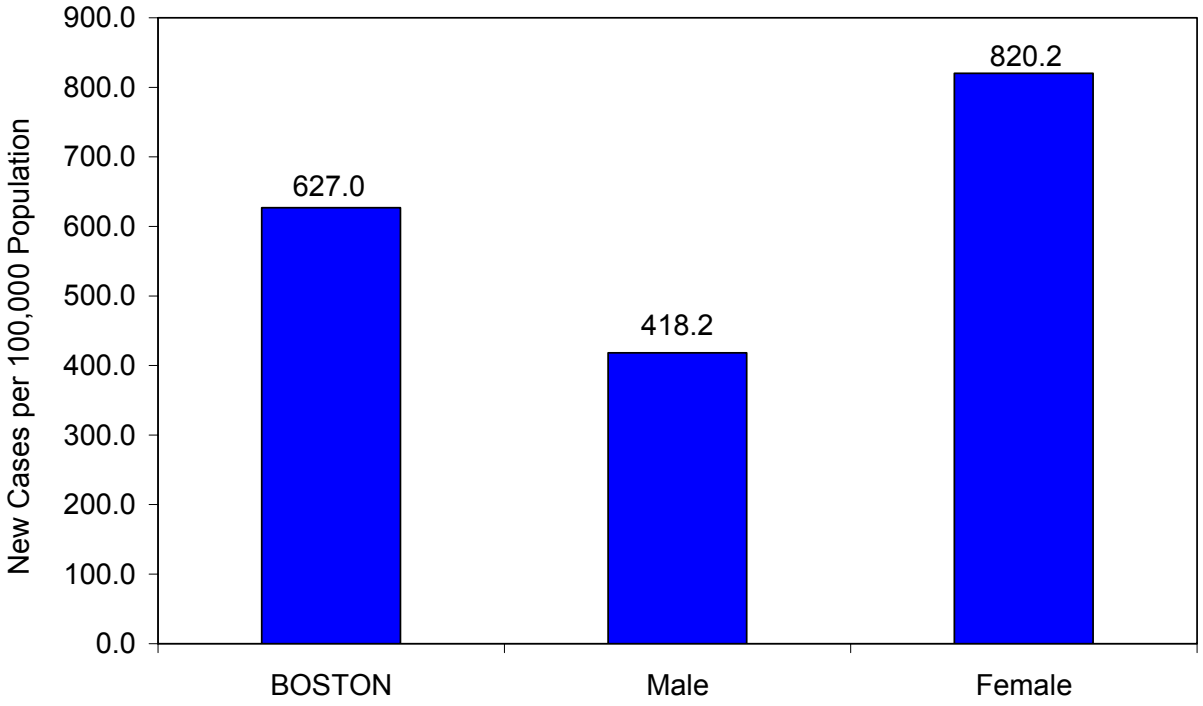
Count	1999	2000	2001	2002	2003	2004
Black	1,217	1,339	1,170	1,268	1,436	1,522
Latino	452	561	538	492	591	587
White	186	251	212	302	322	400
BOSTON	2,550	2,962	2,816	3,061	3,361	3,694

NOTES: These data do not include persons of other or unknown race/ethnicity, except in Boston overall count and rate. There were too few cases of chlamydia among Asians to permit the presentation of counts and incidence rates.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- For every year between 1999 and 2004, Black Boston residents had far higher numbers and rates of new cases of chlamydia, compared with Boston's White and Latino residents.

- The incidence of chlamydia in 2004 was higher for all three of these race/ethnicity groups than it was in 1999. Among Blacks, the reported chlamydia rate was 25.1% higher in 2004 than in 1999, among Latinos, 29.9% higher, and among Whites, 115.0% higher.

Sexually Transmitted Diseases



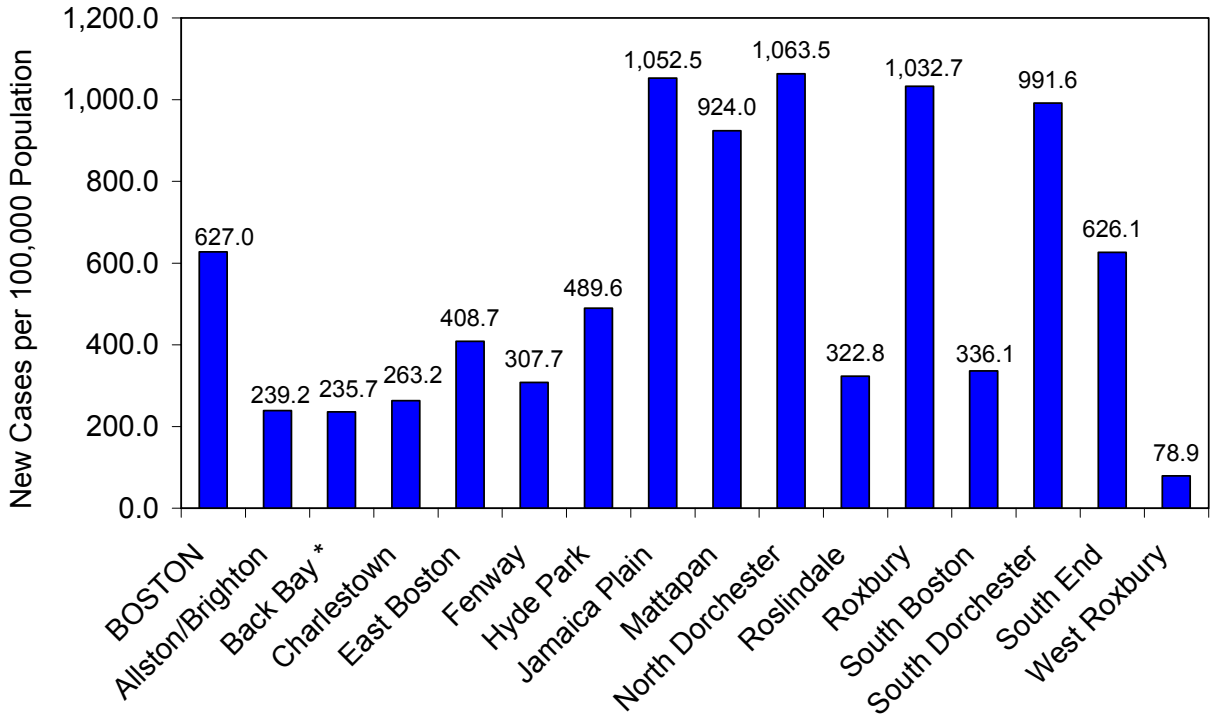
	BOSTON	Male	Female
Count	3,694	1,186	2,506

NOTE: These data do not include persons whose sex was not reported, except in the Boston overall count and rate.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, the reported number of new chlamydia cases in females was more than twice as high as the number of new cases reported in Boston males. The resulting incidence rate for females (820.2 new cases per 100,000 population) was nearly twice that of males (418.2 new cases per 100,000).
- Some of the observed difference in the reported number of new chlamydia cases between males and females is probably due to more screening of females.

Sexually Transmitted Diseases

Chlamydia Cases by Neighborhood: Counts and Incidence Rates, Boston, 2004

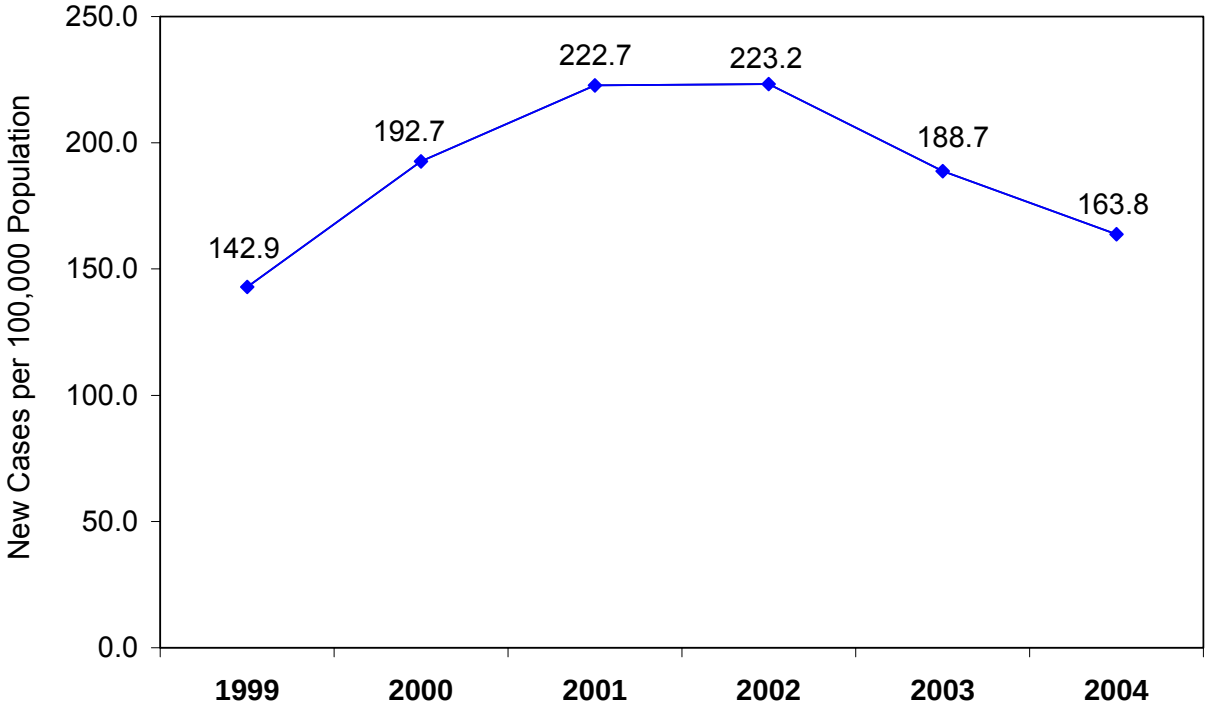


	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	3,694	159	109	40	157	146	139	382	257	624	105	358	101	747	171	19

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=HydePark, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
* Includes the North End
NOTE: These data do not include homeless persons, individuals whose neighborhood of residence was not reported, except in the Boston overall count and rate.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, several Boston neighborhoods had reported chlamydia incidence rates well above the city average. North Dorchester, Jamaica Plain, Roxbury, and South Dorchester all had rates more than fifty percent higher than the rate for Boston overall, and Mattapan's rate was 47.4% above the rate for the city as a whole.

Sexually Transmitted Diseases

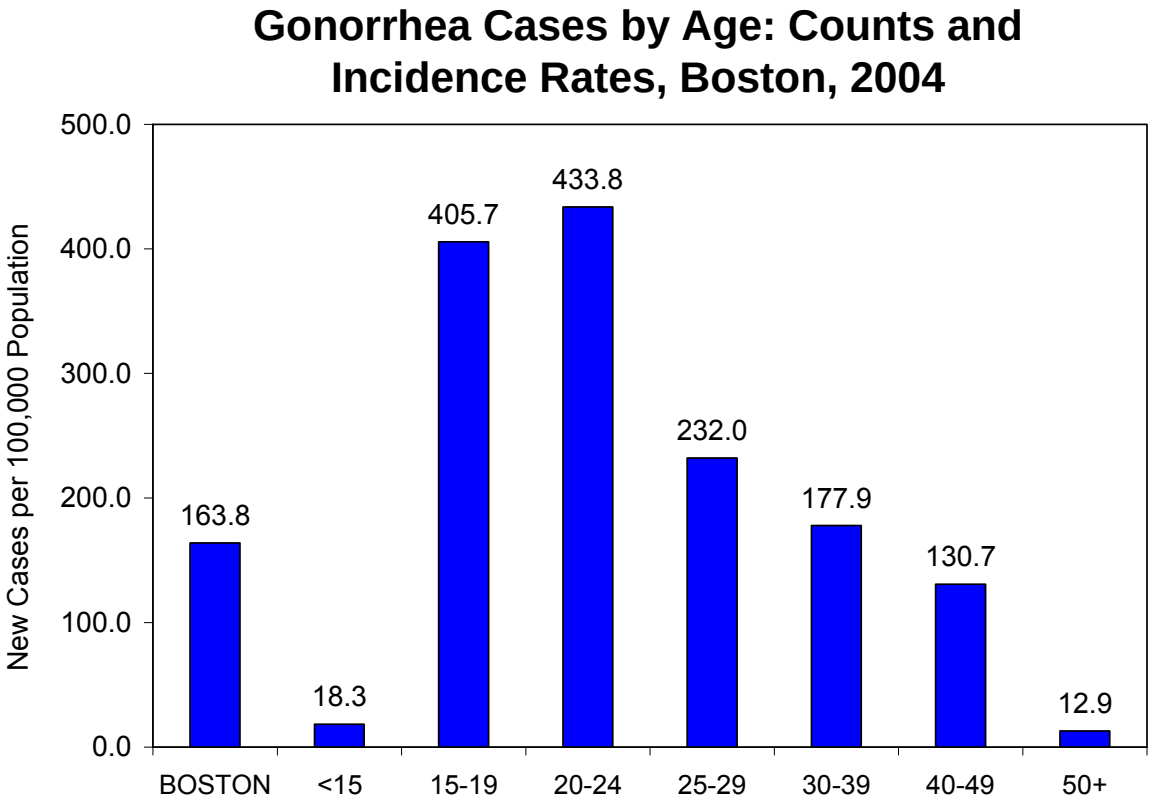


	1999	2000	2001	2002	2003	2004
Count	842	1,135	1,312	1,315	1,112	965

DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- New cases of gonorrhea have become less common among Boston residents in recent years after rising sharply between 1999 and 2001.
- The gonorrhea incidence rate rose to a high of 223.2 cases per 100,000 population in 2002.
- In 2004, the rate declined 13.2%, from 188.7 cases per 100,000 population in 2003 to 163.8 cases per 100,000.

Sexually Transmitted Diseases



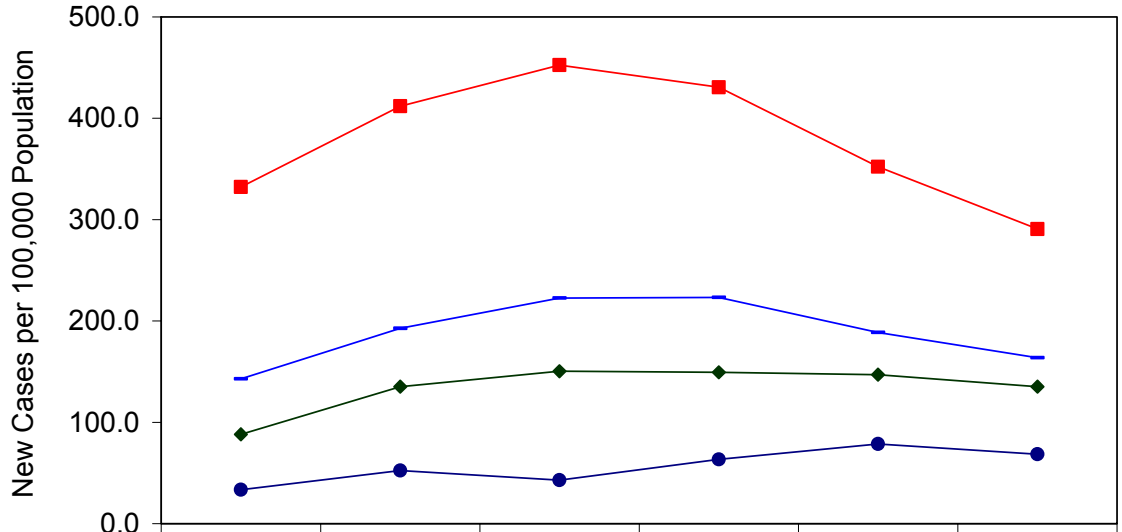
	BOSTON	<15	15-19	20-24	25-29	30-39	40-49	50+
Count	965	18	177	304	158	184	98	17

NOTE: These data do not include persons whose age was not reported, except in the Boston overall count and rate.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- In Boston, as elsewhere, gonorrhea infection is most common among young people. Over half of all new cases among Boston residents in 2004 occurred in people under age 25.
- The gonorrhea incidence rate in 2004 was highest among people ages 20 to 24 (433.8 new cases per 100,000 population) and 15 to 19 (405.7 new cases per 100,000 population).

Sexually Transmitted Diseases

Gonorrhea Cases by Race/Ethnicity and Year: Counts and Incidence Rates, Boston, 1999-2004



	1999	2000	2001	2002	2003	2004
Black	332.1	412.0	452.6	430.5	352.1	290.8
Latino	88.1	135.2	150.4	149.3	146.9	135.2
White	33.6	52.5	42.9	63.5	78.5	68.6
BOSTON	142.9	192.7	222.7	223.2	188.7	163.8

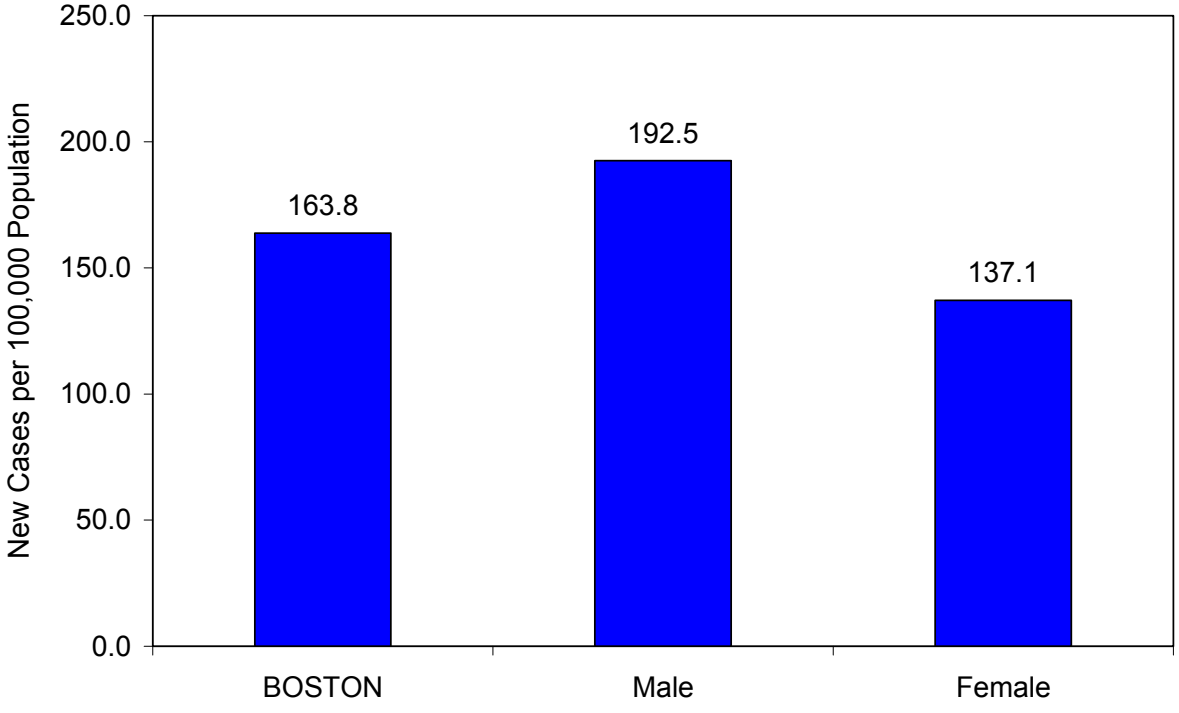
Count	1999	2000	2001	2002	2003	2004
Black	466	578	635	604	494	408
Latino	75	115	128	127	125	115
White	98	153	125	185	229	200
BOSTON	842	1,135	1,312	1,315	1,112	965

NOTES: These data do not include persons of other or unknown race/ethnicity. There were too few cases of gonorrhea among Asians to permit the presentation of incidence rates.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- For the period 1999 through 2004, the reported incidence of gonorrhea was far higher among Black Boston residents than among Whites and Latinos.

- However, as of 2004, the incidence of gonorrhea in Boston's Black population was 12.4% lower than in 1999. Among Latino Bostonians, the 2004 rate was 53.5% higher than the rate in 1999. The largest difference between 1999 and 2004 rates was in White residents, whose incidence rate was 33.6 new cases per 100,000 population in 1999 and 68.6 per 100,000 in 2004, an increase of 104.2%.

Sexually Transmitted Diseases



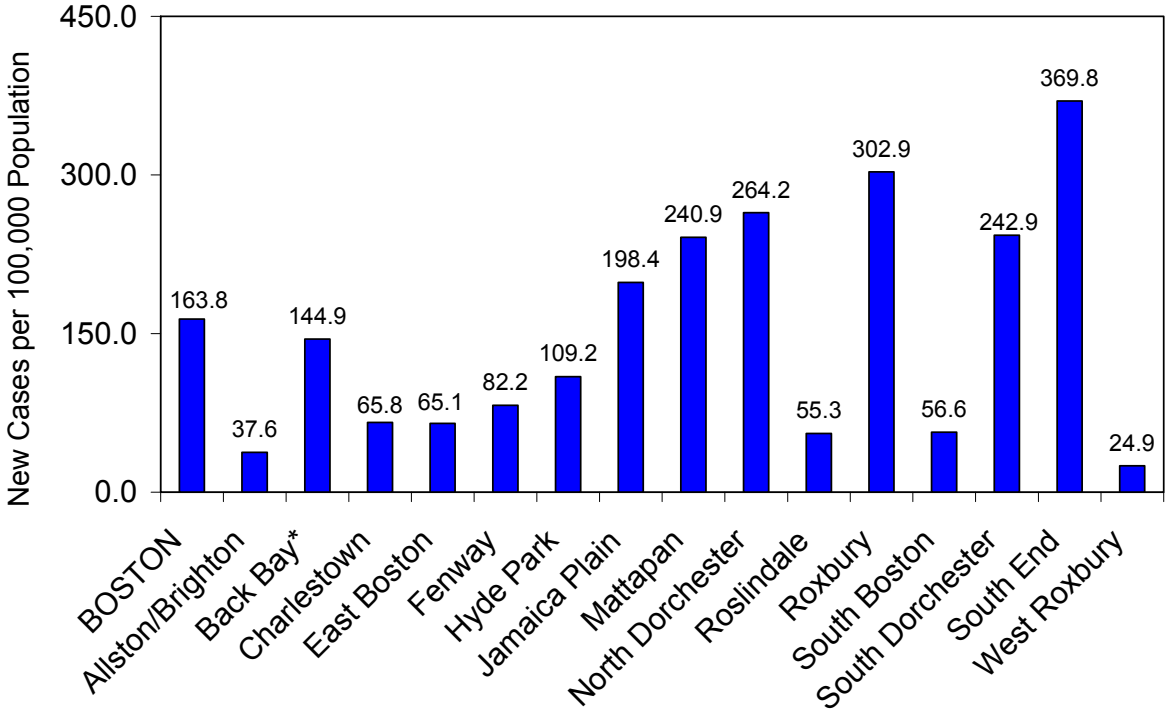
	BOSTON	Male	Female
Count	965	546	419

DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- There is a less pronounced difference by gender in the occurrence of gonorrhea than chlamydia and syphilis, with 546 new cases reported in Boston males in 2004 and 419 in Boston females.
- The reported incidence rate in males (192.5 new cases per 100,000 population) was about forty percent higher than that for females (137.1 new cases per 100,000).

Sexually Transmitted Diseases

Gonorrhea Cases by Neighborhood: Counts and Incidence Rates, Boston, 2004



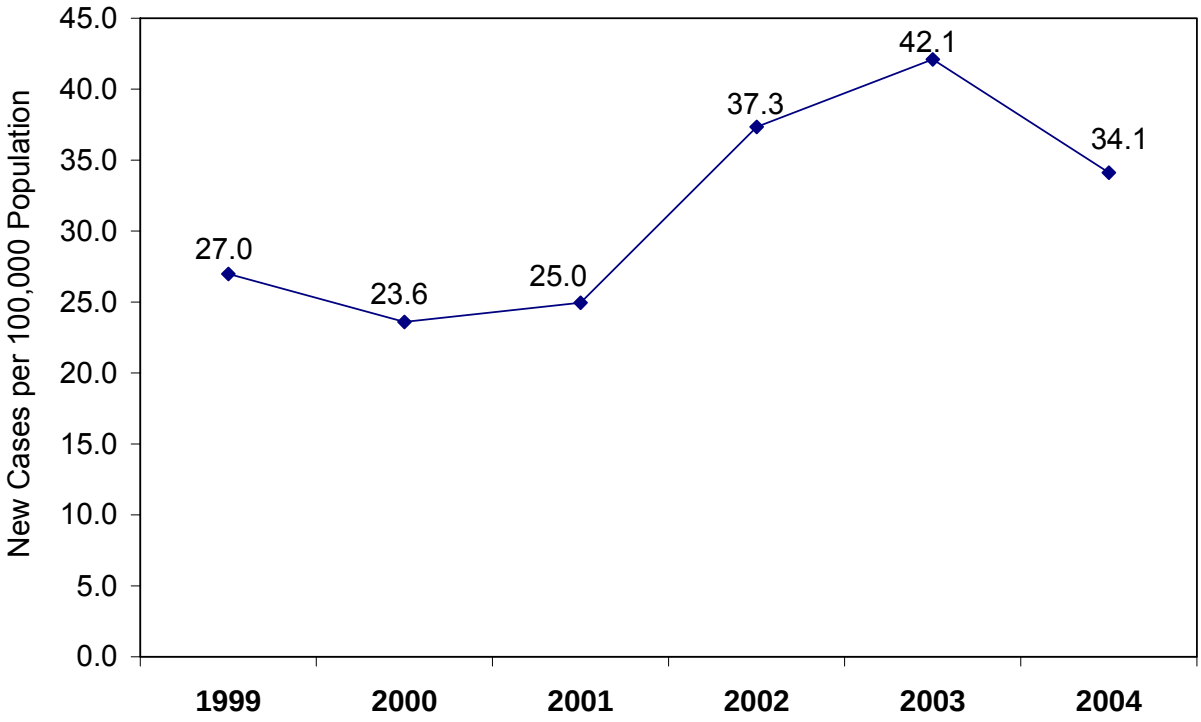
	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	965	25	67	10	25	39	31	72	67	155	18	105	17	183	101	6

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
NOTE: These data do not include homeless persons, individuals whose neighborhood of residence was not reported, except in the Boston overall count and rate.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- South and North Dorchester had the city's highest numbers of new cases of gonorrhea in 2004, and these numbers are disproportionate to the populations of these neighborhoods. Together, they make up 22.8% of the city's population, but they had 35.0% of its new cases of gonorrhea.

- The South End had Boston's highest rate of gonorrhea (369.8 new cases per 100,000 population) in 2004. This rate was more than double that of the city as a whole (163.8 new cases per 100,000 population).

Sexually Transmitted Diseases



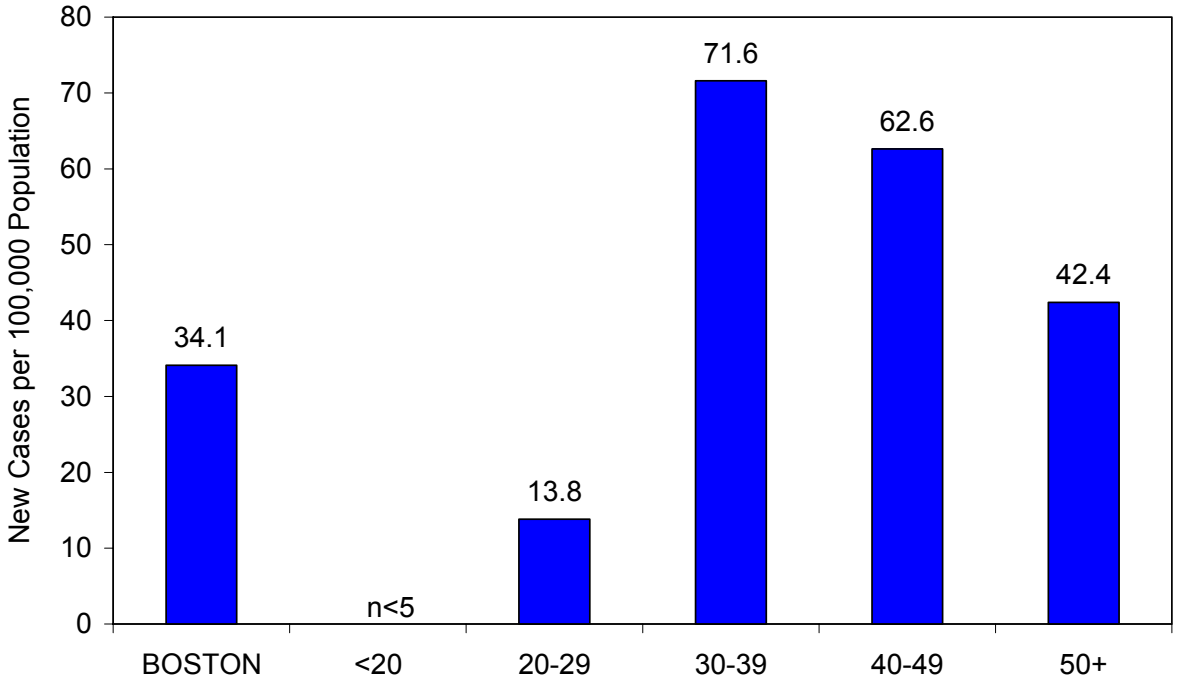
	1999	2000	2001	2002	2003	2004
Count	159	139	147	220	248	201

DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- Two hundred and one new cases of syphilis were reported among Boston residents in 2004, resulting in a 19.0% lower incidence rate than in 2003.
- Despite the one-year drop in 2004, the incidence rate of syphilis among Boston residents was 26.3% higher in 2004 than in 1999, with 27.0 new cases per 100,000 population in 1999 and 34.1 new cases per 100,000 in 2004.

Sexually Transmitted Diseases

Syphilis Cases by Age: Counts and Incidence Rates, Boston, 2004



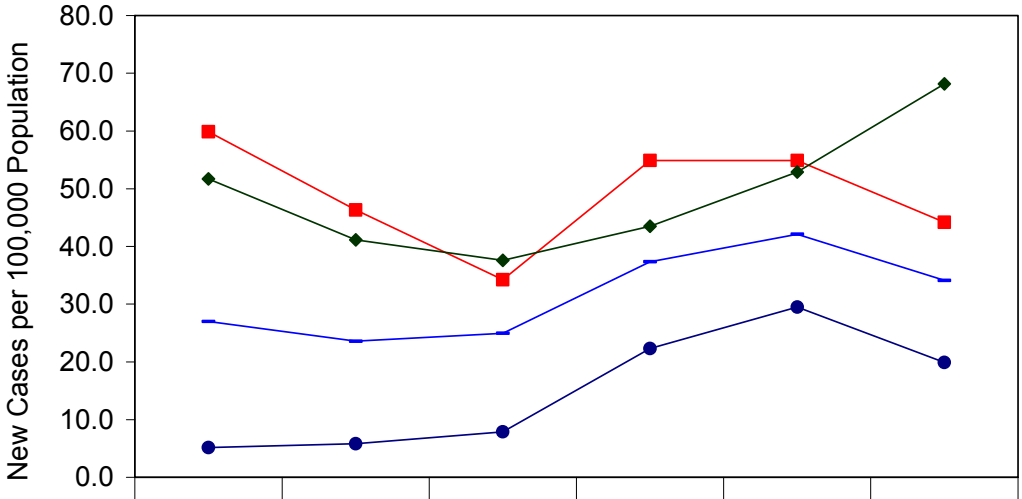
	BOSTON	<20	20-29	30-39	40-49	50+
Count	201	n<5	19	74	46	56

NOTES: These data do not include persons whose age was not reported, except in the Boston overall count and rate. Incidence rates are presented only for those age groups with at least 5 cases of syphilis.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- In contrast to chlamydia and gonorrhea, which occur most frequently in adolescents and adults in their twenties, incidence rates for syphilis among Boston residents were highest among people ages 30 to 39 (71.6 new cases per 100,000 population) and 40 to 49 (62.6 new cases per 100,000 population).

Sexually Transmitted Diseases

Syphilis Cases by Race/Ethnicity and Year: Counts and Incidence Rates, Boston, 1999-2004



	1999	2000	2001	2002	2003	2004
Black	59.9	46.3	34.2	54.9	54.9	44.2
Latino	51.7	41.1	37.6	43.5	52.9	68.2
White	5.1	5.8	7.9	22.3	29.5	19.9
BOSTON	27.0	23.6	25.0	37.3	42.1	34.1

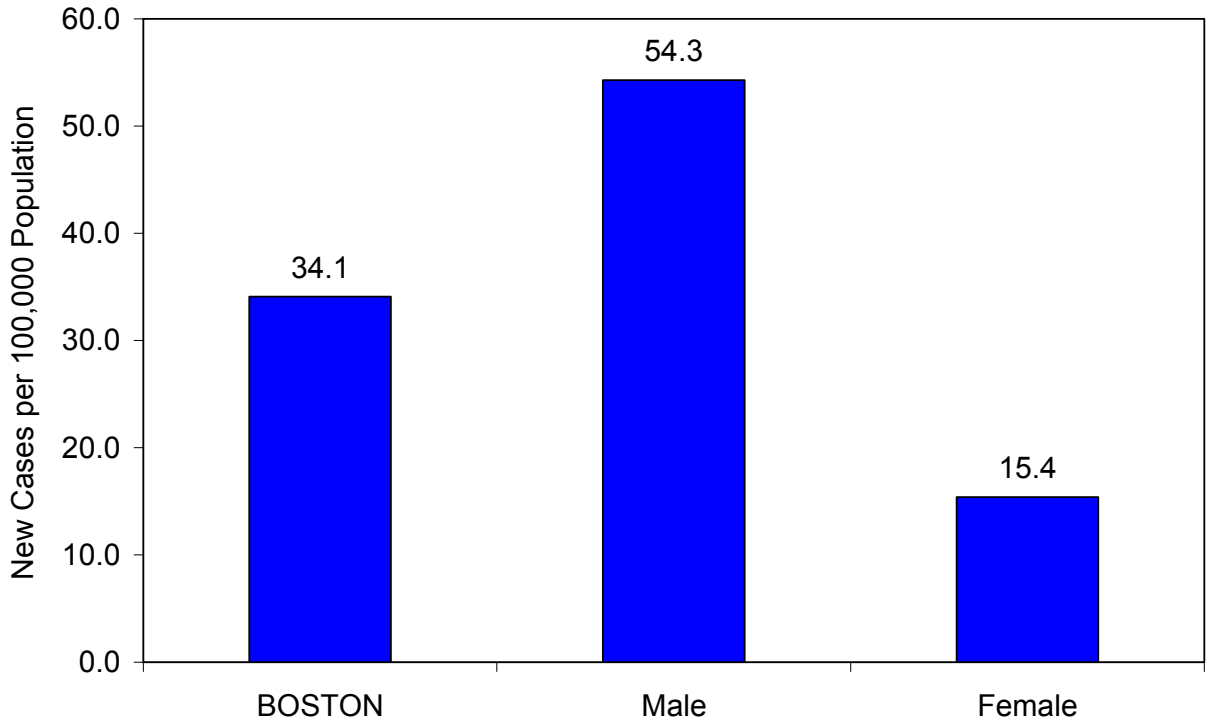
Count	1999	2000	2001	2002	2003	2004
Black	84	65	48	77	77	62
Latino	44	35	32	37	45	58
White	15	17	23	65	86	58
BOSTON	159	139	147	220	248	201

NOTES: These data do not include persons of other or unknown race/ethnicity, except in the Boston overall count and rate. There were too few cases of syphilis among Asians to permit the presentation of incidence rates.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- The incidence of syphilis varies by race/ethnicity, with the rates for Black and Latino Boston residents being substantially higher than for Whites.
- Among Black residents, the syphilis incidence rate was 26.2% lower in 2004 than in 1999. Among Latinos, the rate was 31.9% higher in 2004 than in 1999. Starting in 2002, syphilis incidence rates began rising for Latinos.
- The greatest increase during this period was among Whites, however, for whom the rate rose from 5.1 new cases per 100,000 population in 1999 to 19.9 per 100,000 in 2004, a change of 290.2%.

Sexually Transmitted Diseases

Syphilis Cases by Sex: Counts and Incidence Rates, Boston, 2004



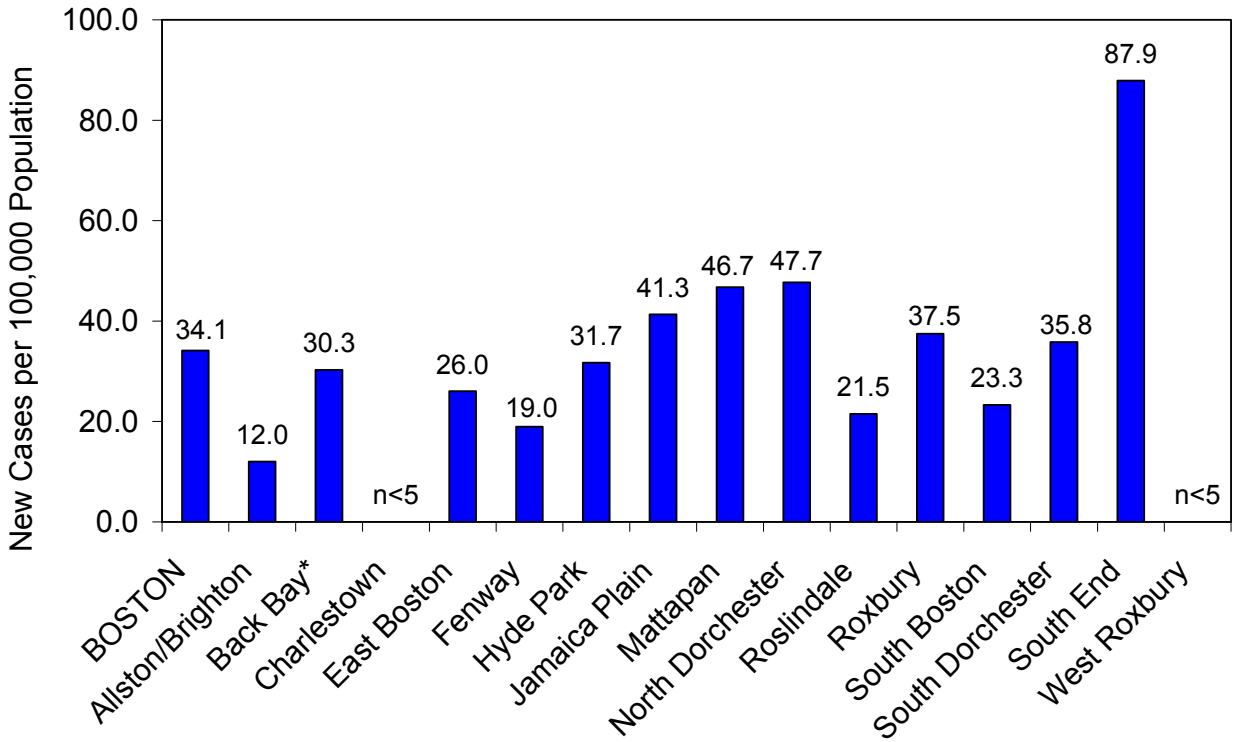
	BOSTON	Male	Female
Count	201	154	47

DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, the number and rate of syphilis in males were over three times those of females.

Sexually Transmitted Diseases

Syphilis Cases by Neighborhood: Counts and Incidence Rates, Boston, 2004



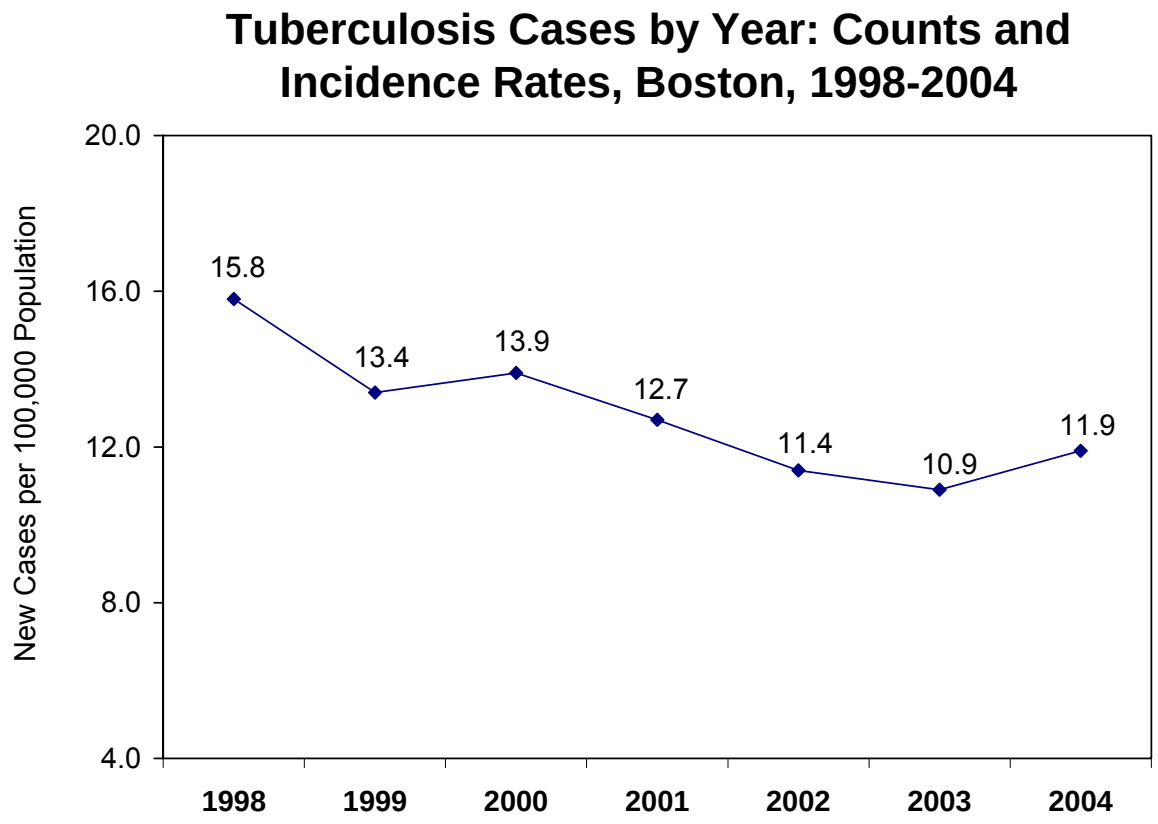
	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	201	8	14	n<5	10	9	9	15	13	28	7	13	7	27	24	n<5

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
NOTE: These data do not include homeless persons, individuals whose neighborhood of residence was not reported, except in the Boston overall count and rate.
DATA SOURCE: Massachusetts Department of Public Health, STD Division
DATA ANALYSIS: Boston Public Health Commission Research Office

- The South End had the city's highest syphilis incidence rate in 2004, two-and-a-half times the city rate.

- Other neighborhoods with rates higher than Boston's were North Dorchester (47.7 new cases per 100,000), Mattapan (46.7 per 100,000), Jamaica Plain (41.3 per 100,000), Roxbury (37.5 per 100,000), and South Dorchester (35.8 per 100,000).

Tuberculosis

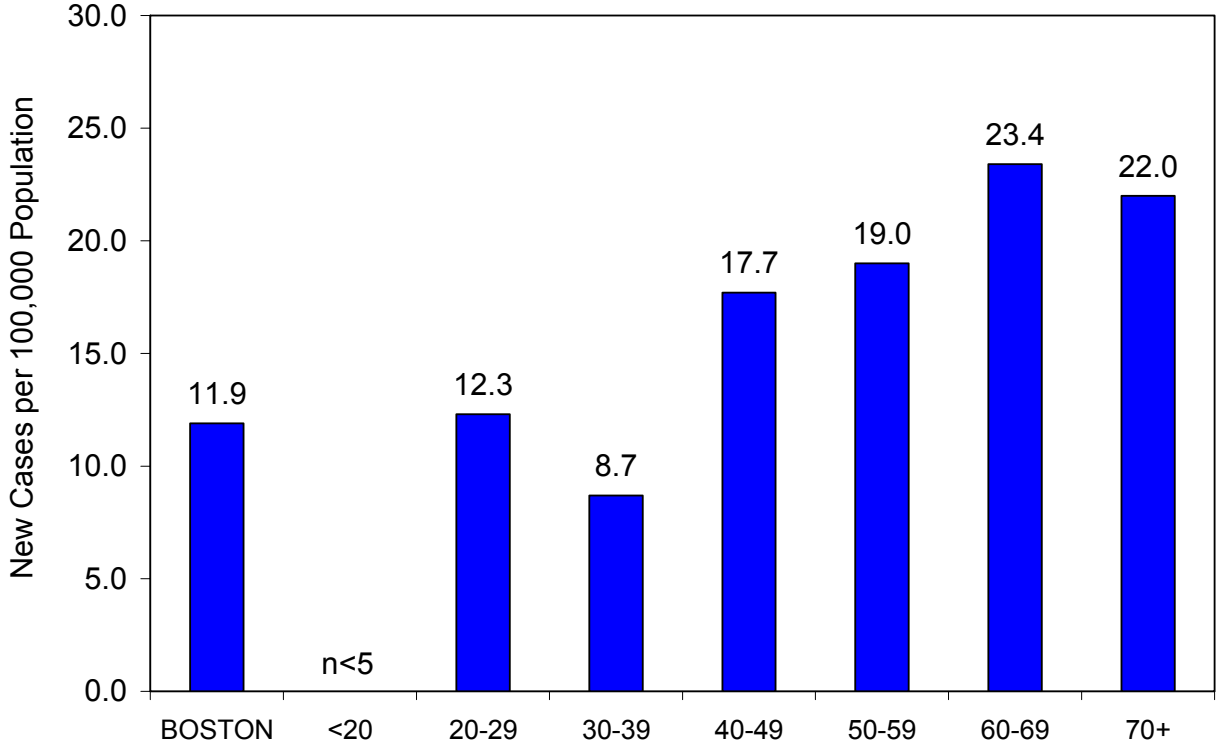


	1998	1999	2000	2001	2002	2003	2004
Count	89	77	82	75	67	64	70

DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division
GRAPHIC: Boston Public Health Commission Research Office

- With the exception of small increase in 2000 and 2004, the tuberculosis (TB) incidence rate for Boston residents has been falling for the past several years.

Tuberculosis

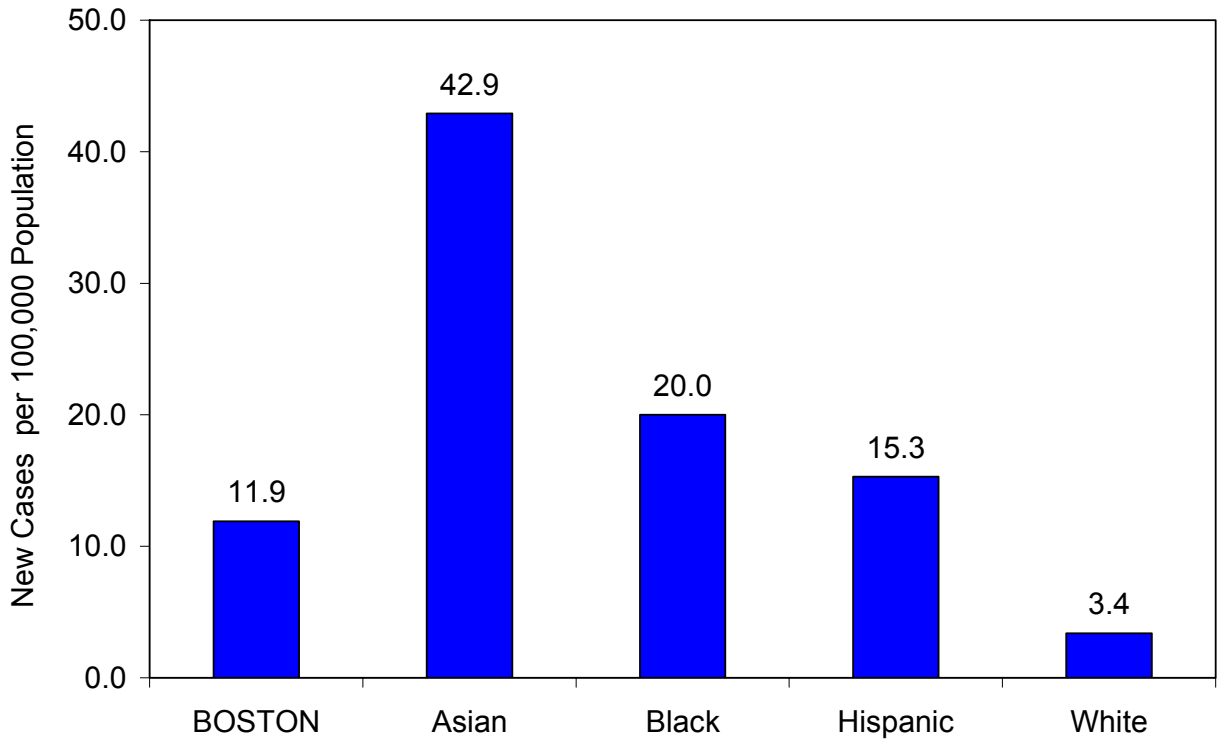


	BOSTON	<20	20-29	30-39	40-49	50-59	60-69	70+
Count	70	n<5	17	9	13	10	8	10

NOTE: Incidence rates are presented only for those age groups with at least 5 cases of tuberculosis.
DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division
GRAPHIC: Boston Public Health Commission Research Office

- Boston residents ages 60-69 had the highest TB incidence rate in 2004 of all Bostonians, double the rate for the city overall. The highest number of new cases, however, occurred in people in their twenties.

Tuberculosis

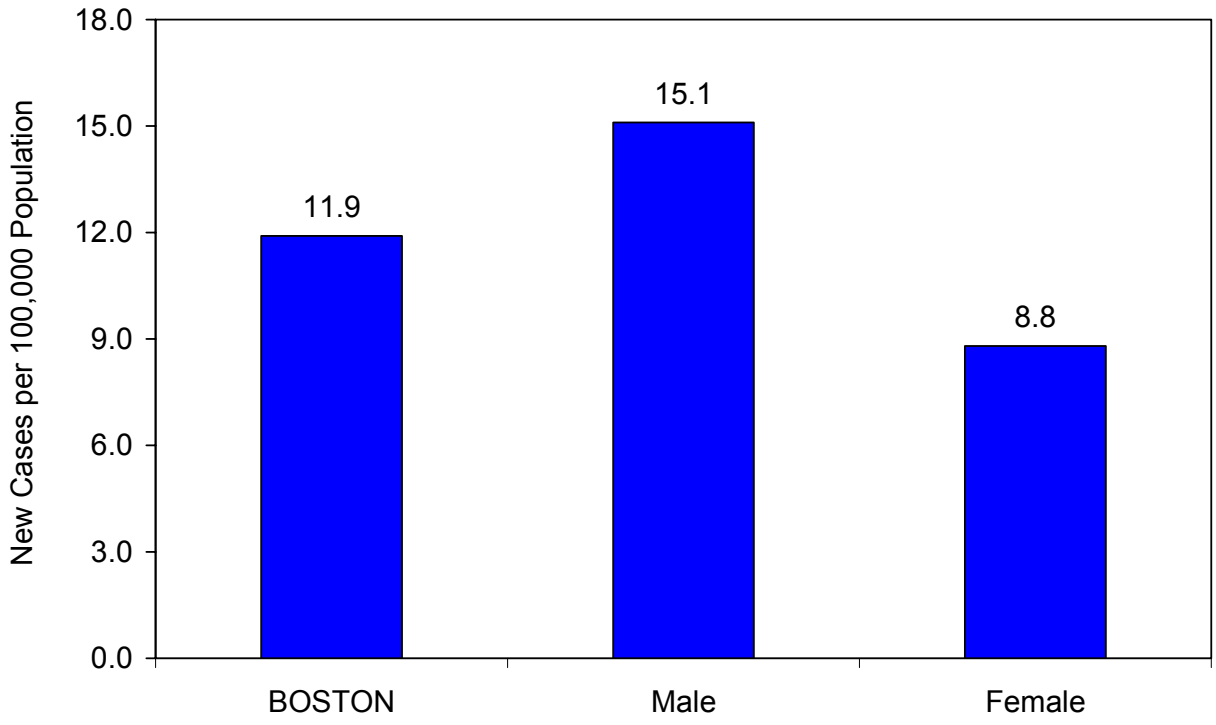


	BOSTON	Asian	Black	Hispanic	White
Count	70	19	28	13	10

DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division
GRAPHIC: Boston Public Health Commission Research Office

- Black Bostonians had the city's highest number of new TB cases in 2004, but the highest incidence rate was among Asian residents, who had a rate 3.6 times that of Boston overall.
- Most of Boston's new cases of TB each year are in the immigrant population. In 2004, 81.4% of all new Boston cases of TB were among foreign-born residents, primarily from Asian nations (data not shown).
- The differences in rates across racial/ethnic groups is related to immigration of individuals from countries with high rates of TB.

Tuberculosis



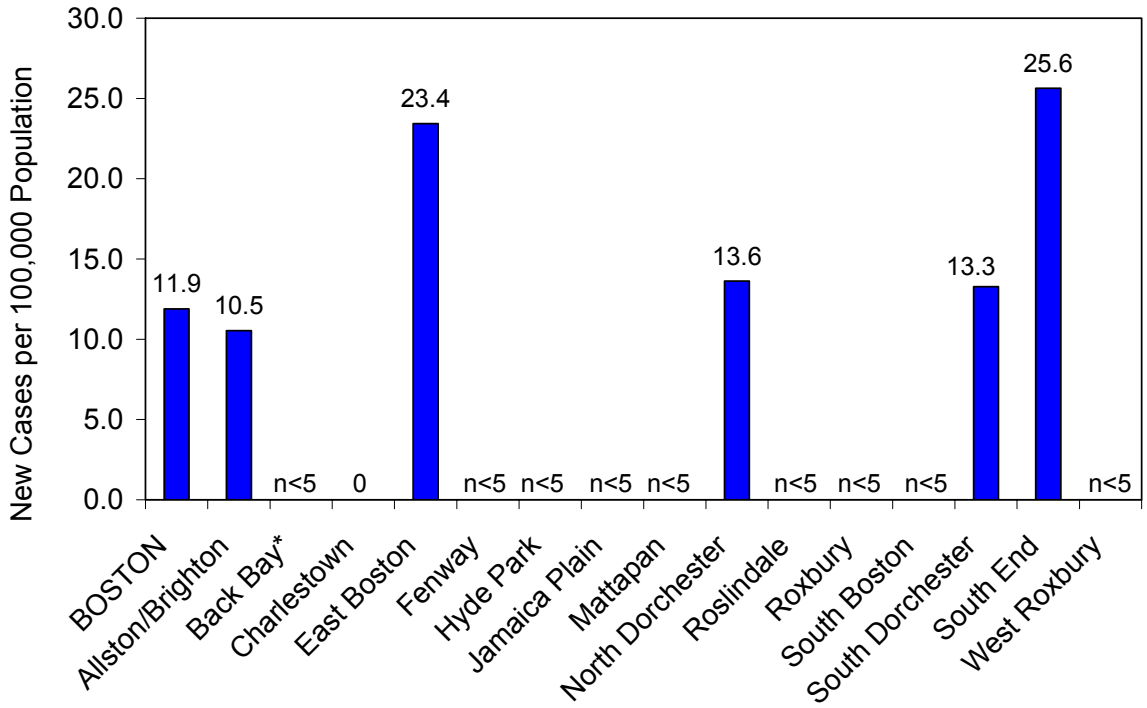
	BOSTON	Male	Female
Count	70	43	27

DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division
GRAPHIC: Boston Public Health Commission Research Office

- The incidence rate in 2004 for tuberculosis was 1.7 times higher for Boston males than Boston females.

Tuberculosis

Tuberculosis Cases by Neighborhood: Counts and Incidence Rates, Boston, 2004



	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	SD	RS	RX	SB	SE	WR
Count	70	7	n<5	0	9	n<5	n<5	n<5	n<5	8	10	n<5	n<5	n<5	7	n<5

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
NOTE: These data do not include homeless persons, individuals whose neighborhood of residence was not reported, except in the Boston overall count and rate.
DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division
GRAPHIC: Boston Public Health Commission Research Office

- In 2004, the Boston neighborhoods with the highest TB incidence rates were East Boston and the South End.

- The South End had the highest TB incidence rate of all Boston neighborhoods, 25.6 new cases per 100,000 population. This rate was twice as high as the overall Boston rate.

Other Communicable Diseases

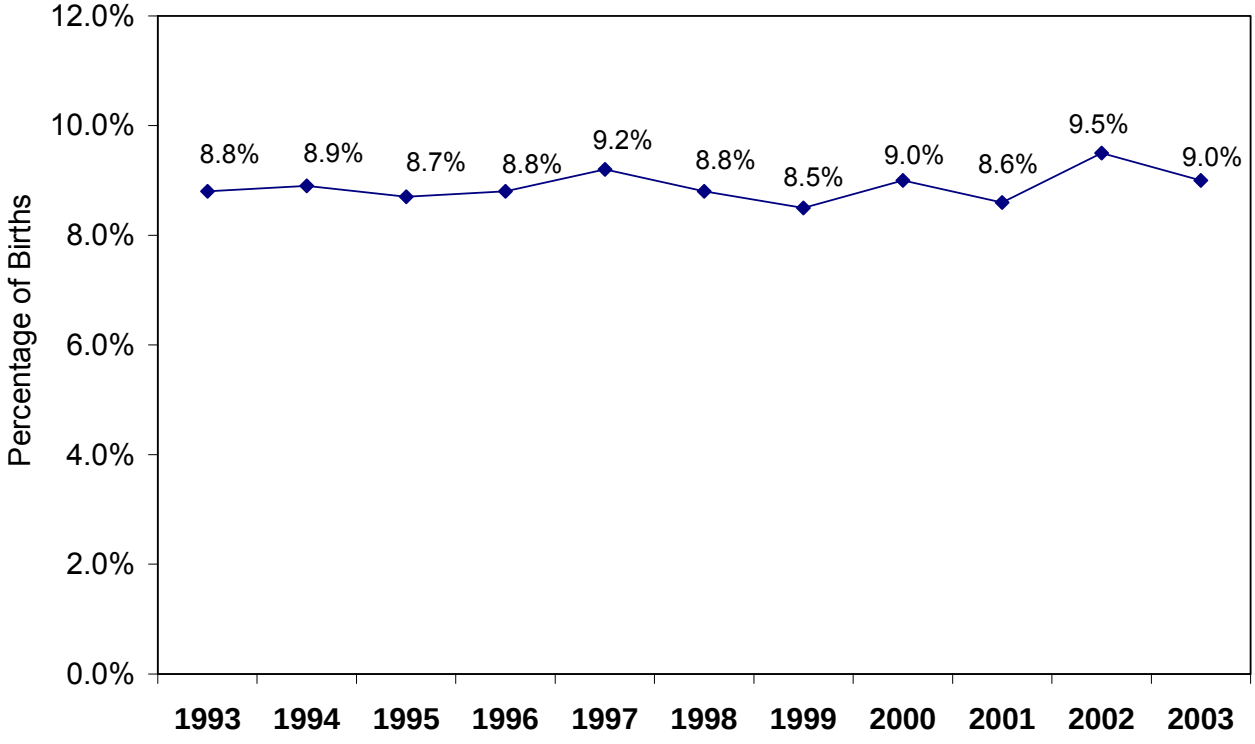
Reportable Diseases: Counts, Boston, 2000-2004											
	2000	2001	2002	2003	2004		2000	2001	2002	2003	2004
AIDS	207	173	184	167	140	Lyme Disease	30	19	48	31	39
Amebiasis	17	20	52	34	25	Malaria	7	8	12	n<5	8
Animal Bites	n/a	n/a	n/a	513	468	Measles	0	0	0	0	0
Anthrax	0	0	0	0	0	Meningitis (Bacterial)	5	5	n<5	5	n<5
Babesiosis	0	n<5	n<5	n<5	n<5	Meningitis (Viral)	38	34	27	26	61
Botulism	0	0	0	0	0	Meningococcal Disease	8	8	6	n<5	7
Brucellosis	n<5	0	0	0	n<5	Monkeypox	0	0	0	0	0
Campylobacteriosis	152	134	151	162	118	Mumps	0	0	n<5	0	n<5
Chlamydia	2,962	2,816	3,061	3,361	3,694	Pertussis	61	36	26	97	114
Cholera	0	0	0	0	0	Plague	0	0	0	0	0
Cryptococcosis*	n<5	n<5	n<5	n<5	n<5	Polio	0	0	0	0	0
Cryptosporidium	9	10	12	9	14	Prion Disease (Human)	0	0	0	0	0
Cyclosporiasis	n<5	n<5	n<5	0	0	Psittacosis	0	0	0	0	n<5
Dengue fever	0	0	0	n<5	n<5	Q Fever	0	0	0	n<5	0
Diphtheria	0	0	0	0	0	Rabies in Humans	0	0	0	0	0
Ehrlichiosis	0	0	n<5	0	n<5	Reye Syndrome	0	0	0	0	0
Encephalitis (Any Cause)	0	n<5	n<5	n<5	n<5	Rheumatic Fever	0	0	0	0	0
Escherichia coli 0157:H7	9	9	9	10	8	Rickettsialpox	0	0	0	n<5	n<5
Food Poisoning or Toxicity**	0	0	n<5	n<5	n<5	Rocky Mountain Spotted Fever	0	0	0	0	n<5
Giardiasis	133	127	129	111	121	Rubella	n<5	n<5	0	0	0
Gonorrhea	1,135	1,312	1,315	1,112	965	Salmonella	146	203	161	165	129
Group A Streptococcus*	0	n<5	0	0	0	SARS	0	0	0	0	0
Group B Streptococcus*	n<5	n<5	5	12	27	Shigella	56	51	50	58	43
Guillain Barré Syndrome	0	0	0	0	n<5	Smallpox	0	0	0	0	0
Haemophilus Influenzae	n<5	n<5	n<5	5	5	Streptococcus Pneumoniae*	15	11	18	29	50
Hantavirus Infection	0	0	0	0	0	Syphilis***	139	147	220	248	201
Hemolytic Uremic Syndrome	0	n<5	0	n<5	0	Tetanus	0	0	0	0	0
Hepatitis A Infection	33	94	29	25	132	Toxic Shock Syndrome	n<5	0	0	0	n<5
Hepatitis B Infection (Acute)	11	n<5	16	20	15	Toxoplasmosis	0	n<5	n<5	0	n<5
Hepatitis B Infection (Chronic)	367	538	458	449	477	Trichinosis	0	0	0	0	0
Hepatitis C Infection	1,106	1,115	1,087	933	1,291	Tuberculosis	82	75	67	64	70
Hepatitis (Infectious, Other)	0	0	0	0	1	Tularemia	n<5	0	0	0	n<5
HIV Infection	169	164	184	163	172	Typhoid Fever	5	n<5	n<5	n<5	0
Influenza (Laboratory Confirmed)	0	0	0	298	290	Varicella (Chickenpox)	10	8	60	25	108
Legionellosis	6	n<5	5	6	6	Viral Hemorrhagic Fever	0	0	0	0	0
Leprosy	0	n<5	n<5	n<5	n<5	West Nile Virus Infection	0	0	5	n<5	0
Leptospirosis	0	0	0	0	0	Yellow Fever	0	0	0	0	0
Listeriosis	n<5	n<5	n<5	n<5	n<5	Yersiniosis	9	n<5	n<5	n<5	n<5

*From cerebral spinal fluid or other sterile body fluid
**Includes ciguatera, scombrotoxin, mushroom toxins, tetrodotoxins, paralytic shellfish toxins, amnesic shellfish toxins, and others ***Includes all syphilis cases, not only primary ones
DATA SOURCE: Communicable Disease Database, Boston Public Health Commission, Communicable Disease Control Division
DATA ANALYSIS: Boston Public Health Commission, Communicable Disease Control Division

Other Communicable Diseases

- A total of 76 communicable diseases are monitored by the Boston Public Health Commission Communicable Disease Control Division.
- The annual number of cases between 2000 and 2004 of each of these conditions is shown in the table on the previous page.
- The most commonly reported communicable diseases are the sexually transmitted infections chlamydia and gonorrhea, and hepatitis C infection.
- Some diseases such as pertussis, also known as “whooping cough,” show increases in the last two years. Many however, are rare and seldom have reported cases, for example, rabies and Rocky Mountain Spotted Fever.

Prematurity

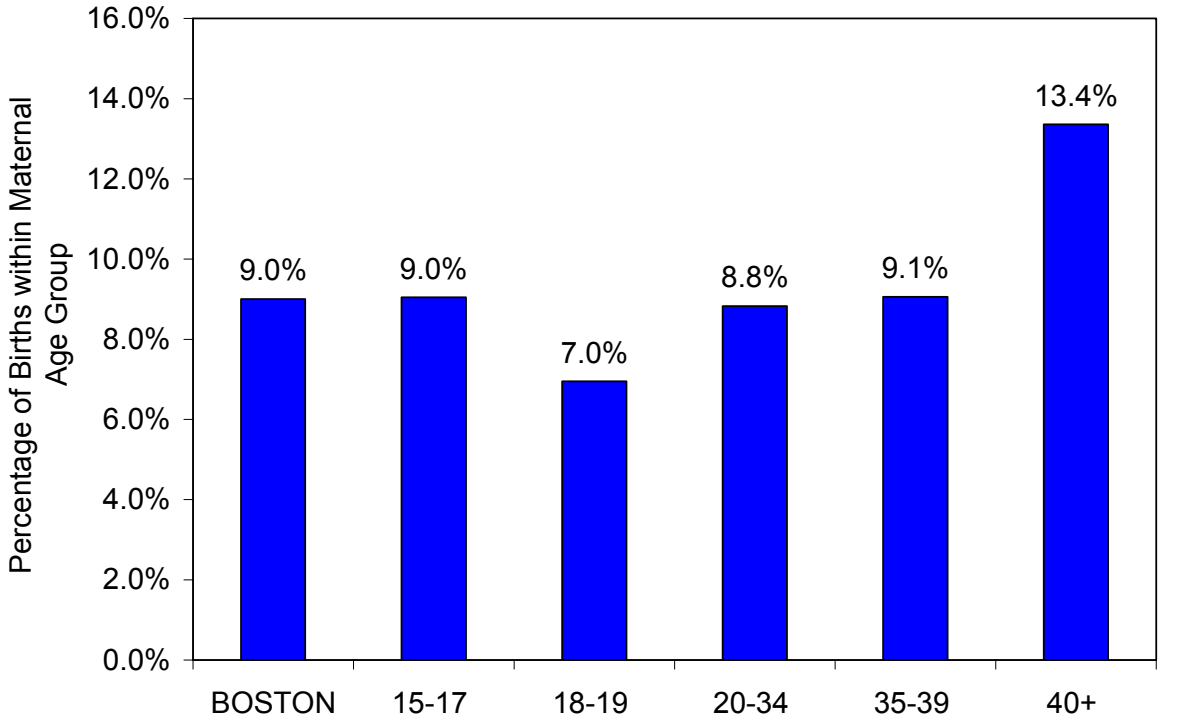


	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Count	775	745	695	681	719	694	679	727	703	761	699

DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Every year, several hundred Boston babies are born weighing less than 2,500 grams (5.5 lbs). These are considered low birthweight babies.
- Between 1993 and 2003, Boston's rate of low birthweight was relatively stable, fluctuating only between 8.5% and 9.5% of all births.
- In 2003, approximately one in every eleven births was of low birthweight.

Prematurity



	BOSTON	15-17	18-19	20-34	35-39	40+
Count	699	18	26	499	117	39

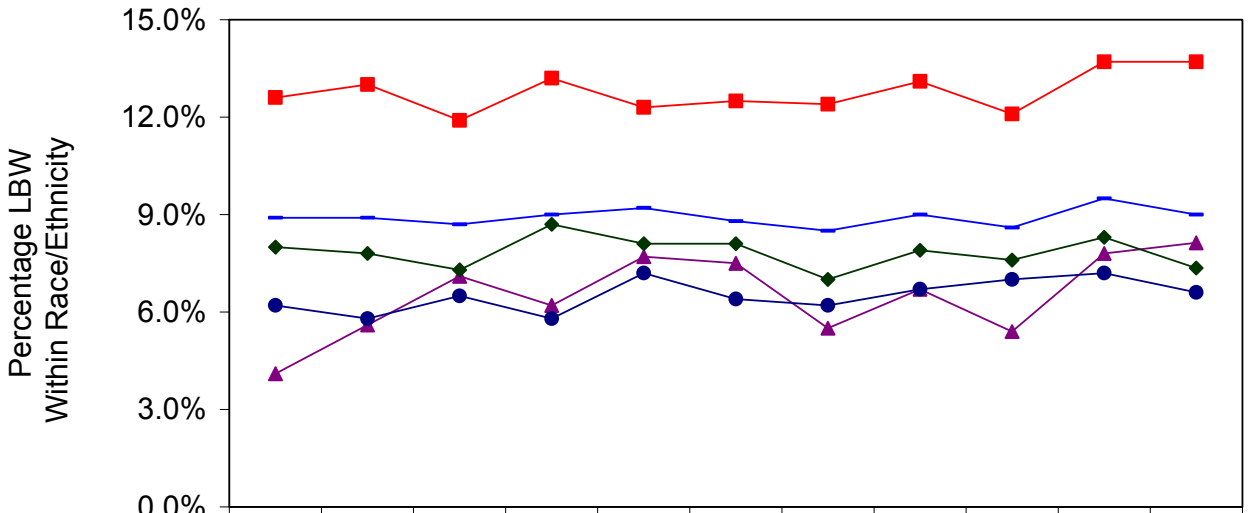
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In most populations, low birthweight (LBW) occurs most frequently in births to women at the extremes of maternal age.

- In Boston, in 2003, LBW was least common in births to women between 18-19 years of age and highest in births to women 40 or older.

Prematurity

Low Birthweight by Race/Ethnicity and Year: Counts and Percentages of Births, Boston, 1993-2003



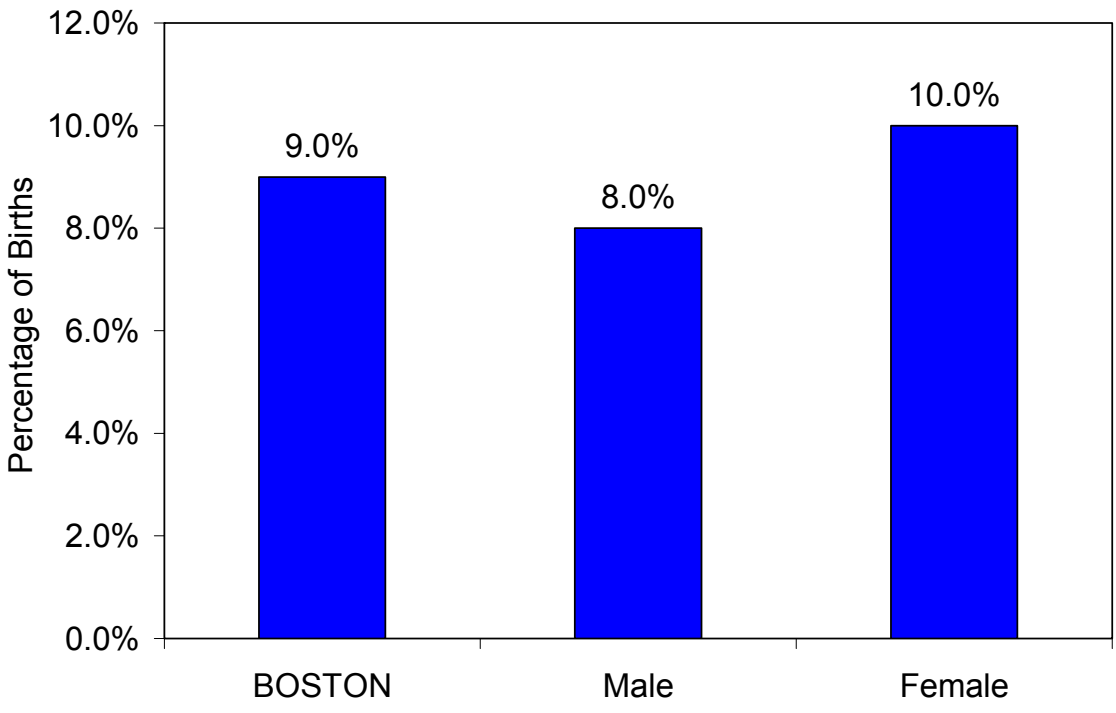
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Asian	4.1%	5.6%	7.1%	6.2%	7.7%	7.5%	5.5%	6.7%	5.4%	7.8%	8.1%
Black	12.6%	13.0%	11.9%	13.2%	12.3%	12.5%	12.4%	13.1%	12.1%	13.7%	13.7%
Latino	8.0%	7.8%	7.3%	8.7%	8.1%	8.1%	7.0%	7.9%	7.6%	8.3%	7.4%
White	6.2%	5.8%	6.5%	5.8%	7.2%	6.4%	6.2%	6.7%	7.0%	7.2%	6.6%
BOSTON	8.9%	8.9%	8.7%	9.0%	9.2%	8.8%	8.5%	9.0%	8.6%	9.5%	9.0%

Count	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Asian	23	32	41	34	49	38	32	45	32	50	51
Black	412	395	338	346	308	312	323	327	304	330	309
Latino	135	134	120	133	135	143	120	139	135	152	128
White	189	170	178	154	188	178	176	188	206	202	192
BOSTON	775	745	695	681	719	692	679	726	703	761	699

NOTE: These data do not include persons of other and unknown race/ethnicity except in the Boston counts and percentages.
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- LBW rates among Boston's Asian, Latino, and White births have been consistently lower than those for births to Black women, while the rates within each group have remained fairly stable over time.
- The two-fold difference in the frequency of LBW in Black births is a major factor in the higher Black infant mortality rate in Boston.

Prematurity

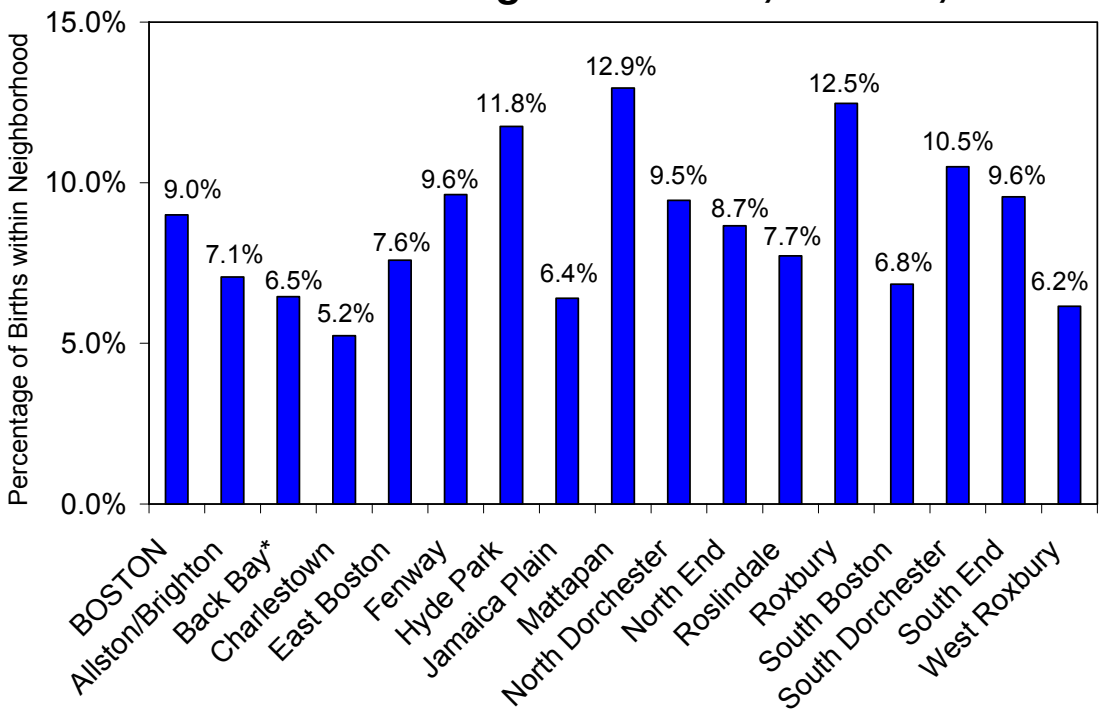


	BOSTON	Male	Female
Count	699	321	378

DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, 321 of Boston's low birthweight births were male infants and 378 were female. Low birthweight occurred in 8.0% of Boston's male babies and 10.0% of female babies.

Prematurity

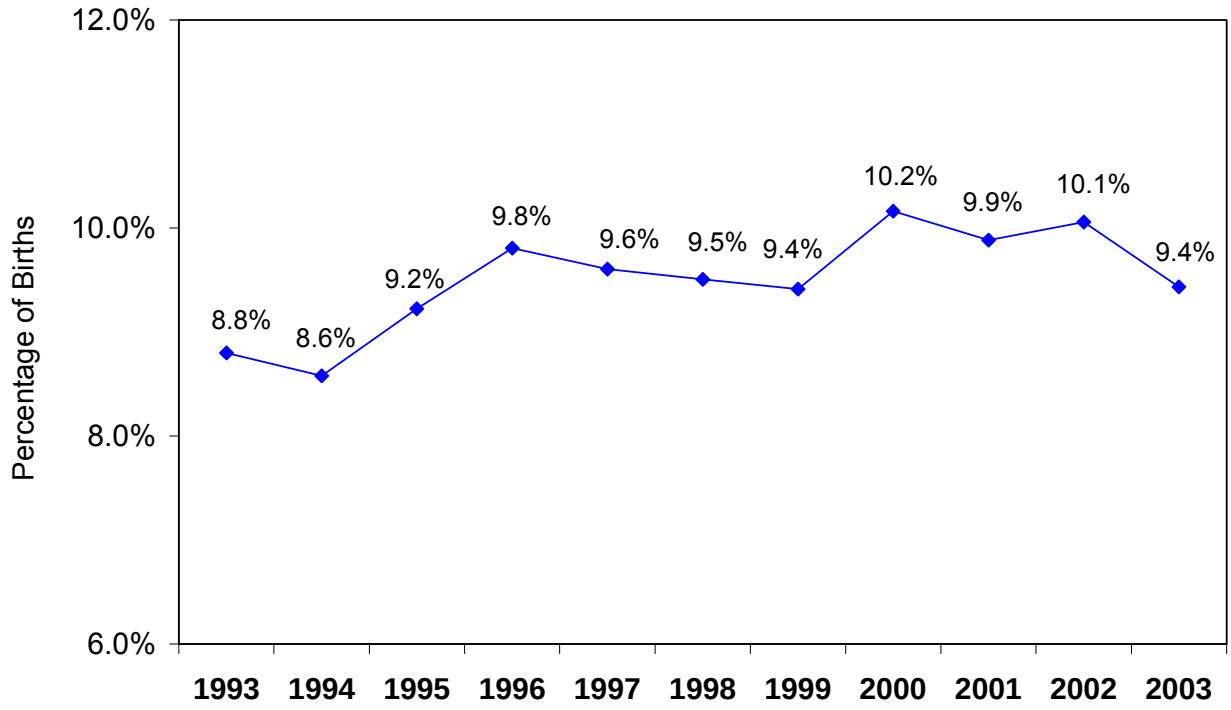


	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	699	37	20	13	52	13	55	26	40	136	9	37	94	29	74	37	27

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, WR=West Roxbury
* Includes Beacon Hill and the West End
NOTE: These data do not include homeless persons or individuals whose neighborhood of residence was not reported, except in the Boston overall count and rate.
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Low birthweight was most frequent in births to residents of Mattapan, Roxbury, Hyde Park, and South Dorchester in 2003.
- Low birthweight was least frequent in births to residents of Charlestown, West Roxbury, Jamaica Plain, and the Back Bay.

Prematurity

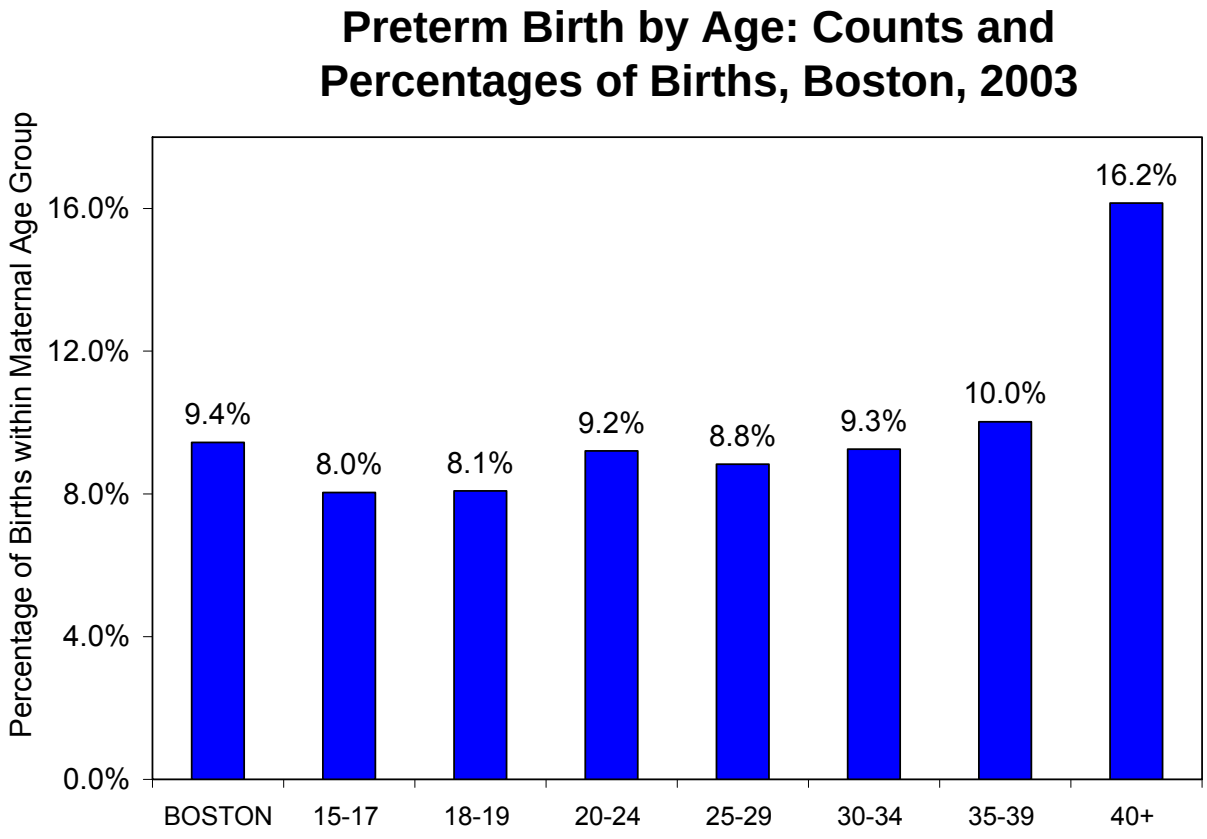


	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Count	767	720	735	741	746	747	751	818	811	804	735

DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Preterm birth (PTB) which is defined as delivery at less then 37 completed weeks' gestation, is closely correlated with low birthweight. In Boston, 9.4% of births in 2003 were preterm. More than two-thirds (68.1%) of low birthweight births were also preterm.
- Over the past decade, preterm births have occurred in 8.6% to 10.2% of Boston resident births.

Prematurity



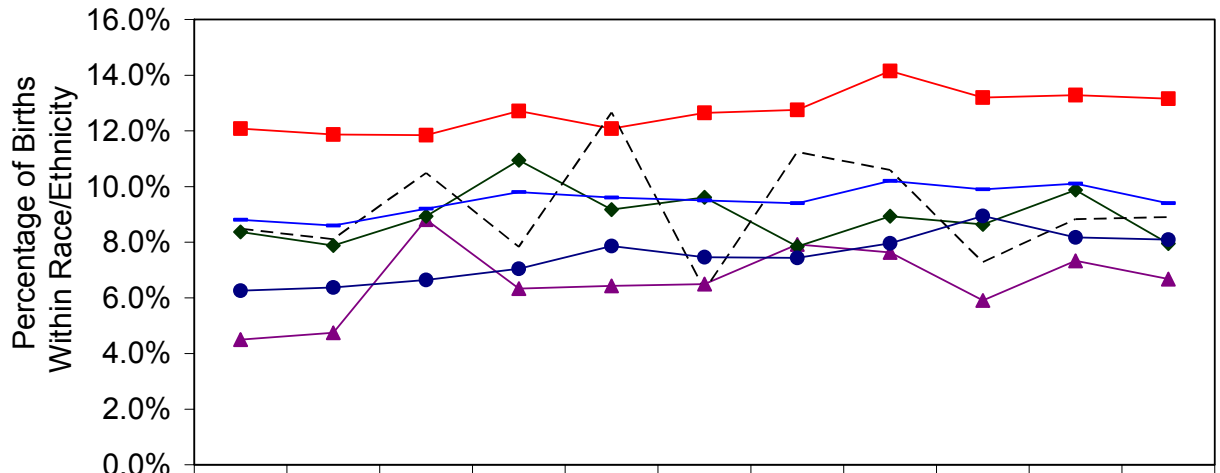
	BOSTON	15-17	18-19	20-24	25-29	30-34	35-39	40+
Count	735	16	30	133	162	218	129	47

DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Like low birthweight, preterm birth (PTB) tends to occur most often in births to women at the extremes of maternal age. But in Boston in 2003, PTB was least common among births to teens and most common among births to women ages 40 and over.

Prematurity

Preterm Birth by Race/Ethnicity and Year: Counts and Percentages of Births, Boston, 1993-2003



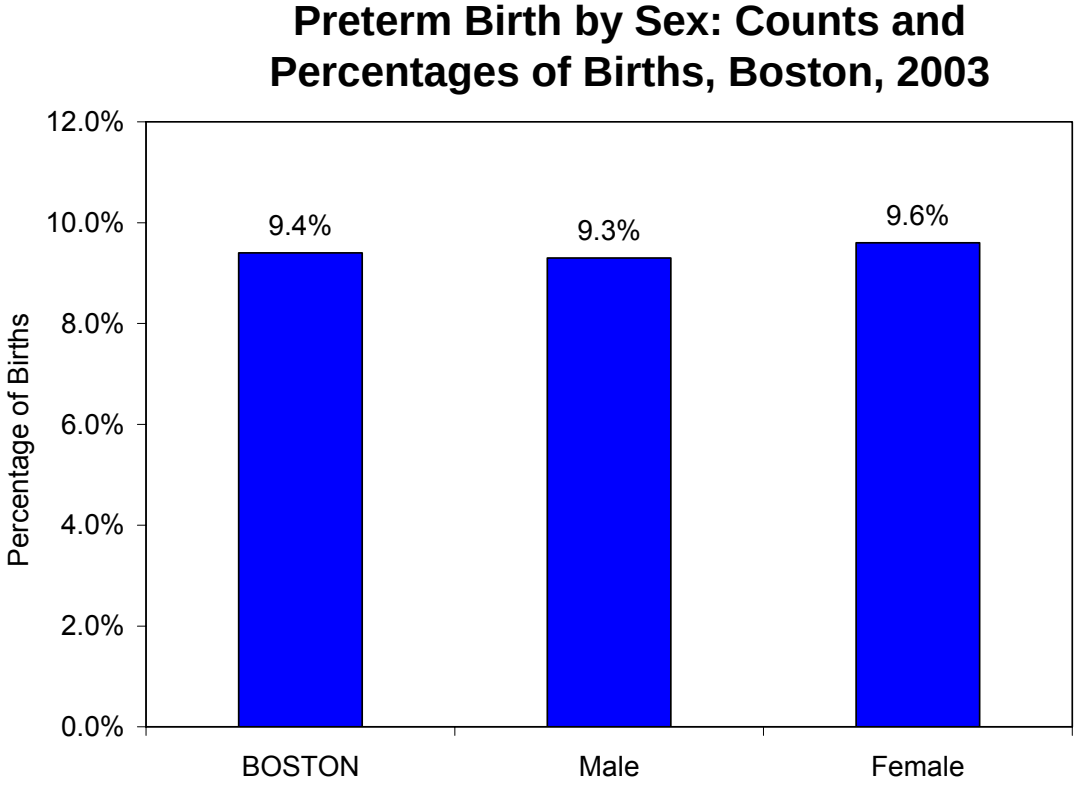
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Asian	4.5%	4.7%	8.8%	6.3%	6.4%	6.5%	7.9%	7.6%	5.9%	7.3%	6.7%
Black	12.1%	11.9%	11.8%	12.7%	12.1%	12.6%	12.8%	14.2%	13.2%	13.3%	13.2%
Latino	8.4%	7.9%	8.9%	10.9%	9.2%	9.6%	7.8%	8.9%	8.6%	9.9%	7.9%
Other	8.5%	8.1%	10.5%	7.8%	12.7%	6.3%	11.2%	10.6%	7.3%	8.8%	8.9%
White	6.3%	6.4%	6.6%	7.0%	7.9%	7.5%	7.4%	8.0%	8.9%	8.2%	8.1%
BOSTON	8.8%	8.6%	9.2%	9.8%	9.6%	9.5%	9.4%	10.2%	9.9%	10.1%	9.4%

Count	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Asian	25	27	51	35	41	33	46	51	35	47	41
Black	394	360	337	333	301	315	331	353	331	320	296
Latino	140	135	147	168	152	169	134	156	154	181	138
Other	14	12	15	13	42	21	30	32	26	27	25
White	191	186	182	188	206	206	210	225	265	229	235
BOSTON	767	720	735	741	746	747	751	818	811	804	735

NOTE: These data do not include persons whose race/ethnicity was not reported, except in the Boston counts and percentages.
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- As is the case with low birthweight, preterm birth occurs far more frequently in births to Black Bostonians than in other births. Chronically high levels of LBW and PTB among Black births account for most of the racial/ethnic disparity in Boston's infant mortality rate.

Prematurity

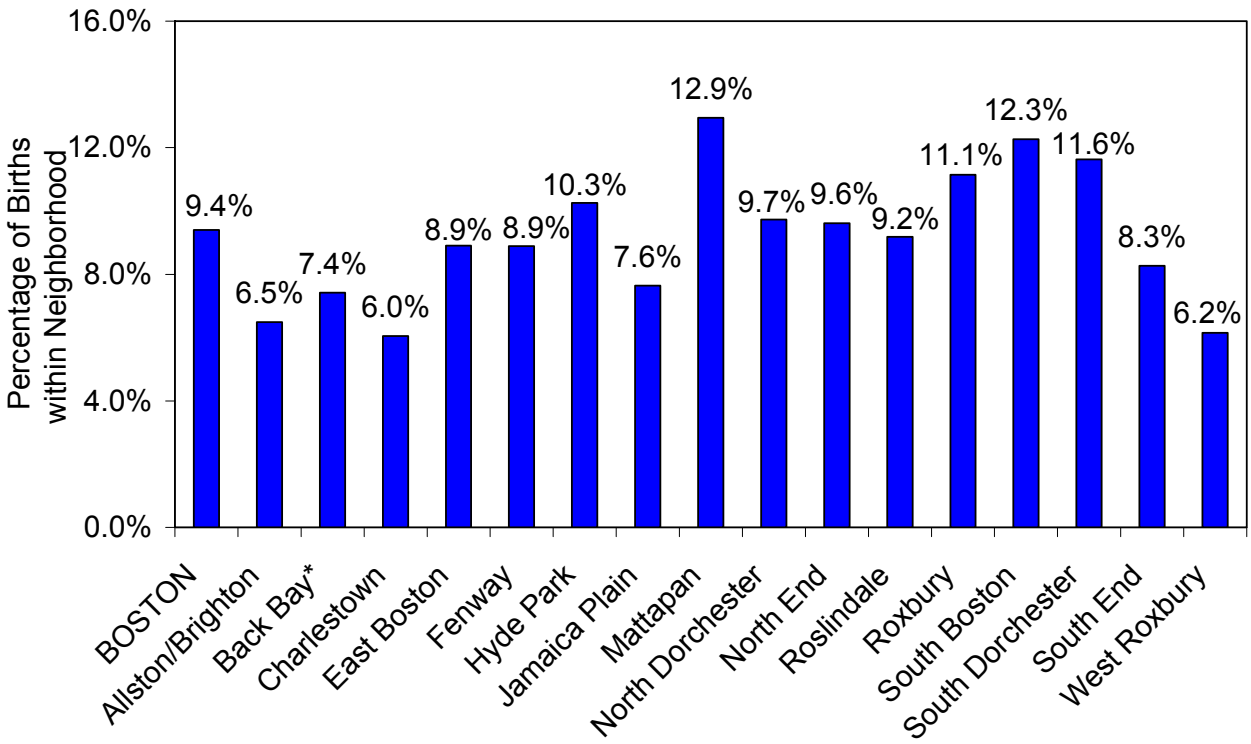


	BOSTON	Male	Female
Count	735	373	362

DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, 373 of Boston's preterm births were male infants and 362 were female infants.

Prematurity



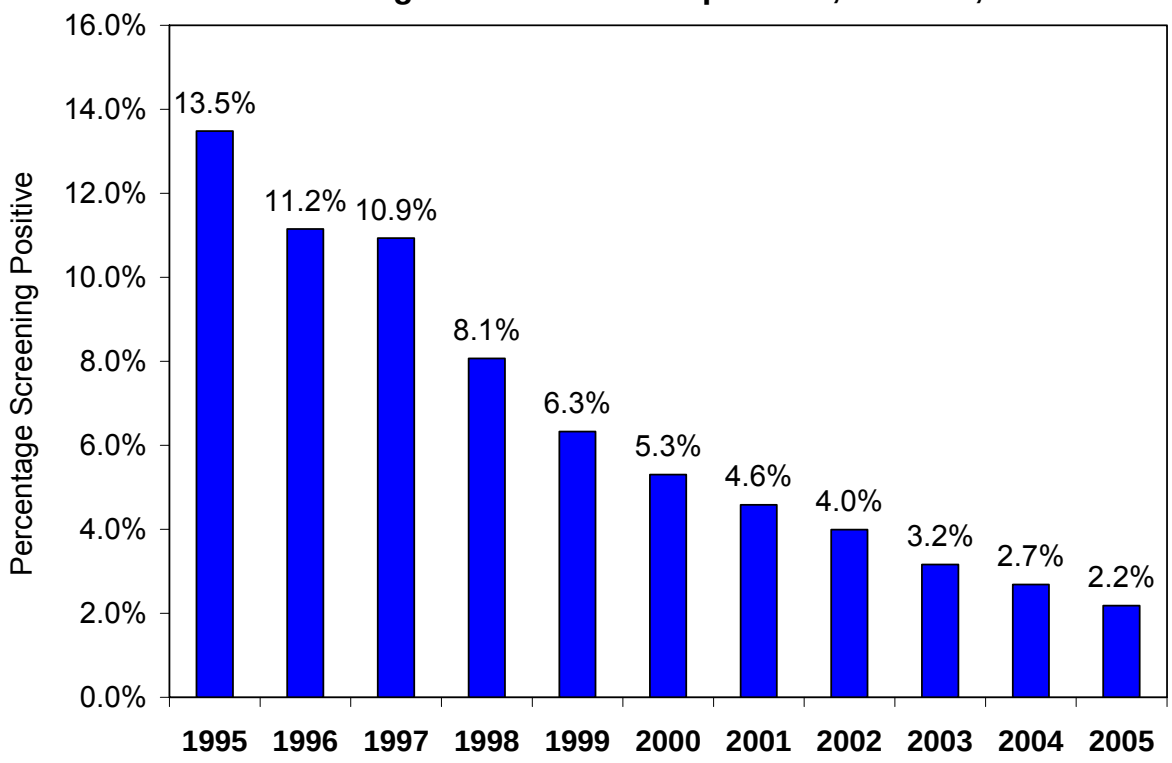
	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	735	34	23	15	61	12	48	31	40	140	10	44	84	52	82	32	27

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, WR=West Roxbury.
*Includes Beacon Hill and the West End
DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- The Boston neighborhoods with the highest percentages of births that occurred before the completion of 37 weeks gestation were Mattapan (12.9% of Mattapan births), followed by South Boston (12.3%), and South Dorchester (11.6%).

- Preterm births occurred least frequently in 2003 births to residents of Charlestown (6.0%), West Roxbury (6.2%), and Allston/Brighton (6.5%).

Environmental Lead



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Count	4,124	3,221	2,351	1,543	1,725	1,350	1,123	964	774	647	497

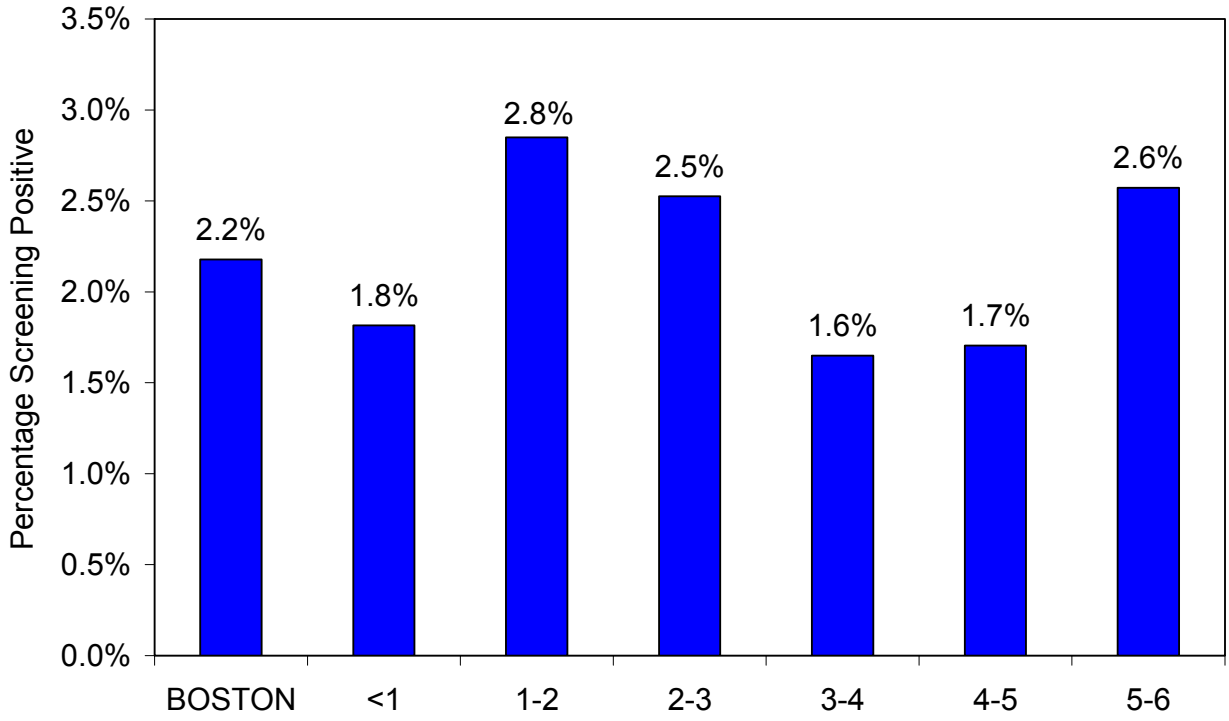
NOTE: These data may include some children over the age of 6 in follow up care.
DATA SOURCE: Lead Screening Data, Boston Public Health Commission, Environmental Health
DATA ANALYSIS: Lead Screening Data, Boston Public Health Commission, Environmental Health
GRAPHIC: Boston Public Health Commission Research Office

- Over the past 10 years the percentage of Boston children who have tested positive for elevated blood lead levels has dropped by 83.7%.

- In 2005, 22,818 Boston children were screened for elevated lead levels in their blood. Of the children screened, 497 (2.2%) had elevated blood lead levels defined as 10 micrograms per deciliter (µg/dl) or higher. This represents an 18.5% decrease from 2004.

Environmental Lead

Children With Elevated Blood Lead Levels by Age: Estimated Counts and Percentages of Screened Population, Boston, 2005

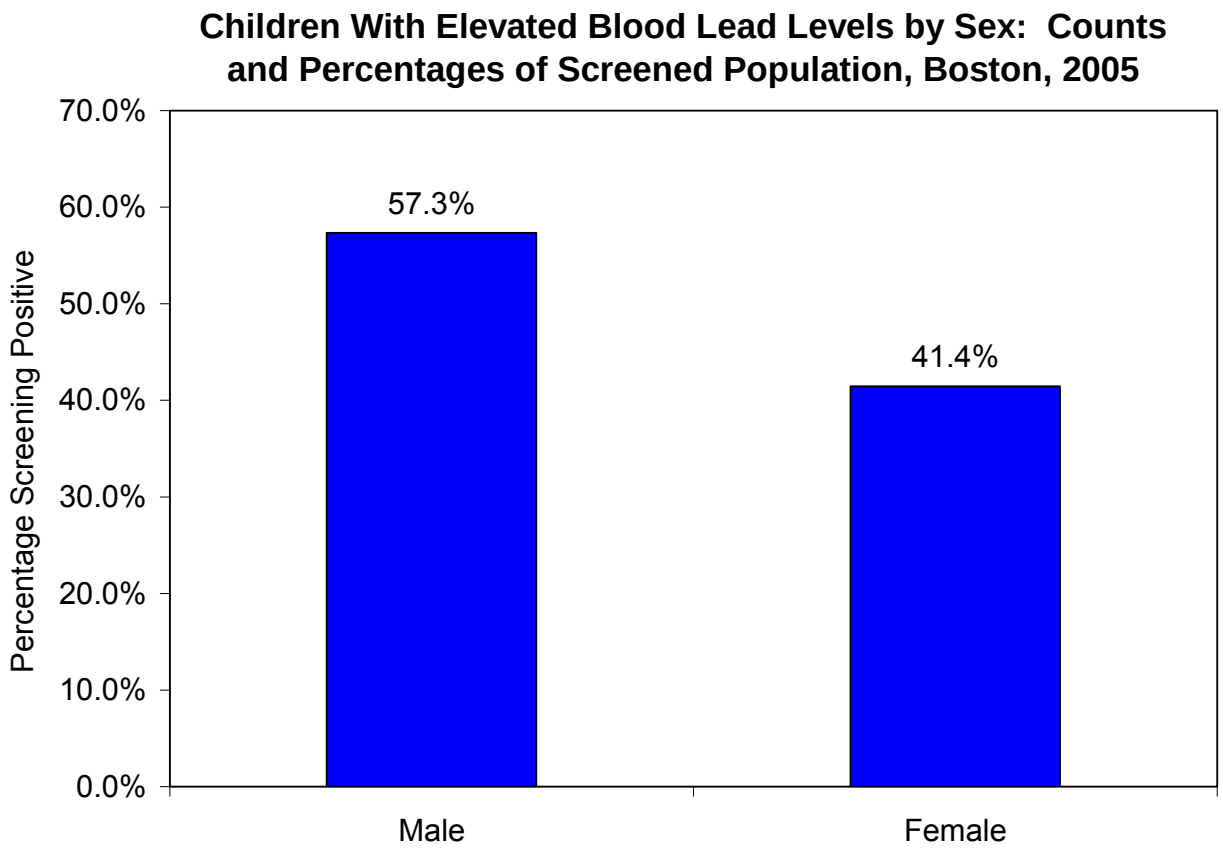


	BOSTON	<1	1-2	2-3	3-4	4-5	5-6
Count	497	122	146	113	59	35	22

DATA SOURCE: Lead Screening Data, Boston Public Health Commission, Environmental Health
DATA ANALYSIS: Lead Screening Data, Boston Public Health Commission, Environmental Health
GRAPHIC: Boston Public Health Commission Research Office

- In 2005, children ages 1-2 had the highest positive screening percentage (2.8%), meaning elevated blood lead levels of 10 micrograms per deciliter (µg/dl) or higher. That percentage was slightly greater than for Boston overall (2.2%).

Environmental Lead



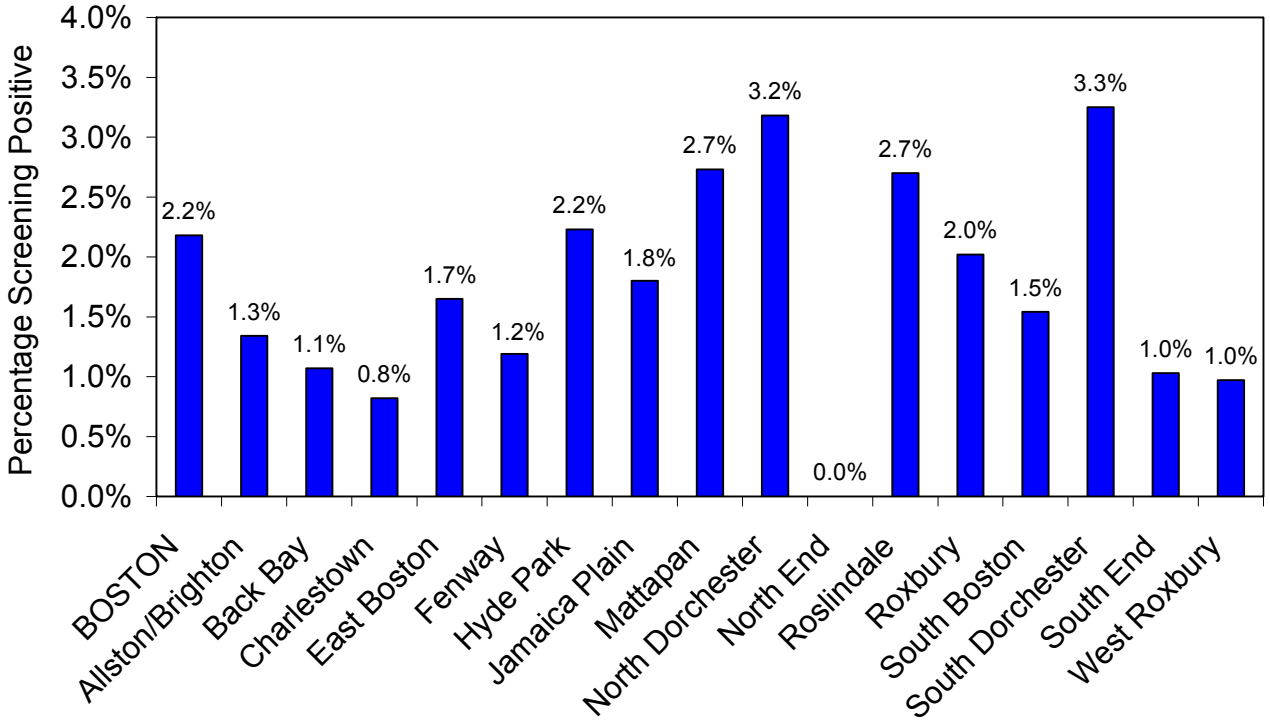
	Male	Female
Count	285	206

NOTE: These data do not include persons whose sex was not reported.
DATA SOURCE: Lead Screening Data, Boston Public Health Commission, Environmental Health
DATA ANALYSIS: Lead Screening Data, Boston Public Health Commission, Environmental Health
GRAPHIC: Boston Public Health Commission Research Office

- Of those children who were screened in 2005 and found to have elevated blood lead levels, (10 micrograms per deciliter (µg/dl) or higher), 58.0% were males.

Environmental Lead

Children With Elevated Blood Lead Levels by Neighborhood: Counts and Percentages of Screened Population, Boston, 2005

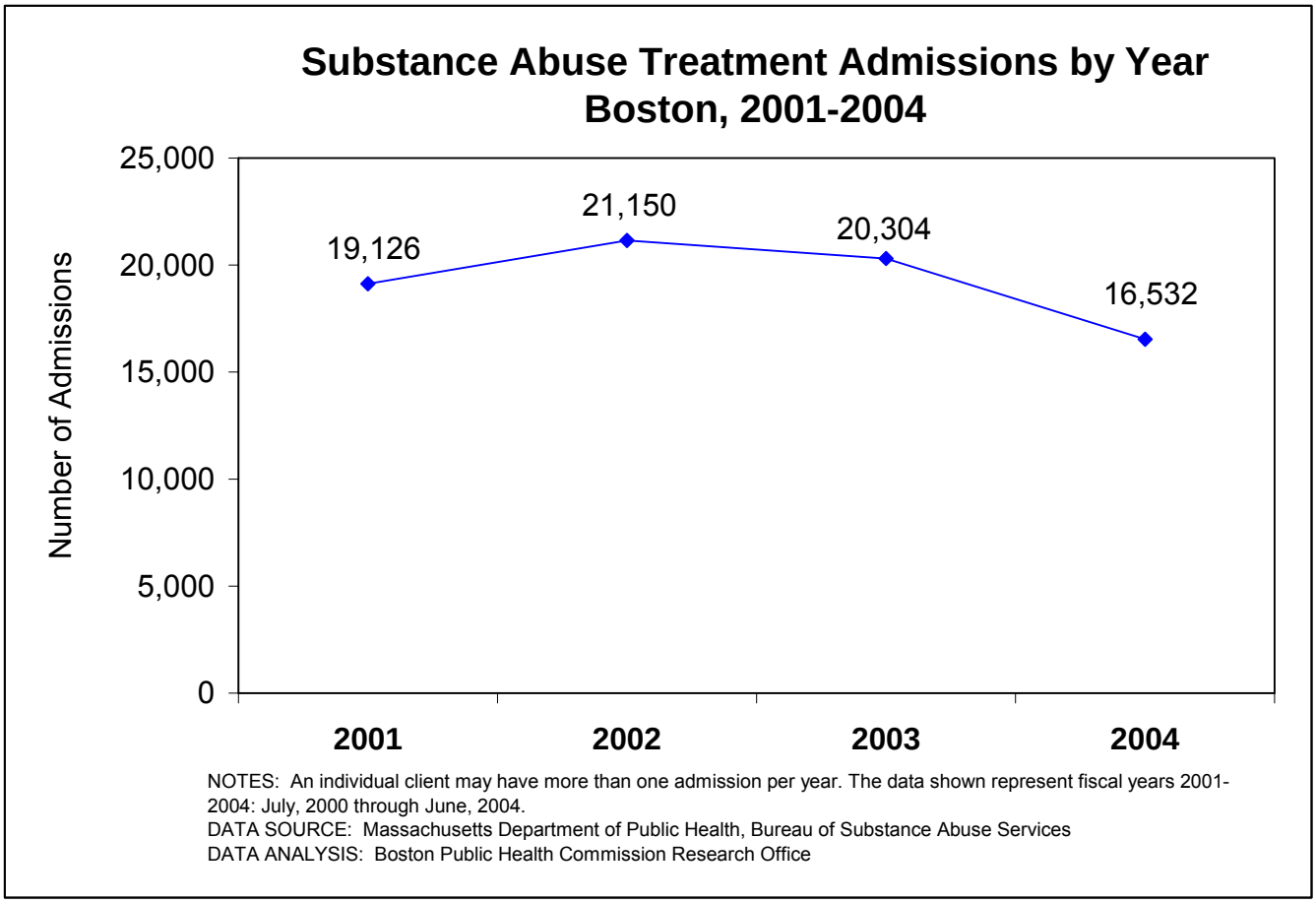


	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	497	15	7	6	44	5	30	24	36	102	0	39	36	16	117	10	10

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
DATA SOURCE: Lead Screening Data, Boston Public Health Commission, Environmental Health
DATA ANALYSIS: Lead Screening Data, Boston Public Health Commission, Environmental Health
GRAPHIC: Boston Public Health Commission Research Office

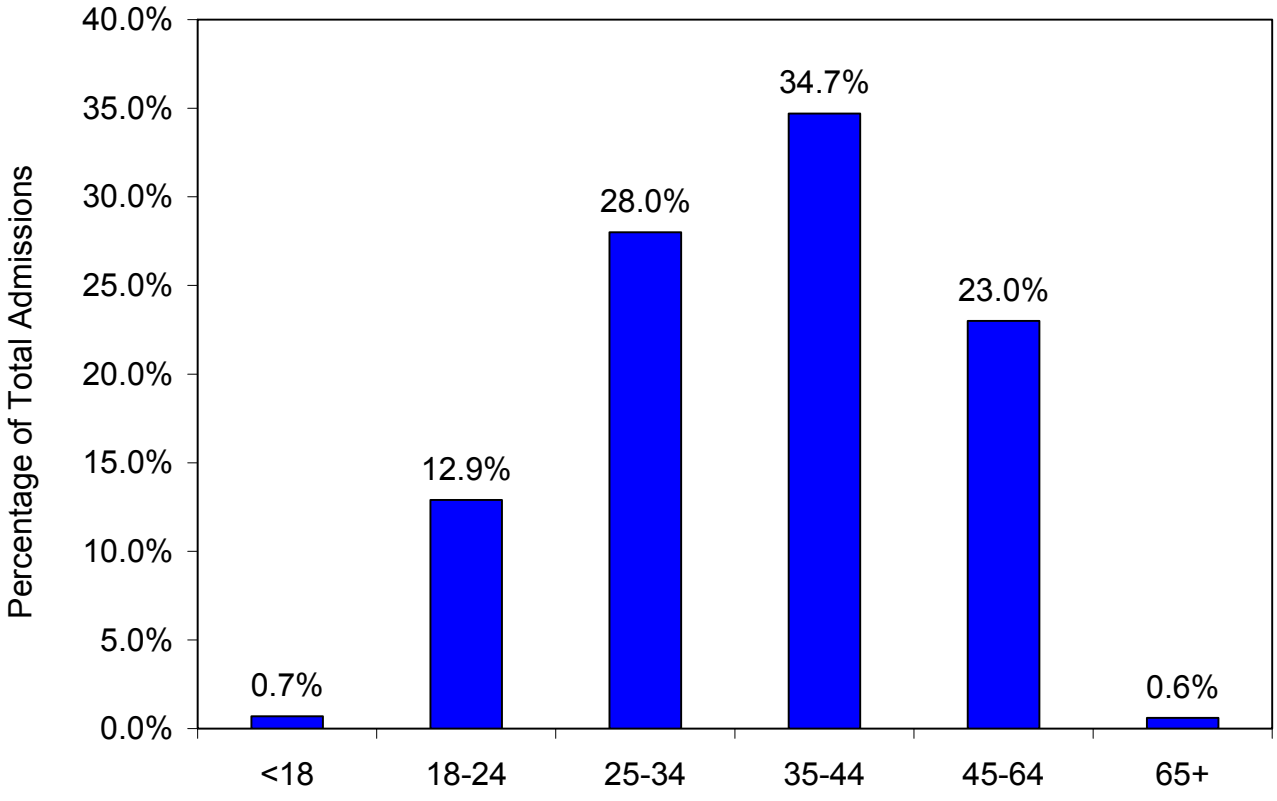
- In 2005, elevated blood lead levels (micrograms per deciliter (µg/dl) or higher) in Boston children were highest in South Dorchester (3.3% of those screened) and North Dorchester (3.2% of those screened). This was one-and-a-half times greater than for Boston overall.

Substance Abuse



- Substance abuse treatment admissions of Boston residents have been dropping since 2002, a pattern that appears to be related to loss of service capacity following state budget cuts.
- The number of treatment admissions for Boston residents was 18.6% lower in fiscal year 2004 than the previous year.

Substance Abuse



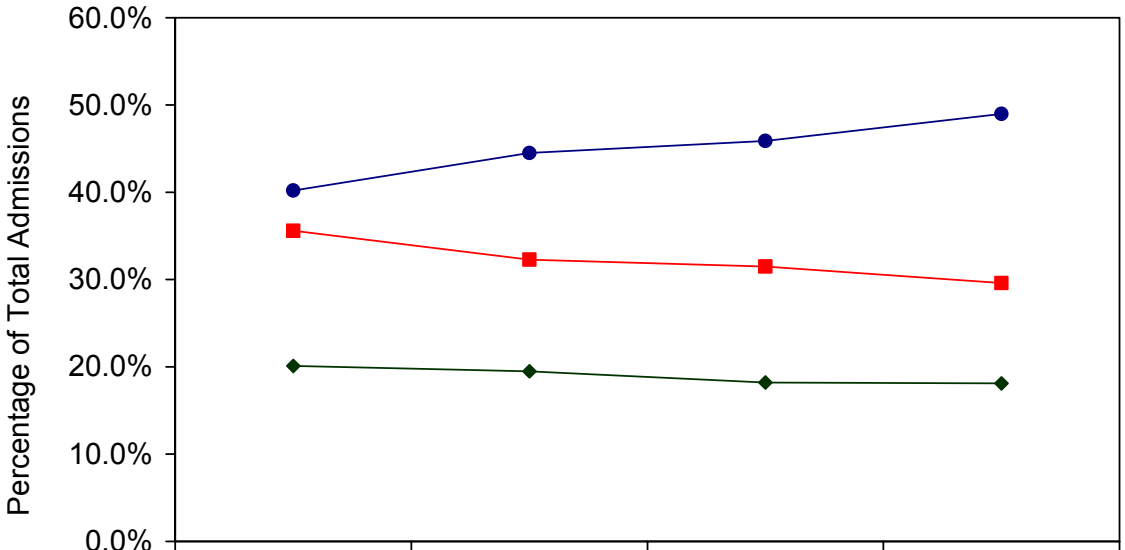
	<18	18-24	25-34	35-44	45-64	65+
Count	122	2,131	4,632	5,739	3,805	103

NOTES: An individual client may have more than one admission per year. The data shown are for fiscal year 2004: July, 2003 through June, 2004. These data do not include persons whose age was not reported.
DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, Boston residents ages 25-64 accounted for 85.7% of all substance abuse treatment admissions of Boston residents.
- Residents ages 35-44 had the highest percentage (34.7%) of the city's total substance abuse treatment admissions, followed by residents ages 25-34 (28.0%).

Substance Abuse

Substance Abuse Treatment Admissions by Race/Ethnicity and Year: Counts and Percentage Distributions, Boston, 2001-2004



	2001	2002	2003	2004
Black	35.6%	32.3%	31.5%	29.6%
Latino	20.1%	19.5%	18.2%	18.1%
White	40.2%	44.5%	45.9%	49.0%

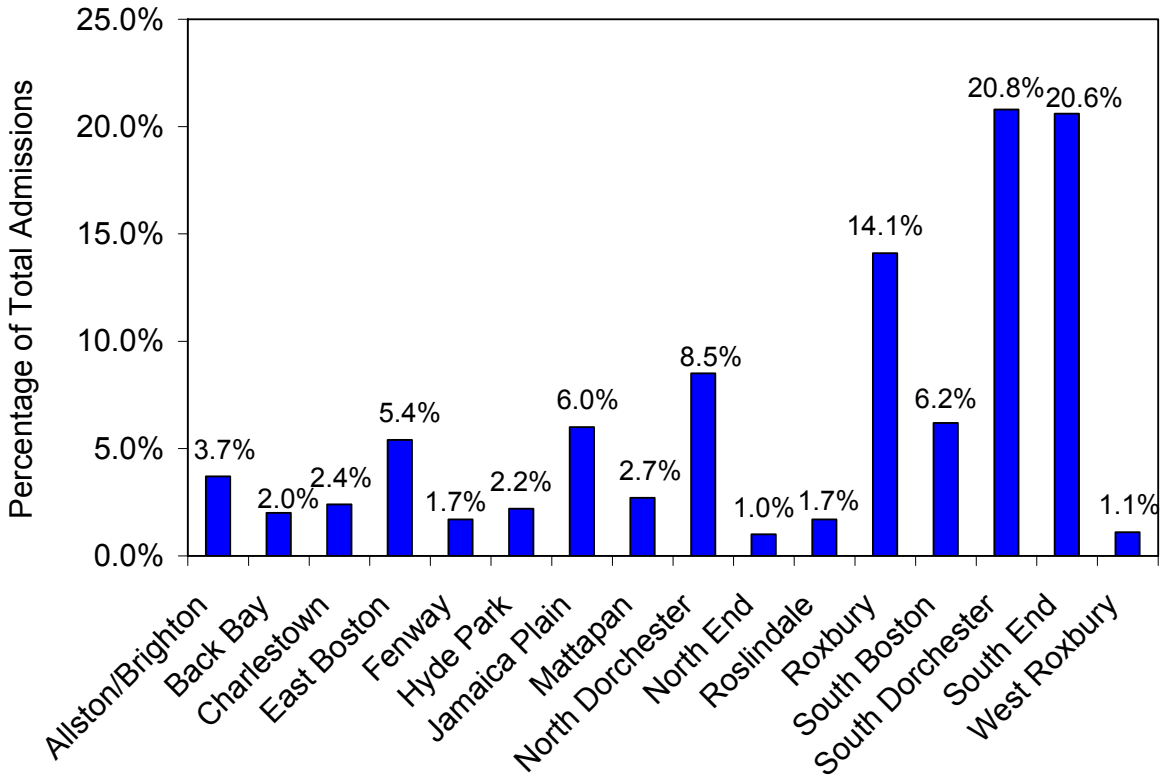
Count	2001	2002	2003	2004
Black	6,799	6,840	6,398	4,891
Latino	3,851	4,075	3,690	2,997
White	7,679	9,406	9,318	8,100
BOSTON	19,126	21,150	20,304	16,532

NOTES: An individual client may have more then one treatment admission per year. The data shown represent fiscal years 2001-2004: July, 2000 through June, 2004. There were too few treatment admissions among Asians to permit the presentation of counts and percentages of treatment admissions that occurred in Asians. These data do not include persons of other or unknown race/ethnicity.
DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services
DATA ANALYSIS: Boston Public Health Commission Research Office

- Substance abuse treatment admissions for White Boston residents accounted for nearly half of all admissions in 2004. Admissions for Black and Latino Bostonians accounted for 29.6% and 18.1% of admissions, respectively.
- For each year of the 2001-2004 time period, Whites made up the highest percentage of admissions and Latinos, the lowest.
- The number of treatment admissions was 5.5% higher for Whites but 28.1% lower for Black residents and 22.2% lower for Latino residents in 2004 than in 2001. Higher levels of private insurance among White residents may have provided a cushion against the loss of publicly funded treatment space due to budget cuts in recent years.

Substance Abuse

Substance Abuse Treatment Admissions by Neighborhood: Counts and Percentage Distribution, Boston, 2004



	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	610	330	394	888	284	367	998	445	1,404	165	279	2,323	1,022	3,438	3,398	187

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury

* Admissions to publicly-funded substance abuse treatment programs.

NOTES: An individual may be admitted to more than one program or treatment session. The data are for Fiscal year 2004: July, 2003 through June, 2004. These data do not include homeless persons or individuals whose neighborhood of residence was not reported.

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

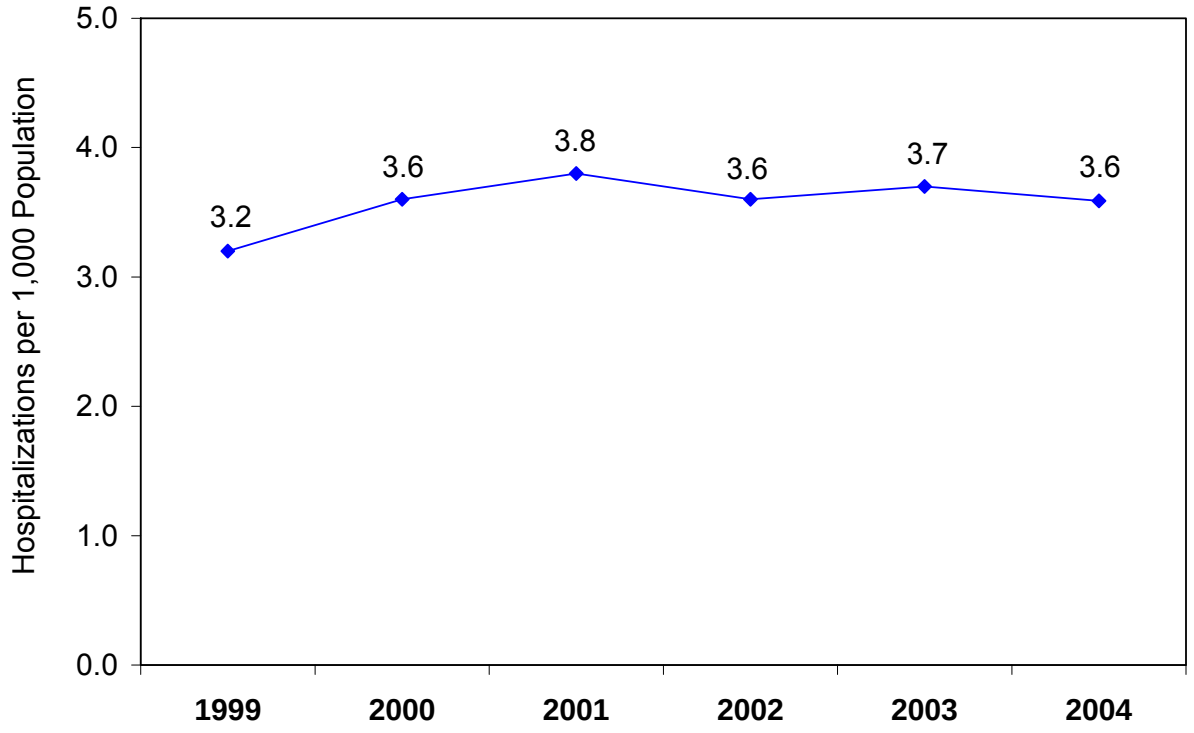
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, 20.8% of substance treatment admissions were among residents of South Dorchester, 20.6% were of residents of the South End, and 14.1% were of residents of Roxbury, which have 12.8%, 4.6%, and 5.9% respectively, of the city's population (data not shown).

- Allston/Brighton, which has 11.3% of the Boston population, had 3.7% of its substance abuse treatment admissions. The Fenway, with 8.1% of the population, had just 1.7% of all treatment admissions, and West Roxbury (4.1% of population) had 1.1% of its admissions.

Substance Abuse

Substance Abuse Hospitalizations by Year: Counts and Age-Adjusted Rates, Boston, 1999-2004



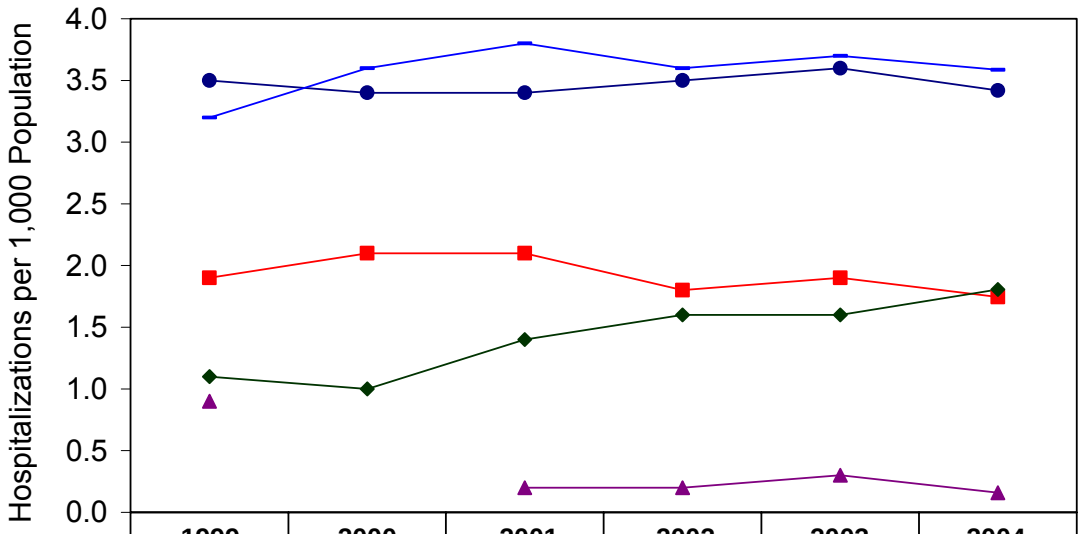
	1999	2000	2001	2002	2003	2004
Count	1,843	2,053	2,206	2,119	2,192	2,080

NOTES: The rates for years prior to 2003 have been updated and may differ from those reported in previous publications.
Individuals may be hospitalized more than once.
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Beginning in 2000, there have been over two thousand substance abuse-related hospitalizations of Boston residents every year.

Substance Abuse

Substance Abuse Hospitalizations by Race/Ethnicity and Year: Counts and Age-Adjusted Rates, Boston, 1999-2004



	1999	2000	2001	2002	2003	2004
Asian	0.9	--	0.2	0.2	0.3	0.2
Black	1.9	2.1	2.1	1.8	1.9	1.7
Latino	1.1	1.0	1.4	1.6	1.6	1.8
White	3.5	3.4	3.4	3.5	3.6	3.4
BOSTON	3.2	3.6	3.8	3.6	3.7	3.6

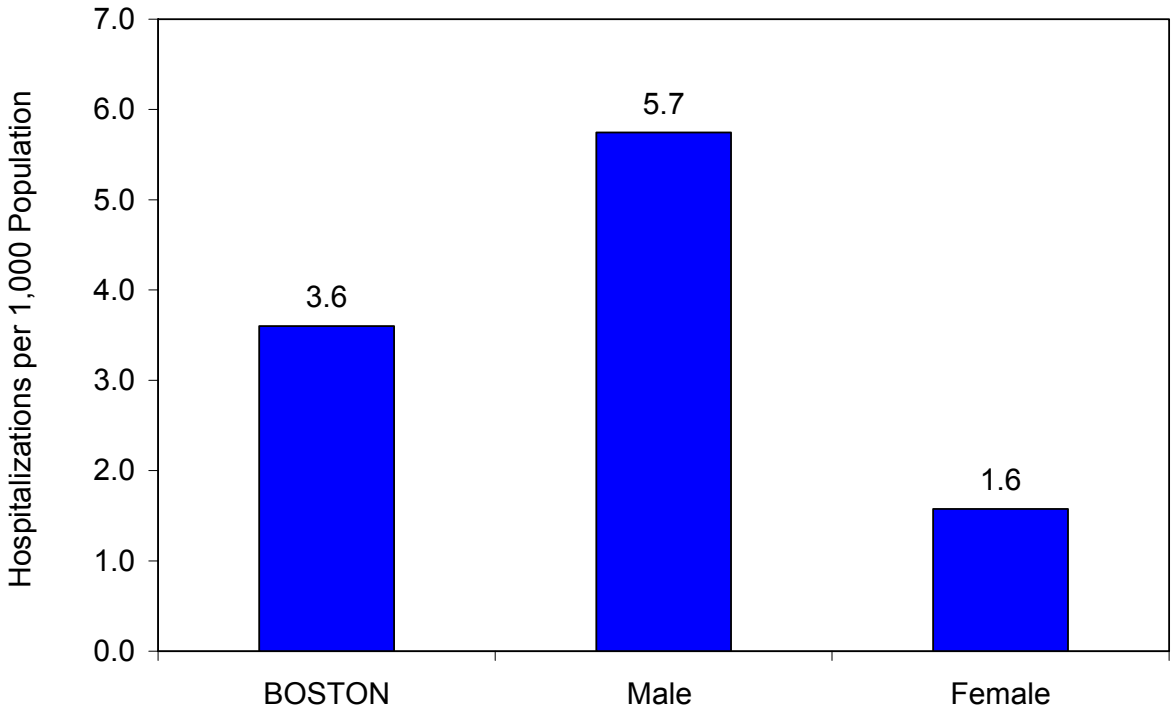
Count	1999	2000	2001	2002	2003	2004
Asian	39	n<5	9	11	17	8
Black	274	298	281	242	253	237
Latino	82	79	94	119	115	140
White	1,136	1,076	1,109	1,169	1,224	1,122
BOSTON	1,843	2,053	2,206	2,119	2,192	2,080

NOTES: The rates for years prior to 2003 have been updated and may differ from those reported in previous publications. People of Latino ethnicity may be reported in any of the above race/ethnicity categories. Boston count total and rate includes unknown racial/ethnic groups. There were too few hospitalizations among Asians in 2000 to permit the presentation of a hospitalization rate. See Technical Notes for additional caveats.
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Every year from 1999 through 2004, Boston's highest rates of substance abuse hospitalization were among its White residents.
- The 2004 hospitalization rate for Whites (3.4 hospitalizations per 1,000 population), was twice the rate for Black Bostonians and nearly twice the rate for Latino residents.
- Asian Boston residents had the city's lowest substance abuse hospitalization rates throughout this time period.

Substance Abuse

Substance Abuse Hospitalizations by Sex: Counts and Age-Adjusted Rates, Boston, 2004

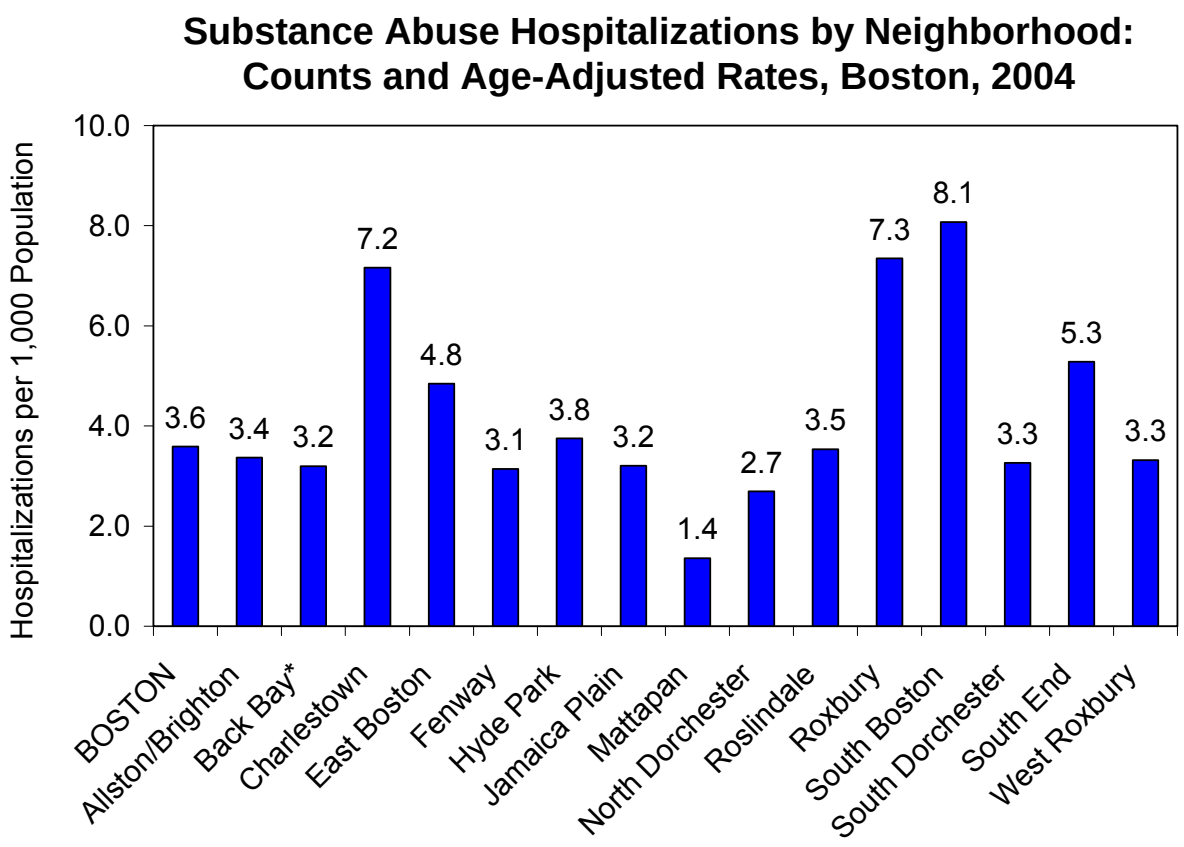


	BOSTON	Male	Female
Count	2,080	1,593	487

NOTE: An individual may be hospitalized more than once.
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, there were more than three times as many substance abuse hospitalizations of Boston resident males as of Boston resident females.
- The substance abuse hospitalization rate for males (5.7 hospitalizations per 1,000 population) was 3.6 times the rate for females (1.6 hospitalizations per 1,000).

Substance Abuse



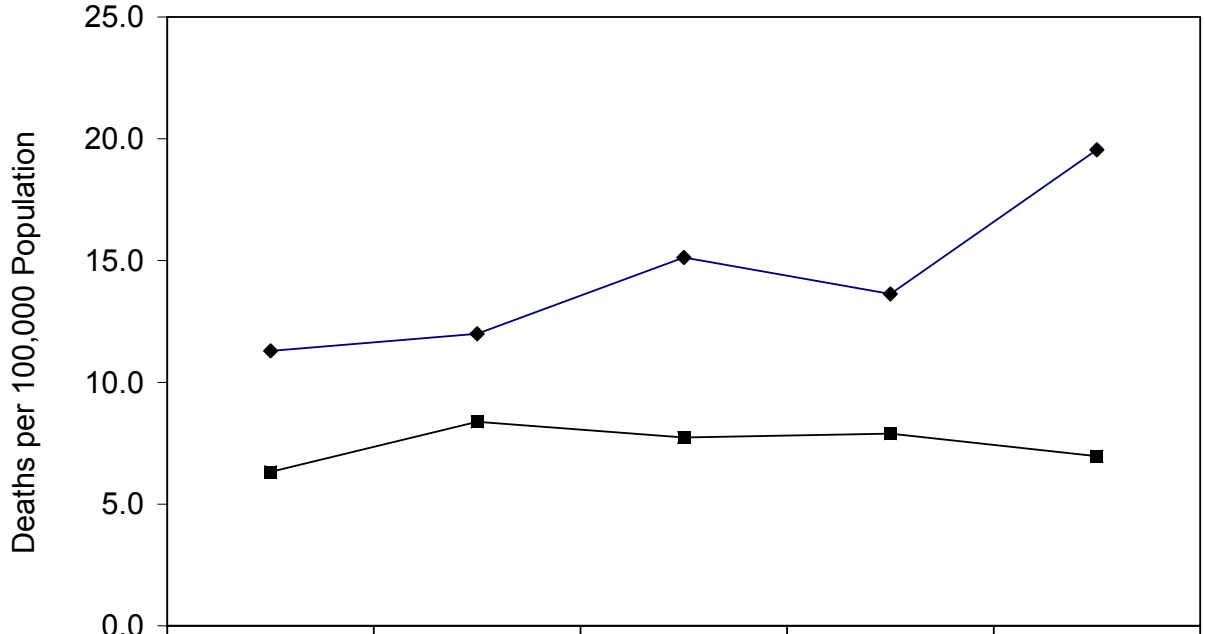
	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	2,080	174	150	111	193	63	107	121	36	149	116	134	252	239	154	81

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- During 2004, South Boston had the city's highest number and rate of substance abuse hospitalizations of all Boston neighborhoods, followed by Roxbury and Charlestown.
- Mattapan had the city's lowest number and rate of substance abuse hospitalizations in 2004.

Substance Abuse

Substance Abuse Mortality by Type and Year: Counts and Age-Adjusted Rates, Boston, 1999-2003



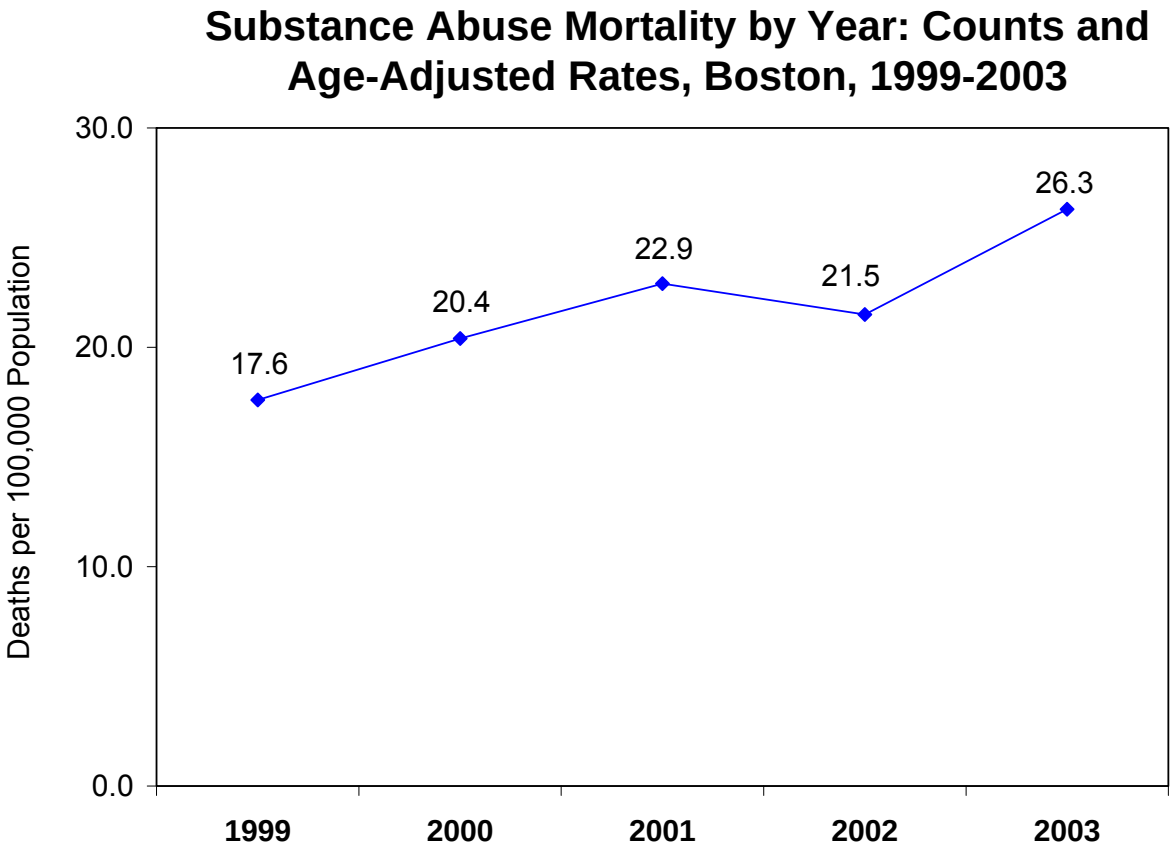
	1999	2000	2001	2002	2003
Alcohol	6.3	8.4	7.7	7.9	7.0
Drug	11.3	12.0	15.1	13.6	19.6

Count	1999	2000	2001	2002	2003
Alcohol	31	42	39	40	34
Drug	65	70	88	76	111

NOTE: The 1999 rates have been recalculated using U.S. Census 2000 population figures and may differ from those reported in previous publications.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Well over one hundred Bostonians die every year from substance abuse.
- Although the number of alcohol-related deaths was 15% lower in 2003 than in 2002, the number of drug abuse-related deaths was 46.1% higher.
- Approximately, two-thirds to three-quarters of Boston's substance abuse mortality is due to drugs, and one-quarter to one-third to alcohol.

Substance Abuse



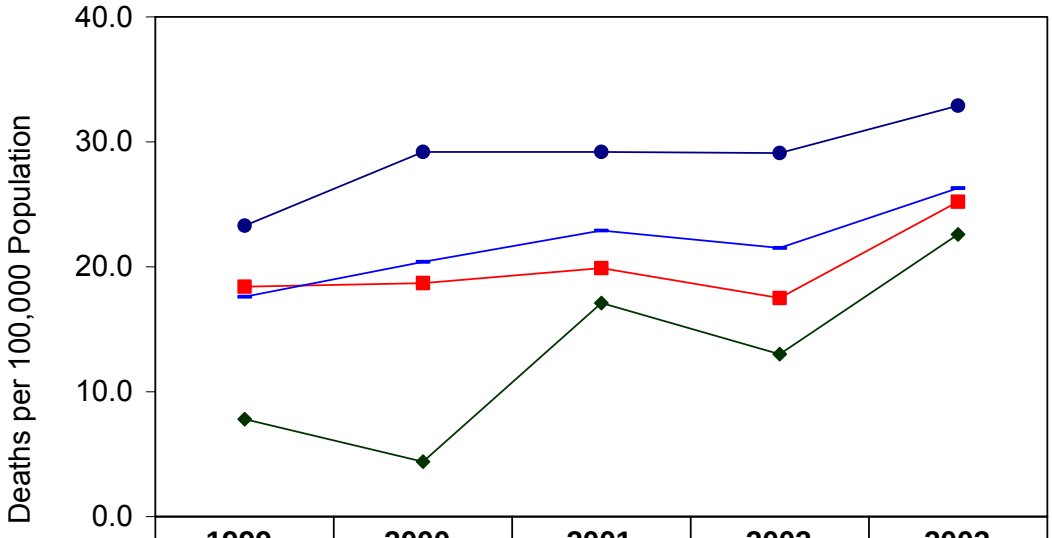
	1999	2000	2001	2002	2003
Count	96	112	127	116	144

NOTE: The rate for 1999 has been recalculated based on U.S. Census 2000 population and may differ from that reported in previous publications.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Boston's substance abuse mortality rate of 26.3 deaths per 100,000 population in 2003 was 49.4% higher than in 1999.

Substance Abuse

Substance Abuse Mortality by Race/Ethnicity and Year: Counts and Age-Adjusted Rates, Boston, 1999-2003



	1999	2000	2001	2002	2003
Black	18.4	18.7	19.9	17.5	25.2
Latino	7.8	4.4	17.1	13.0	22.6
White	23.3	29.2	29.2	29.1	32.9
BOSTON	17.6	20.4	22.9	21.5	26.3

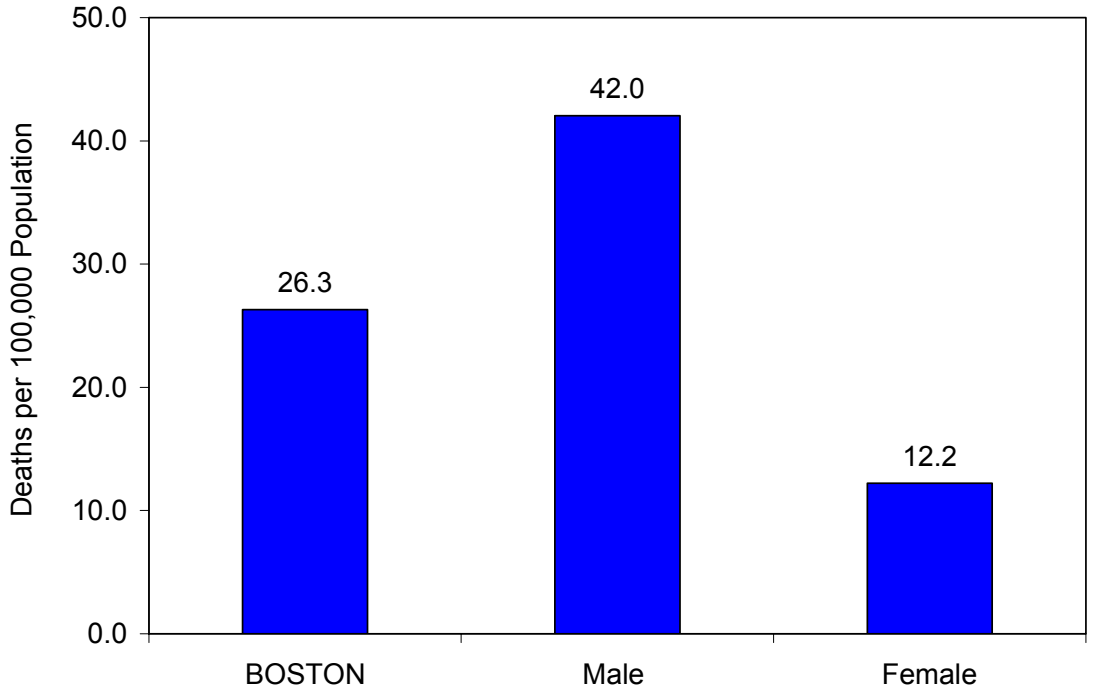
Count	1999	2000	2001	2002	2003
Black	23	23	26	22	32
Latino	6	5	12	11	19
White	67	83	85	81	94
BOSTON	96	112	127	116	144

NOTES: The rates for years prior to 2003 have been updated and may differ from those reported in previous publications. These data do not include persons of Asian, Other, or Unknown race/ethnicity except in the Boston overall count and rate. There were too few substance abuse deaths among Asians during each year of 1999-2003 to permit the separate presentation of rates.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Substance abuse mortality occurs disproportionately in the White population, with approximately two-thirds to three-quarters of the deaths occurring in this group, which has only half of the city's population.

- Rates of death from substance abuse were higher in 2003 than in 1999 for each Boston's large race/ethnicity groups.

Substance Abuse

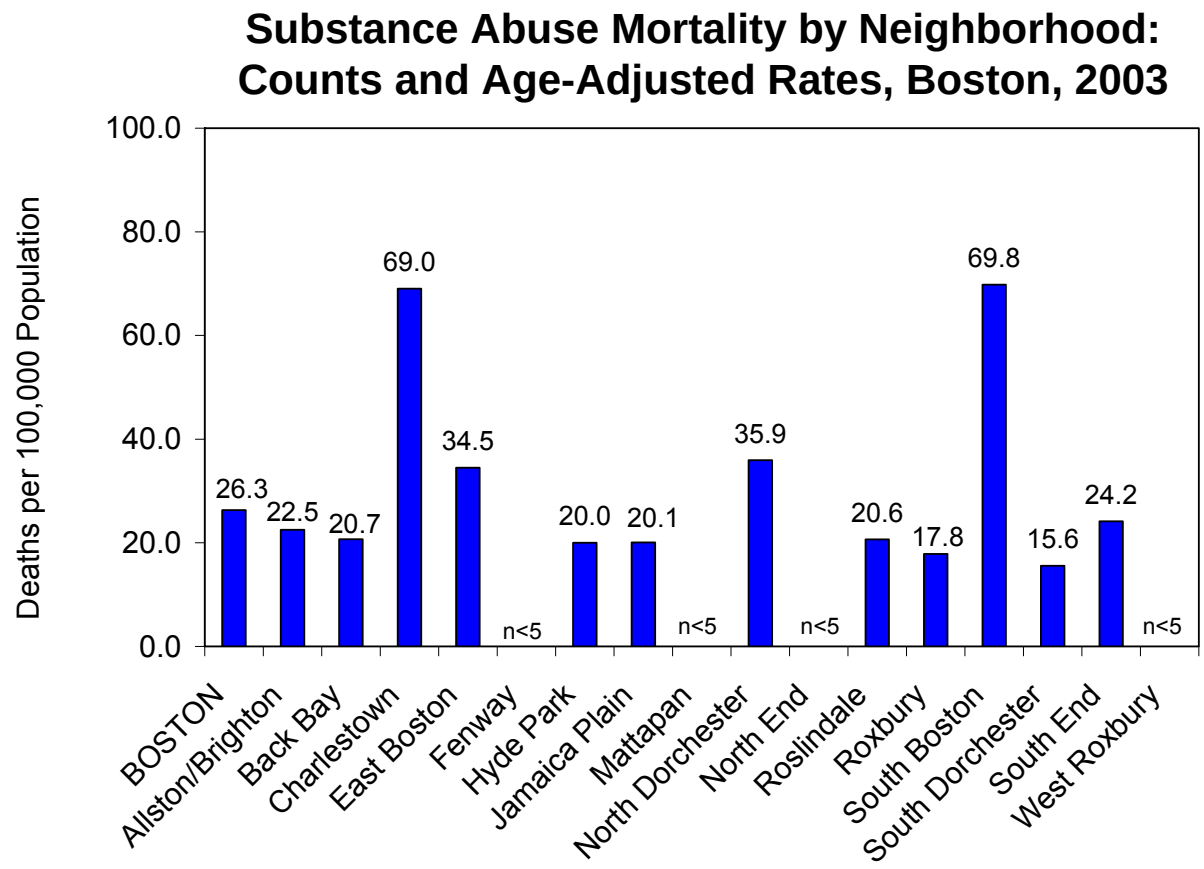


	BOSTON	Male	Female
Count	144	108	36

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Almost three times as many Boston men as women died of substance abuse in 2003.
- The substance abuse mortality rate for males (42.0 deaths per 100,000 population) was more than three times the rate for females (12.2 deaths per 100,000).

Substance Abuse

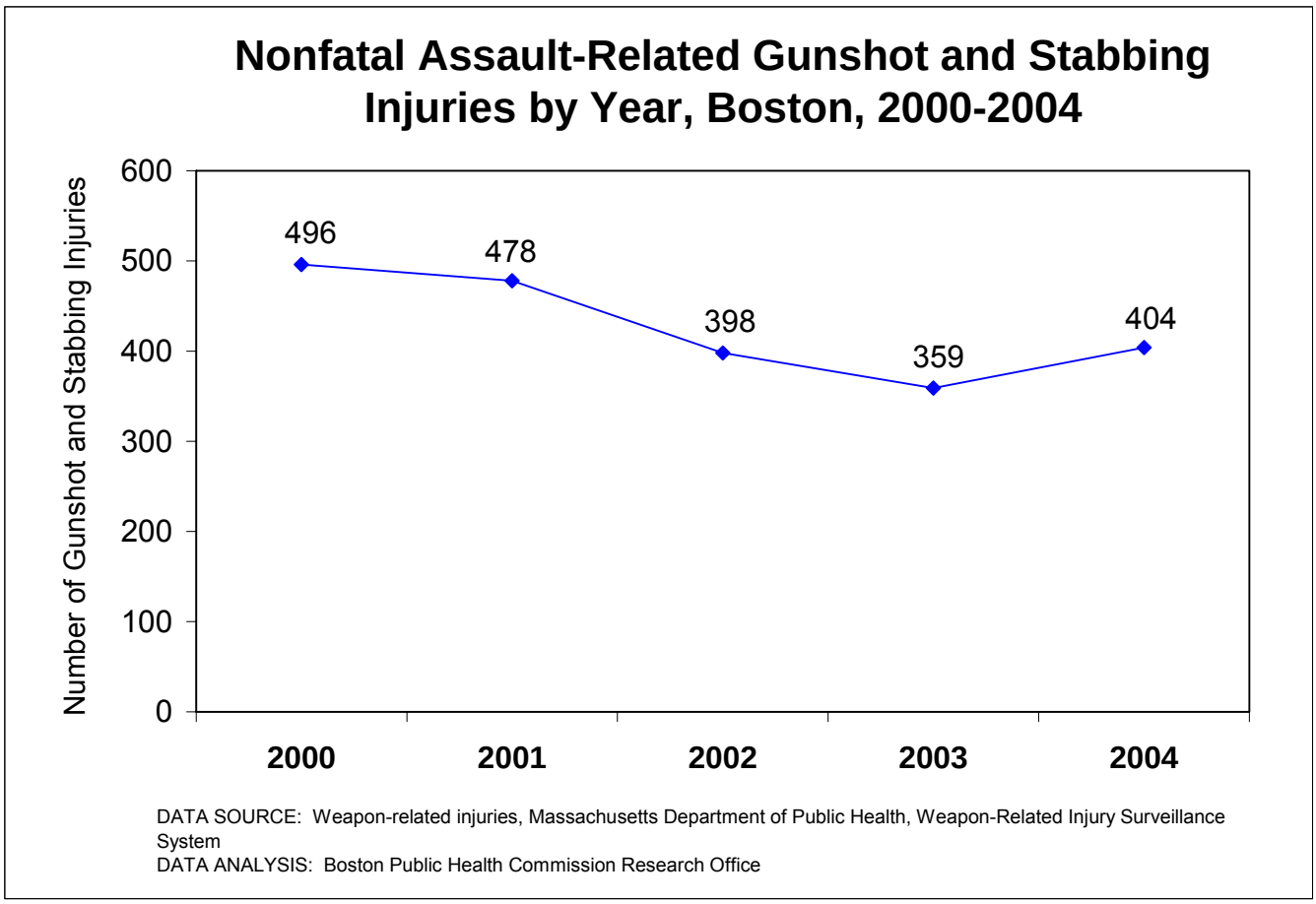


	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	144	9	6	11	13	n<5	7	6	n<5	27	n<5	7	8	21	7	8	n<5

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
NOTE: Fenway, Mattapan, the North End, and West Roxbury had too few deaths from substance abuse to permit the calculation of rates.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, South Boston and Charlestown had high substance abuse mortality age-adjusted rates compared with the other Boston neighborhoods and the city as a whole. Their rates were 165.3% and 162.4% higher than the Boston rate of 26.3 substance abuse deaths per 100,000 population.

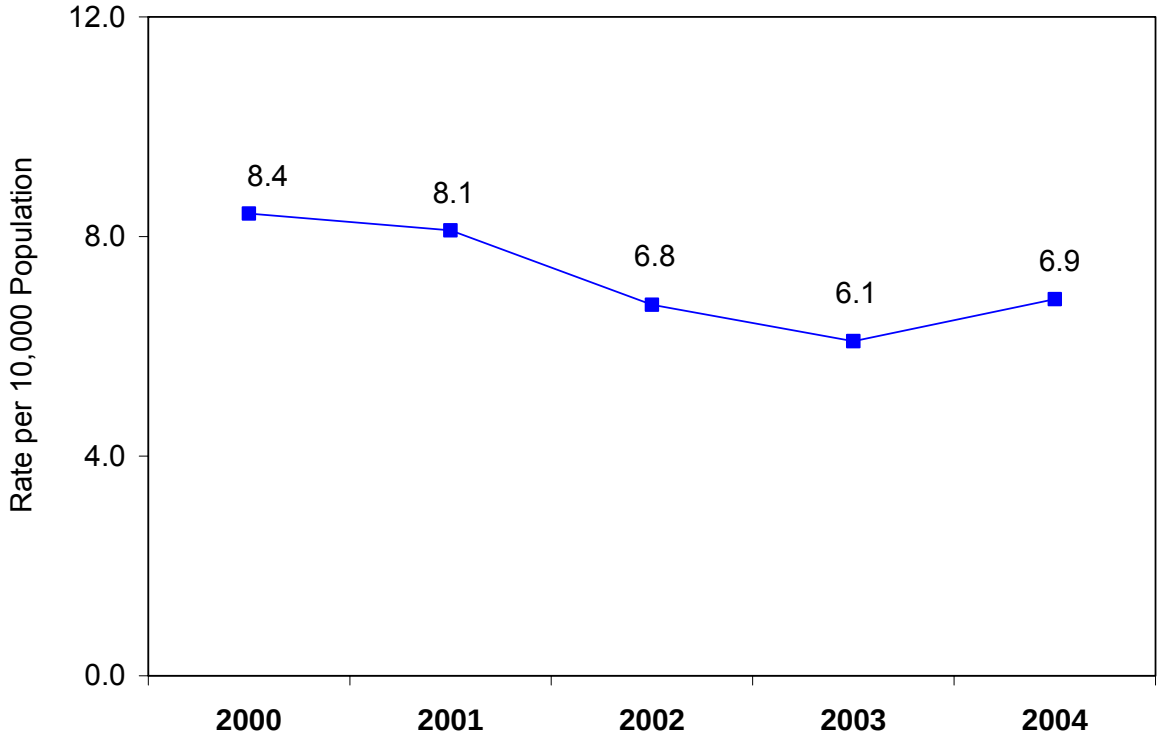
Violence



- In 2004, 404 Boston residents suffered an intentional gunshot or stabbing injury. One-third (32.8%) of these injuries were due to gunshots, and two-thirds were injuries inflicted with knives, razor blades, and other sharp instruments (data not shown).

- The number of gunshot and stabbing injuries among Boston residents in 2004 was 12.5% higher than the number in 2003, but 18.6% below the number of such injuries in 2000.

Violence



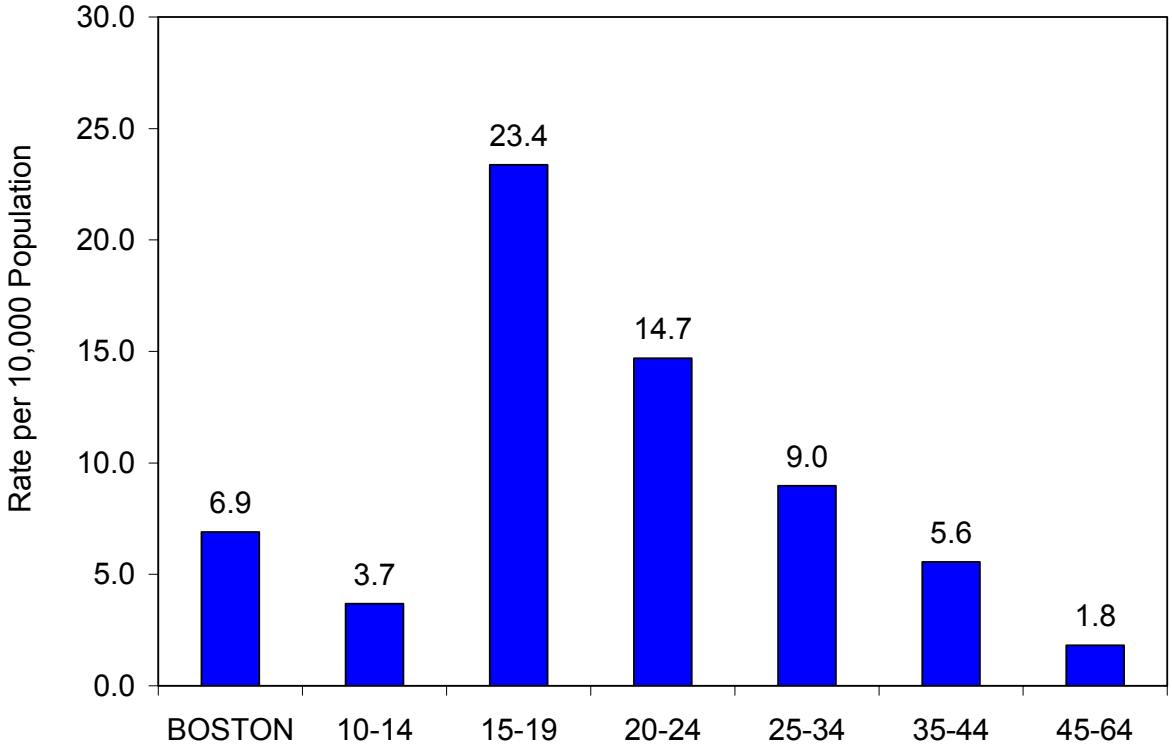
	2000	2001	2002	2003	2004
Count	496	478	398	359	404

DATA SOURCE: Weapon-related injuries, Massachusetts Department of Public Health, Weapon-Related Injury Surveillance System
DATA ANALYSIS: Boston Public Health Commission Research Office

- For the five-year period 2000-2004, the rate of gunshot and stabbing injury for Boston residents was highest in 2000 (8.4 injuries per 10,000 population).
- Between 2000 and 2003, the gunshot and stabbing injury rate fell 27.4%, then increased 13.1% in 2004.

Violence

Nonfatal Assault-Related Gunshot and Stabbing Injuries by Age: Counts and Rates, Boston, 2004



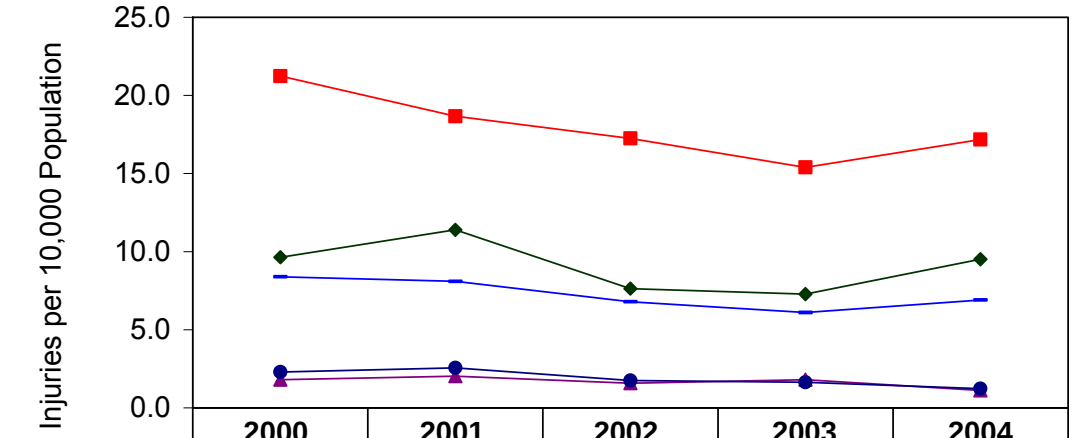
	BOSTON	10-14	15-19	20-24	25-34	35-44	45-64
Count	404	12	102	103	112	48	19

NOTES: These data do not include persons whose age was not reported, except in the Boston overall count and rate. Rates are presented only for those age groups with at least 5 nonfatal assault-related gunshot and stabbing injuries.
DATA SOURCE: Weapon-related injuries, Massachusetts Department of Public Health, Weapon-Related Injury Surveillance System
DATA ANALYSIS: Boston Public Health Commission Research Office

- Boston residents ages 15-19 had the highest gunshot and stabbing injury rate of all age groups in 2004, even though a slightly higher number of these injuries occurred among those ages 25-34.

Violence

Nonfatal Assault-Related Gunshot and Stabbing Injuries by Race/Ethnicity and Year: Counts and Rates Boston, 2000-2004



	2000	2001	2002	2003	2004
Asian	1.8	2.0	1.6	1.8	1.1
Black	21.2	18.7	17.2	15.4	17.2
Latino	9.6	11.4	7.6	7.3	9.5
White	2.3	2.6	1.7	1.6	1.2
BOSTON	8.4	8.1	6.8	6.1	6.9

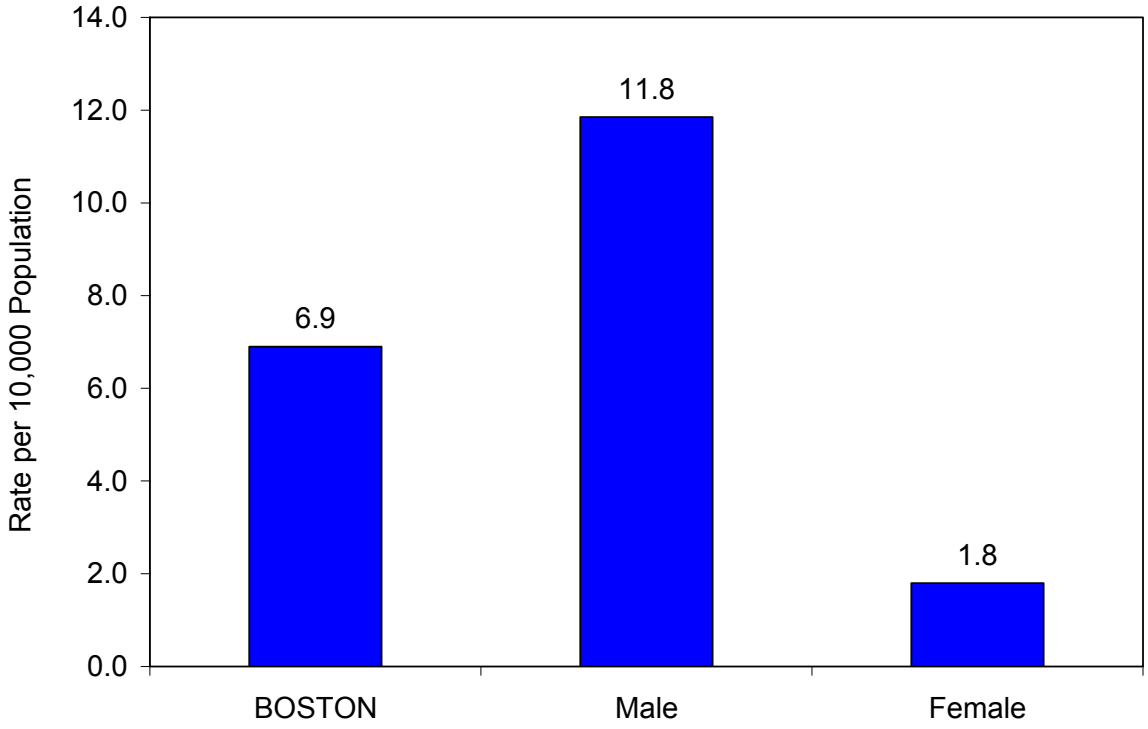
Count	2000	2001	2002	2003	2004
Asian	8	9	7	8	5
Black	298	262	242	216	241
Latino	82	97	65	62	81
White	67	75	51	48	36
BOSTON	496	478	398	359	404

NOTE: Boston count totals and rates includes unknown racial/ethnic groups.
DATA SOURCE: Weapon-related injuries, Massachusetts Department of Public Health, Weapon-Related Injury Surveillance System
DATA ANALYSIS: Boston Public Health Commission Research Office

- Among all race/ethnicity groups, Black Boston residents had the highest gunshot and stabbing injury rates for each year from 2000 through 2004.
- Between 2003 and 2004, these injuries became more frequent in Black and Latino residents, while continuing to decline among Asians and Whites.

Violence

Nonfatal Assault-Related Gunshot and Stabbing Injuries by Sex: Counts and Rates, Boston, 2004



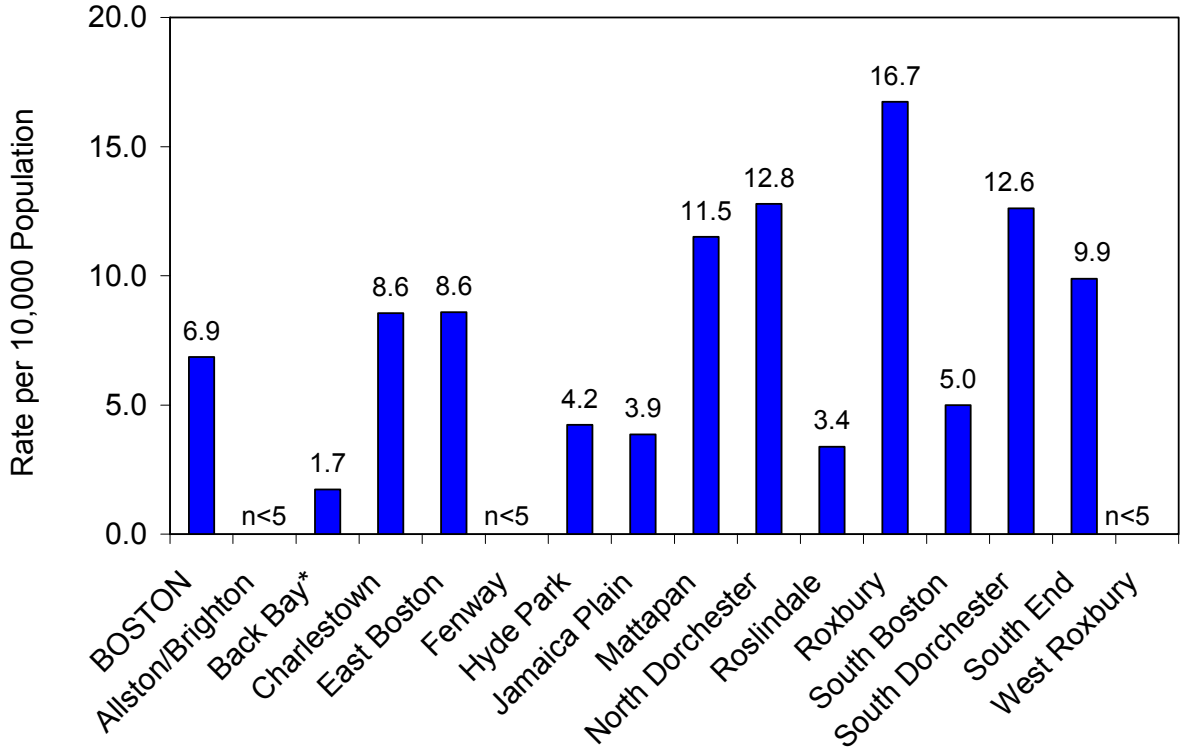
	BOSTON	Male	Female
Count	404	336	55

NOTE: These data do not include persons whose sex was not reported, except in the Boston overall count and rate.
DATA SOURCE: Weapon-related injuries, Massachusetts Department of Public Health, Weapon-Related Injury Surveillance System
DATA ANALYSIS: Boston Public Health Commission Research Office

- The gunshot and stabbing injury rate for Boston males was six-and-a-half times the rate for Boston females in 2004. Only 13.6% of Boston victims in 2004 were female.

Violence

Nonfatal Assault-Related Gunshot and Stabbing Injuries by Neighborhood: Counts and Rates, Boston, 2004



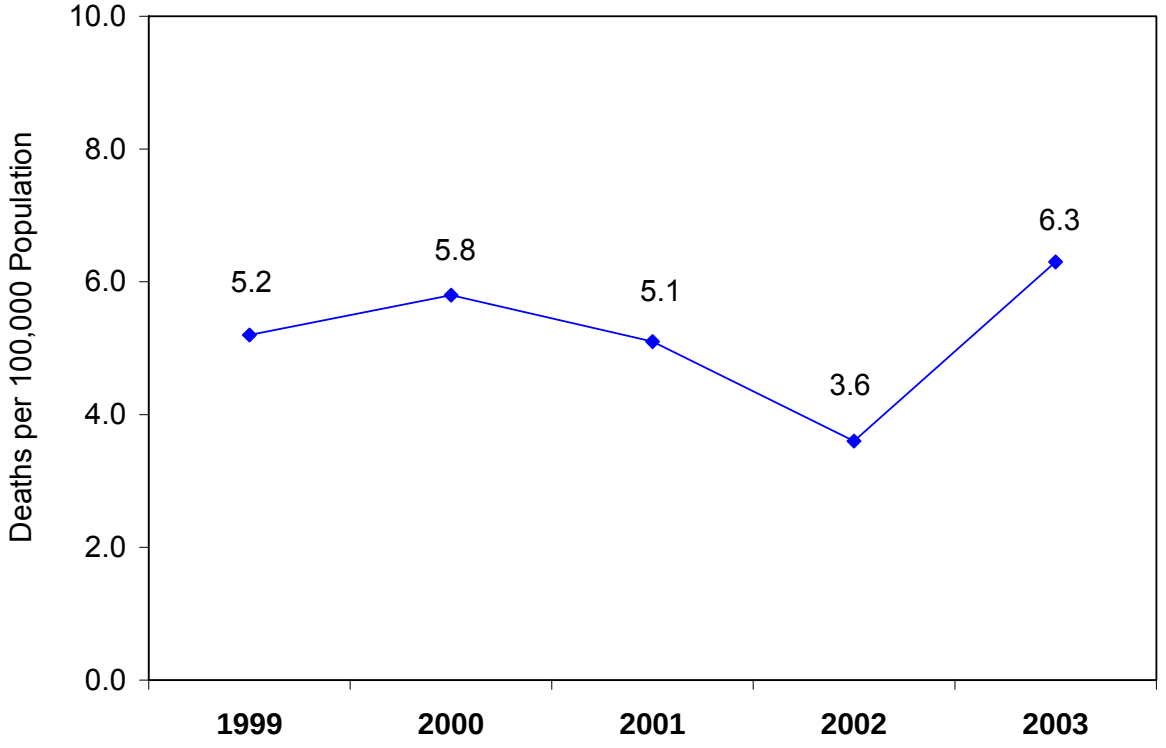
	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	RS	RX	SB	SD	SE	WR
Count	404	n<5	8	13	33	n<5	12	14	32	75	11	58	15	95	27	n<5

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
*Includes the North End
NOTE: Allston/Brighton, Fenway, and West Roxbury had too few injuries to permit the calculation of rates.
DATA SOURCE: Weapon-related injuries, Massachusetts Department of Public Health, Weapon-Related Injury Surveillance System
DATA ANALYSIS: Boston Public Health Commission Research Office

- Roxbury had the highest gunshot and stabbing rate of all Boston neighborhoods in 2004 (16.7 per 10,000 population). This rate was nearly ten times the rate for Back Bay and more than double the rate for Boston overall.

- In addition to Roxbury, three neighborhoods had gunshot and stabbing injury rates that were at least sixty percent higher than the overall Boston rate: these were North Dorchester, South Dorchester, and Mattapan.

Violence



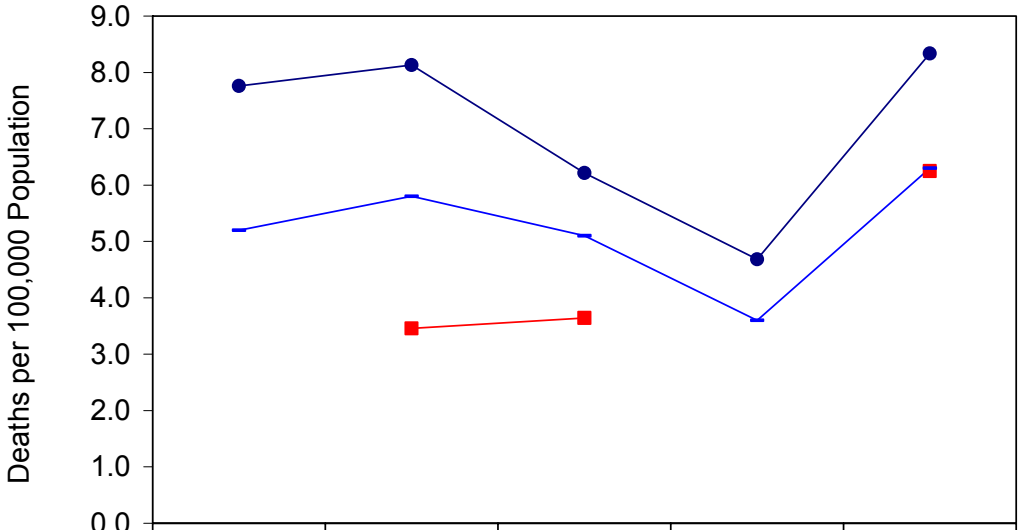
	1999	2000	2001	2002	2003
Count	31	34	32	22	38

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Thirty-eight Boston residents died by suicide in 2003.
- For the five-year period 1999-2003, Boston's suicide rate was highest in 2003 (6.3 deaths per 100,000 population).
- The 75.0% rate increase between 2002 and 2003 was partly the result of an unusually low number of suicides (22) in 2002.

Violence

Suicide Mortality by Race/Ethnicity and Year: Counts and Age-Adjusted Rates, Boston, 1999-2003



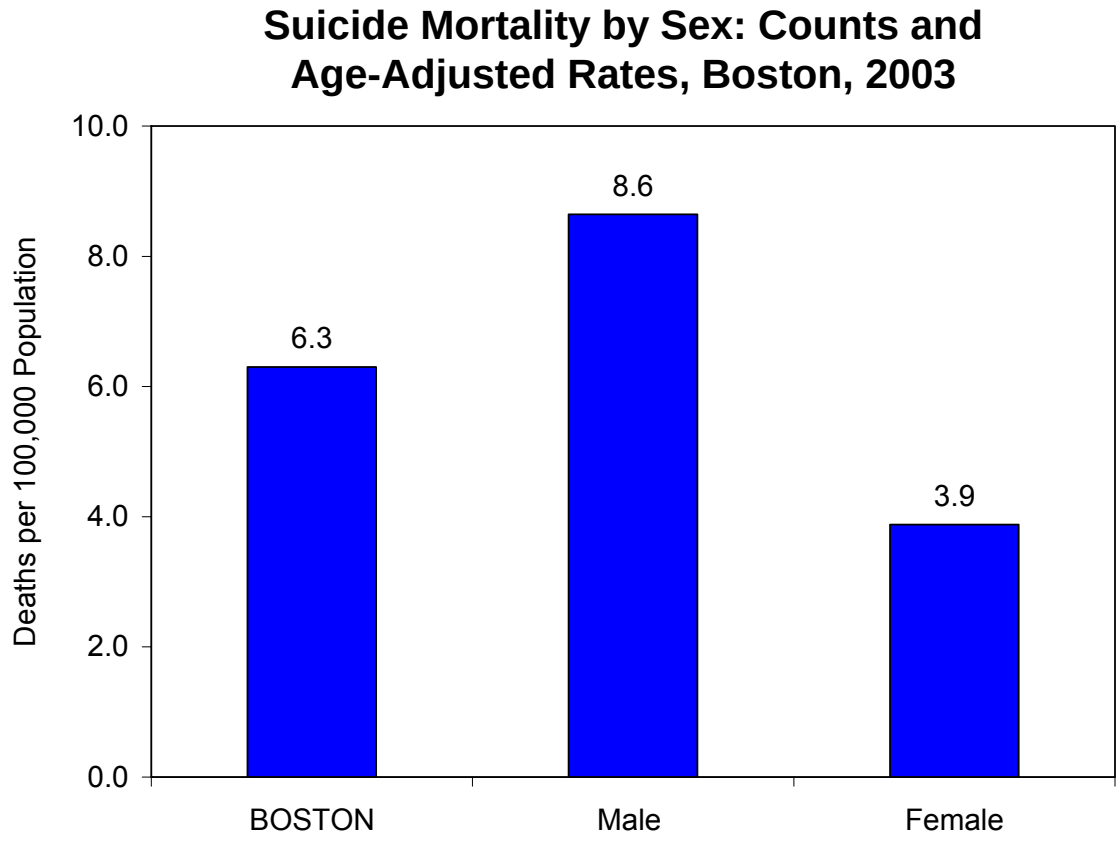
	1999	2000	2001	2002	2003
Black	--	3.5	3.6	--	6.3
White	7.8	8.1	6.2	4.7	8.3
BOSTON	5.2	5.8	5.1	3.6	6.3

Count	1999	2000	2001	2002	2003
Black	n<5	5	5	n<5	9
White	23	25	20	15	26
BOSTON	31	34	32	22	38

NOTES: Rates are not presented for Asians and Latinos due to the small number of suicide deaths in these groups between 1999 and 2003. In 1999 and 2002, Blacks had too few deaths by suicide to permit the presentation of rates.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- White Boston residents accounted for 69.4% of the city's suicide deaths between 1999 and 2003, although they make up just under half of the population.
- In 2003, the rate for Whites was 76.6% higher than the rate in 2002.

Violence



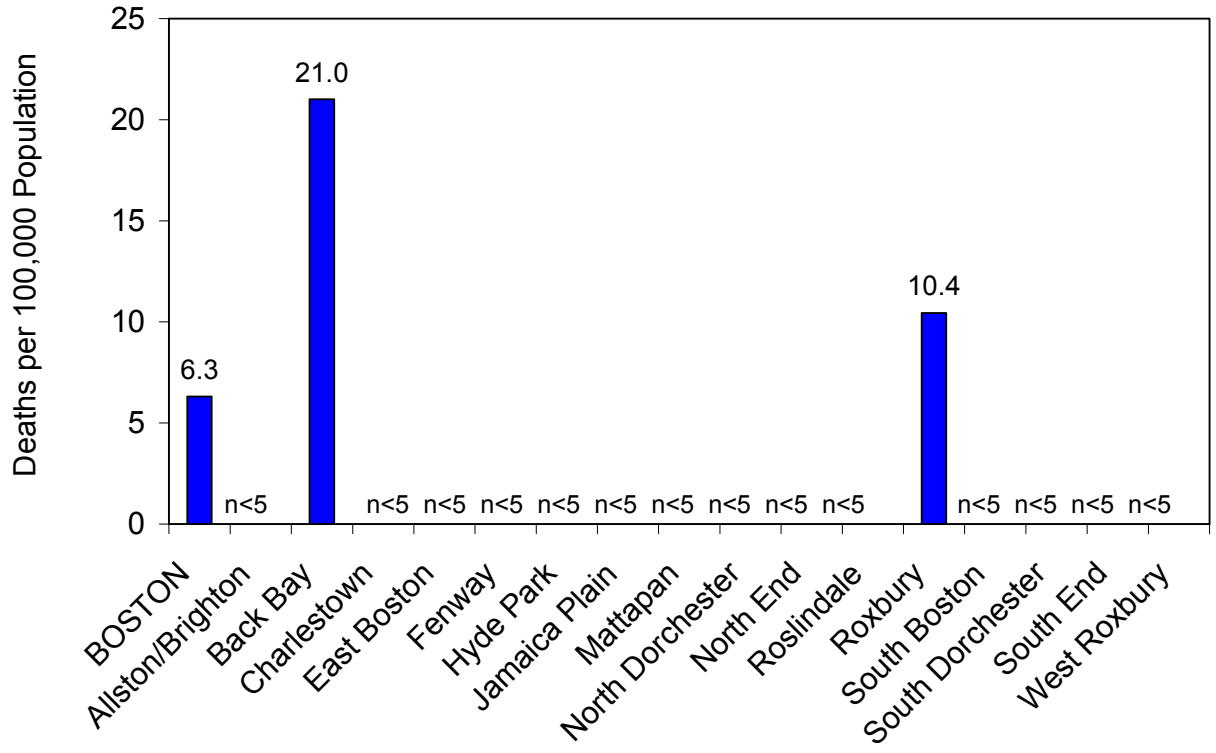
	BOSTON	Male	Female
Count	38	27	11

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- More than twice as many Boston men as women died by suicide in 2003.

Violence

Suicide Mortality by Neighborhood: Counts and Age-Adjusted Rates, Boston, 2003

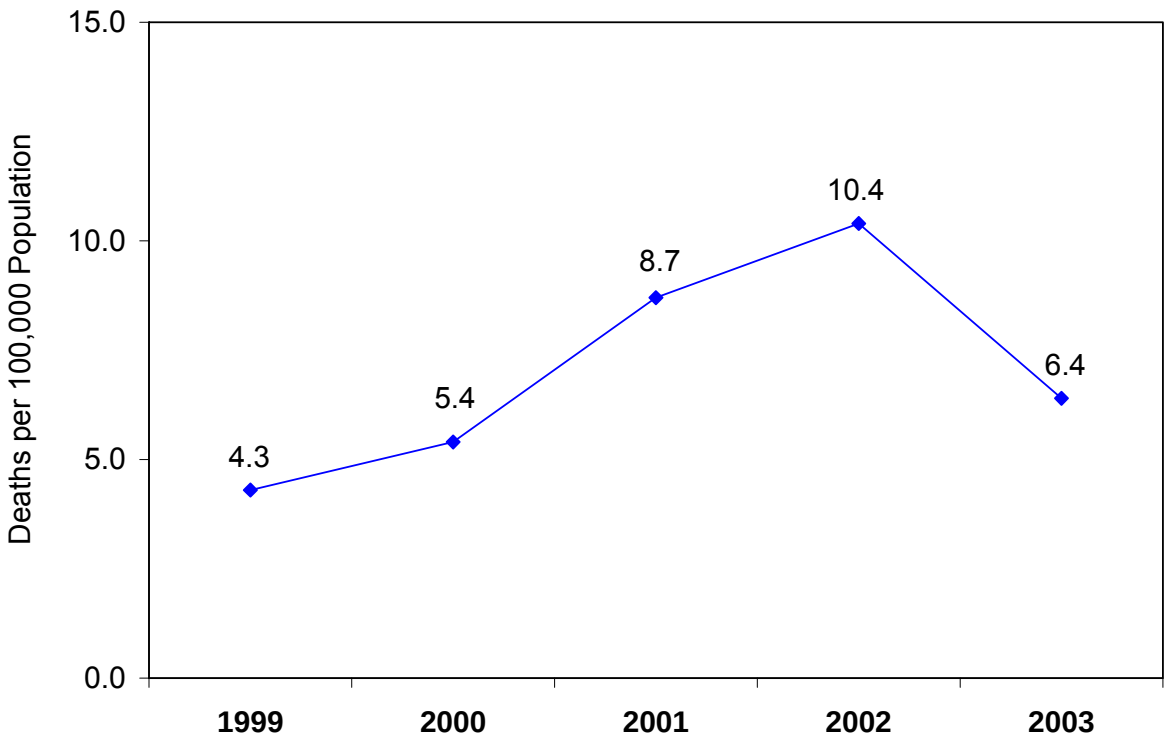


	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	38	n<5	6	n<5	n<5	n<5	n<5	n<5	n<5	n<5	n<5	n<5	5	n<5	n<5	n<5	n<5

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
NOTES: The number of suicides for most neighborhoods were too small to permit presentation of rates. These data do not include homeless persons or individuals whose neighborhood of residence was not reported.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, only two neighborhoods, Roxbury and Back Bay, had a high enough number of suicides to permit the presentation of rates.
- Both of these rates involved small numbers (6 in Back Bay and 5 in Roxbury) and so should be interpreted with caution.

Violence



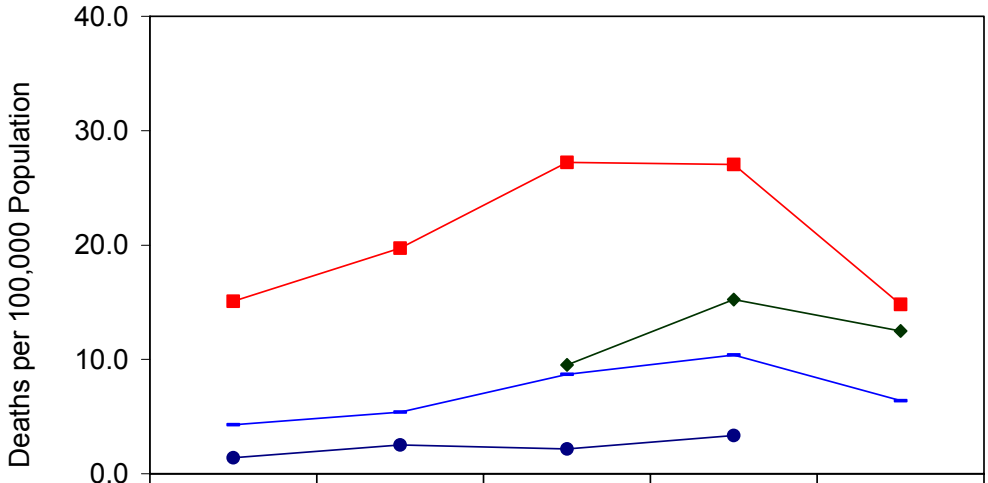
	1999	2000	2001	2002	2003
Count	31	42	62	68	42

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- From 1999 through 2002, the homicide rate for Boston residents steadily increased from 4.3 deaths per 100,000 population to 10.4 deaths per 100,000. The rate then declined 38.5% between 2002 and 2003.
- Preliminary data for 2004 and 2005 point to higher numbers of homicides, particularly in 2005 (final data not yet available from the Massachusetts Department of Public Health).

Violence

Homicide Mortality by Race/Ethnicity and Year: Counts and Age-Adjusted Rates, Boston, 1999-2003



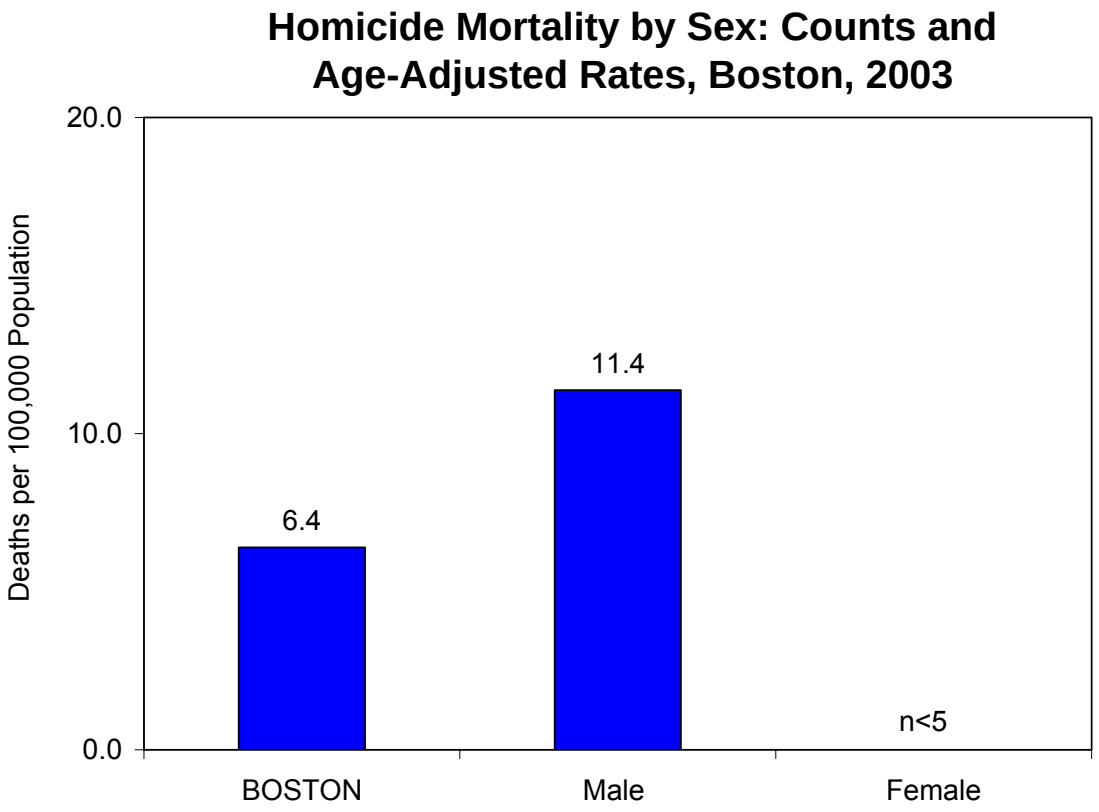
	1999	2000	2001	2002	2003
Black	15.1	19.7	27.2	27.0	14.8
Latino	--	--	9.5	15.2	12.5
White	1.4	2.5	2.2	3.4	--
BOSTON	4.3	5.4	8.7	10.4	6.4

Count	1999	2000	2001	2002	2003
Black	23	31	41	41	23
Latino	n<5	n<5	10	15	10
White	5	7	7	10	n<5
BOSTON	31	42	62	68	42

NOTE: There were too few deaths from homicide among Asians in all years, Latinos in 1999 and 2000, and Whites in 2003, to permit the presentation of mortality rates.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Between 1999 and 2003, nearly two-thirds of Boston homicide victims were Black.
- Homicide rates for Black Boston residents exceeded those of other racial/ethnic groups in every year of the 5-year period.
- The 2003 homicide rate for Blacks was 45.2% lower than the rate in 2002.

Violence



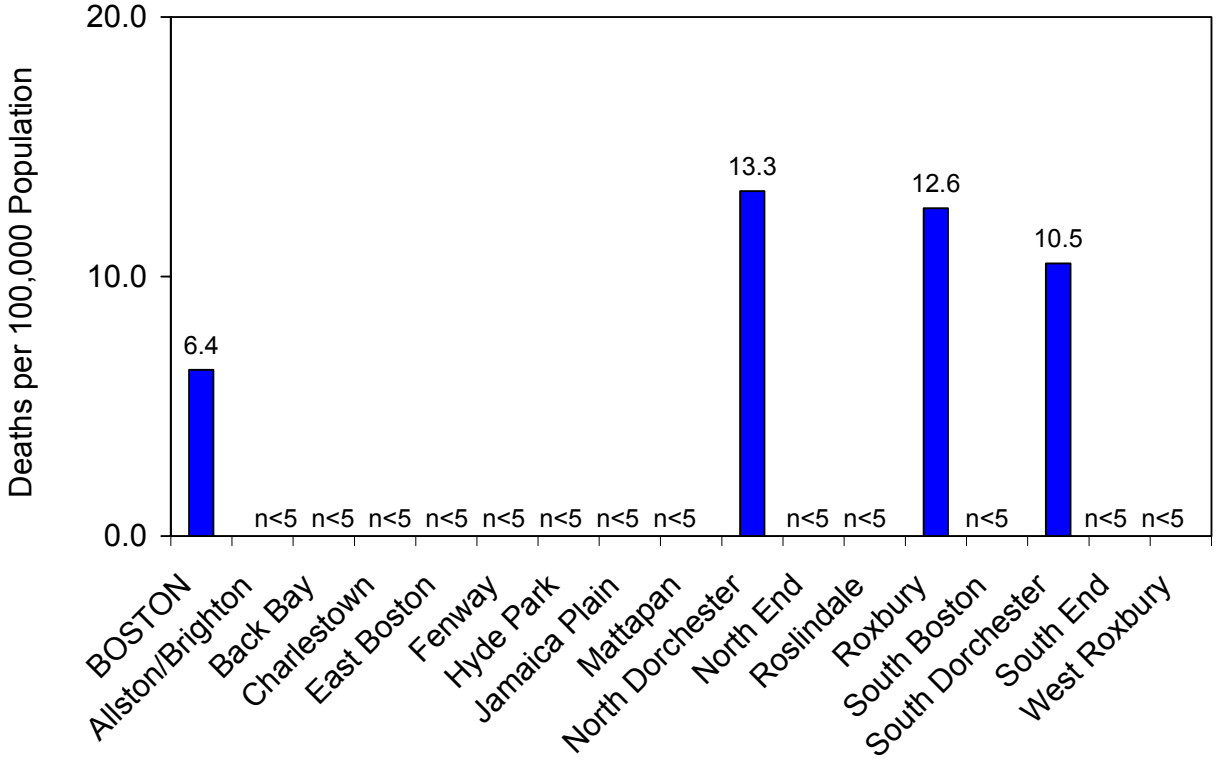
	BOSTON	Male	Female
Count	42	38	n<5

NOTE: There were too few deaths by homicide for females to permit the presentation of a rate.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- The great majority (90.5%) of Boston's homicide victims in 2003 were male.
- There were so few homicides with female victims during 2003 that a mortality rate for this cause of death could not be presented.

Violence

Homicide Mortality by Neighborhood: Counts and Age-Adjusted Rates, Boston, 2003

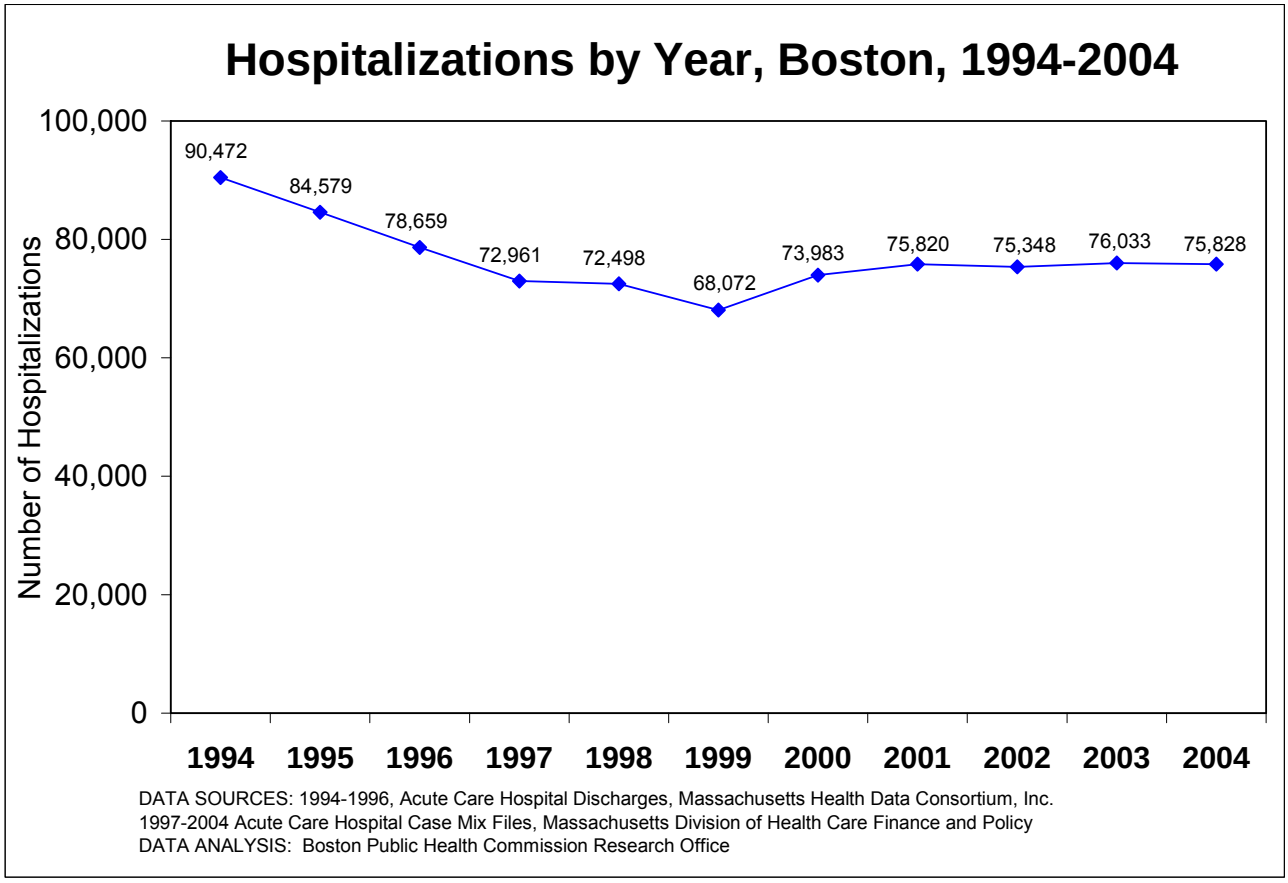


	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	42	n<5	n<5	n<5	n<5	n<5	n<5	n<5	n<5	13	n<5	n<5	7	n<5	5	n<5	n<5

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
NOTE: The number of homicides for most neighborhoods was too small to permit calculation of rates.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, only three neighborhoods had a high enough number of homicides to permit the presentation of homicide rates: these were North Dorchester, South Dorchester, and Roxbury.
- Homicide rates for all three neighborhoods were substantially higher than the homicide rate for Boston overall but were based on small numbers and so are subject to relatively large random fluctuations. They should therefore be interpreted with caution.

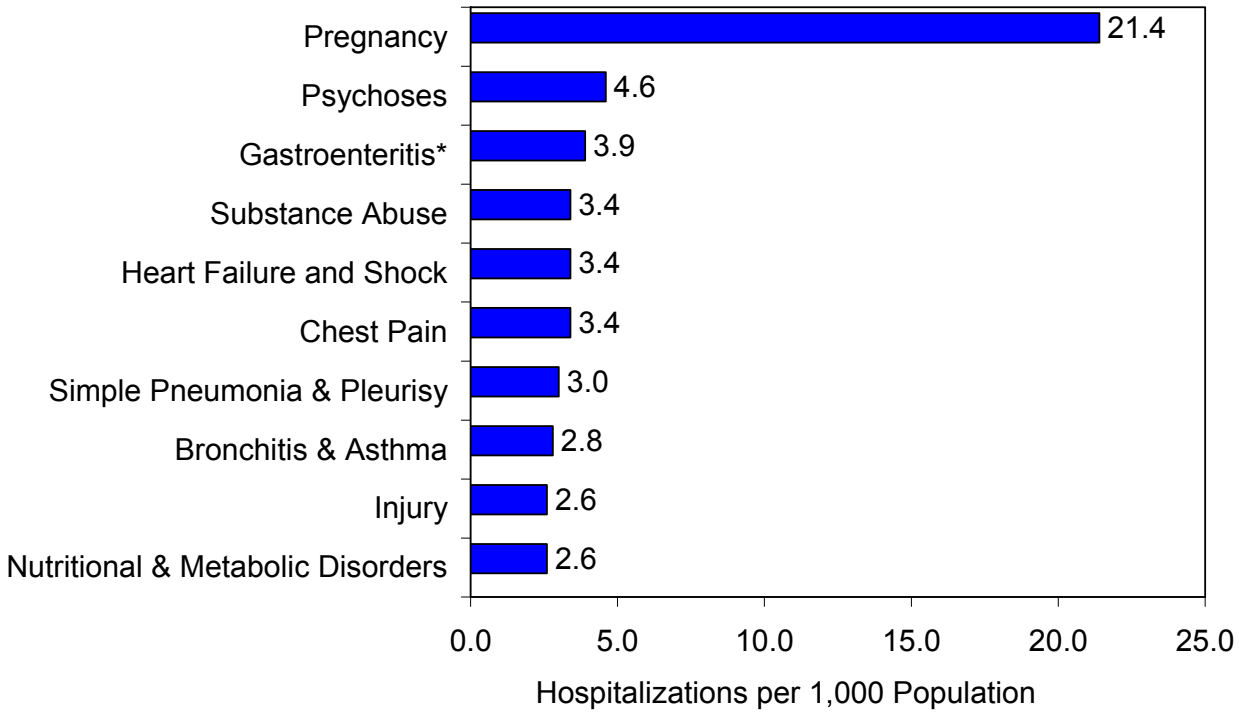
Hospitalizations



- Between 2000 to 2004, the number of hospitalizations of Boston residents has ranged from about 74,000 to about 76,000 per year.
- Prior to the year 2000, the annual number of hospitalizations among Boston residents had been declining steadily. In 2004, there were 16.2% fewer hospitalizations than in 1994.

Hospitalizations

Leading Reasons for Hospitalization: Counts and Age-Adjusted Rates, Boston, 2004



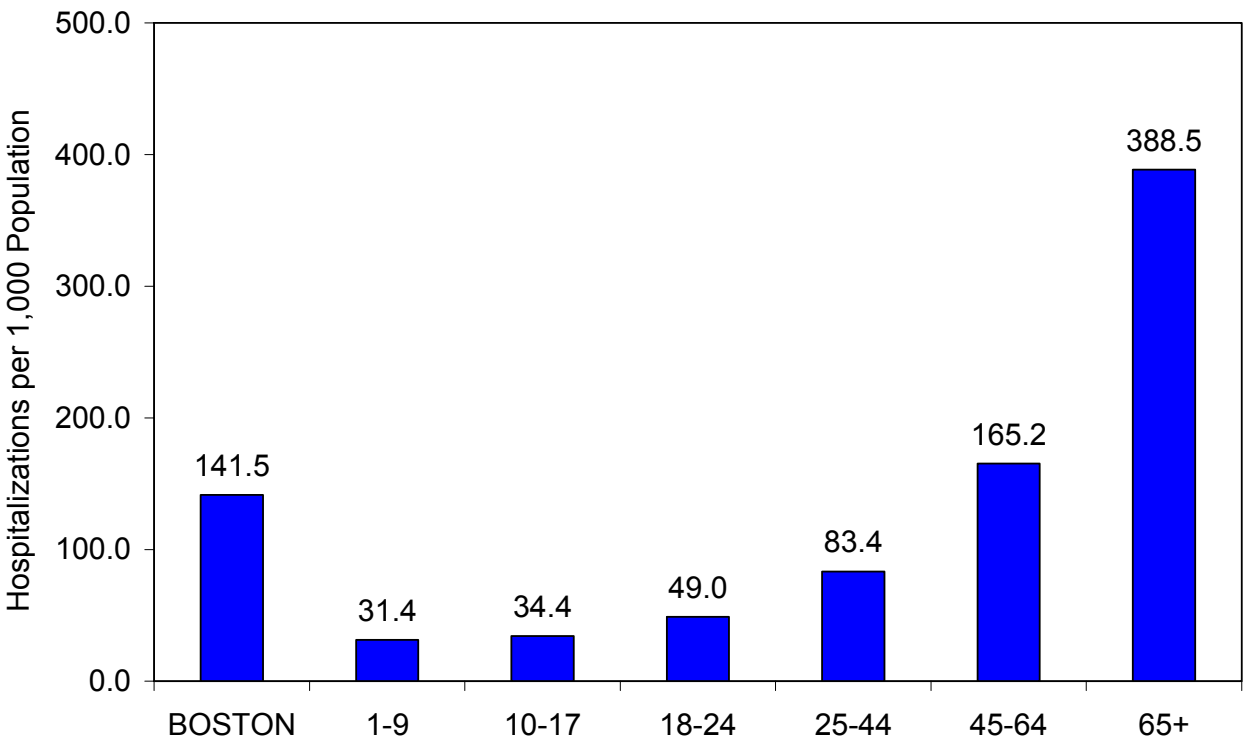
Leading Reasons for Hospitalization	Count
Pregnancy	8,448
Psychoses	2,662
Gastroenteritis*	2,045
Substance Abuse	2,080
Heart Failure and Shock	1,666
Chest Pain	1,661
Simple Pneumonia & Pleurisy	1,489
Bronchitis & Asthma	1,429
Injury	1,434
Nutritional & Metabolic Disorders	1,269

* Also includes esophagitis and miscellaneous digestive disorders
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care, Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- As will be seen in the Mortality chapter, leading reasons for hospitalizations and leading causes of death differ greatly.

- Labor and delivery, postpartum care, and pregnancy-related conditions accounted for 11.1% of hospitalizations in 2003. The next leading reason was serious psychiatric illness.

Hospitalizations



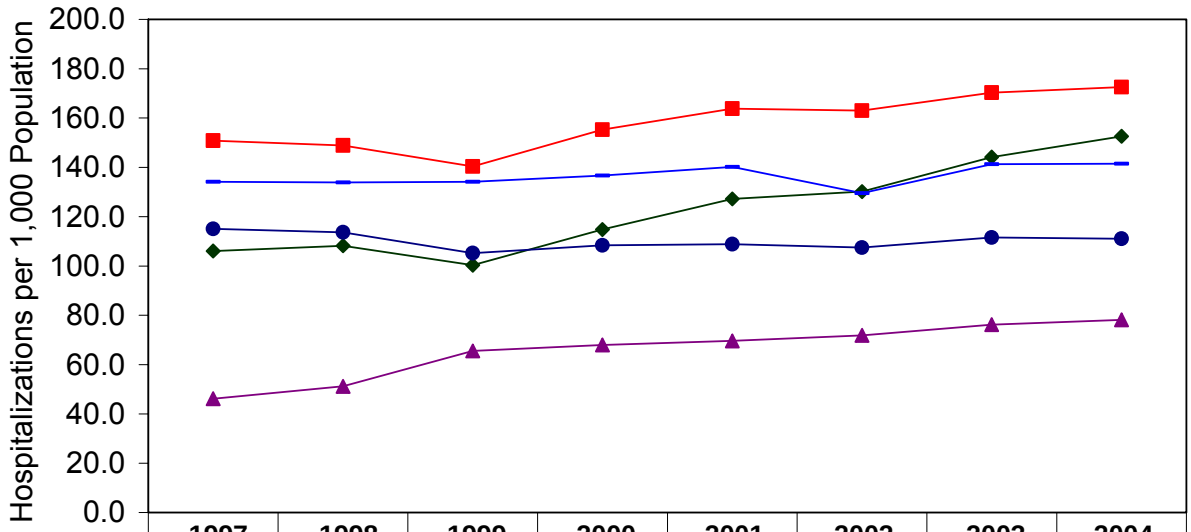
	BOSTON	1-9	10-17	18-24	25-44	45-64	65+
Count	75,828	1,845	1,749	4,678	17,603	17,276	23,827

DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Hospitalization rates typically increase with age. Boston's lowest hospitalization rate was for children ages 1-9 and 10-17. The rate for young adults (ages 18-24) was higher than the rate for 10-17 year-olds, the rate for Boston residents ages 45-64 (165.2 hospitalizations per 1,000) was more than three times the rate for residents ages 18-24, and nearly five times the rate for residents ages 10-17. The highest age-specific hospitalization rate was for those Boston residents ages 65 and over (388.5 hospitalizations per 1,000).

Hospitalizations

Hospitalizations by Race/Ethnicity and Year: Counts and Age-Adjusted Rates, Boston, 1997-2004



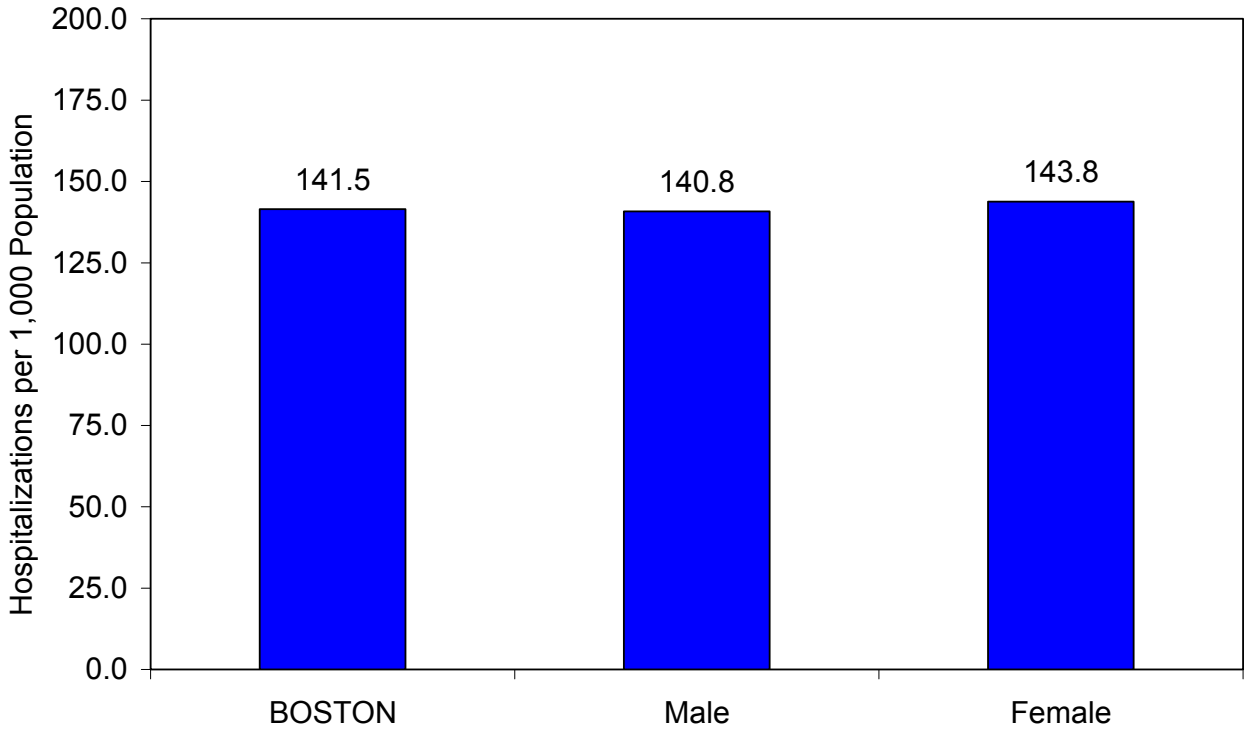
	1997	1998	1999	2000	2001	2002	2003	2004
Asian	46.2	51.2	65.6	68.0	69.6	71.9	76.2	78.2
Black	150.9	148.9	140.4	155.3	163.8	163.0	170.3	172.6
Latino	106.1	108.2	100.3	114.8	127.2	130.2	144.2	152.6
White	115.1	113.7	105.2	108.4	108.9	107.5	111.5	111.1
BOSTON	134.2	133.9	134.2	136.7	140.2	129.5	141.3	141.5

Count	1997	1998	1999	2000	2001	2002	2003	2004
Asian	1,760	1,905	2,341	2,466	2,486	2,808	2,736	2,761
Black	20,402	19,927	18,659	20,564	21,526	21,388	22,040	22,093
Latino	7,682	7,738	6,954	8,112	8,605	9,015	9,451	9,740
White	36,483	36,001	33,214	33,981	34,059	33,602	34,914	34,813
BOSTON	72,961	72,498	72,961	73,983	75,820	75,348	76,033	75,828

NOTES: People of Latino ethnicity may be reported in any of the above race/ethnicity categories. The Boston count total and rate includes people of unknown race/ethnicity. See Technical Notes for additional caveats.
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Disparities in hospitalization rates continue to exist among Boston's racial/ethnic groups. In 2004, Black residents had the city's highest hospitalization rate and Asians the lowest, a pattern that was consistent throughout the 1997-2004 time period.
- Hospitalization rates were higher in 2004 than in 1997 for all race/ethnicity groups except Whites.

Hospitalizations



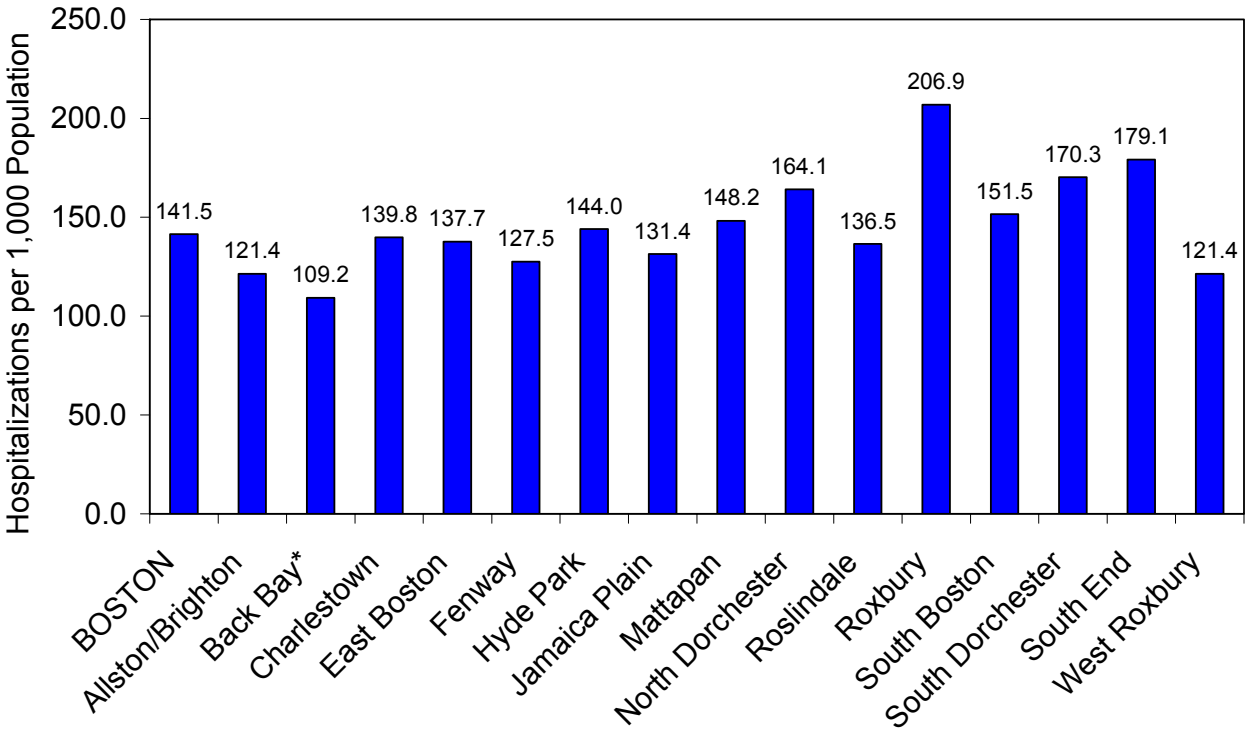
	BOSTON	Male	Female
Count	75,828	32,350	43,478

DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- A majority (57.3%) of Boston resident hospitalizations in 2004 were of females, but the city's hospitalization rates for males and females were similar, 140.8 hospitalizations per 1,000 population for males, and 143.8 per 1,000 for females.

Hospitalizations

Hospitalizations by Neighborhood: Counts and Age-Adjusted Rates, Boston, 2004



	BOSTON	A/B	BB	CH	EB	FW	HP	JP
Count	75,828	6,351	4,330	2,012	5,277	2,545	4,220	4,448

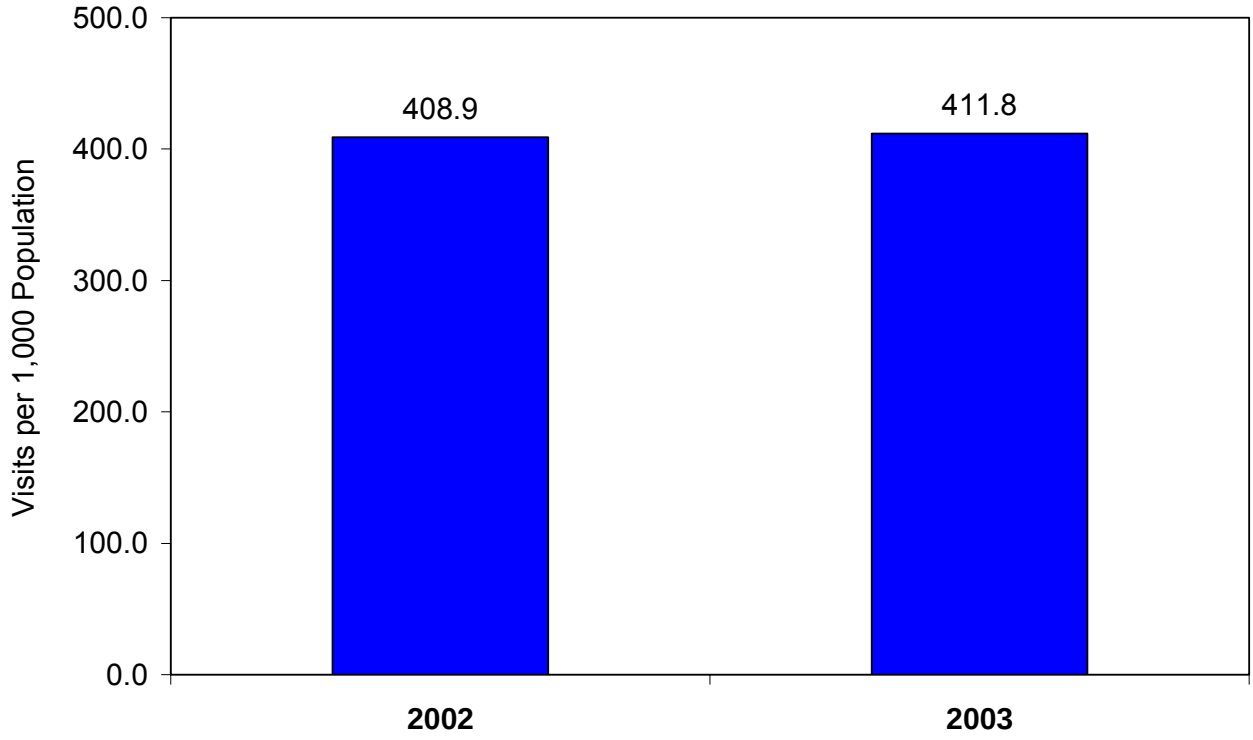
	MT	ND	RS	RX	SB	SD	SE	WR
Count	3,605	8,371	4,415	6,200	4,545	11,440	4,347	3,722

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, WR=West Roxbury.
*Includes the North End.
DATA SOURCE: Acute Care Hospital Case Mix Files, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- South Dorchester had the highest number of hospitalizations (11,440) in 2004, but the highest age-adjusted hospitalization rate was for residents of Roxbury (206.9 hospitalizations per 1,000 population). That rate was 46.2% higher than the overall Boston rate (141.5 hospitalizations per 1,000).

- Residents of the Back Bay had the lowest hospitalization rate of all Boston neighborhoods (109.2 per 1,000), 22.8% lower than the overall Boston rate.

Emergency Department Visits



	2002	2003
Count	240,934	242,626

DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, Boston residents made 1,692 more emergency department (ED) visits than in 2002.

Emergency Department Visits

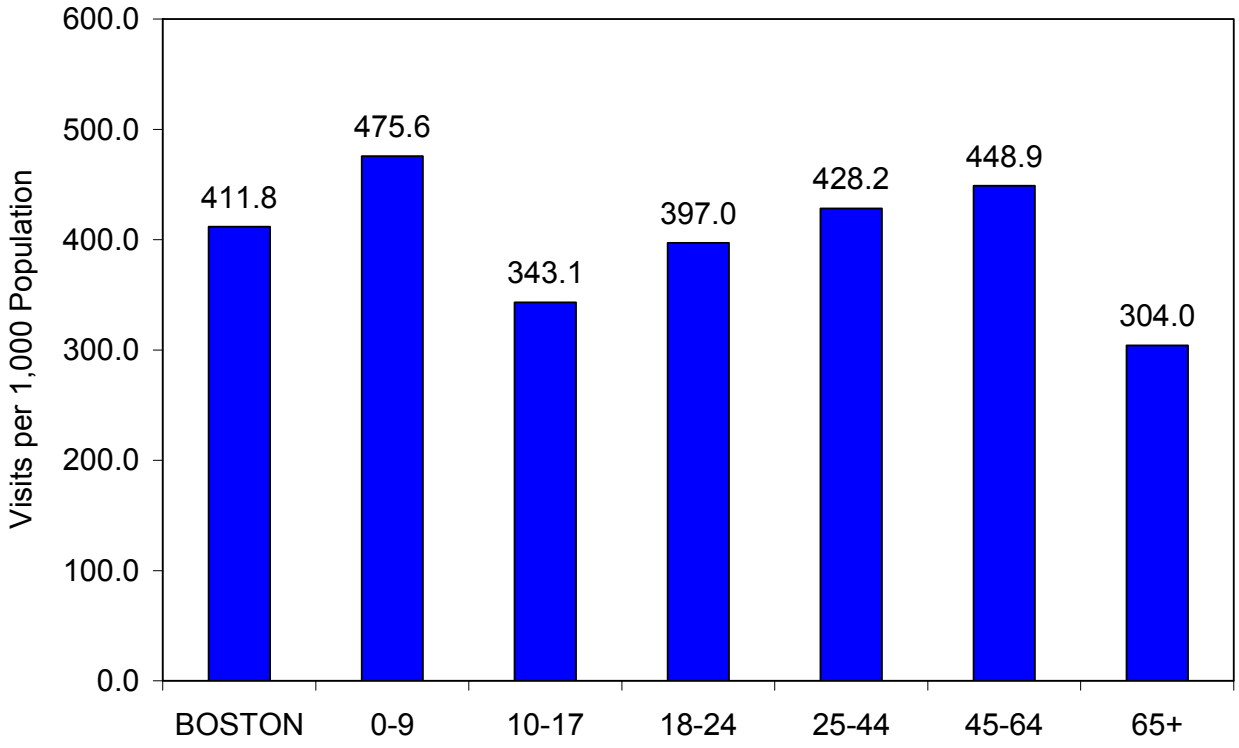
Leading Reasons for Emergency Department Visits: Counts and Percentage Distributions, Boston, 2003

	Number of Visits	Percent of All ED Visits
Injury	76,566	31.6%
Respiratory Diseases and Disorders	30,521	12.6%
Miscellaneous	21,385	8.8%
Digestive System Diseases and Disorders	17,992	7.4%
Musculoskeletal System and Connective Tissue Disorders	17,049	7.0%
Mental Diseases and Disorders	15,008	6.2%
Infectious Diseases	11,190	4.6%
Ear, Nose, Mouth, and Throat Diseases and Disorders	9,541	3.9%
Nervous System Diseases and Disorders	8,874	3.7%
Skin and Subcutaneous Tissue Diseases and Disorders	7,995	3.3%
Circulatory Diseases and Disorders	7,501	3.1%
Kidney and Urinary Tract Diseases and Disorders	7,076	2.9%
Eye Diseases and Disorders	4,177	1.7%
Diseases and Disorders of the Female Reproductive System	3,823	1.6%
Pregnancy-Related Visits	3,938	1.6%
TOTAL	**242,626**	**100.0%**

DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Nearly a quarter of a million visits to hospital emergency departments were made by Boston residents in 2003.
- Injury was the leading reason Boston residents went to emergency departments during 2003. Of the 242,626 visits, 31.6% were for injuries.
- Boston residents also made 30,521 visits (12.6% of all visits) for respiratory conditions and disorders, the second leading reason for ED visits.

Emergency Department Visits

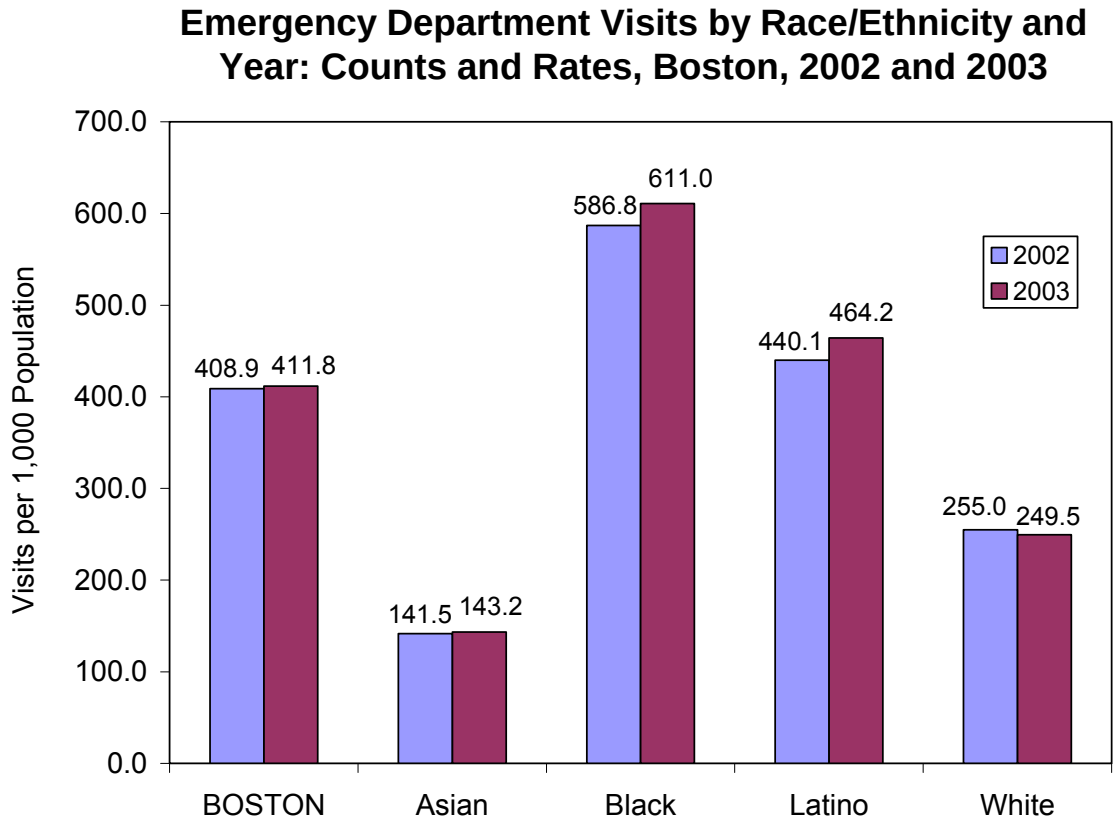


	BOSTON	0-9	10-17	18-24	25-44	45-64	65+
Count	242,626	31,277	17,429	37,908	90,418	46,945	18,649

DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Children under ten years of age had Boston's highest rate of emergency department visits in 2003, 475.6 visits per 1,000 population.
- ED visit rates were lowest for adults ages 65 and older.

Emergency Department Visits



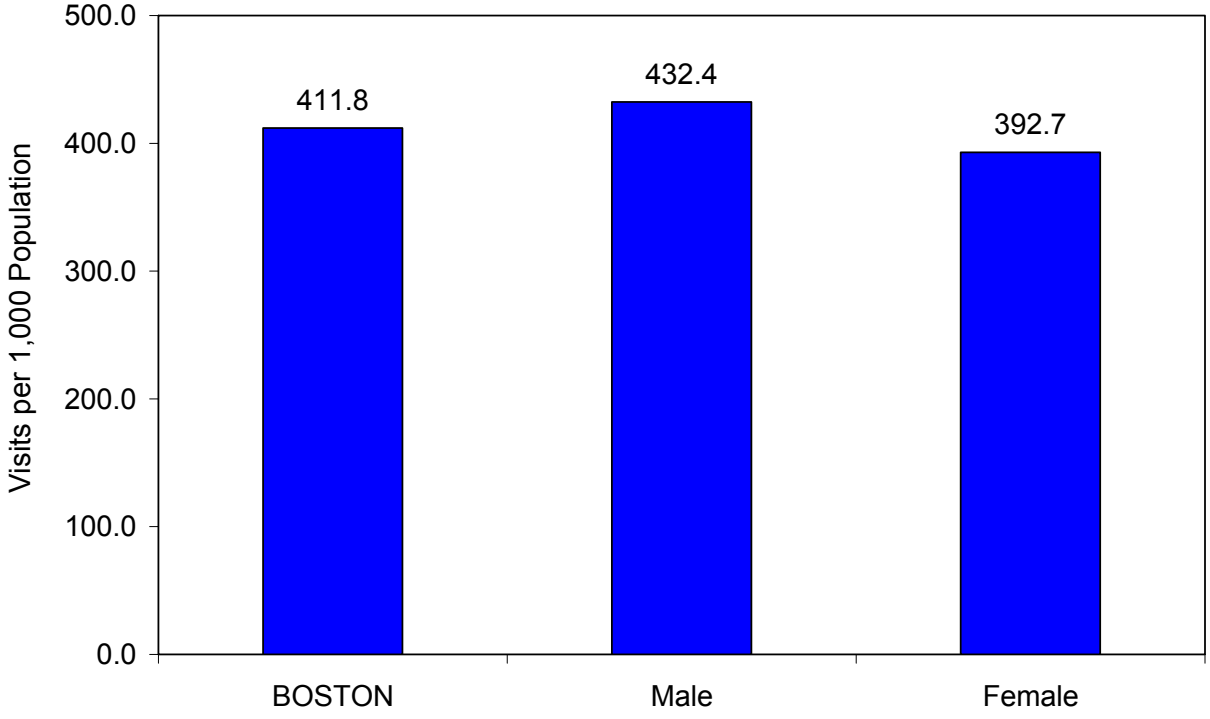
Count	BOSTON	Asian	Black	Latino	White
2002	240,934	6,125	87,728	37,446	81,834
2003	242,626	6,200	91,339	39,501	80,068

NOTES: People of Latino ethnicity may be reported in any of the above race/ethnicity categories. See Technical Notes for additional caveats. These data do not include persons whose race/ethnicity was not reported except in the Boston overall counts and rates.
DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- Black and Latino residents had Boston's highest ED visit rates, and Asian residents the lowest.
- Emergency Department visit rates were higher in 2003 than in 2002 for all race/ethnicity groups except Whites.

Emergency Department Visits

Emergency Department Visits by Sex: Counts and Rates, Boston, 2003

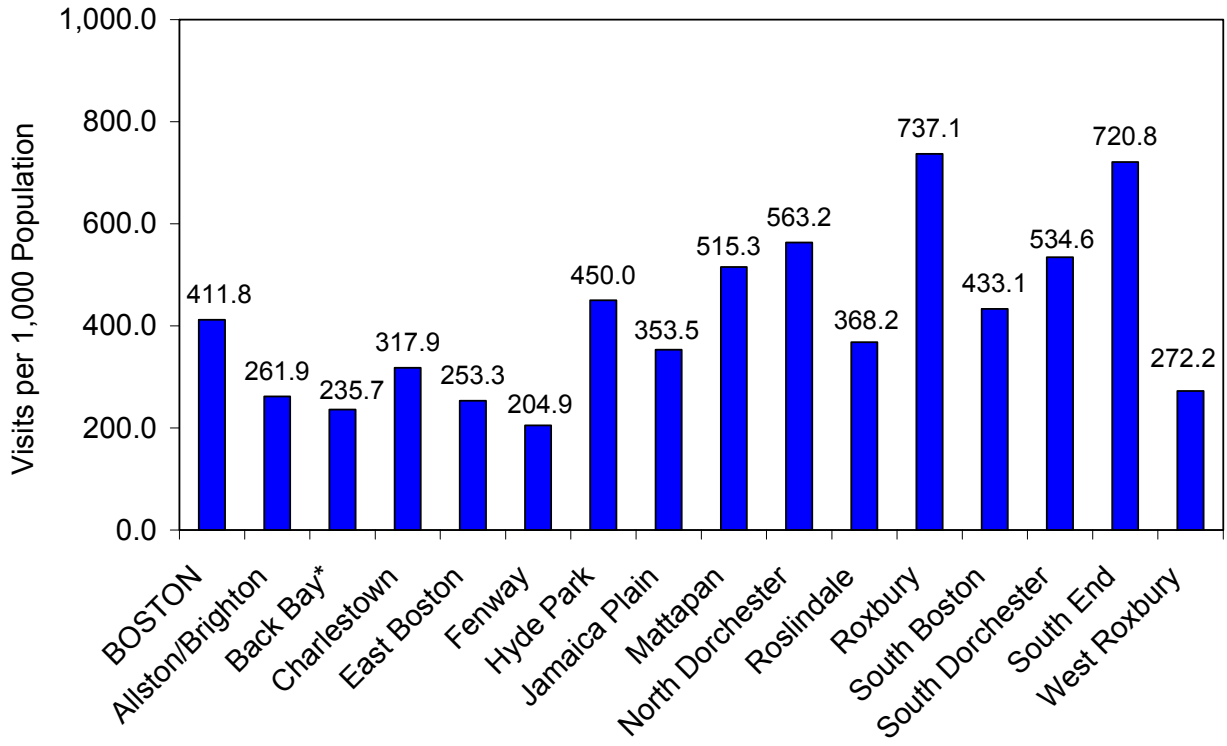


	BOSTON	Male	Female
Count	242,626	122,615	120,005

NOTE: These data do not include persons whose sex was not reported, except in the Boston overall count and rate.
DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, the rate of ED visits for male Boston residents (432.4 visits per 1,000 population) was 10.1% higher than the visit rate for female Boston residents (392.7 visits per 1,000).

Emergency Department Visits



	BOS	A/B	BB	CH	EB	FW	HP	JP
Count	242,626	17,405	10,902	4,831	9,729	9,721	12,776	12,831

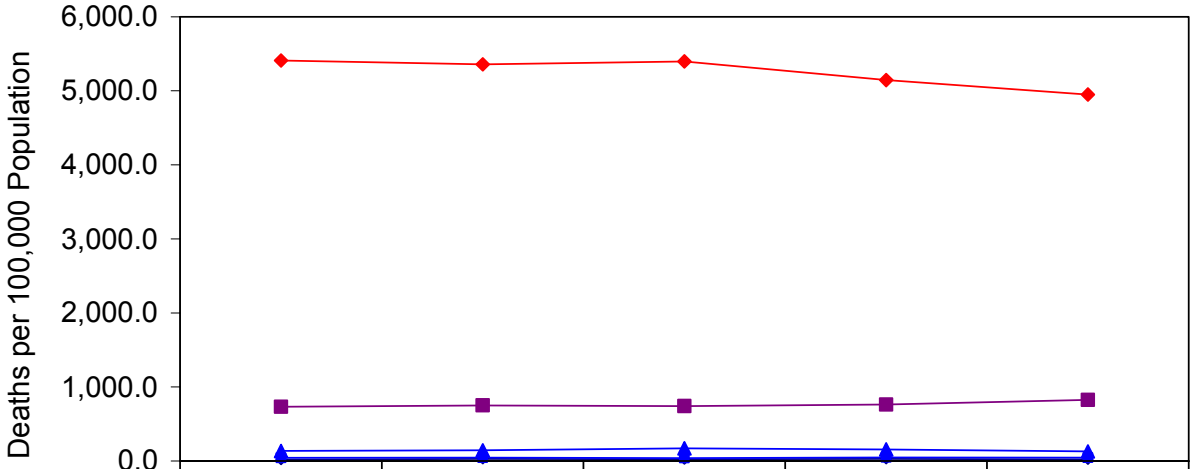
	MT	ND	RS	RX	SB	SD	SE	WR
Count	14,334	33,048	11,976	25,550	13,015	40,268	19,687	6,553

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
* Includes the North End
DATA SOURCE: Emergency Department Visit Data Base, Massachusetts Division of Health Care Finance and Policy
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2004, Roxbury and South End residents had the city's highest ED visit rates.
- The city's lowest rates for emergency department visits were for the Fenway (50.2% below the overall rate for Boston) and the Back Bay/North End area (42.8% below the Boston rate).

Mortality

Mortality by Year: Counts and Age-Specific Rates, Boston, 1999-2003



	1999	2000	2001	2002	2003
1-17	17.3	28.3	23.7	25.6	21.0
18-24	42.9	44.0	39.8	48.2	44.0
25-44	136.4	143.0	171.9	156.7	129.7
45-64	733.4	749.6	740.0	761.1	824.2
65+	5,407.9	5,359.0	5,396.5	5,143.8	4,949.8

Count	1999	2000	2001	2002	2003
1-17	19	31	26	28	23
18-24	41	42	38	46	42
25-44	288	302	363	331	274
45-64	767	784	774	796	862
65+	3,317	3,287	3,310	3,155	3,036

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- A total of 4,237 Boston residents ages one and over died in 2003.
- Mortality rates generally increase by age. The age-specific mortality rates for Boston were lowest for children under the age of 18 (21.0 deaths per 100,000 population) and highest for residents ages 65 years of age and over (4,949.8 deaths per 100,000 population in 2003).

Mortality

Mortality by Race/Ethnicity and Year: Counts and Age-Specific Rates

Boston, 1999-2003

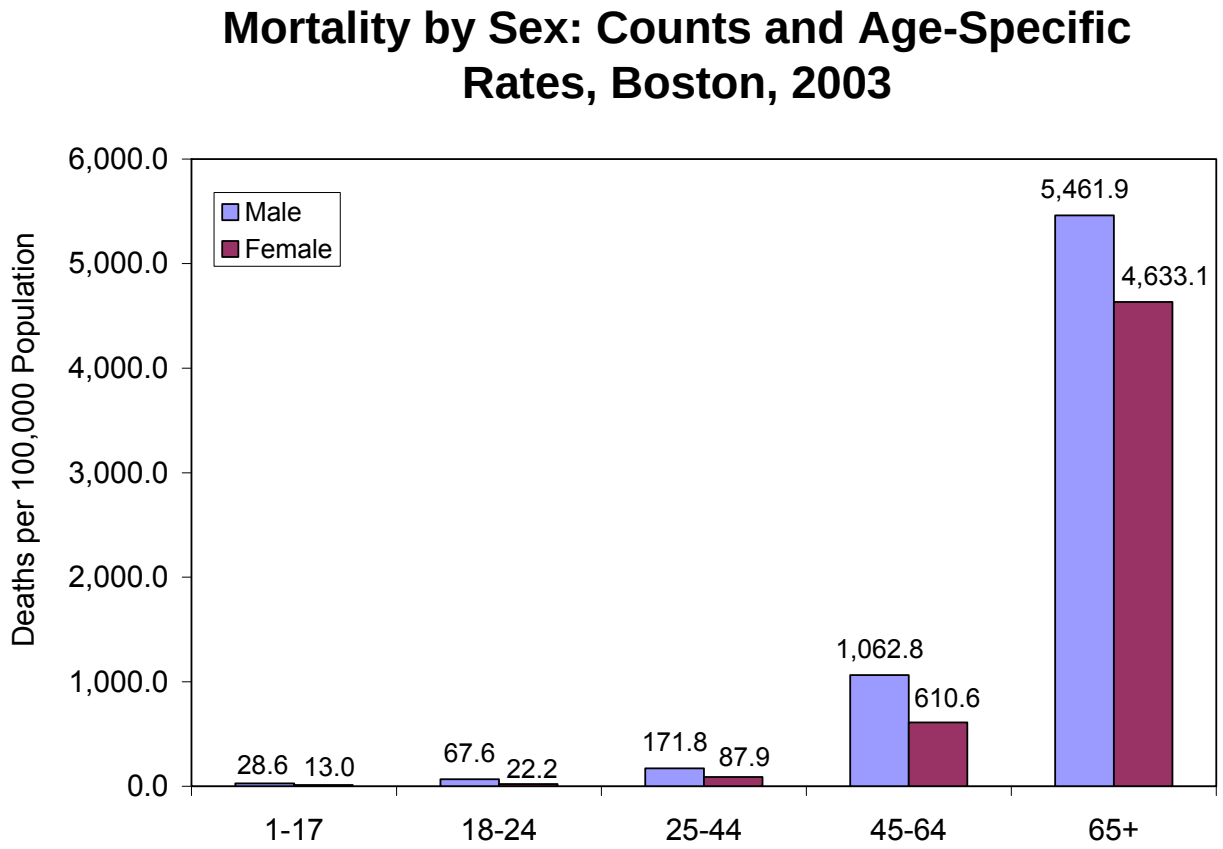
	1999		2000		2001		2002		2003	
Asian										
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	n<5	--	n<5	--	n<5	--	n<5	--	n<5	--
18-24	n<5	--	n<5	--	n<5	--	n<5	--	n<5	--
25-44	8	48.4	7	42.3	12	72.6	8	48.4	n<5	--
45-64	25	354.6	23	326.2	27	383.0	16	227.0	22	312.1
65+	88	2,359.9	94	2,520.8	102	2,735.3	110	2,949.9	135	3,620.3
Black										
	1999		2000		2001		2002		2003	
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	9	21.7	18	43.5	14	33.8	16	38.7	11	26.6
18-24	21	140.6	22	147.3	19	127.2	25	167.3	15	100.4
25-44	112	256.5	109	249.7	149	341.3	108	247.4	103	235.9
45-64	258	948.1	279	1,025.3	284	1,043.7	298	1,095.1	326	1,198.0
65+	519	4,682.0	549	4,952.6	595	5,367.6	564	5,088.0	571	5,151.1
Latino										
	1999		2000		2001		2002		2003	
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	n<5	--	7	26.7	6	22.9	8	30.5	5	19.1
18-24	5	38.7	n<5	--	6	46.5	10	77.4	8	61.9
25-44	23	76.1	35	115.9	40	132.4	50	165.5	44	145.7
45-64	54	482.7	46	411.2	53	473.8	55	491.6	65	581.0
65+	78	2,644.1	72	2,440.7	81	2,745.8	81	2,745.8	76	2,576.3
White										
	1999		2000		2001		2002		2003	
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	5	18.4	6	22.0	n<5	--	n<5	--	n<5	--
18-24	12	22.3	15	27.9	10	18.6	11	20.4	16	29.7
25-44	145	130.3	150	134.8	151	135.7	164	147.4	122	109.7
45-64	428	777.9	429	779.7	408	741.6	420	763.4	447	812.5
65+	2,626	6,285.5	2,569	6,149.0	2,527	6,048.5	2,393	5,727.8	2,247	5,378.3

NOTE: Mortality rates are presented only for those age groups that had at least 5 deaths.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Each year during the period 1999-2003, Black Boston residents had the city's highest mortality rates for people under age 65. Whites had the city's highest rates every year among residents ages 65 and over.

- Trends in age-specific mortality rates are not evident except in a few cases. The rates for Asians aged 65 and older are moving generally upward while those for Whites in the same age range are tending to drop over time. Black Bostonians ages 45-64 have mortality rates that are increasing slightly each year.

Mortality



Count	1-17	18-24	25-44	45-64	65+	Total
Male	16	31	181	525	1,280	2,055
Female	7	11	93	337	1,756	2,231
BOSTON	23	42	274	862	3,036	4,286

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- For all age groups, age specific mortality rates in 2003 were substantially higher for males than females.
- Age-specific mortality rates for both males and females were lowest for Boston residents ages 1-17 (28.6 male deaths per 100,000 population, 13.0 female deaths per 100,000 population) and highest for ages 65+ (5,461.9 male deaths per 100,000, 4,633.1 female deaths per 100,000).

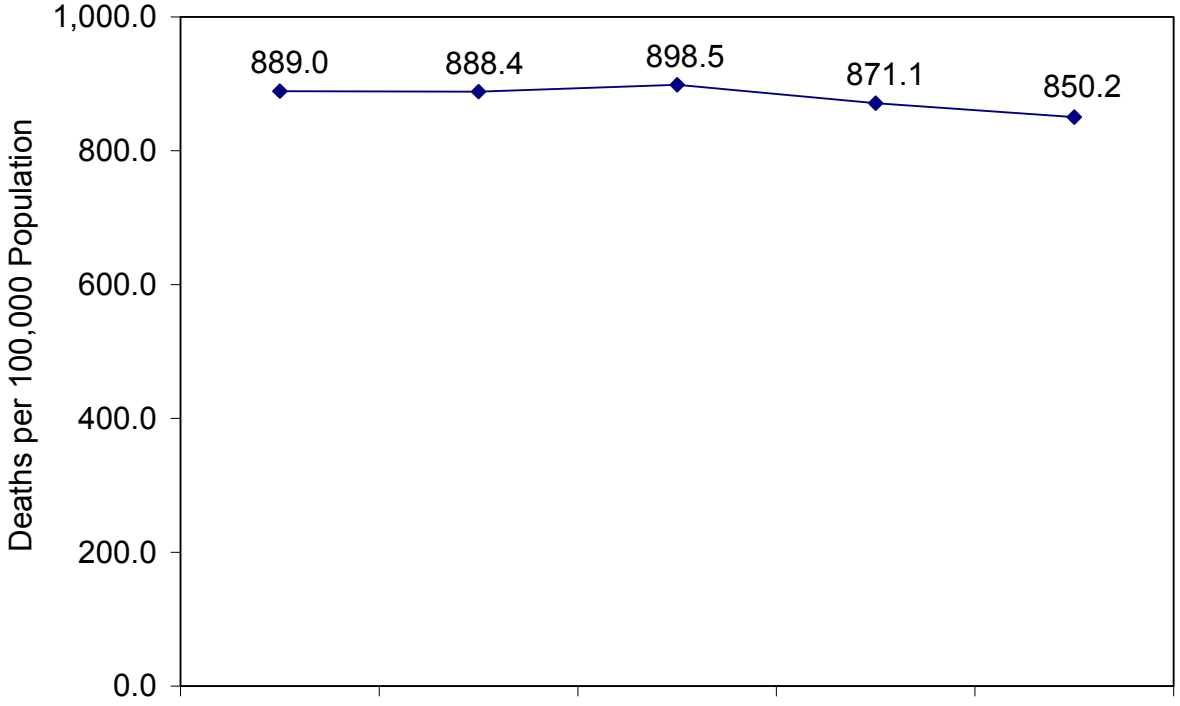
Mortality

Mortality by Neighborhood: Counts and Age-Specific Rates, Boston, 2003								
	Allston/Brighton		**Back Bay**		**Charlestown**		**East Boston**	
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	n<5	--	n<5	--	n<5	--	n<5	--
18-24	n<5	--	n<5	--	n<5	--	n<5	--
25-44	14	49.9	12	80.8	14	208.5	18	128.0
45-64	46	566.1	29	458.1	25	843.2	53	834.6
65+	252	3,847.9	85	2,776.0	84	5,112.6	232	4,940.4
	Fenway		**Hyde Park**		**Jamaica Plain**		**Mattapan**	
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	n<5	--	n<5	--	n<5	--	n<5	--
18-24	n<5	--	n<5	--	n<5	--	n<5	--
25-44	5	63.3	22	205.1	19	159.3	7	119.3
45-64	21	1,017.4	68	940.4	37	623.7	37	855.5
65+	64	4,263.8	219	4,907.0	115	4,436.7	55	3,399.3
	North Dorchester		**North End**		**Roslindale**		**Roxbury**	
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	9	36.1	n<5	--	n<5	--	n<5	--
18-24	10	106.5	n<5	--	n<5	--	n<5	--
25-44	47	176.0	n<5	--	11	88.7	35	219.3
45-64	141	958.6	11	452.1	52	734.7	120	1,311.0
65+	284	4,606.7	93	5,512.7	360	7,550.3	283	5,748.5
	South Boston		**South Dorchester**		**South End**		**West Roxbury**	
Age	Count	Rate	Count	Rate	Count	Rate	Count	Rate
1-17	n<5	--	n<5	--	n<5	--	n<5	--
18-24	7	255.4	7	162.6	n<5	--	n<5	--
25-44	22	185.3	22	147.7	15	105.8	7	81.5
45-64	61	1,034.4	61	667.3	56	820.5	42	722.0
65+	269	6,718.3	226	4,938.8	158	3,998.0	254	4,965.8

NOTES: Mortality rates are presented only for those age groups that had at least 5 deaths. The rates shown are deaths per 100,000 population. These data do not include homeless persons or individuals whose neighborhood of residence was not reported.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Deaths among people under age 25 were too few to permit the presentation and comparison of mortality rates across neighborhoods.
- The highest mortality rates for Boston residents ages 25-44 were in Roxbury, Charlestown, and Hyde Park.
- Roxbury, South Boston, and Fenway had the city's highest mortality rates for residents ages 45-64.
- Roslindale had the highest mortality rate of all Boston neighborhoods for people ages 65 and over.

Mortality



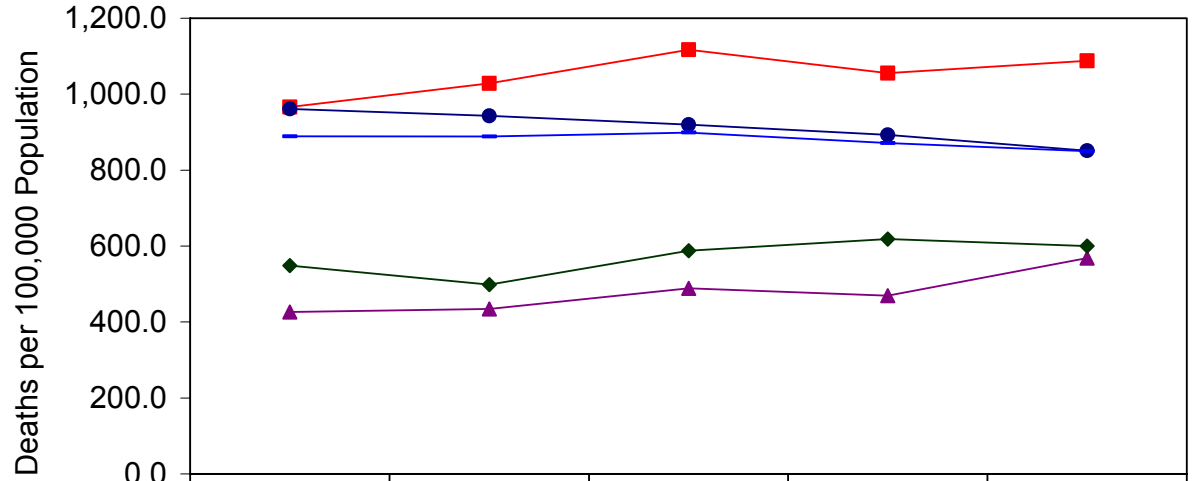
	1999	2000	2001	2002	2003
Count	4,491	4,500	4,575	4,412	4,287

NOTE: The rate for 1999 has been recalculated based on U.S. Census 2000 population figures.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, the age-adjusted overall mortality rate for Boston residents was 850.2 deaths per 100,000 population, a one-year change of 2.4%. The 2003 rate was 4.4% lower than the rate in 1999.

Mortality

Mortality by Race/Ethnicity and Year: Counts and Age-Adjusted Rates, Boston, 1999-2003



	1999	2000	2001	2002	2003
Asian	426.7	434.7	488.5	469.0	568.0
Black	966.1	1,028.1	1,116.8	1,054.9	1,087.4
Latino	548.8	498.7	587.7	618.4	600.3
White	960.9	942.8	919.6	892.6	851.2
BOSTON	889.0	888.4	898.5	871.1	850.2

Count	1999	2000	2001	2002	2003
Asian	126	128	147	135	165
Black	953	1,015	1,103	1,041	1,058
Latino	171	172	197	216	205
White	3,232	3,177	3,115	3,005	2,845
BOSTON	4,491	4,500	4,575	4,412	4,287

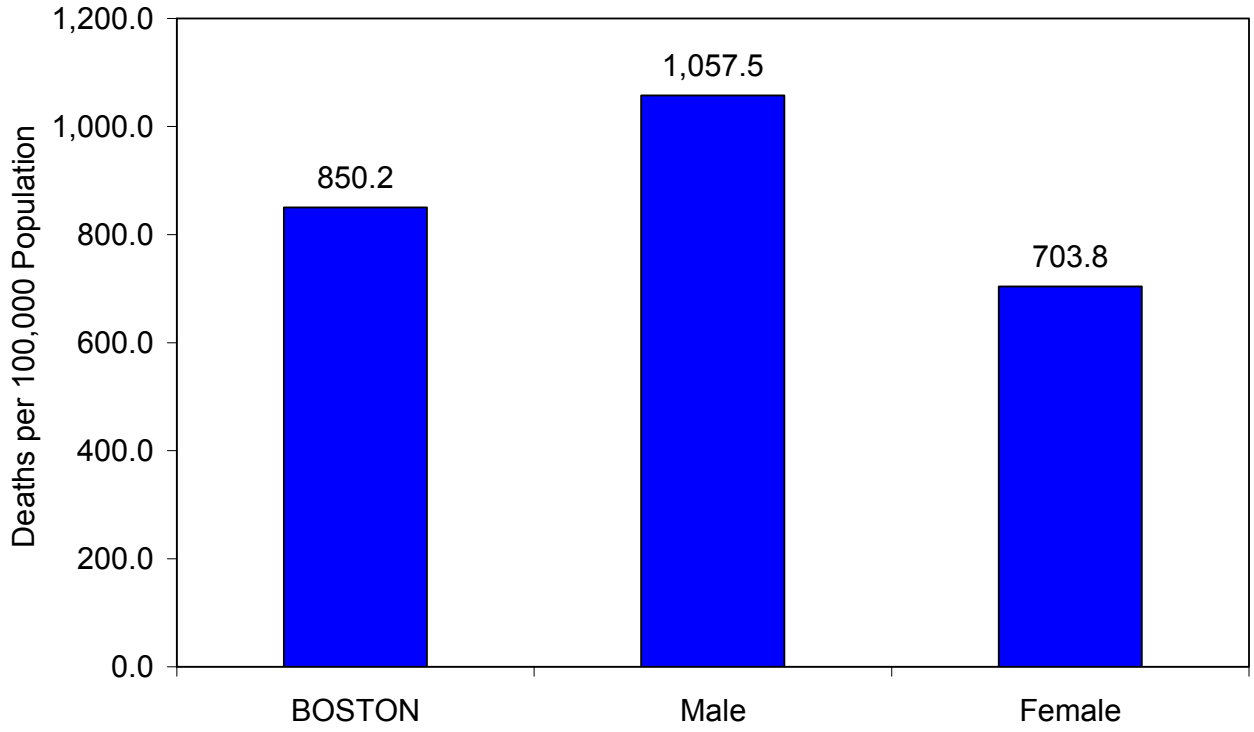
NOTE: Rates for 1999 have been recalculated based on U.S. Census 2000 population figures.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In every year of the 1999-2003 period, age-adjusted mortality rates were higher for Black residents than for other race/ethnicity groups. In 2003, the rate for Blacks was 91.4% higher than the rate for Asians, 81.1% higher than the rate for Latinos, and 27.7% higher than the rate for Whites.

- Boston mortality rates were higher in 2003 than in 1999 for every race/ethnicity group except Whites. The difference in rates was 33.1% for Asians, 12.6% for Blacks, and 9.4% for Latinos. The White mortality rate was 11.4% lower in 2003 than in 1999.

Mortality

Mortality by Sex: Counts and Age-Adjusted Rates, Boston, 2003

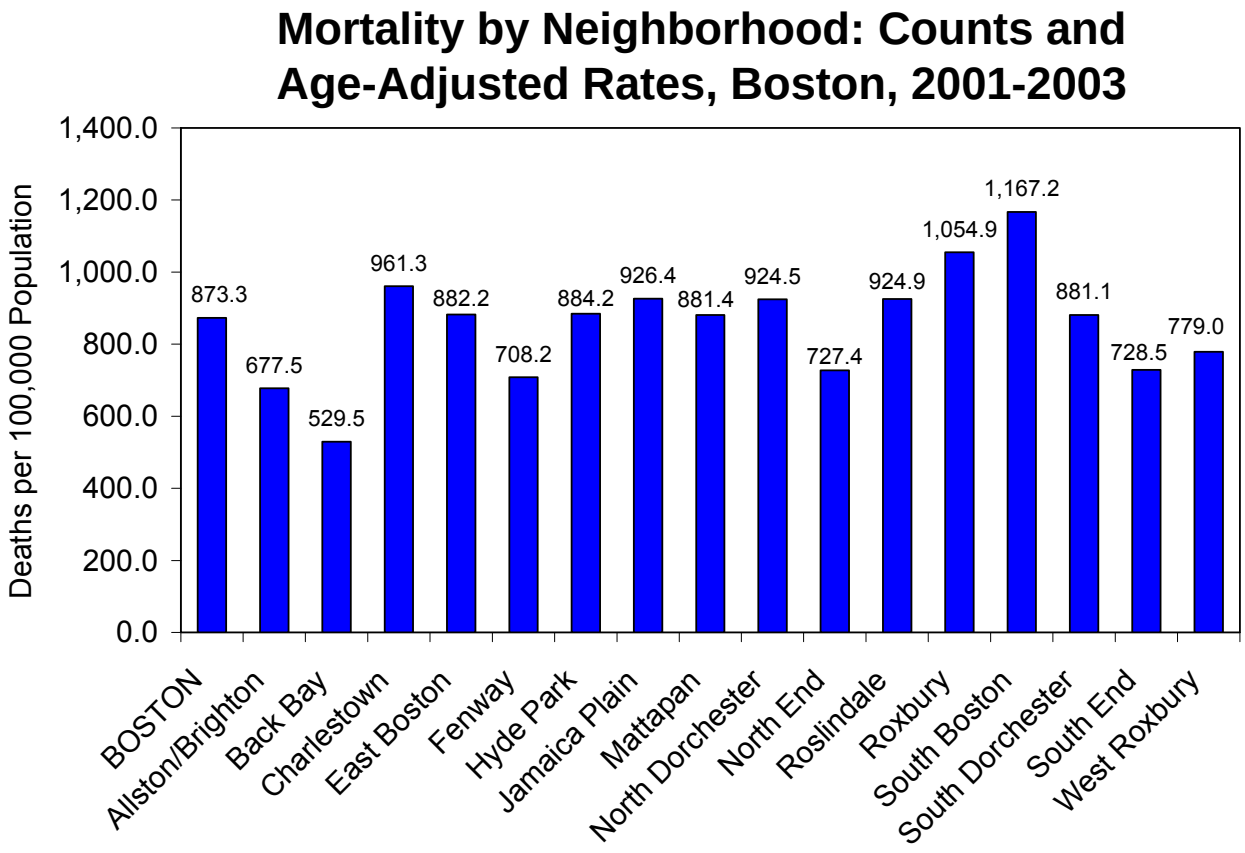


	BOSTON	Male	Female
Count	4,287	2,056	2,231

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, the age-adjusted mortality rate for Boston males (1,057.5 deaths per 100,000 population) was 50.3% higher than the rate for females (703.8 deaths per 100,000 population).

Mortality



	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	13,275	1,085	400	366	972	239	934	638	354	1,502	320	1,264	1,302	1,093	1,019	691	966

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- For the combined period 2001-2003, South Boston had the city's highest neighborhood mortality rate, 1,167.2 deaths per 100,000 population. The highest number of deaths, however, occurred among North Dorchester residents (1,502 deaths).
- The lowest neighborhood mortality rate was 529.5 deaths per 100,000 population for the Back Bay.
- Only South Boston and Roxbury residents had mortality rates that exceeded one thousand deaths per 100,000 population.

Mortality

Leading Causes of Death by Year: Counts and Age-Adjusted Rates, Boston, 1999-2003

	Count	Rate
1999		
Heart Disease	1,138	226.1
Cancer	1,057	215.8
Stroke	239	46.9
Chronic obstructive pulmonary disease	212	42.8
Injuries	225	39.0
All causes	**4,491**	**889.0**
2000		
Cancer	1,109	226.9
Heart Disease	1,067	211.1
Stroke	270	52.9
Injuries	226	38.0
Chronic obstructive pulmonary disease	172	34.5
All causes	**4,500**	**888.4**
2001		
Heart Disease	1,112	220.1
Cancer	1,030	209.4
Injuries	295	50.0
Stroke	251	49.4
Chronic obstructive pulmonary disease	182	36.6
All causes	**4,575**	**898.5**
2002		
Cancer	1,072	218.4
Heart Disease	964	191.7
Injuries	275	47.6
Stroke	227	44.6
Chronic obstructive pulmonary disease	156	31.6
All causes	**4,412**	**871.1**
2003		
Cancer	1,036	212.3
Heart Disease	992	198.2
Injuries	279	48.2
Stroke	222	43.3
Chronic obstructive pulmonary disease	203	41.2
All causes	**4,287**	**850.2**

NOTES: The rates shown are deaths per 100,000 population. The 1999 overall mortality rate is based on the U.S. Census 2000 population and may differ from the rate presented in previous publications.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Leading causes of death among Boston residents are established by ranking age-adjusted mortality rates.
- Between 1999 and 2003, Boston's leading causes were similar from year to year, with heart disease and cancer always ranking first or second, and stroke, injuries, and chronic obstructive pulmonary disease (COPD) always sharing the next three ranks.
- Mortality rates were lower in 2003 than in 1999 for some leading causes such as heart disease, pneumonia/influenza, and stroke. The difference was greatest (12.3%) for heart disease mortality.
- Higher mortality rates in 2003 than in 1999 were also seen, as for example with substance abuse (50.6% higher) and injuries (23.6% higher).

Mortality

Leading Causes of Death by Race/Ethnicity and Year: Counts and Age-Adjusted Rates Boston, 1999-2003

Asian	Count	Rate
1999		
Cancer	42	139.2
Heart Disease	21	71.8
Pneumonia/Influenza	9	32.9
Stroke	7	25.4
--*		
All causes	**126**	**426.7**
2000		
Cancer	33	112.8
Heart Disease	25	85.6
Stroke	15	53.6
Chronic obstructive pulmonary disease	6	21.7
Injuries	6	16.6
All causes	**128**	**434.7**
2001		
Cancer	35	112.1
Heart Disease	24	85.0
Injuries	16	37.4
Pneumonia/Influenza	9	33.0
Chronic obstructive pulmonary disease	7	24.9
All causes	**147**	**488.5**
2002		
Cancer	47	160.1
Heart disease	18	65.3
Nephritis/Nephrosis	8	29.7
Injuries	9	28.9
Pneumonia/Influenza	6	22.3
All causes	**135**	**469.0**
2003		
Cancer	49	164.3
Heart Disease	33	117.8
Injuries	14	37.4
Stroke	10	35.4
Chronic obstructive pulmonary disease	9	32.9
All causes	**165**	**568.0**

*Inadequate number of deaths to present an additional leading cause
NOTES: The rates shown are deaths per 100,000 population.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Boston's Asian residents have generally low mortality rates, as seen in their leading causes of death for 1999 through 2003.
- For every year during this period, cancer was the leading cause of death, followed by heart disease.
- Rates of death from these causes were lower than for Boston's other race/ethnicity groups in nearly every year.

Mortality

Leading Causes of Death by Race/Ethnicity and Year: Counts and Age-Adjusted Rates Boston, 1999-2003 (Continued)

Black	Count	Rate
1999		
Cancer	236	239.4
Heart Disease	187	203.4
Stroke	43	50.0
Nephritis/Nephrosis	40	41.7
Injuries	56	41.3
All causes	**953**	**966.1**
2000		
Cancer	273	276.9
Heart Disease	216	224.8
Stroke	52	59.9
Injuries	72	55.4
Nephritis/Nephrosis	46	49.6
All causes	**1,015**	**1,028.1**
2001		
Cancer	254	254.2
Heart Disease	221	239.6
Injuries	99	74.1
Stroke	66	73.4
Nephritis/Nephrosis	45	49.9
All causes	**1,103**	**1,116.8**
2002		
Cancer	251	257.3
Heart Disease	205	220.7
Stroke	56	63.1
Injuries	76	54.6
Diabetes	47	48.3
All causes	**1,041**	**1,054.9**
2003		
Cancer	268	271.0
Heart Disease	225	239.1
Injuries	85	64.9
Stroke	51	57.9
Diabetes	50	54.9
All causes	**1,058**	**1,087.4**

NOTES: The rates shown are deaths per 100,000 population.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- For Black Bostonians, death rates for leading causes were higher than in other race/ethnicity groups, even though the leading causes themselves were similar.
- Cancer and heart disease were the leading causes of death among Black Boston residents between 1999 and 2003.
- Mortality from cancer was higher for Black residents than Asian, Latino, or White residents.
- Heart disease mortality rates for Black Bostonians were higher than for Asian and Latino residents and similar to those for Whites.

Mortality

Leading Causes of Death by Race/Ethnicity and Year: Counts and Age-Adjusted Rates Boston, 1999-2003 (Continued)

Latino	Count	Rate
1999		
Heart Disease	39	147.9
Cancer	37	126.9
Stroke	12	50.7
Chronic obstructive pulmonary disease	9	42.0
Pneumonia/Influenza	5	25.7
All causes	**171**	**548.8**
2000		
Cancer	39	128.1
Heart Disease	20	63.3
Stroke	13	62.9
Diabetes	14	52.2
Injuries	17	20.8
All causes	**172**	**498.7**
2001		
Cancer	42	155.4
Heart Disease	32	123.9
Injuries	30	40.2
Stroke	8	31.8
Chronic obstructive pulmonary disease	8	28.0
All causes	**197**	**587.7**
2002		
Cancer	40	138.7
Heart Disease	30	129.8
Stroke	12	50.8
Injuries	38	47.4
Diabetes	11	38.7
All causes	**216**	**618.4**
2003		
Heart Disease	35	140.0
Cancer	38	103.7
Chronic obstructive pulmonary disease	7	37.3
Injuries	32	37.0
Nephritis/Nephrosis	7	28.7
All causes	**205**	**600.3**

NOTES: The rates shown are deaths per 100,000 population.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Latino Bostonians had heart disease and cancer as their first and second leading causes of death for the years 1999 through 2003.
- Their rates of death from these causes were lower than those of Black and White residents.
- In comparison with Asian Boston residents, Latinos had similar cancer mortality rates but higher rates of mortality from heart disease.
- Diabetes ranked among the top 5 causes of death in Boston only for Latino and Black residents.

Mortality

Leading Causes of Death by Race/Ethnicity and Year: Counts and Age-Adjusted Rates Boston, 1999-2003 (Continued)

White	Count	Rate
1999		
Heart Disease	888	255.9
Cancer	740	233.8
Chronic obstructive pulmonary disease	176	52.5
Stroke	177	48.4
Injuries	148	46.3
All causes	**3,232**	**960.9**
2000		
Cancer	764	240.8
Heart Disease	802	230.6
Stroke	190	52.8
Chronic obstructive pulmonary disease	148	43.0
Injuries	130	42.0
All causes	**3,177**	**942.8**
2001		
Heart Disease	834	238.1
Cancer	698	220.4
Injuries	150	46.8
Stroke	169	46.4
Chronic obstructive pulmonary disease	141	41.9
All causes	**3,115**	**919.6**
2002		
Cancer	733	230.5
Heart Disease	708	205.4
Injuries	150	49.4
Stroke	152	41.3
Chronic obstructive pulmonary disease	123	37.6
All causes	**3,005**	**892.6**
2003		
Cancer	698	214.2
Heart Disease	677	203.8
Chronic obstructive pulmonary disease	158	47.3
Injuries	145	46.5
Stroke	152	41.4
All causes	**2,845**	**851.2**

NOTES: The rates shown are deaths per 100,000 population.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- White Boston residents, like the city's other major race/ethnicity groups, had heart disease and cancer as their first and second leading causes of death for the years 1999-2003.
- Heart disease mortality rates among White Bostonians were similar to those of the Black population. Cancer mortality rates were lower than among Black Bostonians.
- Whites were the only Boston race/ethnicity group for whom kidney disease (nephritis/nephrosis) did not rank among the top 5 causes of death.

Mortality

Leading Causes of Death by Sex: Counts and Age-Adjusted Rates, Boston, 2003

BOSTON MALES				BOSTON FEMALES		
	Count	Rate			Count	Rate
Heart Disease	486	261.1		Cancer	534	182.7
Cancer	502	258.2		Heart Disease	506	154.6
Injuries	199	72.4		Stroke	145	42.2
Chronic obstructive pulmonary disease	97	54.1		Chronic obstructive pulmonary disease	106	34.7
Stroke	77	42.2		Pneumonia/Influenza	92	26.9
Substance Abuse	108	42.0		Injuries	80	25.6
Pneumonia/Influenza	59	36.1		Diabetes	67	21.7
Nephritis/Nephrosis	56	31.9		Nephritis/Nephrosis	61	19.5
Septicemia	54	29.9		Septicemia	53	17.1
Diabetes	53	27.1		Alzheimer's Disease	56	15.2
HIV/AIDS	38	16.3		Substance Abuse	37	12.5
Alzheimer's Disease	22	13.1		HIV/AIDS	14	5.4
All causes	**2,056**	**1,057.5**		**All causes**	**2,231**	**703.8**

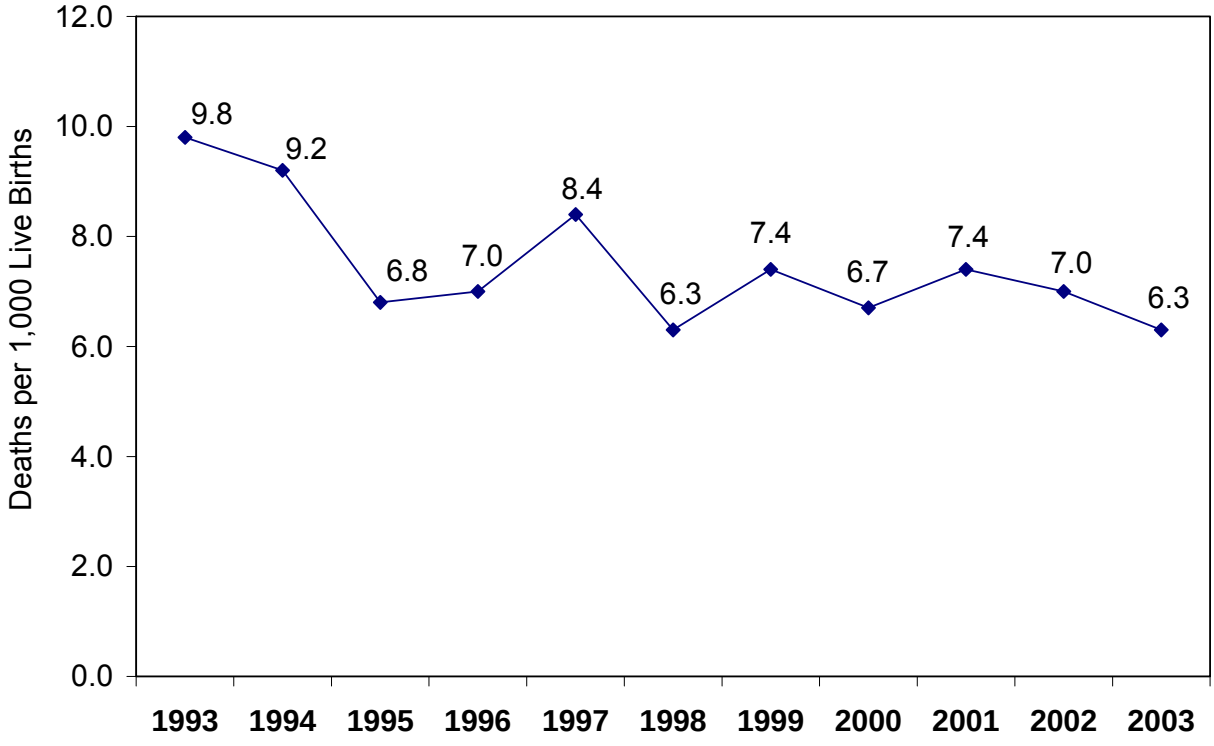
NOTE: The rates shown are deaths per 100,000 population.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- For female Boston residents, cancer was the leading cause of death in 2003, while for males, heart disease emerged as the leading cause.

- For each of the 12 leading causes shown above, age-adjusted mortality rates were higher for males than for females.

- Marked differences in mortality existed for some causes. For example, the HIV/AIDS mortality rate for males (16.3 deaths per 100,000) was triple the rate for females (5.4 deaths per 100,000).

Mortality



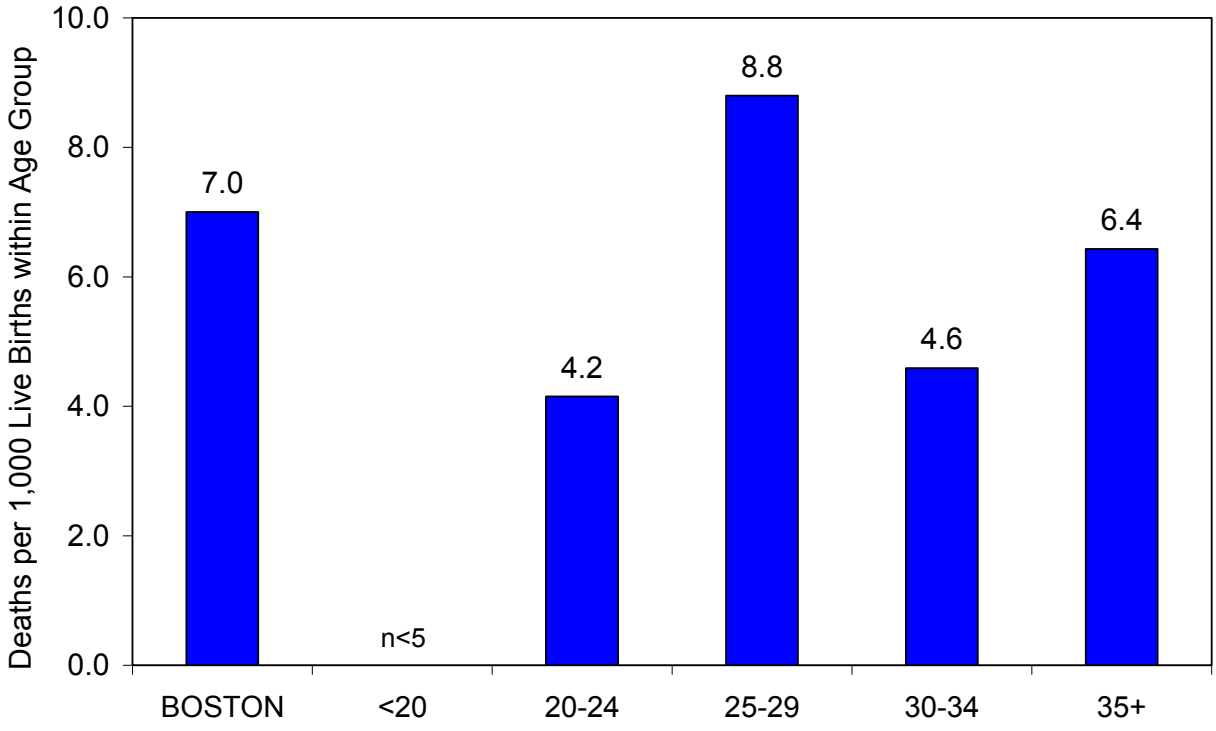
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Count	86	77	54	54	66	50	59	54	61	56	49

DATA SOURCE: Boston resident live births and deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Infant mortality is defined as death between live birth and the first year of life.
- There were 49 deaths of Boston infants in 2003, resulting in an infant mortality rate (IMR) of 6.3 deaths per 1,000 live births.
- The Boston IMR fluctuated during the 1993-2003 period from a high of 9.8 deaths per 1,000 live births in 1993 to a low of 6.3 deaths in 2003. The 2003, IMR was 37.8% lower than the rate in 1993.

Mortality

Infant Mortality by Maternal Age: Counts and Rates, Boston, 2002



	BOSTON	<20	20-24	25-29	30-34	35+
Count	56	n<5	6	17	11	10

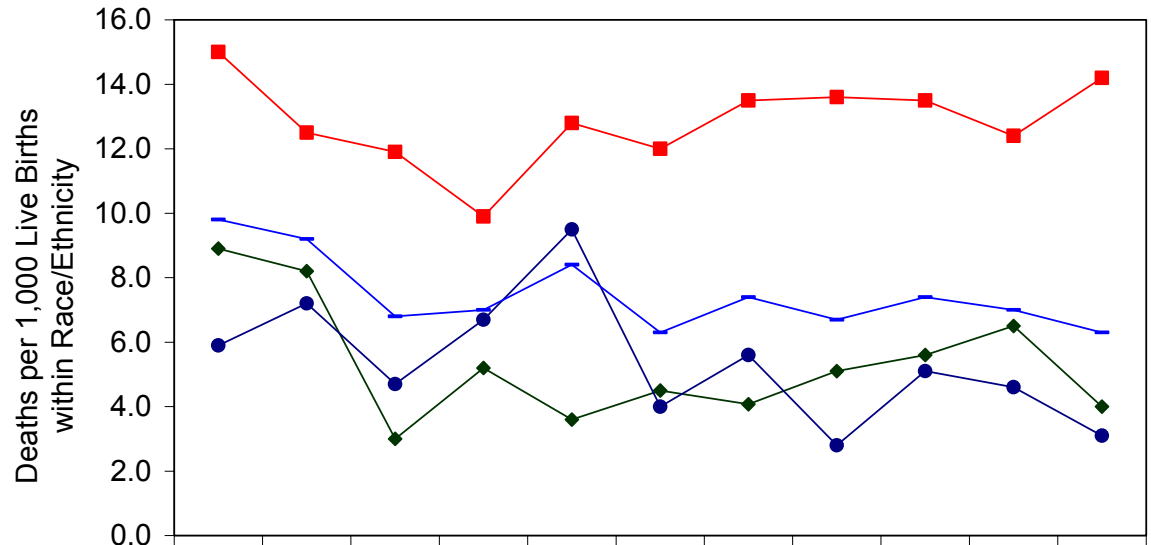
NOTE: These data do not include persons whose age was not reported, except in the Boston overall count and rate.
DATA SOURCE: Boston resident live births and deaths, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Information about the mothers of infants who die is taken from the state vital records system's linked birth cohort datasets, the most recent of which available in time for this publication was for 2002.

- In 2002, the lowest rates of infant mortality were for babies born to women ages 20-24 (4.2 infant deaths per 1,000 live births) and women ages 30-34 (4.6 infant deaths per 1,000 live births).

Mortality

Infant Mortality by Race/Ethnicity and Year: Counts and Rates, Boston, 1993-2003



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Black	15.0	12.5	11.9	9.9	12.8	12.0	13.5	13.6	13.5	12.4	14.2
Latino	8.9	8.2	3.0	5.2	3.6	4.5	4.1	5.1	5.6	6.5	4.0
White	5.9	7.2	4.7	6.7	9.5	4.0	5.6	2.8	5.1	4.6	3.1
BOSTON	9.8	9.2	6.8	7.0	8.4	6.3	7.4	6.7	7.4	7.0	6.3

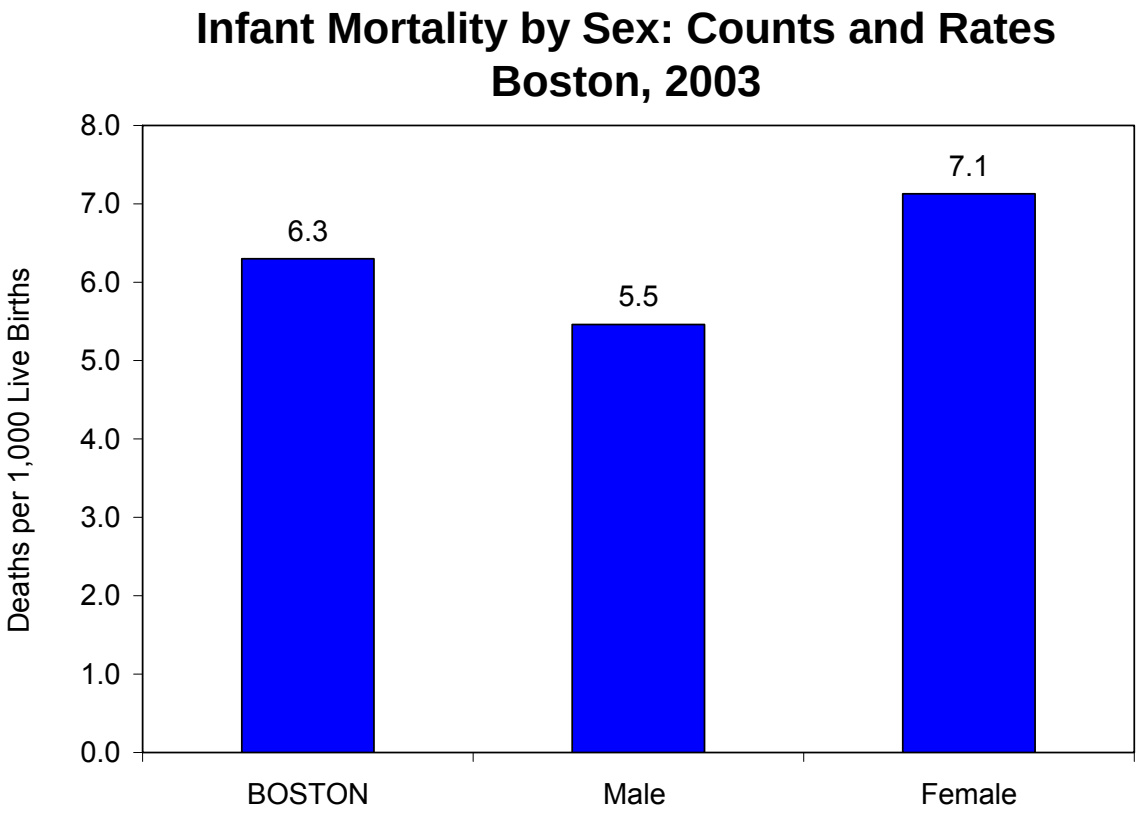
Count	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Black	49	38	34	26	32	30	35	34	34	30	32
Latino	15	14	5	8	6	8	7	9	7	12	7
White	18	21	13	18	25	11	16	8	16	13	9
BOSTON	86	77	54	54	66	50	59	54	61	56	49

NOTE: There were too few infant deaths among Asians to permit the presentation of mortality rates.
DATA SOURCE: Boston resident deaths and live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- IMRs in Boston have consistently been highest for Black infants. Black infants accounted for 28.8% of all Boston births in 2003 but 66.7% of all infant deaths. At no point in time has the IMR of other race/ethnicity groups exceeded that of Black infants.

- From 2002 to 2003, the IMR fell for Boston overall and for all races/ethnicities except Blacks.

Mortality

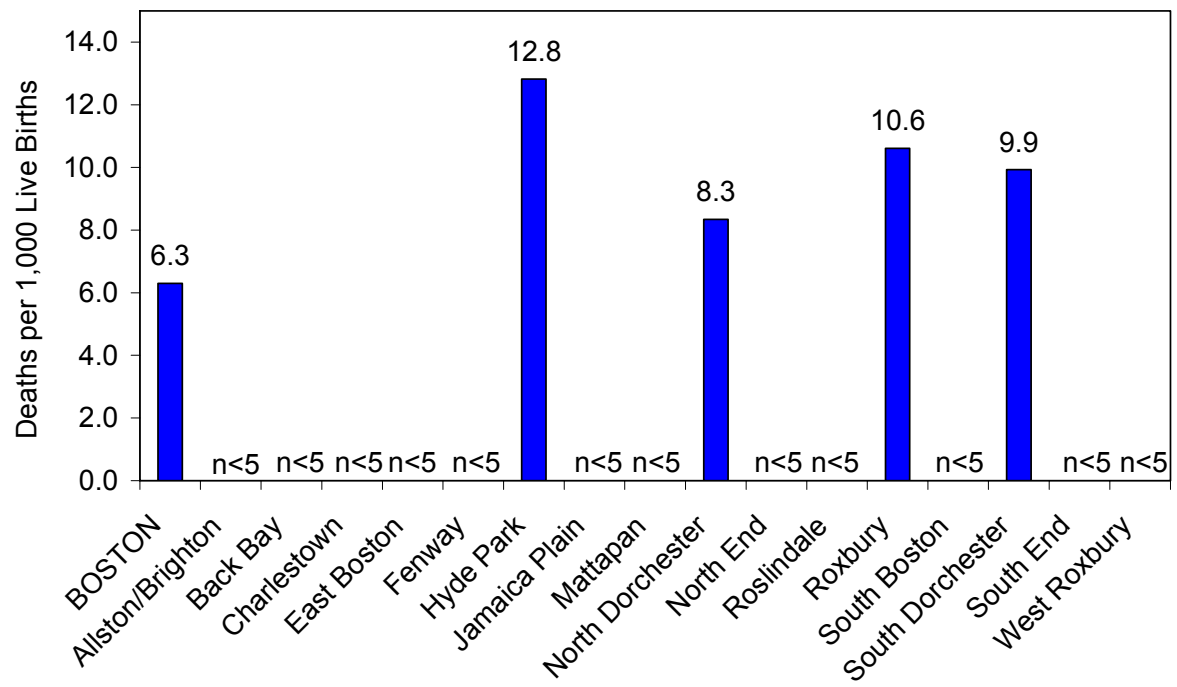


	BOSTON	Male	Female
Count	49	22	27

DATA SOURCE: Boston resident deaths and live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- In 2003, the infant mortality rate for Boston male infants was 5.5 deaths per 1,000 population and for female infants, 7.1 deaths per 1,000 population.

Mortality



	BOS	A/B	BB	CH	EB	FW	HP	JP	MT	ND	NE	RS	RX	SB	SD	SE	WR
Count	49	n<5	n<5	n<5	n<5	n<5	6	n<5	n<5	12	n<5	n<5	8	n<5	7	n<5	n<5

ABBREVIATIONS KEY: BOS=Boston, A/B=Allston/Brighton, BB=Back Bay, CH=Charlestown, EB=East Boston, FW=Fenway, HP=Hyde Park, JP=Jamaica Plain, MT=Mattapan, ND=North Dorchester, NE=North End, RS=Roslindale, RX=Roxbury, SB=South Boston, SD=South Dorchester, SE=South End, and WR=West Roxbury
DATA SOURCE: Boston resident deaths and live births, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research Office

- Twelve of Boston's 16 neighborhoods had too few infant deaths in 2003 to permit the presentation of mortality rates. Even the four who did meet the minimum had IMRs based on small numbers, so that their rates are subject to substantial random fluctuation and should therefore be interpreted with caution.

APPENDIX

TECHNICAL NOTES

Rates
Population
Racial and Ethnic Designations
Age-Adjusted Mortality
Neighborhoods
Data Sources
Glossary

Rates

A rate is a measure of some event, disease, or condition in relation to a population, per year, for instance, the number of deaths due to heart disease per 100,000 population in a given year. Three types of rates are presented in this report: crude rates, age-specific rates (ASRs), and age-adjusted rates (AARs).

Crude rates are used to present data pertaining to the entire population, such as all of Boston, or to present data pertaining to an entire group within a population, such as all males or females. A crude rate is calculated by dividing the number of events for the entire population by the total population. It is usually calculated on the basis of every 100,000 people or, in the case of birth rates, every 1,000 females.

Age-specific rates take into account the size and age distribution of the population. They enable the reader to compare different groups without being concerned that differences in health status are due to differences in the size of the groups or in the distribution of ages. An ASR is calculated by dividing the number of events among people in an age group by the number of people in that age group. ASRs for deaths and for communicable diseases are usually calculated on the basis of every 100,000 people.

Age-adjusted rates are used to present data for comparison among several populations, such as Boston neighborhoods, in which distribution of age can differ considerably. The calculation for AARs takes into account the differences in age distribution and adjusts for them.

The AAR is calculated by applying the age-specific rate in a population for a specific event such as death to a standard population (typically, the 2000 U.S. standard population). AARs are used for Boston mortality data overall, for overall Boston mortality data by sex, by race/ethnicity, and by neighborhood, and for hospitalization data.

New cases of a communicable disease such as hepatitis or AIDS are presented as incidence rates, which may be age-specific or crude. Incidence rates are usually reported on the basis of every 100,000 people per year.

Population

Population statistics are drawn from two main sources. The first is the census of the population taken every ten years by the federal government, a literal count of people living in the United States. The second is population estimates made by the U.S. Census Bureau or other sources between censuses.

The national decennial census provides the best actual count of the U.S. population. It presents data to the level of small areas called census tracts, each of which has only a few thousand residents. Census tracts can be combined to produce Boston neighborhood-level analyses.

Population projections or estimates are developed by the U.S. Census Bureau and other institutions using sophisticated statistical methods. The results are designed to take into account in- and out-migration and other changes occurring in the population between census years. And yet estimates of population changes between census years have some drawbacks. They do not typically account for changes in the racial composition of a community, and they do not generally permit neighborhood-level analyses. Perhaps most importantly, even small errors in the accuracy of projections for neighborhoods or other population subgroups can result in large distortions in the resulting statistical estimates.

Population estimates from the U.S. Census were used to calculate the crude rates presented in this report for years between 1990 and 2000 U.S. Census.

To provide data on people of Latino ethnicity, who may be of any race, this report uses the 2000 U.S. Census and Massachusetts Department of Public Health population estimates. This avoids the double-counting that would result if Latinos were included in the White, Black, and Asian racial categories as well as in a Latino ethnicity category. However, in hospitalization data, Latinos are reported in the White, Black, Latino, or Asian category, depending on the individual hospital's practices. This produces unreliability in data reporting, and readers must interpret hospitalization data by race/ethnicity with considerable caution.

Zip-code based populations from the 2000 U.S. Census were used in calculating the neighborhood rates of tuberculosis, sexually transmitted diseases, hospitalizations, and emergency department visits presented in this report.

Racial and Ethnic Designations

The classification of race/ethnicity used in this report varies by data source. All racial and ethnic designations except those from the death certificate, some hospital discharge data, and some emergency department data are self-reported. Several cautions should be kept in mind when using data reported by race/ethnicity.

Race and ethnicity are social constructions, not biological facts. There is often more genetic variation between members of the same race than between members of different races. In addition, the meanings of these designations are highly subject to historical, cultural, and political forces. Not only do these designations change over time, but there is also a very subjective element that influences who is considered a member of one group or another. And the concept of race can be notably vague: the term "Black," for example, includes people describing themselves as African American, African, or Caribbean, groups with distinct histories and differing health risks.

Nevertheless, racial designations are useful in that they are nearly universally used by people in the United States to describe themselves, and they permit us to identify and address the often huge

disparities in health that exist across race/ethnicity groups. Race is often a proxy for such factors as socioeconomic status, inadequate access to health care, and racial discrimination.

Boston-specific data in this report are presented for each racial and ethnic subgroup when numbers are large enough to allow calculation of percentages or reliable rates. Few sources have data in large enough numbers to allow presentation of data about smaller groups such as the many ethnicities included in the category "Asian."

Since Latinos can be of any race, federal data sources often report Latino persons within the race categories Black or White. However, in *The Health of Boston*, Latino ethnicity is presented as a separate category. Exceptions are the hospitalization and asthma hospitalization data, for which race/ethnicity reporting practices vary by hospital. The U.S. Census Bureau does not recommend comparing the population by race in 1990 with the population by race in 2000.

Age-Adjusted Mortality

Age-adjusted rates (AARs) are used to present data for comparison among several populations, such as Boston neighborhoods, in which the distribution of age can differ considerably. The calculation for AARs takes into account differences in age distribution and adjusts for them. The AAR is calculated by applying the age-specific rate in a population (for a specific event such as death) to a standard population. The year 2000 standard U.S. population is used in this report.

The International Classification of Disease (ICD) is a coding system developed by the World Health Organization (WHO) and 10 international centers. The ICD system standardizes medical terms used on death certificates and groups them for statistical purposes. The International Classification of Disease, Ninth Revision, Clinical Modification (ICD-9-CM) is used for categorizing and classifying morbidity data from inpatient and outpatient records of hospitals. It should not be confused with the International Classification of Disease used for categorizing and classifying mortality data from death certificates, whose revision from ICD-9 to ICD-10 became effective with 1999 mortality data.

Mortality data are coded using ICD-10. The change from ICD-9 to ICD-10 means that causes of death classified according to the ICD-10 are not precisely comparable to causes of death classified according to ICD-9.

Boston Neighborhoods

The population of individual census tracts or zip codes is typically so small that there are not a sufficient number of health-related events to permit the presentation of reliable rates. For *The Health of Boston*, census tracts or zip codes, depending upon the data source, are aggregated into Boston neighborhoods for the presentation of health data.

Some of Boston's neighborhoods are clearly defined. West Roxbury, for example, is bordered by the West Roxbury Parkway, the Stony Brook Reservation, and Dedham. The boundaries of most neighborhoods, however, are less distinct and often the subject of dispute. The neighborhood definitions used here were defined by the Boston Public Health Commission in consultation with local residents, health care providers, and advocates throughout the city.

U.S. Census Poverty Designation

There are two predominant definitions of poverty. One is defined by the U.S. Census Bureau and referred to as "poverty thresholds," and the other is defined by the Department of Health and Human

Services and referred to as “poverty guidelines.” The poverty definition present in *The Health of Boston 2006* is that of the U.S. Bureau of the Census. Poverty estimates are from the censuses of 1970, 1980, 1990, and 2000 and the U.S. Bureau of the Census American Community Survey (ACS) of 2004.

The U.S. Census Bureau’s definition of poverty is a federal definition characterized by a series of “poverty thresholds which specify before-taxes, monetary income maximums, in dollars, an individual and/or family can earn in a given year and still be declared impoverished. This definition is based on same household of residence and takes into account family size and whether or not any members in one or two-person familial units are over the age of 65. It does not include any income that may have been generated through federal financial assistance programs, capital gains, or from children under the age of 15; foster children are not included in the calculations.

Starting in 1969 poverty thresholds were modified annually to account for inflation according to rates specified by the Consumer Price Index. Poverty thresholds are not adjusted for regional differences in mean/median income levels, nor do they include prison inmates, residents of nursing homes, students who live in on-campus university housing, and persons who live in military barracks; however, persons living in shelters are included.

Data Sources and Limitations

AIDS cases. Massachusetts Department of Public Health, Center for Clinical and Laboratory Services, Bureau of Communicable Disease Control, HIV/AIDS Surveillance Program.

AIDS surveillance data provide information only about individuals who have been tested and whose test results have been reported to the Department of Public Health. Many people with HIV and AIDS do not know they are infected. In 2003, MDPH estimated that one-fourth of the true number of Massachusetts cases had not been diagnosed and reported. (www.mass.gov/dph/aids/edu_promo/testingwk2003.ppt)

Births. Massachusetts Department of Public Health, Center for Health Information, Statistics, Research, and Evaluation, Registry of Vital Records and Statistics.

The recording of resident live births is nearly complete for Massachusetts resident births, including those that take place at home or out of state but to Massachusetts residents.

Race/ethnicity is self-reported by the mother. Infants are assigned their mother's race/ethnicity, not a combination of both parents'.

There is an approximate 14-month delay between the close of a data year and the Department's releases of the data for outside publication.

Communicable diseases (hepatitis, tuberculosis, and reportable disease listing). Boston Public Health Commission, Communicable Disease Control Division.

Data from communicable disease surveillance systems are limited by the degree to which people with a condition seek health care that results in testing and reporting to the system. Many such diseases are asymptomatic or mild, or are treated presumptively without formal testing, and for some conditions, reporting may be less than complete. All of these factors may contribute to underestimates of the frequency of disease and/or distortions in the pattern of disease seen in the reported data.

Communicable diseases (sexually transmitted diseases). Massachusetts Department of Public Health, Center for Clinical and Laboratory Services, Division of Sexually Transmitted Disease (STD) Prevention.

As noted in the section above, communicable diseases, including those transmitted sexually, are subject to a number of limitations. New cases of chlamydia, syphilis and gonorrhea infection are reported to the Massachusetts Department of Public Health by diagnosing physicians and laboratories. Undiagnosed cases and variations in screening practices and compliance with reporting requirements may influence the accuracy of reported sexually transmitted diseases.

Census 2000, U.S. Department of Commerce, U.S. Census Bureau, American Fact Finder.

The collection and coding of race and ethnicity data has changed significantly over time. Hispanic ethnicity was not asked until 1930, and then was limited to Mexican ancestry. It was collected in 1940 for all Hispanics/Latinos, but not again until 1970, and then only in samples, not in the count of the whole population. Beginning in 1980, Hispanic origin has been a regular part of the data collection. Similarly, Asian/Pacific Islander race and American Indian, Eskimo, Aleut race were not asked prior to the 1870 census. The capacity to distinguish race groups from Hispanic/Latino origin was not built into the census until 1980.

Another limitation of census data is that censuses are conducted only every ten years and may thus be out of date before a new census has been completed. Another is that undercounts of certain subpopulations may occur when people, for example, illegal immigrants, avoid being recorded in the census for fear of contact with the government or for other reasons.

Deaths. Massachusetts Department of Public Health, Center for Health Information, Statistics, Research, and Evaluation, Registry of Vital Records and Statistics.

Death records are completed with the assistance of an informant, typically a family member or funeral director, which may result in errors (for example, in race/ethnicity reporting) that would not occur in self-reported data.

Inconsistencies in the recording of immediate cause of death, intervening causes, and the underlying cause of death have been documented nationally, which may result in under- or overreporting of certain causes. Data are embarged until after public release by MDPH, which is approximately 14 months after the close of the data year.

Emergency Department Visit Data Base. Massachusetts Division of Health Care Finance and Policy.

ED data have been made available since the 2002 data year (10/01-9/02). As with hospital discharge data, no unique identifier is contained in the data, so an unduplicated count of individuals using emergency department services is not available.

The collection of race/ethnicity information differs by reporting hospital. Some facilities request self-reported information from patients, others have staff report patient race/ethnicity, some consider Hispanic or Latino ethnicity to be a category equivalent to race, while others include Hispanic or Latino ethnicity in the race categories Asian, Black, White, and Other.

There is an approximate 16-month lag time between the close of the data year and the dataset's release.

HIV cases. Massachusetts Department of Public Health, Center for Clinical and Laboratory Services, Bureau of Communicable Disease Control, HIV/AIDS Surveillance Program.

See AIDS

Homeless population. City of Boston Emergency Shelter Commission.

The one-night census of Boston's homeless population counts people in homeless and domestic violence shelters and those living on the street. The 2005 census corrected an undercount that had resulted from an eligibility restriction in place between 2002 and 7/1/05. During that period, some homeless families had been denied shelter because their income was too high to qualify at an income ceiling of 100% of the federal poverty threshold but too low to enable them to pay rent. Easing of that restriction to 130% of the federal poverty threshold enabled many more families to qualify for shelter and thus appear in the homeless census.

A limitation of this dataset is that homeless persons, particularly those living on the streets, can easily be missed in a one-night census, which produces an undercount.

Hospitalizations. Acute Care Hospital Case Mix files. Massachusetts Division of Health Care Finance and Policy.

The hospital discharge data do not represent individuals but rather discharges. Because they do not contain a unique identifier, the data do not permit an unduplicated count of individuals who are hospitalized during a given year.

The collection of race/ethnicity information differs by reporting hospital. Some facilities request self-reported information from patients, while others have staff report patient race/ethnicity; some consider Hispanic or Latino ethnicity to be a category equivalent to race, while others subsume Hispanic or Latino ethnicity into the other race groups (Asian, Black, White, and Other).

There is an approximate one-year lag time between the close of the data year and the data set's release.

Lead screening. Boston Public Health Commission, Environmental Health, Boston Childhood Lead Poisoning Prevention Program.

Blood lead screening of Boston children by their health care providers is not complete. An estimated 11% of children under 5 have not been screened. The data reported in this report are solely related to the screened population. A database limitation results in a small number of non-Boston residents being included in the data; an estimation procedure that applied the age distribution of the total screened population (Boston and non-Boston) to the number of known-to-be Boston residents was used to obtain the age distribution of screened Boston children.

Life expectancy. Boston resident deaths and live births. Massachusetts Department of Public Health, Center for Health Information, Statistics, Research, and Evaluation, Registry of Vital Records and Statistics.

Estimated life expectancy uses current birth and death patterns to predict the lifespan of people born in the current year. The primary limitation to these estimates is that they assume, in the absence of knowledge about the future, that the factors that influence mortality now remain stable over the whole lifespan.

Population estimates. American Community Survey, 2003 and 2004. U.S. Department of Commerce, U.S. Census Bureau, Population Division, Population Estimates Program.

The American Community Survey uses a sample of the population to provide information about demographic and housing characteristics of communities for the years between censuses. Only people who live in households are sampled; students and those in institutions or other group quarters are not included. (See http://www.census.gov/acs/www/index.html for more information.)

The ACS uses a sample to describe the Boston population, so its results are subject to the limitations common to all surveys. Samples produce estimates that can never be as precise as tabulations of the whole population. Other kinds of errors can further affect the precision of estimates, and nonrandom (or systematic) error has the potential to bias findings.

Poverty status. U.S. Department of Commerce, U.S. Census Bureau, American FactFinder, 2004 American Community Survey, and Census 2000, Census 1990 Summary File-Sample Data, Census 1980, and Census 1970.

The number of Boston residents living in poverty is estimated by the U.S. Census Bureau using income thresholds that vary by family size and composition but not by geographic region. Communities like Boston, which have a high cost of living, may therefore have more poor residents than the official poverty rate suggests. People who avoid being counted in the census are frequently very low-income as well, which contributes to a further underestimate of the true poverty rate.

Substance abuse treatment admissions. Massachusetts Department of Public Health, Center for Community Health, Bureau of Substance Abuse Services.

The MDPH Bureau of Substance Abuse Services funds and licenses treatment facilities, which submit data every year on the population they serve. The data reflect admissions, not individuals: an individual may be admitted for substance abuse treatment more than once.

It should also be noted that this dataset provides information only about people who have been admitted for treatment of substance abuse problems, not the total number who are experiencing such difficulties.

Nonfatal assault-related gunshot and stabbing injuries. Massachusetts Department of Public Health, Center for Health Statistics, Information, Research, and Evaluation, Injury Surveillance Program, Weapon-Related Injury Surveillance System.

The MDPH Weapon-Related Injury Surveillance System collects data from hospital emergency departments via medical record reviews. The Department estimates that it obtains data on 70-80% of stabbing cases and 80-90% of gunshot cases. For this report, WRISS cases that were reported as assault-related and which were not known to have resulted in death are included. Some cases with an unknown disposition may be erroneously counted as nonfatal. (For more information, go to http://www.mass.gov/dph/bhsre/isp/isp.htm.)

Glossary

To help the reader compare the data presented for specific health indicators in this report to data from other sources, the definitions provided below include the codes used to classify causes of hospitalization or death. The hospitalization codes are from the Diagnostic Related Grouping (DRG), based on version 18 of the Federal Grouper. The cause-of-death codes are from the International Classification of Diseases, 10th Revision (ICD-10), a product of the World Health Organization (WHO).

AAR: See Age-Adjusted Mortality Rate.

Acquired Immune Deficiency Syndrome (AIDS): See HIV/AIDS.

African American: All persons self-identified as of African descent who do not also identify themselves as Latino.

Age-Adjusted Mortality Rate (AAR): Calculated by applying the age-specific mortality rates in a population to a standard population (typically, and in this report, the 2000 U.S. population). The age-adjusted rate of one group can be compared to the age-adjusted rate of another group with confidence that differences in the rates of the two areas or groups do not stem from differences in the age structure of their populations. AARs are extensively used in the national Healthy People 2010 goals.

Age-Specific Rate (ASR): The number of events such as deaths or diseases per year in a given age group per 100,000 people in that age group.

Age-Specific Birth Rate: The number of live births to women in an age group divided by the female population of that age group, expressed per 1,000 females in that age group.

Age-Specific Hospitalization or Emergency Department Visit Rate: The number of hospitalizations or emergency department visits per year in a given age group per 1,000 people in that age group.

Alcohol-Related Deaths: Death directly attributable to alcohol use/abuse, such as liver disease due to alcohol consumption, and accidental alcohol overdose. This category does not include deaths indirectly due to alcohol use, such as deaths due to injuries occurring while intoxicated or deaths caused by another person who was intoxicated. ICD-10 codes F10, G31.2, G62.1, I42.6, K29.2, K70, R78.0, X45, X65, and Y15 are used to define alcohol-related deaths.

Alzheimer's Disease: A brain disorder that gradually destroys a person's memory and ability to learn, reason, make judgments, communicate, and carry out daily activities. It is the most common form of dementia among older people. Symptoms include memory loss, language deterioration, poor judgment, confusion, restlessness, and mood swings.

Amebiasis: Parasitic infection of the intestines, spread through ingestion of fecally contaminated food or water. Symptoms are often mild and include loose stools, stomach pain, and stomach cramping.

Asian: All persons self-identified as Asian or Pacific Islander (e.g., Chinese, Japanese, Hawaiians, Cambodians, Vietnamese, Asian Indians, Filipinos) who do not also identify themselves as Latino. The numbers from the 2000 Census used in the Demographics section use a different way of counting races and ethnicity and should not be compared with numbers drawn from earlier censuses.

Asthma and Bronchitis: Asthma is a chronic inflammatory condition defined by sudden periodic attacks of difficulty in breathing accompanied by wheezing caused by a spasm of the bronchial tubes. Bronchitis refers to inflammation of the mucous membrane of the bronchial tubes. DRG codes 96-98.

Birth Rate: The number of live births per year, per 1,000 women ages 15-44.

Birthweight: The weight of an infant at the time of delivery. It may be recorded in either grams or pounds/ounces. If recorded in pounds/ounces, it is converted to grams for use in this report based on the following formula: 1 pound = 453.6 grams; 1,000 grams = 2 pounds and 3 ounces.

Black: All persons self-identified as Black (e.g., African Americans, Haitians, West Indians) who do not also identify themselves as Latino.

Blood Lead Levels: The amount of lead in micrograms per deciliter, detected in the blood during finger-stick screening or venous-confirmation blood tests.

Campylobacteriosis: An infectious disease caused by the bacteria *Campylobacter*, which causes diarrhea, cramping, abdominal pain, and fever. Most cases are associated with handling raw poultry or eating raw or undercooked poultry.

Cancer: A group of diseases characterized by uncontrolled growth and spread of abnormal cells. ICD-10 codes C00-C97.

Census 2000: The count of the entire American population undertaken by the U.S. Census Bureau in 2000. Census 2000 should not be confused with the year 2000 standard population, which is a set of population weights used to calculate age-adjusted rates.

Chickenpox (varicella): An infectious disease primarily occurring in childhood that is caused by an easily transmissible virus. People with chickenpox get an itchy rash with tiny blisters that have a red base. Chickenpox is spread via respiratory droplets.

Chlamydia: A sexually transmitted disease caused by the bacterium *Chlamydia trachomatis*. About half of infected men, and three-quarters of infected women, have no symptoms. Chlamydia can permanently damage a woman's reproductive organs if not treated promptly.

Chronic Obstructive Pulmonary Disease (COPD): Diseases including bronchitis, asthma, emphysema, and allergies from inhaled organic dust particles, which decrease the ability of the lungs to oxygenate the blood. The leading cause of COPD is smoking. ICD-10 codes J40-J47. For hospitalization data, DRG code 88.

Death Rate: The number of deaths per year per 100,000 population.

Demographics: The statistical study of characteristics of human populations and of population distributions such as age, sex, and race/ethnicity.

Diabetes: A chronic metabolic disease characterized by inadequate insulin production by the pancreas. ICD-10 codes E10-E14.

Diagnostic Related Grouping (DRG) Codes: Codes used to group reasons for hospitalization.

Drug-Related Deaths: Deaths due to use of drugs other than alcohol and tobacco, including direct physiological causes as well as some accidental deaths in which drug use/abuse is involved. Does not include deaths indirectly due to drug use, such as death due to injuries occurring while under the influence of drugs or deaths caused by another person under the influence of drugs. ICD-10 codes F11.0-F11.5, F11.7-F11.9, F12.0-F12.5, F12.7-F12.9, F13.0- F13.5, F13.7-F13.9, F14.0-F14.5, F14.7-F14.9, F15.0- F15.5, F15.7-F15.9, F16.0-F16.5, F16.7-F16.9, F17.0, F17.3-F17.5, F17.7-F17.9, F18.0-F18.5, F18.7-F18.9, F19.0-F19.5, F19.7-F19.9, X40-X44, X60-X64, X85, and Y10-Y14.

Escherichia coli 0157:H7: One of hundreds of strains of *E. coli* bacteria that live in the bowel of people and animals.

Gastroenteritis, Esophagitis, and Miscellaneous Digestive Disorders: Inflammation or infection of the mucous membranes of the stomach and intestine.

Giardiasis: A diarrheal illness caused by a microscopic parasite called *Giardia intestinalis* or *Giardia lamblia*. *Giardia* is found in soil, food, water, or surfaces that have been contaminated with the feces from infected humans or animals. It causes a variety of intestinal symptoms, including diarrhea, gas, greasy stools, stomach cramps, and upset stomach or nausea.

Gonorrhea: A sexually transmitted disease caused by the bacterium *Neisseria gonorrhoeae*. Symptoms in men can include a burning sensation when urinating, a white, yellow, or green discharge from the penis, or painful or swollen testicles. Symptoms in women can include a painful or burning sensation when urinating, increased vaginal discharge, or vaginal bleeding between periods. Many men and women have no symptoms.

Healthy People 2010 Goals and Objectives: Targets established by the U.S. Public Health Service, in conjunction with the Centers for Disease Control and Prevention and the National Center for Health Statistics, to assist communities with health promotion and disease prevention efforts and to establish health status goals to be met by the year 2010.

Heart Disease: A group of conditions, including valve and conductive disorders as well as hypertensive diseases. ICD-10 codes I00-I09, I11, I13, and I20-I51.

Heart Failure and Shock: Heart failure occurs when the heart is unable to pump blood efficiently. Shock occurs when the heart cannot pump sufficient blood to maintain the tissues and vital organs. DRG code 127.

Hepatitis: A contagious viral disease that can be transmitted via sexual contact, contact with blood and other bodily fluids, contaminated food or water, or blood-to-blood contact. There are many strains of hepatitis, including hepatitis A, hepatitis B, hepatitis non-A non-B, hepatitis B (unknown carrier), hepatitis B (unverified carrier), hepatitis C, hepatitis D, or hepatitis unspecified.

Hepatitis A: Liver disease caused by infection with the hepatitis A virus (HAV). HAV is transmitted person-to-person through the fecal-oral route, most commonly through contaminated food or water. Onset is abrupt, and symptoms include jaundice, fatigue, abdominal pain, nausea, diarrhea, and fever. Infection does not become chronic.

Hepatitis B: Liver disease caused by infection with the hepatitis B virus (HBV). HBV is transmitted person-to-person through contact with blood and other bodily fluids. Symptoms include jaundice, abdominal pain, fatigue, and joint pain. Acute infection resolves over time. Chronic infection occurs in

90% of infants born with HBV, 20-50% of children less than 5 years old, and 1-10% of persons infected as adults.

Hepatitis C: Liver disease caused by infection with the hepatitis C virus (HCV). HCV is transmitted through blood-to-blood contact, most often through injection drug use. About 80% of people infected with HCV will not develop any symptoms, which include jaundice, fatigue, dark urine, and abdominal pain. 75-85% of those infected with HCV will develop chronic liver disease.

Hispanic: See Latino.

HIV/AIDS: The human immunodeficiency virus (HIV) infection, which leads to Acquired Immune Deficiency Syndrome (AIDS) or other HIV-related infections. ICD-10 codes B20-B24.

HIV+ or HIV Infected: Having tested positive for the antibodies to human immunodeficiency virus (HIV), meaning that one is infected with the virus, with or without major related conditions. DRG codes 701-716.

Homeless: The federal government defines "homeless" to mean (1) an individual who lacks a fixed, regular, and adequate night-time residence; and (2) an individual who has a primary night-time residency that is (i) a supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing for the mentally ill); (ii) an institution that provides a temporary residence for individuals intended to be institutionalized; or (iii) a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings. This term does not include any individual imprisoned or otherwise detained under an Act of Congress or a state law.

Homicide: A death intentionally caused by a person other than the deceased. ICD-10 codes X85-Y09 and Y87.1.

Hospitalization: A patient's continuous stay of one night or more in the hospital for observation, care, diagnosis, or treatment before being released by the hospital, or before death.

Human Immunodeficiency Virus (HIV): The virus that is responsible for causing AIDS.

ICD-10 Codes: Data from 1999 and later years are classified according to the International Classification of Diseases, 10th Revision (ICD-10), released by the World Health Organization in 2000 and adopted by the United States National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention. ICD-10 classification replaces ICD-9 classification. For more information on these codes and their use, see http://www.cdc.gov/nchs/icd9.htm#ICD-10-CM.

IMR: See Infant Mortality Rate.

Incidence: The number of new cases of a particular disease over a period of time (usually a year) and in relation to the population in which it occurs.

Infant Mortality Rate (IMR): The number of deaths under one year of age per 1,000 live births.

Injury: For hospitalization data in this report, injury is an aggregation of DRG codes 280-282 and Major Diagnostic Classification (MDC) codes 21, 22, and 24, which include, for example, surgical procedures performed due to injury, traumatic injury (open wounds, multiple fractures, limb reattachment), poisoning and toxic effects of drugs, and burns. Injury deaths include five categories: homicides,

suicides, motor vehicle-related injuries, (other) unintentional injuries, and “undetermined” injuries (for which it was not determined on the death certificate whether the injury was intentional). The latter two categories are frequently presented together in this report. The determinations of intent are for purposes of medical record-keeping only.

Latino: Includes people of any race (Asian, Black, White, or Other) self-identified as Hispanic or Latino (such as Puerto Rican, Mexican, Cuban, Spanish, or Dominican).

Lead Screening: The measurement of blood-lead levels in children to identify those who have been exposed to toxic levels of environmental lead. In Boston, annual screening of children between 6 and 48 months of age is mandatory.

Lyme Disease: An illness caused by bacteria that are spread to people and animals by tiny infected deer ticks.

Low Birthweight (LBW): Birthweight less than 2,500 grams (or 5.5 lbs).

Meningitis (Viral): An illness in which there is inflammation of the tissues that cover the brain and spinal cord. This type of meningitis is caused by viral infection. Symptoms include fever, severe headache, stiff neck, sensitivity to bright light, drowsiness or confusion, and nausea and vomiting.

Mortality: Death, or the relative frequency of death per unit of population in a specific time period.

n<5: A notation used to indicate that for this health indicator there were fewer than five occurrences (for example, births, deaths, new case of a disease) and therefore a rate could not be presented.

Neighborhood: One of 16 distinct geographical areas in Boston.

Nephritis/Nephrosis: Inflammation of the kidneys (nephritis), or kidney disease with severe protein loss and fluid retention or degenerative changes in the kidneys without inflammation (nephrosis). For data from 1999 and later years, ICD-10 codes N00-N07, N17-N19, and N25-N27.

Newborns/Neonates: Infants from the time of their birth through the first 27 days of age. DRG codes 602-640 and “Not Classified” Category.

Nutritional and Metabolic Disorders: Conditions that disrupt the biological process of breaking down food into a form useable by the body; includes nutritional disorders such as malnutrition and eating disorders such as anorexia nervosa or bulimia. Diabetes, congenital abnormalities of the metabolic system, or endocrine disorders are not included among these disorders.

Pneumonia/Influenza: Bacterial or viral infections of the lungs that primarily affect the aged and persons with compromised immune systems. ICD-10 codes J10-J18.

Pneumonia and Pleurisy: Bacteria or viral infection of the lungs and inflammation of the pleura, the membrane that covers the lungs. DRG codes 89-91

Pregnancy: The condition of carrying a developing embryo or fetus in the uterus. DRG codes 370-384.

Preterm Birth: Delivery at less than 37 completed weeks' gestation.

Psychoses: Acute mental disorders characterized by loss of contact with reality and personality disintegration. DRG code 430.

Salmonella: Germs (bacteria) that cause an infectious disease (called "salmonellosis") of the bowel in humans and animals.

Septicemia: A serious infection caused by bacteria in the blood, which is sometimes called blood poisoning. Symptoms include fevers and chills, rapid breathing and heart rate, changes in mental state (such as irritability, feeling very tired, or anxious), and feeling shock. Septicemia progresses rapidly, and can be fatal.

Sexually Transmitted Disease: Infection spread by transfer of organisms from person to person during sexual contact.

Shock: See Heart Failure and Shock.

Standard Population: An estimate of the U.S. population in which the age, race, and sex distributions are known, resulting in a set of population weights that can be used to calculate adjusted mortality rates. In this report, the year 2000 U.S. standard population is used to calculate age-adjusted mortality rates.

Stroke: A cerebrovascular accident. Stroke occurs when a blood vessel in the brain bursts or when the blood supply to part of the brain is blocked, depriving the brain of oxygen. ICD-10 codes I60-I69.

Substance Use and Abuse: Use or overuse of ingested substances both legal (such as alcohol) and illegal (such as cocaine); for alcohol-related data, ICD-10 codes F10, G31.2, G62.1, I42.6, K29.2, K70, R78.0, X45, X65, and Y15; for drug-related data, ICD-10 codes F11.0-F11.5, F11.7-F11.9, F12.0-F12.5, F12.7-F12.9, F13.0- F13.5, F13.7-F13.9, F14.0-F14.5, F14.7-F14.9, F15.0- F15.5, F15.7-F15.9, F16.0-F16.5, F16.7-F16.9, F17.0, F17.3-F17.5, F17.7-F17.9, F18.0-F18.5, F18.7-F18.9, F19.0-F19.5, F19.7-F19.9, X40-X44, X60-X64, X85, and Y10-Y14. Hospitalization substance abuse data include alcohol and/or drug abuse, dependence, and detoxification and rehabilitation therapy (MDC code 20).

Suicide: The intentional and voluntary taking of one's own life. For data from 1999 and later years, ICD-10 codes X60-X84 and Y87.0.

Syphilis: A sexually transmitted disease caused by the bacterium *Treponema pallidum*. The first stage of syphilis is usually a sore (chancre), followed by skin rashes and lesions of the mucous membrane, fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue. Although signs and symptoms of initial infection can subside without treatment, untreated syphilis can cause complications many years later, including paralysis, blindness, dementia, and death.

Tuberculosis (TB): A bacterial infection that primarily affects the lungs. TB is transmitted via airborne droplets through sneezing, coughing, or spitting. People who are infected with latent TB do not have symptoms and cannot transmit the bacteria to others. People with active TB experience symptoms including chronic cough, pain in the chest, coughing up blood or sputum, fatigue, weight loss, and fever.

µg/dL: Micrograms per deciliter. A measurement unit for level of lead in a measured quantity of blood: a billionth of a gram in a tenth of a liter. Children with blood lead levels of 10 µg/dL or higher are considered to have elevated blood lead levels.

Unintentional Injury: An accidental injury. ICD-10 codes V01.0, V01.1, V01.9, V05.0, V05.1, V05.9, V06.0, V06.1, V06.9, V09.1, V09.3, V09.9, V10.0, V10.1-V10.5, V10.9, V11.0-V11.5, V11.9, V15.0-V15.5, V15.9, V16.0-V16.5, V16.9, V17.0-V17.5, V17.9, V18.0-V18.5, V18.9, V19.3, V19.8, V19.9, V80.0-V80.2, V80.7-V80.9, V81.2-V81.9, V82.2-V82.9, V87.9, V88.9, V89.1, V89.3, V89.9, V90-V95, V96.0-V96.2, V96.8-V96.9, V97.0-V97.3, V97.8-V97.9, V98-V99, W00-X59, Y85.0, Y85.9, and Y86. Codes used by *Healthy People 2010* are slightly different:

White: All persons self-identified as White who do not also identify themselves as Latino.

HEALTHY PEOPLE 2010 GOALS AND OBJECTIVES

Healthy People 2010

Category and Objective	Target
• **Infant Mortality Rates**	
Reduce deaths in infants <1 year old	4.5 per 1,000 live births
• **Low Birthweight**	
Reduce low birthweight rate	5.0% of births
• **Teen Birth Rates**	
Reduce adolescent births	46 births per 1,000
• **Childhood Lead Poisoning**	Zero
• **Childhood Asthma**	
Reduce hospitalizations for children <5	25 per 10,000
• **STD**	
Reduce by Type:	
Chlamydia	
Males ages 15-24 attending STD clinics	3.0%
Females ages 15-24 attending STD/family planning clinics	3.0%
Gonorrhea	19 new cases per 100,000
Primary and secondary syphilis	0.2 new cases per 100,000
• **AIDS**	
Reduce AIDS among adolescents and adults	1.0 new cases per 100,000
• **Cancer**	
Reduce the overall cancer death rate	158.7 deaths per 100,000
Reduce the lung cancer death rate	44.8 deaths per 100,000
Reduce the breast cancer death rate	22.2 deaths per 100,000 females
Reduce the uterine cervix cancer death rate	2.0 deaths per 100,000 females
Reduce the colorectal cancer death rate	13.9 deaths per 100,000
Reduce the oropharyngeal cancer death rate	2.6 deaths per 100,000
Reduce the prostate cancer death rate	28.7 deaths per 100,000 males
Reduce the melanoma cancer death rate	2.5 deaths per 100,000
Screening	
Increase percentage of females who receive a Pap test:	
Females 18 and over who have ever received one	97%
Females 18 and over who received one in preceding 3 years	90%
Increase percentage of females ages 40 and over who received a mammogram within the past 2 years	70 %
Increase percentage of adults with a colorectal cancer screening examination:	

Category and Objective:	Target
Adults over age 50 who have ever received a sigmoidoscopy	50%
Adults over age 50 who received a fecal occult blood test within the past 2 years	50%
• **Coronary Heart Disease (CHD)**	
Reduce CHD mortality rate	166 deaths per 100,000
Risk Factors:	
Reduce proportion of adults with high blood pressure	16%
Reduce percentage of adults with high blood cholesterol	21%
Reduce proportion of adults who are obese	15%
• **Stroke**	
Reduce stroke mortality rate	48 deaths per 100,000
• **Diabetes**	
Reduce diabetes mortality rate	45 deaths per 100,000
Reduce rate of lower extremity amputations among diabetics	5 lower extremity amputations per 1,000 per year
• **Substance Abuse**	
Reduce drug mortality rate	1 death per 100,000
Reduce cirrhosis mortality rate	3 deaths per 100,000
Reduce cigarette smoking by adults	12%
Reduce tobacco use by adolescents	21%
Reduce binge drinking among adults ages 18 and over	6%
Reduce binge drinking among adolescents ages 12-17	3%
• **Violence**	
Reduce homicide mortality rate	3.2 homicides per 100,000
Reduce suicide mortality rate	6.0 deaths per 100,000
Reduce rate of suicide attempts by adolescents	12 month average of 1%
• **Nutrition**	
Increase the proportion of persons age 2 and older:	
Who consume at least two daily servings of fruit	75%
Who consume at least three daily servings of vegetables (at least 1/3 being dark green or deep yellow)	50%
Who consume at least 6 daily servings of grain products	50%
• **Physical Activity**	
Reduce the percentage of adults who engage in no leisure time physical activity	20%
Increase the percentage of adults who engage in regular, moderate physical activity daily for at least 30 minutes	30%
Increase the percentage of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous days	30%

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