



BOSTON PUBLIC HEALTH COMMISSION (BPHC)

Communicable Disease Control Division

1010 Massachusetts Ave - Boston, MA 02118

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Boston Influenza Report - For the Week Ending 12/29/2018 (MMWR Week 52)

9/30/2018-12/29/2018 (MMWR Week 52)

Reported Cases (Boston Residents)	# (% of total)
Influenza A	362 (93%)
Influenza B	27 (7%)
Influenza A and B	0
Influenza (type unspecified)	0
TOTAL (season-to-date)	389

Boston ED ILI Surveillance*	
This Week ILI% (Week 52)	1.89%
Last Week ILI% (Week 51)	1.56%
State/National ILI Surveillance**	
This Week Massachusetts ILI% (Week 52)	3.47%
This Week National ILI% (Week 52)	4.07%

Summary: As of 12/29/2018, 389 total cases of laboratory-confirmed influenza in Boston residents have been reported to the BPHC since 9/30/2018. One influenza-associated death in a Boston resident has been reported in an elderly individual with multiple medical conditions. Influenza-like illness (ILI) comprised 1.89% of all ED visits this week. Geographic distribution of flu activity in MA is widespread. Intensity of ILI in the State is now high, increased from moderate last week.

Since 9/30/2018, 74% of influenza specimens tested by CDC were positive for H1N1. Of the remaining, 16.8% were H3N2, 4.6% were type B. H1N1 viruses are associated with increased flu activity in persons ≤17 years of age.

Flu season often does not peak until February.

Vaccination reduces the number of flu illnesses, healthcare visits, flu-related hospitalizations, and missed work and school.

Providers should continue to offer vaccine, particularly to children, through the remainder of the season.

Vaccinated persons who do develop the flu tend to have less severe illness and are less likely to spread illness to others including those unable to receive vaccine. Flu vaccine has been shown to be life-saving in children. 80% of pediatric flu deaths occur in unvaccinated children.

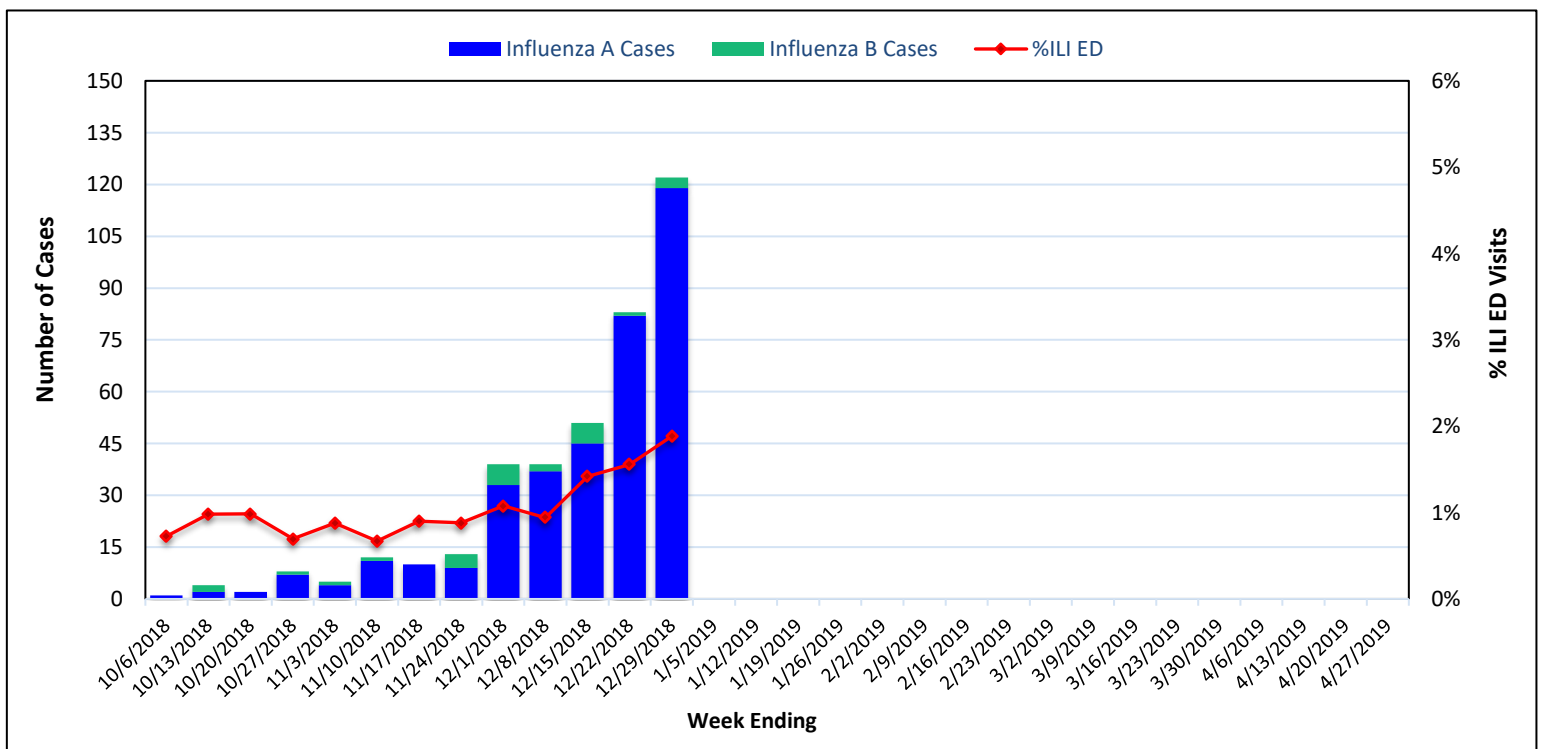
SEASON TO DATE HOSPITALIZATION (THROUGH MMWR WEEK 52)

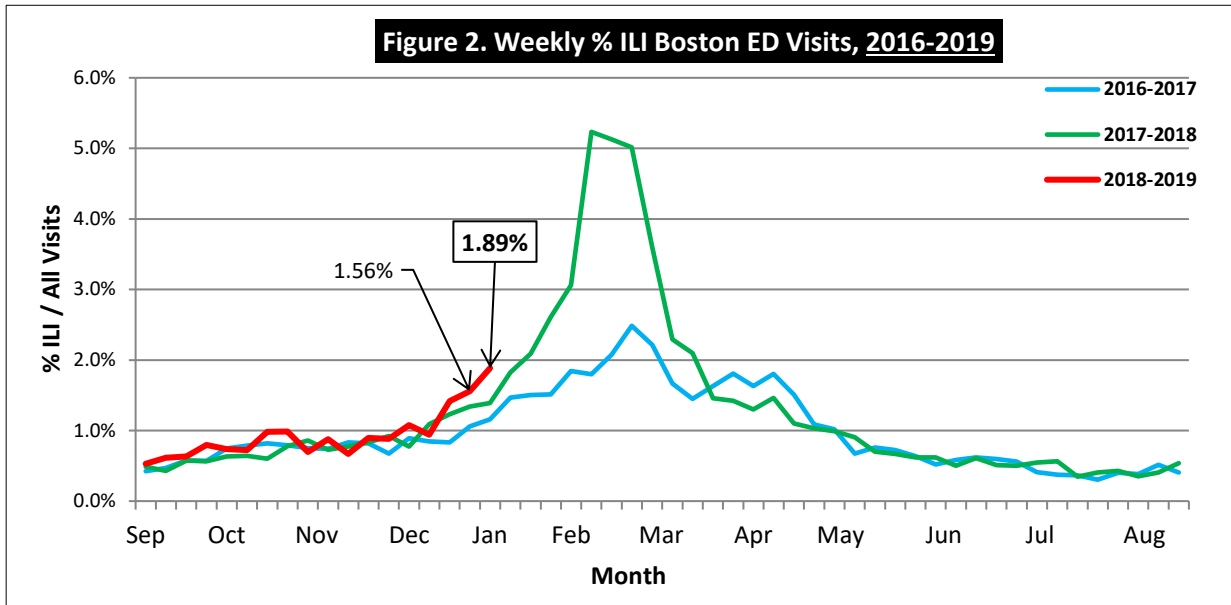
SEASON	# CASES	# HOSPITALIZED	% HOSPITALIZED***
2018-2019	389	62	16
2017-2018	240	64	27

Cases of influenza diagnosed in Boston and confirmed by any laboratory test must be reported to BPHC by calling (617) 534-5611 or faxing to (617) 534-5905.

*Influenza-like illness (ILI) is defined as "flu" OR "fever AND (cough OR sore throat)" in ED chief complaint data captured by BPHC Syndromic Surveillance System.
 **Massachusetts and National ILI data are calculated using ILInet outpatient surveillance data from sentinel sites. The City of Boston uses different methodology derived from the BPHC Syndromic Surveillance System. For more information on ILInet go to: <https://www.cdc.gov/flu/weekly/overview.htm>.
 ***% Hospitalized=proportion of all confirmed influenza cases who were hospitalized.

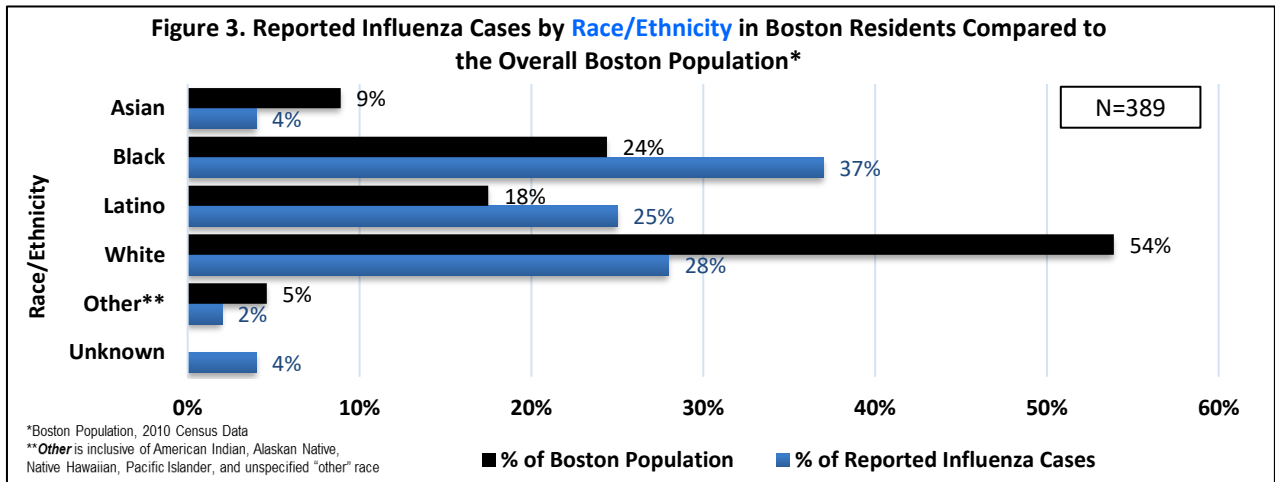
Figure 1. Weekly Reported Influenza Cases (in Boston Residents) and % ILI ED Visits, 2018-2019 Season



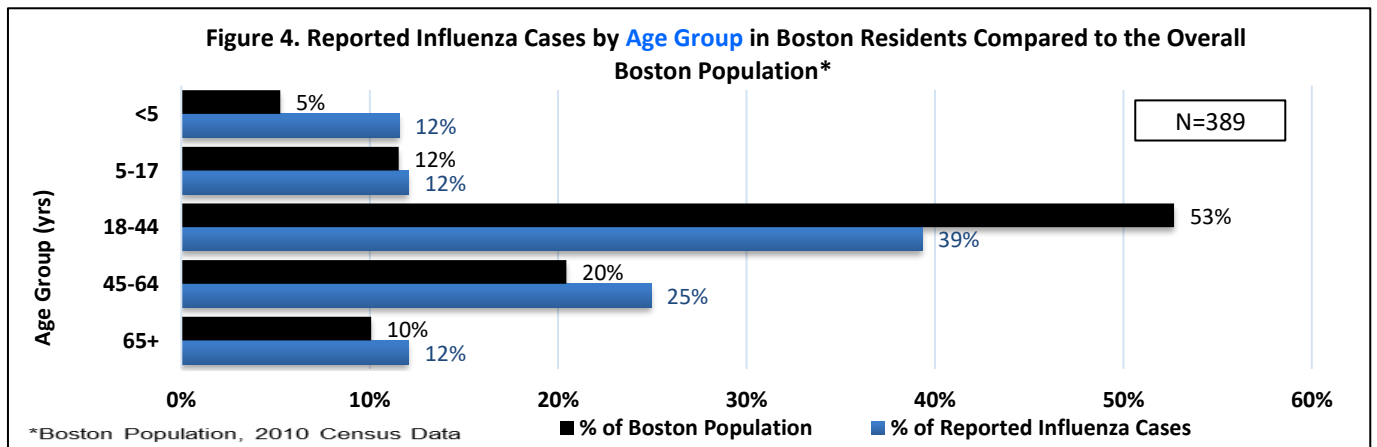


Weekly ILI ED visits are shown from the 2016-2017 season to present. For the week ending 12/29/2018, ILI accounted for 1.89% of ED visits, an increase of 0.33% from the prior week.

Race/Ethnicity and Age Distribution Through Week Ending 12/29/2018



Black and Latino Boston residents, who account for 42% of all Boston residents, continue to be disproportionately impacted by influenza representing a total of 62% of all confirmed cases reported to BPHC.



**Race/Ethnicity and Age Distribution of Confirmed Cases Through MMWR Week 52
2018-2019 Season Compared to 2017-2018 Season**

Figure 5a. Race/Ethnicity of Confirmed Influenza Cases, Boston Residents 2018-2019 Season Through MMWR Week 52

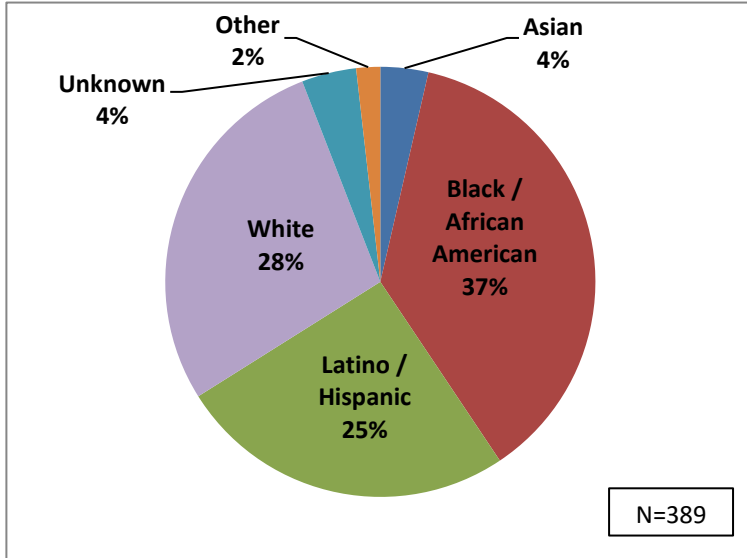
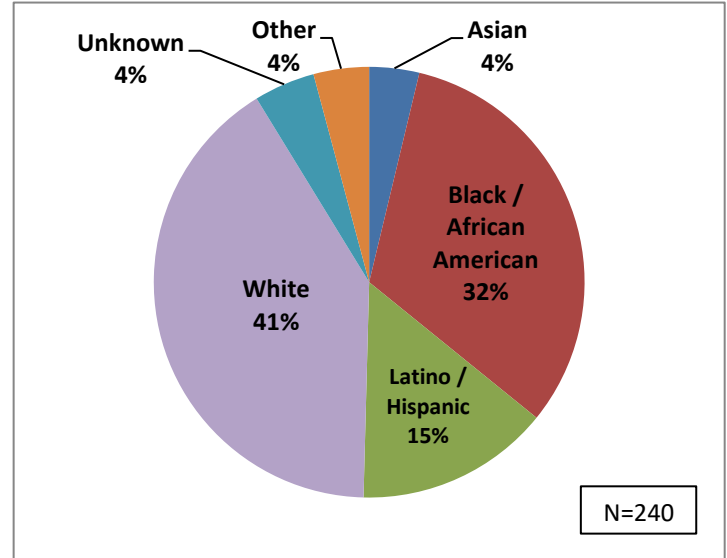


Figure 5b. Race/Ethnicity of Confirmed Influenza Cases, Boston Residents 2017-2018 Season Through MMWR Week 52



Influenza disproportionately impacts Black and Latino residents as seen in Figure 3. For the 2018-19 season through MMWR week 52, Black and Latino residents are impacted to an even greater extent compared with the previous 2017-18 season through MMWR week 52.

Figure 6a. Age Distribution of Confirmed Influenza Cases, Boston Residents 2018-2019 Season Through MMWR Week 52

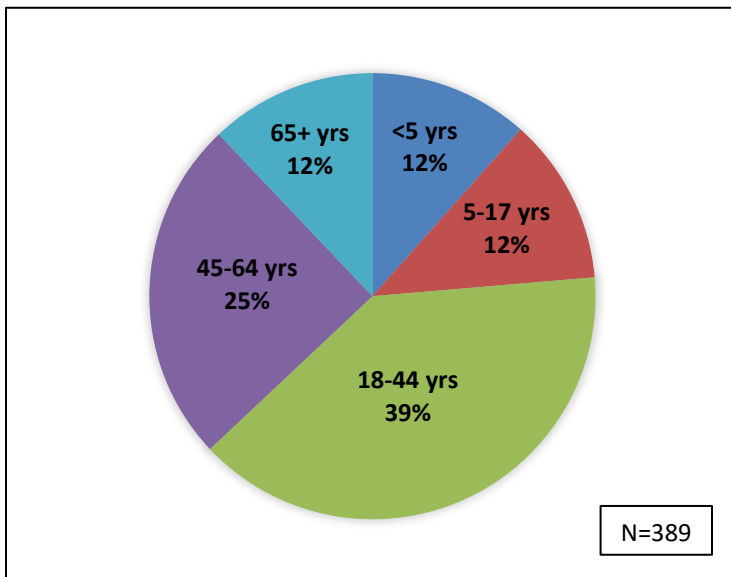
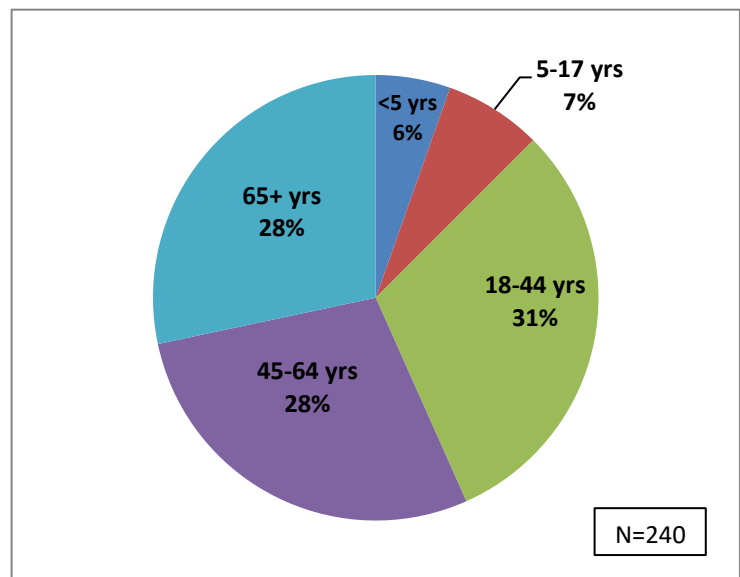


Figure 6b. Age Distribution of Confirmed Influenza Cases, Boston Residents 2017-2018 Season Through MMWR Week 52

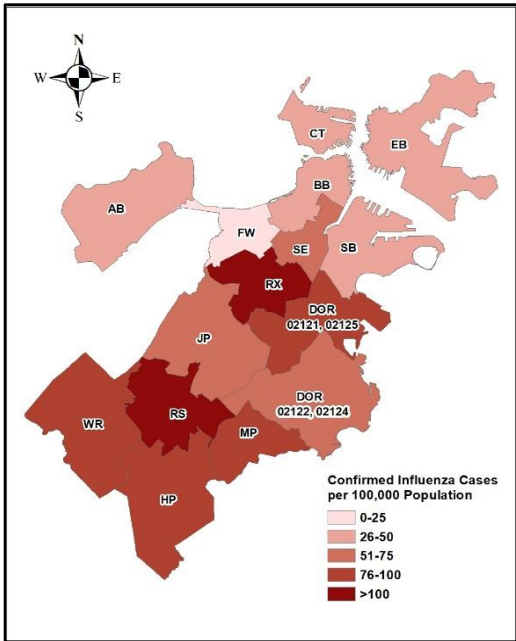


For the 2018-19 season through MMWR week 52, children ≤17 years of age accounted for 24% of confirmed influenza cases compared to 13% for the 2017-18 season through MMWR week 52. This is likely related to the current predominant circulation of H1N1 viruses in contrast to the predominance of H3N2 viruses during the 2017-18 season.



Geographic Distribution

Figure 7a. Rate of Confirmed Influenza Cases by Neighborhood per 100,000 Population September 30, 2018 - December 29, 2018



Neighborhood Legend

A/B=Allston/Brighton
 BB=Back Bay
 CH=Charlestown
 EB=East Boston
 DOR=Dorchester
 FW=Fenway
 HP=Hyde Park
 JP=Jamaica Plain
 MT=Mattapan
 RS=Roslindale
 RX=Roxbury
 SB=South Boston
 SE=South End
 WR=West Roxbury

Figure 7b. Rate of ILI Syndrome ED Visits by Neighborhood per 100,000 Population September 30, 2018 - December 29, 2018

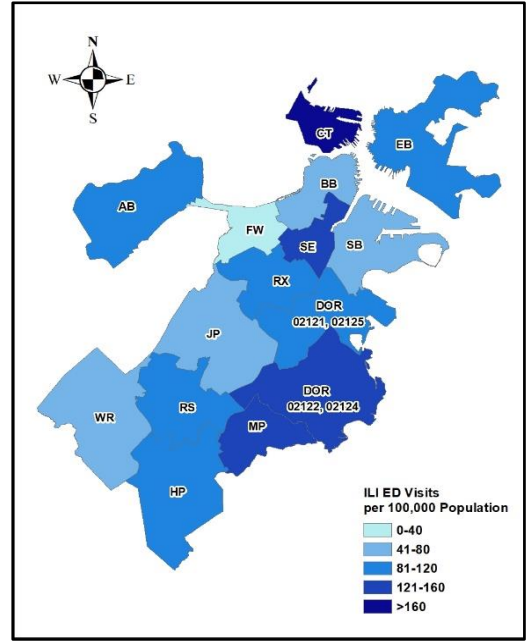
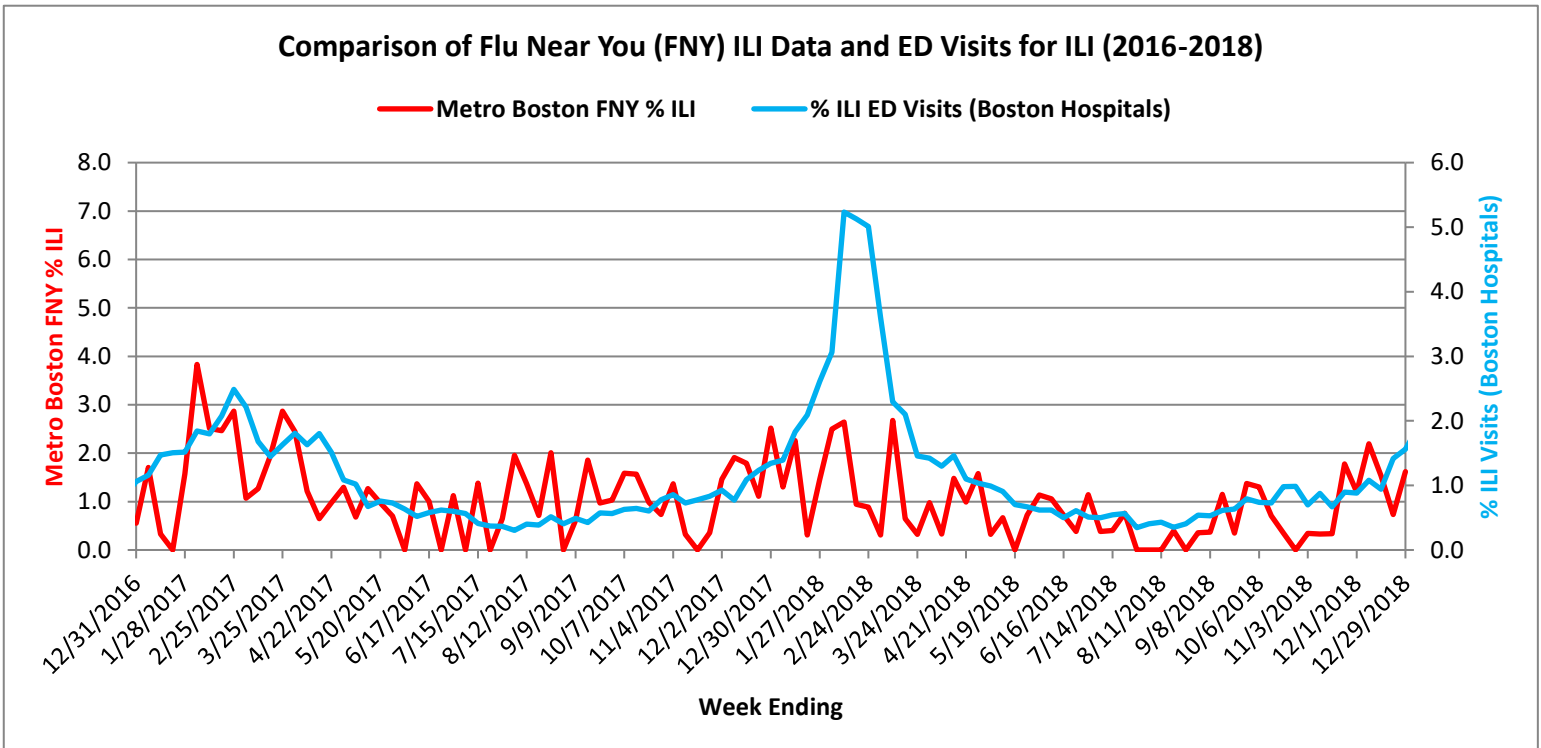


Figure 8. Comparison of ILI Using Flu Near You (FNY)* ILI Data and ED Visits for ILI, 2016-2018



*Flu Near You (FNY) compiles weekly data of ILI activity in the United States. The data come from short, weekly internet-based surveys completed by voluntary participants who indicate whether they are healthy or have experienced any of a short list of symptoms.

The public may participate by enrolling in FNY at: <https://flunearyou.org/>