



BOSTON PUBLIC HEALTH COMMISSION (BPHC)

Communicable Disease Control Division

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Boston COVID-19 Report - For the Week Ending 12/31/2020

1/3/2020 - 12/31/2020

COVID-19 Cases [§] (Boston Residents)	#
Active Cases	6,220
Recovered Cases	33,093
Deaths	1012
TOTAL CASES	40,325

COVID-19 Confirmed Hospitalizations (through 12/31/2020)	
YEAR	# HOSPITALIZED
2020	2,275

Boston ED CLI ^{§§} Syndromic Surveillance (All Visits)	
This Week Overall %CLI (12/24-12/30/2020)	9.0%
Last Week Overall %CLI (12/18-12/23/2020)	8.6%

Summary: As of 8:43 am on 12/31/2020, a total of 40,325 cases of laboratory-confirmed COVID-19 among Boston residents have been reported to the Boston Public Health Commission (BPHC). Of reported cases, two thousand two hundred and seventy-five (5.6%) required hospitalization. One thousand and twelve (2.5%) residents have died. Thirty-three thousand and ninety-three (82.1%) residents have recovered.

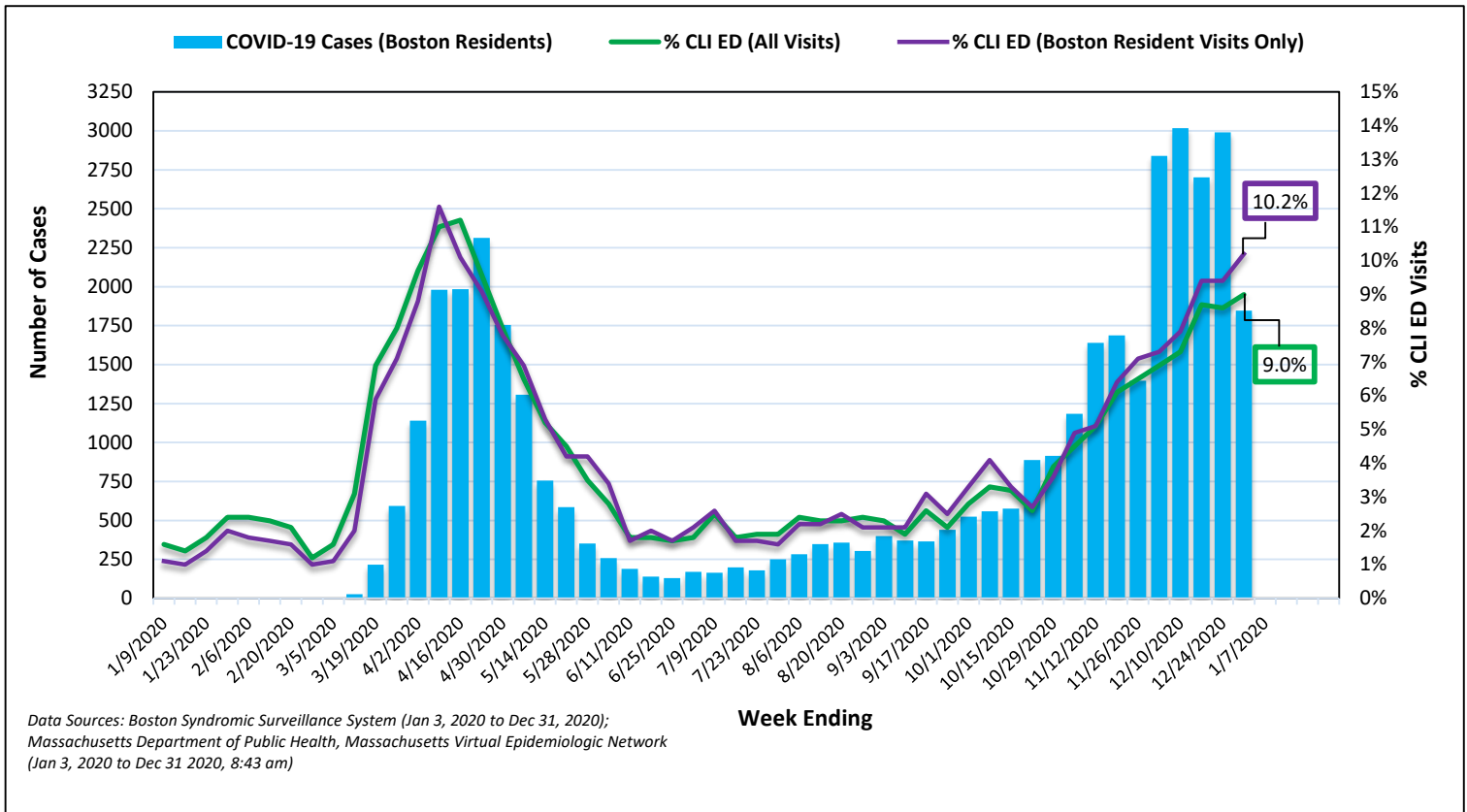
Two thousand nine hundred and forty-nine (7.3%) were healthcare workers.

Emergency Department (ED) visits for COVID-19-like illness (CLI) comprised 9.0% of all ED visits between (12/24 - 12/30/2020), up from 8.6% the prior week.

[§]New daily cases are defined by the date of their first reported positive test. Prior to October 8, 2020, new cases were reported using the event date. An event date is the earliest associated date corresponding to each disease event and is hierarchical based on available information (e.g., symptom onset date, test date, report date).

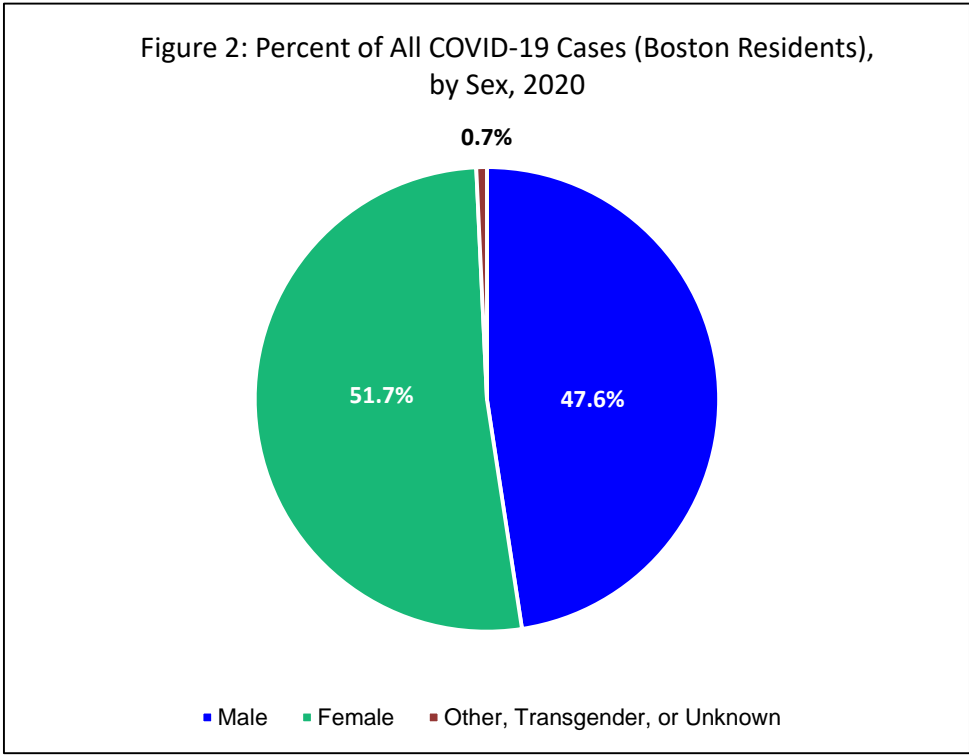
^{§§}COVID-19-like illness (CLI) is defined as "Covid or (fever and (cough or respiratory distress))" in ED chief complaint data from Boston acute care hospitals, captured by BPHC Syndromic Surveillance System.

Figure 1. Reported COVID-19 Cases and % CLI Emergency Department Visits, by Week, 2020^{§,§§}

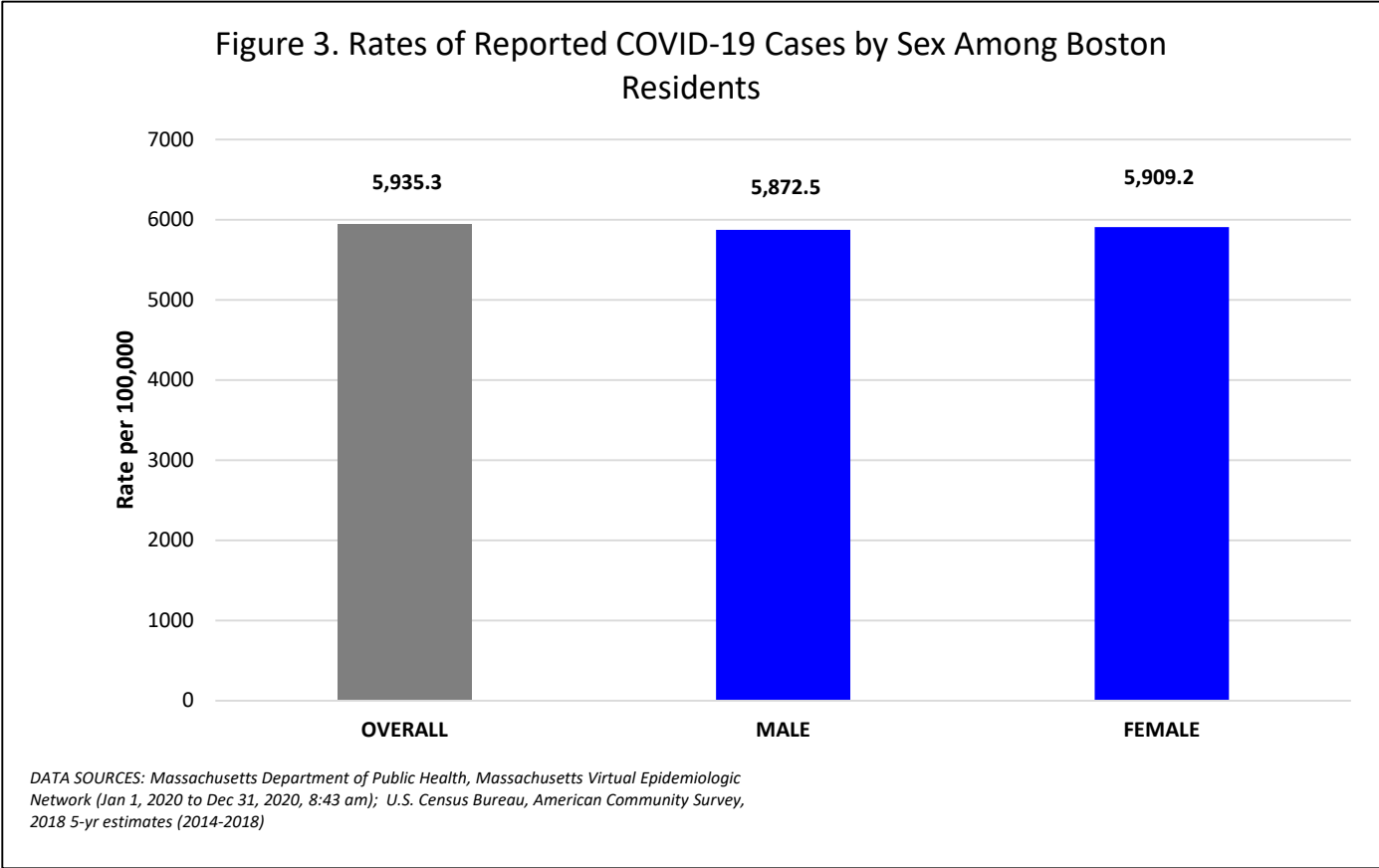


[§] New daily cases are defined by the date of their first reported positive test. Prior to October 8, 2020, new cases were reported using the event date. An event date is the earliest associated date corresponding to each disease event and is hierarchical based on available information (e.g., symptom onset date, test date, report date).

^{§§} %CLI ED (All Visits) is a percentage of CLI visits among all ED including irrespective of residence. %CLI ED (Boston Resident Visits Only) is a percentage of CLI visits by Boston residents among all ED visits by Boston residents. Due to the New Year's Day holiday, CLI data for the week ending 12/31/2020 only includes data through 12/30/2020.



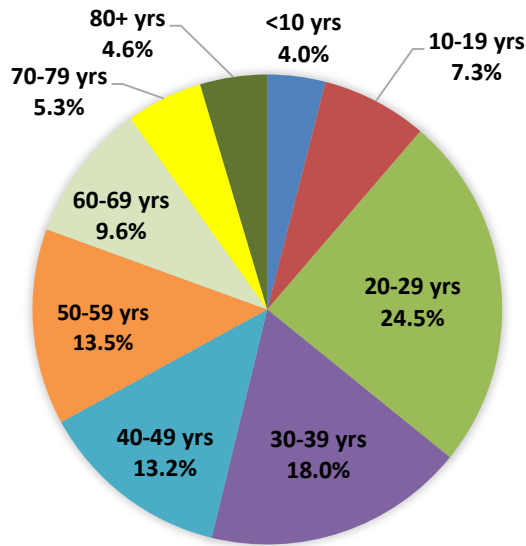
DATA SOURCES: Massachusetts Department of Public Health, Massachusetts Virtual Epidemiologic Network (Jan 1, 2020 to Dec 31, 2020, 8:43 am)



DATA SOURCES: Massachusetts Department of Public Health, Massachusetts Virtual Epidemiologic Network (Jan 1, 2020 to Dec 31, 2020, 8:43 am); U.S. Census Bureau, American Community Survey, 2018 5-yr estimates (2014-2018)

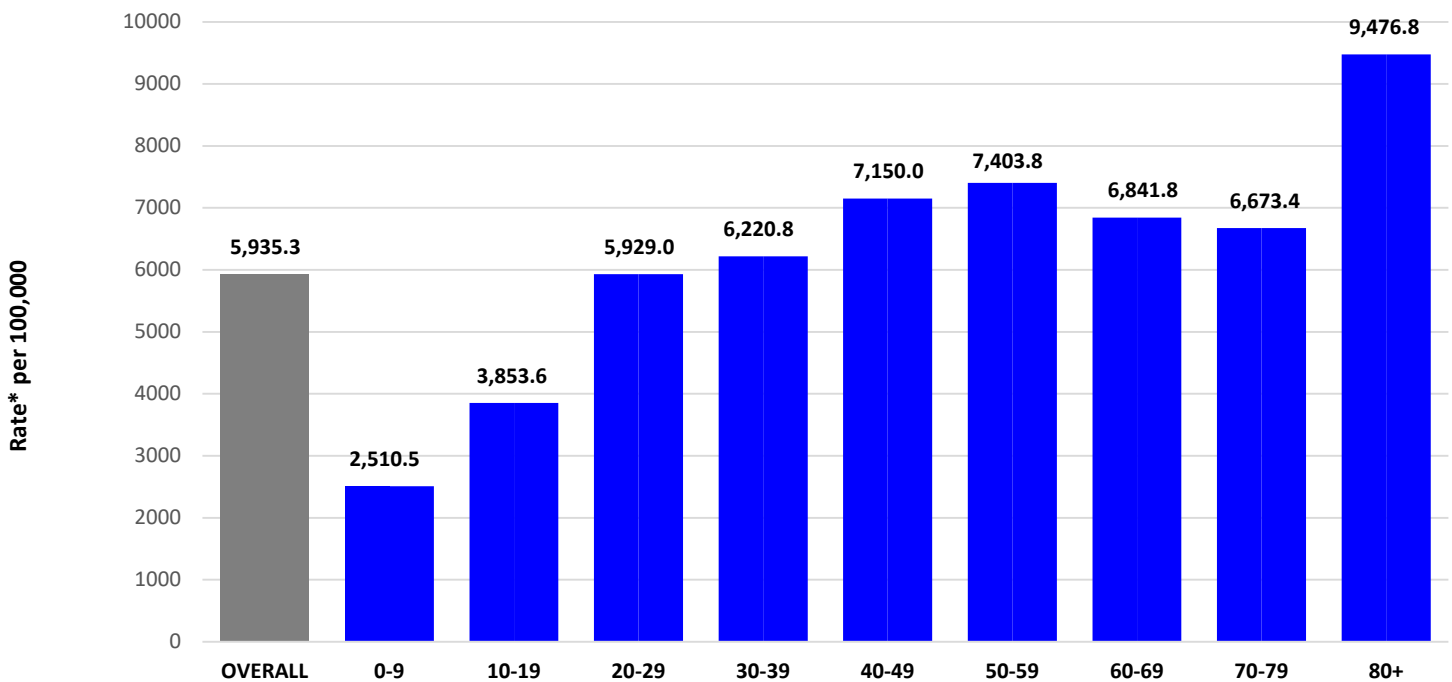
There was a similar distribution of male cases and female cases (Figure 2). The incidence rate of COVID-19 among female residents was similar compared to male residents (Figure 3). *Note: The overall rate was higher than rates by sex due to the 0.8% of cases with other/unknown sex or who identify as transgender.*

FIGURE 4. REPORTED COVID-19 CASES BY AGE AMONG BOSTON RESIDENTS



DATA SOURCES: Massachusetts Department of Public Health, Massachusetts Virtual Epidemiologic Network (Jan 1, 2020 to Dec 31, 2020, 8:43 am)

Figure 5. Rates of Reported COVID-19 Cases by Age Among Boston Residents



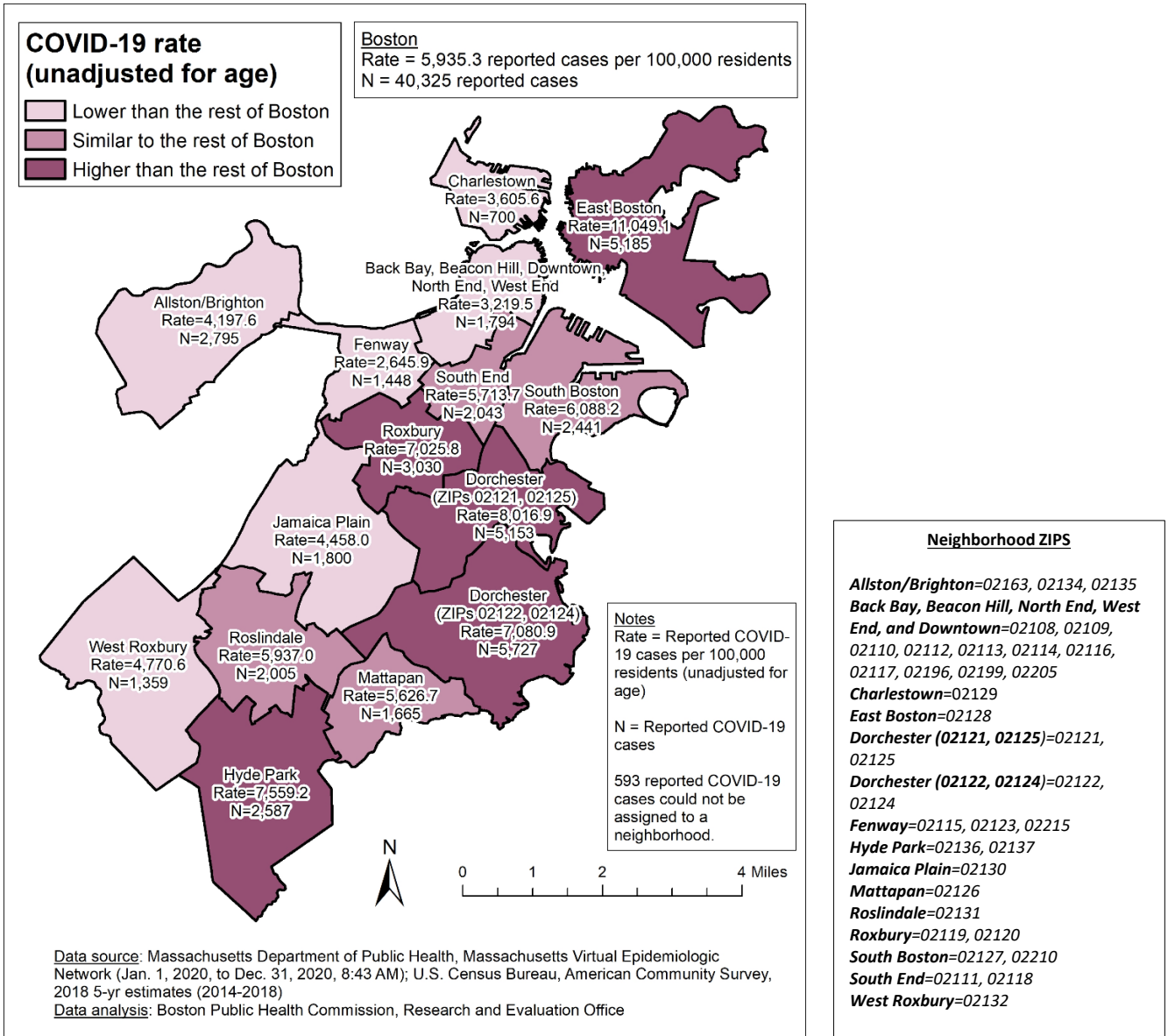
*Age-standardized rates, per 100,000

DATA SOURCES: Massachusetts Department of Public Health, Massachusetts Virtual Epidemiologic Network (Jan 1, 2020 to Dec 31, 2020, 8:43 am); U.S. Census Bureau, American Community Survey, 2018 5-yr estimates (2014-2018)

Age Group (yrs)

There continued to be a low percentage of Boston resident COVID-19 cases under 20 years of age (Figure 4). Rates are lowest for those ages 20 years or less, and highest for those ages 80 and above (Figure 5).

Figure 6: Incidence Rates of Reported COVID-19 Cases by Neighborhood Among Boston Residents



The incidence rate of COVID-19 was higher for Dorchester (02121, 02125), Dorchester (02122, 02124), East Boston, Hyde Park, and Roxbury, compared with the rest of Boston. The incidence rate of COVID-19 was similar for Mattapan, Roslindale, South Boston and the South End compared with the rest of Boston. The incidence rate of COVID-19 was lower for Allston/Brighton, Back Bay (including Beacon Hill, Downtown, the North End, and the West End), Charlestown, Fenway, Jamaica Plain, and West Roxbury compared with the rest of Boston (Figure 6). To test neighborhood differences, an individual neighborhood is compared with the rest of Boston (i.e., all other neighborhoods combined), rather than to Boston overall so that individual neighborhood's contribution to the Boston overall rate does not mask a difference from the rest of Boston.

Table 1: Race/Ethnicity Distribution of COVID-19 Cases, Boston Residents, 2020

Race/Ethnicity ¹	# of Cases	% of All Cases	% of Cases with Known Race/Ethnicity ²
Asian, nL/nH	1756	4.4%	4.9%
Black, nL/nH	8880	22.0%	25.0%
Latinx/Hispanic	11171	27.7%	31.5%
Other, nL/nH ³	2673	6.6%	7.5%
White, nL/nH	11032	27.4%	31.1%
Unknown/Missing Data	4813	11.9%	

¹nL/nH=non-Latinx/non-Hispanic

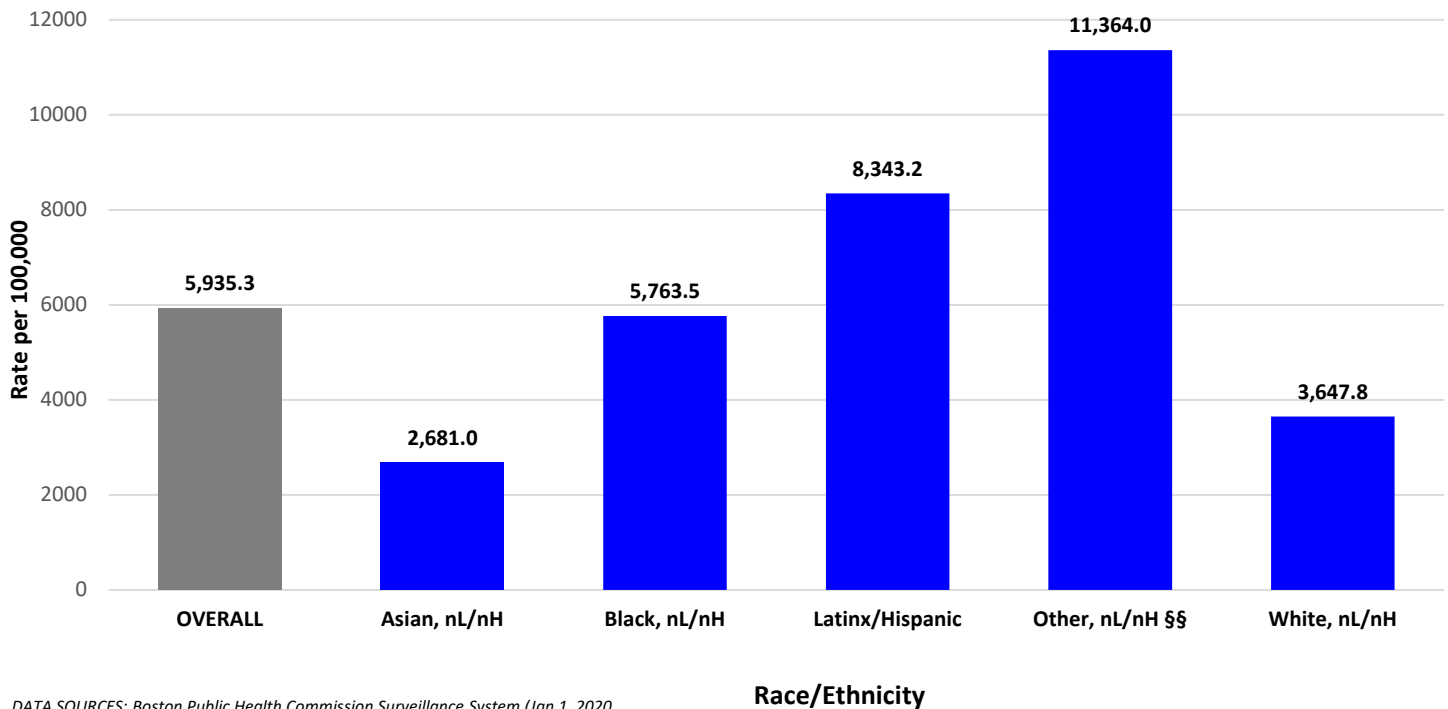
² Total with Known Race/Ethnicity=35,512 cases (88.1%) of all reported COVID-19 cases

³ Other, nL/nH includes American Indian/Alaska Native and multiracial

DATA SOURCES: Boston Public Health Commission Surveillance System (Jan 1, 2020 to Sep 14, 2020, 8:55 am); Massachusetts Department of Public Health, Massachusetts Virtual Epidemiologic Network (Jan 1, 2020 to Dec 31, 2020, 8:43 am)

Of cases where race/ethnicity was known, 4.9% were Asian, 25.0% were Black, 31.5% were Latinx or Hispanic, 31.1% were White, and 7.5% identified as multi-racial, another racial/ethnic group or Other race. When the percent of information that is missing or unknown is greater than 20%, percentages are calculated among the known cases, but both are presented here.

Figure 7. Rates of Reported COVID-19 Cases by Race/Ethnicity[§] Among Boston Residents



DATA SOURCES: Boston Public Health Commission Surveillance System (Jan 1, 2020 to Sep 14, 2020, 8:55 am); Massachusetts Department of Public Health, Massachusetts Virtual Epidemiologic Network (Jan 1, 2020 to Dec 31, 2020, 8:43 am); U.S. Census Bureau, American Community Survey, 2018 5-yr estimates (2014-2018)

[§]nL/nH=non-Latinx/non-Hispanic
^{§§}Other, nL/nH includes American Indian/Alaska Native and multiracial

The incidence rate of COVID-19 was higher for Black and Latinx/Hispanic residents and residents of other races/ethnicities (including multiple races and individuals that did not specify a given race or ethnicity category) compared with the rate for White residents (Figure 7). The incidence rate was lower for Asian residents compared with White residents (Figure 7). Interpret these rates with caution due to the high percentage of missing race/ethnicity data (Table 1).