

2. Mortality, Injuries, and Violence Appendix Data Tables

This chapter presents data on the following indicators related to overall mortality, and mortality from injuries and violence:

- 2.1. Overall Mortality
 - Age Specific death rate - under 35, 35-65, 65+ (1999-2001, 2006-2008)
 - % if deaths by age group - under 35, 35-65, 65+ (1999-2001, 2006-2008)
 - Standardized mortality rate (1999-2001, 2006-2008)
 - Age-adjusted death rate (1999-2001, 2006-2008)
- 2.2. Unintentional Injury Related Deaths
 - Standardized mortality rate (1999-2001, 2006-2008)
 - Age-adjusted death rate (1999-2001, 2006-2008)
- 2.3. Fall Related Deaths
 - Age specific death rate, 65+ (1999-2001, 2006-2008)
 - % of deaths caused by falls (1999-2001, 2006-2008)
- 2.4. Firearm Deaths
 - Number of deaths (1999-2001, 2006-2008)
 - Age-adjusted death rate (1999-2001, 2006-2008)
- 2.5. Homicides
 - Number of deaths (1999-2001, 2006-2008)
 - Age-adjusted death rate (1999-2001, 2006-2008)
- 2.6. Suicides
 - Number of deaths (1999-2001, 2006-2008)
 - Age-adjusted death rate (1999-2001, 2006-2008)
- 2.7. Motor Vehicles
 - Number of deaths (1999-2001, 2006-2008)
 - Age-adjusted death rate (1999-2001, 2006-2008)
 - Age-adjusted rate of accident ER visits (2006-2008)
- 2.8. Weapons Injuries
 - Number of injuries (1999-2001, 2006-2008)
- 2.9. Self-inflicted Injury Hospitalizations
 - Crude rate (2004-2008)
- 2.10. Traumatic Brain Injury Hospitalizations
 - Standardized hospitalization ratio (2006-2008)

Presented for each indicator is an explanation of the indicator, the data, the source of the data, a Healthy People 2020 objective when available, and a comment on whether there are any statistically significant differences between each community in CHNA 18 and Massachusetts.

A note on determining statistical significance:

The 95% confidence interval (95% CI) is a range of values that has a 95% chance of including the observed percentage. Observed rates are subject to statistical variation; even if the observed percentages are identical in two populations, the populations may differ because of random variation. The confidence interval describes the precision of the observed rate as an estimate of the underlying risk, with a wider interval indicating less certainty about this estimate. The width of the interval reflects the size of the population and the number of cases; smaller populations with fewer cases lead to wider confidence intervals.

The **statistical significance** of differences between rates can be estimated based on whether the confidence intervals overlap. For example, if the 95% confidence intervals for the birth rate for a community and state do not overlap, it is safe to conclude that the rates are statistically different (i.e., the difference is very unlikely to be due to sampling error).

2.1 Overall Mortality

Age Specific Death Rate: This is the same as a crude rate, but in this case only for individuals who in the specified age group. So it is the number deaths in each age group divided by the population in the age group, expressed as number of deaths per 100,000 individuals in the age group. For example, for individuals ages 65 and older, it is the number of deaths where the individual was over 65 years old per 100,000 individuals age 65 and older.

% of Deaths by Age Group: This is the percent of deaths, out of the total number of deaths, that occurred in each age group.

Standardized Mortality Rate (SMR): The ratio of the number of deaths observed in a population to the number that would be expected if the population had the same age-specific rates as the standard population, multiplied by 100. The standard population used here is Massachusetts. [Note that the standardized ratio is not meaningful for the entire state; by definition the result is always 100.] A standardized ratio of more than 100 indicates that a community's mortality rate is higher than expected compared to the statewide average. A standardized ratio of less than 100 indicates a less than expected mortality rate compared to Massachusetts.

Age Adjusted Death Rate (DR): The death rate is the number of deaths per 100,000 persons. This statistic takes into account all age groups. Age adjustment is a statistical method that takes into account age-distribution differences between populations by taking the 2000 US population distribution and applying it to the other time periods under consideration. This assures that changes in the death rate are not merely reflections of any changes in the population age distribution.

Age Specific Death Rate (95% CI)		
	1999 - 2001	2006-2008
Brookline		
0-34	25.52 (14.86 - 36.19)	18.29 (9.04 - 27.55)
35-64	235.41 (198.15 - 272.67)	164.21 (133.40 - 195.01)
65+	4729.72 (4450.08 - 5009.36)	4011.45 (3745.35 - 4277.55)
Dedham		
0-34	40.74 (17.69 - 63.78)	64.41 (34.66 - 94.15)
35-64	331.96 (265.66 - 398.25)	353.59 (287.93 - 419.25)
65+	5721.76 (5302.32 - 6141.19)	4972.57 (4578.75 - 5366.39)
Dover		
0-34	14.36 (0.00 - 42.50)	15.14 (0.00 - 44.80)
35-64	124.79 (47.49 - 202.08)	118.21 (44.99 - 191.44)
65+	3582.75 (2764.44 - 4401.07)	3541.19 (2695.68 - 4386.70)
Needham		
0-34	20.37 (5.28 - 35.46)	46.10 (22.77 - 69.42)
35-64	189.66 (144.62 - 234.70)	210.65 (164.25 - 257.05)
65+	5341.38 (4986.33 - 5696.43)	4623.45 (4290.61 - 4956.29)
Newton		
0-34	29.84 (19.81 - 39.87)	26.85 (16.91 - 36.80)
35-64	248.19 (217.82 - 278.55)	185.54 (159.85 - 211.23)
65+	4353.70 (4148.25 - 4559.15)	3946.83 (3751.01 - 4142.65)
Waltham		
0-34	45.94 (32.05 - 59.83)	33.21 (21.12 - 45.29)
35-64	368.79 (321.42 - 416.15)	396.30 (349.04 - 443.57)
65+	5237.59 (4952.88 - 5522.30)	3964.97 (3715.37 - 4214.56)
Wellesley		
0-34	26.49 (10.07 - 42.90)	27.66 (10.52 - 44.80)
35-64	193.46 (145.73 - 241.18)	171.57 (127.45 - 215.69)
65+	4151.11 (3785.62 - 4516.59)	4075.79 (3705.72 - 4445.85)
Weston		
0-34	14.56 (0.00 - 34.75)	22.90 (0.00 - 48.81)
35-64	167.13 (101.67 - 232.59)	88.03 (41.94 - 134.12)
65+	5087.55 (4516.10 - 5659.00)	4247.03 (3726.64 - 4767.43)

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Westwood		
0-34	17.79 (0.00 - 37.91)	45.23 (11.73 - 78.72)
35-64	216.50 (147.74 - 285.26)	208.92 (142.57 - 275.28)
65+	5630.87 (5122.06 - 6139.68)	4676.93 (4215.38 - 5138.49)

CHNA 18		
0-34	30.88 (25.63 - 36.13)	31.08 (25.65 - 36.50)
35-64	255.07 (238.80 - 271.35)	229.28 (214.22 - 244.34)
65+	4868.03 (4754.38 - 4981.68)	4185.13 (4078.69 - 4291.58)

Massachusetts		
0-34	55.85 (54.31 - 57.39)	53.85 (52.31 - 55.38)
35-64	381.77 (377.34 - 386.19)	368.55 (364.37 - 372.74)
65+	5242.27 (5215.10 - 5269.44)	4829.62 (4803.49 - 4855.75)

United States*		
0-34	80.96	79.19
35-64	459.40	454.25
65+	5139.85	4400.15

*Approximations based on 2000 and 2010 population census
Source: Vital Statistics (MassCHIP custom reports); National Vital Statistics Reports

% of Deaths by Age Group (95% CI)		
	1999 - 2001	2006-2008
Brookline		
0-34	1.80 (1.05 - 2.55)	1.56 (0.78 - 2.34)
35-64	12.52 (10.66 - 14.38)	11.33 (9.33 - 13.33)
65+	85.68 (83.72 - 87.64)	87.11 (84.99 - 89.23)
Dedham		
0-34	1.53 (0.67 - 2.40)	2.53 (1.38 - 3.69)
35-64	12.28 (9.98 - 14.58)	15.61 (12.94 - 18.28)
65+	86.19 (83.77 - 88.61)	81.86 (79.02 - 84.69)
Dover		
0-34	1.22 (0.00 - 3.60)	1.32 (0.00 - 3.88)
35-64	12.20 (5.11 - 19.28)	13.16 (5.56 - 20.76)
65+	86.59 (79.21 - 93.96)	85.53 (77.62 - 93.44)
Needham		
0-34	0.78 (0.20 - 1.35)	1.87 (0.93 - 2.81)
35-64	7.57 (5.84 - 9.30)	9.86 (7.80 - 11.93)
65+	91.65 (89.84 - 93.46)	88.26 (86.04 - 90.49)
Newton		
0-34	1.75 (1.17 - 2.34)	1.62 (1.03 - 2.22)
35-64	13.20 (11.69 - 14.70)	11.58 (10.07 - 13.09)
65+	85.05 (83.46 - 86.64)	86.80 (85.20 - 88.39)
Waltham		
0-34	2.79 (1.96 - 3.62)	2.36 (1.51 - 3.21)
35-64	15.41 (13.58 - 17.23)	21.89 (19.58 - 24.20)
65+	81.81 (79.86 - 83.75)	75.75 (73.36 - 78.15)
Wellesley		
0-34	1.82 (0.70 - 2.95)	1.94 (0.75 - 3.13)
35-64	11.50 (8.83 - 14.17)	11.26 (8.53 - 13.99)
65+	86.68 (83.83 - 89.52)	86.80 (83.87 - 89.72)
Weston		
0-34	0.63 (0.00 - 1.51)	1.15 (0.00 - 2.43)
35-64	7.91 (4.94 - 10.89)	5.34 (2.62 - 8.07)
65+	91.46 (88.37 - 94.54)	93.51 (90.53 - 96.49)

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Westwood		
0-34	0.62 (0.00 - 1.32)	1.66 (0.44 - 2.88)
35-64	7.84 (5.44 - 10.23)	9.03 (6.29 - 11.76)
65+	91.55 (89.07 - 94.02)	89.31 (86.36 - 92.26)

CHNA 18		
0-34	1.71 (1.42 - 2.00)	1.88 (1.55 - 2.20)
35-64	12.10 (11.37 - 12.82)	13.25 (12.43 - 14.06)
65+	86.19 (85.43 - 86.96)	84.87 (84.02 - 85.73)

Massachusetts		
0-34	2.99 (2.91 - 3.07)	2.95 (2.87 - 3.03)
35-64	16.88 (16.70 - 17.06)	18.66 (18.46 - 18.85)
65+	80.13 (79.94 - 80.32)	78.39 (78.19 - 78.59)

United States		
0-34	4.69	4.73
35-64	20.47	22.81
65+	74.82	72.59

Source: Vital Statistics (MassCHIP custom reports); National Vital Statistics Reports

	Standardized Mortality Rate (95% CI)		Age Adjusted Death Rate (95% CI)	
	1999-2001	2006-2008	1999-2001	2006-2008
Brookline	75.34 (71.17 - 79.68)	66.70 (62.55 - 71.05)	589.17 (555.81 - 622.54)	465.05 (434.79 - 495.30)
Dedham	107.41 (100.01 - 115.21)	102.34 (94.95 - 110.15)	854.85 (797.16 - 912.53)	711.00 (659.57 - 762.44)
Dover	67.62 (53.78 - 83.93)	70.08 (55.21 - 87.71)	593.91 (467.61 - 720.21)	538.82 (419.81 - 657.84)
Needham	83.30 (77.94 - 88.94)	77.10 (71.85 - 82.63)	637.84 (595.32 - 680.35)	529.73 (490.25 - 569.21)
Newton	75.01 (71.71 - 78.43)	70.56 (67.27 - 73.97)	590.18 (564.20 - 616.16)	479.98 (457.09 - 502.86)
Waltham	99.16 (94.22 - 104.30)	85.91 (81.17 - 90.85)	799.92 (760.56 - 839.28)	612.19 (578.29 - 646.09)
Wellesley	71.88 (65.98 - 78.15)	73.79 (67.56 - 80.45)	570.04 (523.22 - 616.86)	504.13 (460.87 - 547.40)
Weston	80.65 (72.00 - 90.05)	67.56 (59.63 - 76.26)	606.25 (540.06 - 672.44)	463.02 (396.05 - 529.99)
Westwood	91.63 (83.66 - 100.16)	79.10 (71.72 - 87.02)	700.22 (638.03 - 762.41)	549.25 (492.24 - 606.27)
CHNA 18	83.31 (81.47 - 85.18)	76.35 (74.53 - 78.20)	656.48 (642.12 - 670.84)	526.40 (513.69 - 539.12)
Massachusetts	100.00 (100.00 - 100.00)	100.00 (100.00 - 100.00)	804.69 (800.96 - 808.41)	703.95 (700.54 - 707.35)
United States*	NA	NA	881.9	741.00

*US data from 1999 and 2009 only

Source: Vital Statistics (MassCHIP custom reports); National Vital Statistics Reports

Comment:

Are there any statistically significant differences over time or between each community and the CHNA and Massachusetts?

- Brookline and Newton
 - There was a decrease in the SMR and DR over time
 - From 2006-2008, both the SMR and the DR were lower in Brookline and Newton compared to the CHNA and to Massachusetts
 - Dedham
 - There was a decrease in the DR over time, but the SMR did not change
 - From 2006-2008, both the SMR and the DR were higher in Dedham compared to the CHNA, but were the same as Massachusetts
 - Dover and Wellesley
 - There was no change in the SMR or DR over time
 - From 2006-2008, both the SMR and the DR were the same in Dover compared to the CHNA, but lower than Massachusetts
 - Needham
 - There was a decrease in the DR over time, but the SMR did not change
 - From 2006-2008, both the SMR and the DR were the same in Needham compared to the CHNA, but lower than Massachusetts
 - Waltham
 - There was a decrease in the SMR and DR over time
 - From 2006-2008, both the SMR and DR were higher in Waltham compared to the CHNA, but were lower than Massachusetts
 - Weston and Westwood
 - There was a decrease in the SMR and DR over time
 - From 2006-2008, both the SMR and the DR were the same in both Weston and Westwood compared to the CHNA, but were the lower than Massachusetts
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2.2 Unintentional Injury-related deaths

Standardized Mortality Rate (SMR): The ratio of the number of deaths observed in a population to the number that would be expected if the population had the same age-specific rates as the standard population, multiplied by 100. The standard population used here is Massachusetts. [Note that the standardized ratio is not meaningful for the entire state; by definition the result is always 100.] A standardized ratio of more than 100 indicates that a community's mortality rate is higher than expected compared to the statewide average. A standardized ratio of less than 100 indicates a less than expected mortality rate compared to Massachusetts.

Age Adjusted Death Rate (DR): The death rate is the number of deaths per 100,000 persons. Age adjustment is a statistical method that takes into account age-distribution differences between populations by taking the 2000 US population distribution and applying it to the other time periods under consideration. This assures that changes in the death rate are not merely reflections of any changes in the population age distribution.

Healthy People 2020 Objective: Reduce deaths from unintentional injuries to 36.0 deaths per 100,000 individuals

	Standardized Mortality Rate (95% CI)		Age Adjusted Death Rate (95% CI)	
	1999-2001	2006-2008	1999-2001	2006-2008
Brookline	66.23 (48.99 - 87.55)	45.41 (31.97 - 62.58)	20.21 (13.49 - 26.93)	24.67 (17.51 - 31.84)
Dedham	132.21 (93.55 - 181.44)	93.59 (63.57 - 132.81)	42.16 (26.71 - 57.62)	48.03 (32.43 - 63.63)
Dover	51.96 (10.44 - 149.06)	74.84 (24.12 - 173.30)	31.50 (2.84 - 60.16)	15.32 (0.00 - 32.91)
Needham	37.61 (20.54 - 63.03)	77.98 (53.67 - 109.50)	36.58 (22.08 - 51.08)	13.77 (5.91 - 21.64)
Newton	59.42 (45.66 - 76.02)	53.74 (41.39 - 68.63)	20.18 (15.04 - 25.31)	21.61 (16.19 - 27.03)
Waltham	73.80 (55.44 - 96.29)	84.06 (65.53 - 106.21)	36.31 (27.70 - 44.93)	28.89 (21.07 - 36.72)
Wellesley	78.09 (50.52 - 115.23)	78.28 (52.01 - 113.11)	29.42 (18.13 - 40.71)	33.18 (19.25 - 47.12)
Weston	64.14 (29.27 - 121.43)	66.69 (33.25 - 119.11)	31.76 (2.11 - 61.41)	17.35 (5.66 - 29.05)
Westwood	72.14 (38.37 - 123.19)	72.56 (40.58 - 119.56)	28.24 (12.27 - 44.22)	21.31 (7.11 - 35.51)
CHNA 18	68.90 (60.89 - 77.66)	66.99 (59.55 - 75.10)	27.01 (23.85 - 30.18)	25.17 (22.12 - 28.22)
Massachusetts	100.00 (100.00 - 100.00)	100.00 (100.00 - 100.00)	41.79 (40.91 - 42.68)	37.53 (36.68 - 38.38)
United States*	NA	NA	35.7	38.8

*US data from 2001 and 2008 only

Source: Vital Records (MassCHIP Custom Report); National Vital Statistics Reports

Comment:

Are there any statistically significant differences over time or between each community and the CHNA and Massachusetts?

- There was no difference between 1999-2001 and 2006-2008 in the age-adjusted death rate for unintentional injuries for each community and CHNA 18, however the rate did drop for Massachusetts
- In 2006-2008, Dedham had a higher death rate compared to CHNA 18, and Needham had a lower death rate. The other communities were not significantly different from CHNA 18
- In 2006-2008, Brookline, Dover, Needham, Newton, Weston, and Westwood had a lower death rate compared to Massachusetts

2.3 Fall-related deaths

Age Specific Rate: This is the same as a crude rate, but in this case only for individuals who are 65 years of age or older. So it is the number of fall related deaths in this age group divided by the population in this age group, expressed as number of falls per 100,000 individuals ages 65 and older.

% of all causes: This is the percent of all deaths that were caused by falls

Healthy People 2020 Objective: 45.3 deaths per 100,000 individuals aged 65 and over

		Fall related deaths among 65+ (95% CI)	
		1999-2001	2006-2008
Brookline	Age specific rate	27.10 (5.42 - 48.79)	38.30 (11.76 - 64.83)
	% of all causes	0.57 (0.12 - 1.03)	0.95 (0.30 - 1.61)
Dedham	Age specific rate	33.96 (0.68 - 67.23)	68.35 (21.00 - 115.70)
	% of all causes	0.59 (0.01 - 1.17)	1.37 (0.43 - 2.32)
Dover	Age specific rate	NA*	NA*
	% of all causes	NA*	NA*
Needham	Age specific rate	NA*	52.32 (16.07 - 88.56)
	% of all causes	NA*	1.13 (0.35 - 1.91)
Newton	Age specific rate	29.02 (11.87 - 46.17)	60.56 (35.82 - 85.30)
	% of all causes	0.67 (0.27 - 1.06)	1.53 (0.91 - 2.16)
Waltham	Age specific rate	29.76 (7.72 - 51.80)	34.07 (10.46 - 57.68)
	% of all causes	0.57 (0.15 - 0.99)	0.86 (0.27 - 1.45)
Wellesley	Age specific rate	17.48 (0.00 - 41.70)	54.71 (10.94 - 98.47)
	% of all causes	0.42 (0.00 - 1.00)	4.00 (0.28 - 2.41)
Weston	Age specific rate	17.60 (0.00 - 52.10)	121.34 (31.51 - 211.18)
	% of all causes	0.35 (0.00 - 1.02)	2.86 (0.77 - 4.94)
Westwood	Age specific rate	38.05 (0.00 - 81.09)	24.88 (0.00 - 59.35)
	% of all causes	0.68 (0.00 - 1.44)	0.53 (0.00 - 1.27)
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CHNA 18	Age specific rate	24.69 (16.39 - 32.98)	51.49 (39.43 - 63.55)
	% of all causes	0.51 (0.34 - 0.68)	1.23 (0.94 - 1.52)
Massachusetts	Age specific rate	18.69 (17.02 - 20.35)	42.81 (40.29 - 45.33)
	% of all causes	0.36 (0.32 - 0.39)	0.89 (0.83 - 0.94)
United States	Age specific rate	30.44	48.06
	% of all causes	0.44	0.75

*Cells are marked as NA when either: 1) Data are suppressed for confidentiality reasons, 2) The data is unavailable, or 3) The population on which the statistic is based on is too small to calculate reliable results

Source: Vital Records (MassCHIP Custom Report); WISQARS Fatal Injury Reports

Comment:

Are there any statistically significant differences over time or between each community and the CHNA and Massachusetts?

- Both the age specific rate, and % of all causes increased from 1992-2001 to 2006-2008 in both CHNA 18 and Massachusetts
- Due to large confidence intervals, nothing significant can be said regarding individual communities

2.4 Firearm deaths

Age adjusted death rate: The death rate is the number of fire arm deaths per 100,000 persons. Age adjustment is a statistical method that takes into account age-distribution differences between populations by taking the 2000 US population distribution and applying it to the other time periods under consideration. This assures that changes in the death rate are not merely reflections of any changes in the population age distribution.

Healthy People 2020 Objective: Reduce firearm related deaths to 9.2 per 100,000 population

	Number of Deaths		Age Adjusted Death Rate (95% CI)	
	1999-2001	2006-2008	1999-2001	2006-2008
Brookline	2	1	0.61 (0.00 - 1.46)	0.65 (0.00 - 1.92)
Dedham	3	2	4.15 (0.00 - 8.87)	3.32 (0.00 - 7.98)
Dover	0	0	0.00 (0.00 - 0.00)	0.00 (0.00 - 0.00)
Needham	1	1	1.08 (0.00 - 3.19)	1.12 (0.00 - 3.32)
Newton	2	3	0.74 (0.00 - 1.77)	1.03 (0.00 - 2.23)
Waltham	1	4	0.32 (0.00 - 0.96)	2.30 (0.04 - 4.57)
Wellesley	0	2	0.00 (0.00 - 0.00)	1.78 (0.00 - 4.26)
Weston	0	0	0.00 (0.00 - 0.00)	0.00 (0.00 - 0.00)
Westwood	1	1	1.17 (0.00 - 3.46)	0.87 (0.00 - 2.57)
CHNA 18	10	14	0.97 (0.37 - 1.58)	1.44 (0.67 - 2.20)
Massachusetts	550	658	2.82 (2.58 - 3.06)	3.30 (3.05 - 3.55)
United States	87,110	93,713	10.25	10.22

Source: Vital Records (MassCHIP Custom Report); WISQARS Fatal Injury Reports

Comment:

Are there any statistically significant differences over time or between each community and the CHNA and Massachusetts?

- From 2006-2008, Brookline, Dover, Newton, Weston, Westwood, and CHNA 18 as a whole had a lower age-adjusted death rate from a firearm compared to Massachusetts
- Both CHNA 18 and Massachusetts are well below the Healthy People 2020 objective

2.5 Homicides

Age adjusted death rate: The death rate is the number of homicide deaths per 100,000 persons. Age adjustment is a statistical method that takes into account age-distribution differences between populations by taking the 2000 US population distribution and applying it to the other time periods under consideration. This assures that changes in the death rate are not merely reflections of any changes in the population age distribution.

Healthy People 2020 Objective: Reduce homicide related deaths to 5.5 per 100,000 population

	Number of Deaths		Age Adjusted Death Rate (95% CI)	
	1999-2001	2006-2008	1999-2001	2006-2008
Brookline	2	1	0.83 (0.00 - 1.97)	0.75 (0.00 - 2.23)
Dedham	2	0	2.61 (0.00 - 6.24)	0.00 (0.00 - 0.00)
Dover	1	0	4.53 (0.00 - 13.42)	0.00 (0.00 - 0.00)
Needham	2	1	2.54 (0.00 - 6.08)	0.91 (0.00 - 2.69)
Newton	6	0	2.30 (0.46 - 4.14)	0.00 (0.00 - 0.00)
Waltham	6	1	3.04 (0.52 - 5.55)	0.60 (0.00 - 1.77)
Wellesley	6	0	9.42 (1.28 - 17.55)	0.00 (0.00 - 0.00)
Weston	0	0	0.00 (0.00 - 0.00)	0.00 (0.00 - 0.00)
Westwood	1	0	1.29 (0.00 - 3.81)	0.00 (0.00 - 0.00)
CHNA 18	26	3	2.65 (1.63 - 3.66)	0.33 (0.00 - 0.71)
Massachusetts	493	532	2.55 (2.33 - 2.78)	2.75 (2.51 - 2.98)
United States	53,962	54,760	6.31	6.04

Source: Vital Records (MassCHIP Custom Report); WISQARS Fatal Injury Reports

Comment:

Are there any statistically significant differences over time or between each community and the CHNA and Massachusetts?

- The age-adjusted homicide death rate decreased in CHNA 18 from 1999-2001 to 2006-2008

2.6 Suicides

Age adjusted death rate: The death rate is the number of suicide deaths per 100,000 persons. Age adjustment is a statistical method that takes into account age-distribution differences between populations by taking the 2000 US population distribution and applying it to the other time periods under consideration. This assures that changes in the death rate are not merely reflections of any changes in the population age distribution.

Healthy People 2020 Objective: Reduce suicide related deaths to 10.2 per 100,000 population

	Number of Deaths		Age Adjusted Death Rate (95% CI)	
	1999-2001	2006-2008	1999-2001	2006-2008
Brookline	10	12	4.87 (1.72 - 8.02)	6.71 (2.85 - 10.58)
Dedham	10	6	14.69 (5.37 - 24.02)	9.09 (1.67 - 16.51)
Dover	0	1	0.00 (0.00 - 0.00)	6.43 (0.00 - 19.04)
Needham	4	6	3.92 (0.03 - 7.81)	8.00 (1.31 - 14.69)
Newton	7	12	2.48 (0.63 - 4.33)	4.38 (1.85 - 6.91)
Waltham	8	14	4.63 (1.37 - 7.88)	7.17 (3.34 - 11.01)
Wellesley	3	10	3.79 (0.00 - 8.10)	9.91 (3.71 - 16.12)
Weston	3	1	6.94 (0.00 - 15.03)	1.93 (0.00 - 5.70)
Westwood	1	4	1.17 (0.00 - 3.46)	9.78 (0.00 - 20.46)
CHNA 18	46	66	4.64 (3.29 - 5.99)	6.72 (5.08 - 8.35)
Massachusetts	1,251	1,440	6.37 (6.01 - 6.72)	7.06 (6.70 - 7.43)
United States	89,171	103,933	10.54	11.29

Source: Vital Records (MassCHIP Custom Report); WISQARS Fatal Injury Reports

Comment:

Are there any statistically significant differences over time or between each community and the CHNA and Massachusetts?

- Both CHNA 18 and Massachusetts have met the Healthy People 2020 objective

2.7 Motor vehicles

Age adjusted rate: The rate is the number of motor vehicle related deaths (or accident ER visits) per 100,000 persons. Age adjustment is a statistical method that takes into account age-distribution differences between populations by taking the 2000 US population distribution and applying it to the other time periods under consideration. This assures that changes in the death rate are not merely reflections of any changes in the population age distribution.

Healthy People 2020 Objective: Reduce motor vehicle crash related deaths to 12.4 per 100,000 population

	Number of Deaths		Age Adjusted Death Rate (95% CI)	
	1999-2001	2006-2008	1999-2001	2006-2008
Brookline	10	2	5.55 (1.98 - 9.12)	1.17 (0.00 - 2.94)
Dedham	3	1	3.79 (0.00 - 8.12)	1.58 (0.00 - 4.69)
Dover	0	2	0.00 (0.00 - 0.00)	13.36 (0.00 - 32.37)
Needham	1	8	2.18 (0.00 - 6.46)	11.03 (3.09 - 18.96)
Newton	6	1	4.23 (1.80 - 6.67)	2.35 (0.44 - 4.27)
Waltham	10	12	4.93 (1.80 - 8.06)	5.87 (2.50 - 9.23)
Wellesley	5	3	6.05 (0.58 - 11.52)	3.60 (0.00 - 7.75)
Weston	1	1	1.52 (0.00 - 4.50)	2.76 (0.00 - 8.18)
Westwood	0	1	0.00 (0.00 - 0.00)	1.72 (0.00 - 5.08)
CHNA 18	42	36	4.02 (2.80 - 5.25)	3.70 (2.48 - 4.92)
Massachusetts	1,500	1,292	7.72 (7.33 - 8.11)	6.36 (6.01 - 6.71)
United States	129,543	129,051	15.29	14.08

Source: Vital Records (MassCHIP Custom Report); WISQARS Fatal Injury Reports

Accident ER visits

Age Adjusted Rate (95% CI)

2006-2008

Brookline	385.73 (355.89 - 415.57)
Dedham	1,008.75 (929.87 - 1087.63)
Dover	563.68 (406.86 - 720.50)
Needham	431.40 (380.42 - 482.39)
Newton	466.59 (439.33 - 493.85)
Waltham	681.59 (643.69 - 719.49)
Wellesley	356.03 (303.25 - 408.80)
Weston	311.69 (239.87 - 383.52)
Westwood	645.71 (543.46 - 747.96)
CHNA 18	507.92 (493.41 - 522.43)
Massachusetts	1,150.63 (1145.86 - 1155.39)

Data for 1999-2001 unavailable

Source: Hospitalization data from MassCHIP

Comment:

Are there any statistically significant differences over time or between each community and the CHNA and Massachusetts?

- From 2006-2008, the age-adjusted motor vehicle death rate was lower in CHNA 18 compared to Massachusetts, and both CHNA 18 and Massachusetts has met the Healthy People 2020 objective

2.8 Weapons injuries

	Number of Injuries	
	1999-2001	2006-2008
Brookline	5	7
Dedham	6	6
Dover	NA*	NA*
Needham	NA*	NA*
Newton	11	10
Waltham	16	17
Wellesley	NA*	NA*
Weston	NA*	NA*
Westwood	NA*	NA*
CHNA 18	47	46
Massachusetts	5,608	6,551

*Cells are marked as NA when either: 1) Data are suppressed for confidentiality reasons, 2) The data is unavailable, or 3) The population on which the statistic is based on is too small to calculate reliable results

Source: Weapons Related Injury Surveillance System (MassCHIP custom report)

2.9 Self-inflicted injury hospitalizations

Crude rate: This is an overall measure of occurrence for the population. In this case, this is the number of hospitalizations per 100,000 individuals in the population

Healthy People 2020 Objective: Reduce hospitalizations from self-inflicted injury to 112.8 injuries per 100,000 individuals.

	Crude Rate (95% CI)
	2004-2008
Brookline	48.65 (40.52 - 56.79)
Dedham	54.27 (40.98 - 67.57)
Dover	35.49 (13.50 - 57.48)
Needham	47.07 (35.80 - 58.33)
Newton	26.40 (21.47 - 31.33)
Waltham	47.73 (39.88 - 55.58)
Wellesley	27.44 (18.60 - 36.28)
Weston	13.81 (4.24 - 23.37)
Westwood	94.81 (71.95 - 117.68)
CHNA 18	41.44 (38.24 - 44.65)
Massachusetts	107.01 (105.88 - 108.14)
United States*	129.25 (128.83 - 129.66)

*US data from 2005 only

Source: Hospital Emergency Visits (MassCHIP custom report); MMWR 56(38);989-993

Comment:

Are there any statistically significant differences between each community and the CHNA and Massachusetts?

- Newton, Wellesley, and Weston have lower rates of hospitalization from self-inflicted injury compared to CHNA 18, while Westwood has a higher rate of hospitalization compared to CHNA 18
 - CHNA 18 as a whole and each community except Westwood have lower rates of hospitalization from self-inflicted injury compared to Massachusetts. Westwood is not statistically different from Massachusetts
-

2.10 Traumatic brain injury hospitalizations

Standardized Hospitalization Ratio (SHR): The ratio of the number of hospitalizations observed in a population to the number that would be expected if the population had the same age-specific rates as the standard population, multiplied by 100. The standard population used here is Massachusetts. [Note that the standardized ratio is not meaningful for the entire state; by definition the result is always 100.] A standardized ratio of more than 100 indicates that a community's mortality rate is higher than expected compared to the statewide average. A standardized ratio of less than 100 indicates a less than expected mortality rate compared to Massachusetts.

Standardized Hospitalization Ratio (95% CI)	
2006-2008	
Brookline	69.12 (64.63 - 73.84)
Dedham	114.45 (105.52 - 123.92)
Dover	82.39 (67.11 - 100.11)
Needham	94.04 (86.85 - 101.66)
Newton	65.75 (62.16 - 69.48)
Waltham	68.28 (63.97 - 72.80)
Wellesley	64.85 (58.78 - 71.37)
Weston	71.19 (61.47 - 82.00)
Westwood	115.02 (103.71 - 127.22)
CHNA 18	75.81 (73.81 - 77.86)
Massachusetts	100.00 (100.00 - 100.00)

Data from 1999-2001 unavailable

Source: Hospital Emergency Visits (MassCHIP custom report)

Comment:

Are there any statistically significant differences between each community and the CHNA and Massachusetts?

- CHNA 18 had a lower than expected rate of traumatic brain injury hospitalizations compared to Massachusetts
- Brookline, Newton, Waltham, Wellesley, and Weston had a lower than expected rate of traumatic brain injury hospitalization compared to Massachusetts while Dedham and Westwood had a higher rate