



BOSTON PUBLIC HEALTH COMMISSION (BPHC)

Communicable Disease Control Division

1010 Massachusetts Ave - Boston, MA 02118

Phone: (617) 534-5611 - Fax: (617) 534-5905

Boston Influenza Report - For the Week Ending 3/2/2019 (MMWR Week 9)

9/30/2018-3/2/2019 (MMWR Week 9)

Reported Cases (Boston Residents)	# (% of total)
Influenza A	2232 (96.6%)
Influenza B	72 (3.1%)
Influenza A and B	6 (0.3%)
Influenza (type unspecified)	0
TOTAL (season-to-date)	2310

Boston ED ILI Surveillance*	
This Week ILI% (Week 9)	2.03%
Last Week ILI% (Week 8)	2.43%
State/National ILI Surveillance**	
This Week Massachusetts ILI% (Week 9)	2.53%
This Week National ILI% (Week 9)	4.70%

*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.

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.

Summary: As of 3/2/2019, 2,310 total cases of laboratory-confirmed influenza in Boston residents have been reported to BPHC since 9/30/2018. Through death certificate review and voluntary reporting by healthcare facilities, BPHC tracks influenza-related deaths among Boston residents. Since the beginning of the season, four influenza-associated deaths in Boston residents have been reported. All four were older adults with multiple medical conditions. Nationally and statewide, only pediatric flu-related deaths are reportable. To date, the Massachusetts Department of Public Health has reported three influenza-related pediatric deaths, compared to one during the 2017-2018 season; none were residents of Boston. Nationally, 64 influenza-related pediatric deaths have been reported to date. During the 2017-18 season, a total of 165 influenza-related pediatric deaths were reported. Influenza-like illness (ILI) comprised 2.03% of all ED visits this week, a decrease from the previous week. Geographic distribution of flu activity in MA continues to be widespread. Intensity of ILI in the Commonwealth has been downgraded to moderate.

From 9/30/2018-3/2/2019, 64.8% of influenza specimens tested by public health laboratories were positive for A(H1N1). Of the remaining, 28.2% were A(H3N2), 4.7% were A (untyped), and 2.3% were type B. A(H1N1) viruses are associated with increased flu activity in persons ≤17 years of age. The circulating influenza viruses, including A(H1N1) viruses, are well matched to the 2018-2019 seasonal vaccine.

CDC released interim vaccine effectiveness (VE) estimates. The overall VE is 47% (95% CI: 34%-57%). This is consistent with what has been seen (40%-60%) in recent seasons when vaccine is well-matched to circulating strains. Estimates of VE vary by age. The highest overall VE (61%) was noted in children 6 months of age to 17 years of age. These estimates are interim and subject to change. For more information go to: <https://www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm6806-H.pdf>

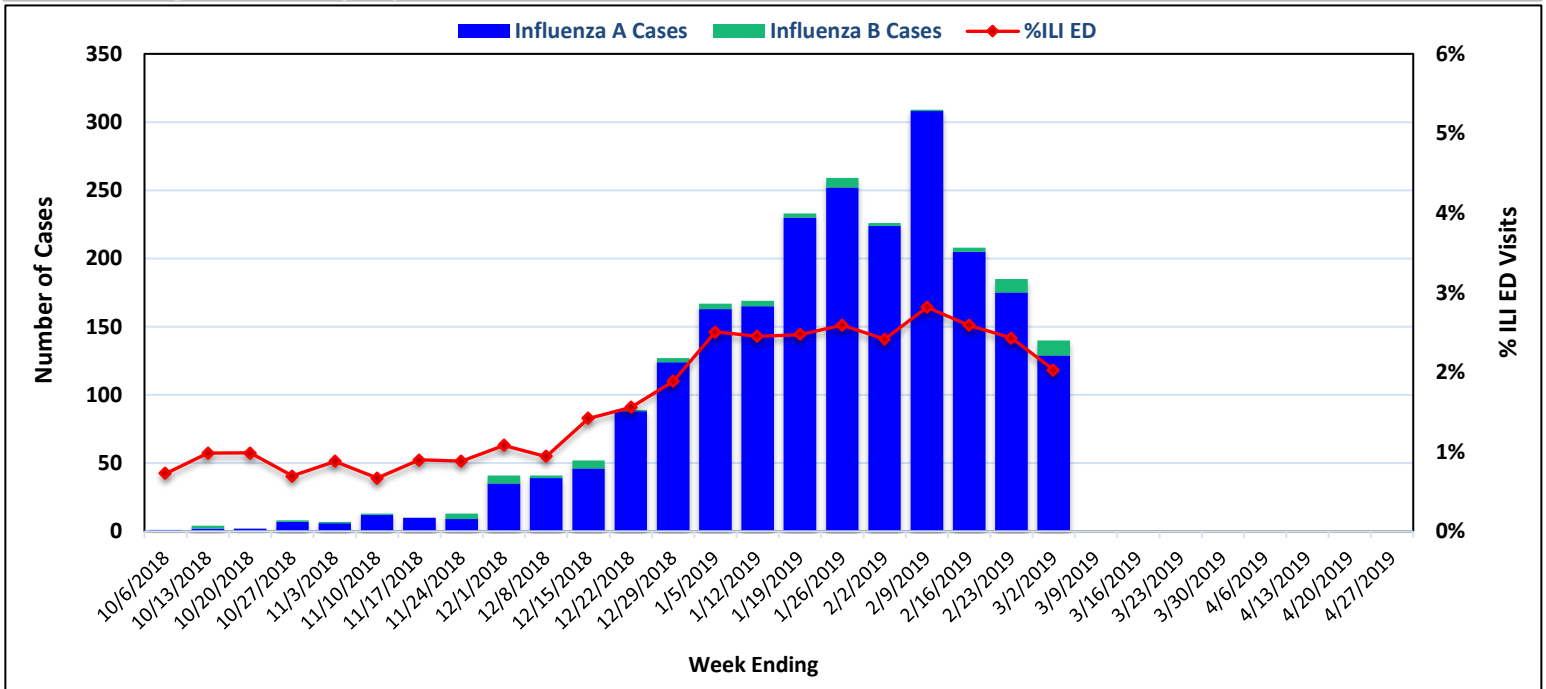
Vaccination with influenza vaccine is the best way to prevent influenza. Vaccinated persons who develop flu tend to have milder illness and are less likely to spread flu to others including those unable to receive vaccine. Flu vaccine has been shown to be life-saving in children. 80% of pediatric flu deaths occur in unvaccinated children.

There are currently no reported shortages of the vaccine. Information on vaccination sites is available at <https://vaccinefinder.org/>. Pharmacies also offer vaccine; however, children under the age of 9 must receive vaccine through a medical provider.

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

SEASON TO DATE HOSPITALIZATION (THROUGH MMWR WEEK 9)			
SEASON	# CASES	# HOSPITALIZED	% HOSPITALIZED***
2018-2019	2310	387	17
2017-2018	3331	563	17

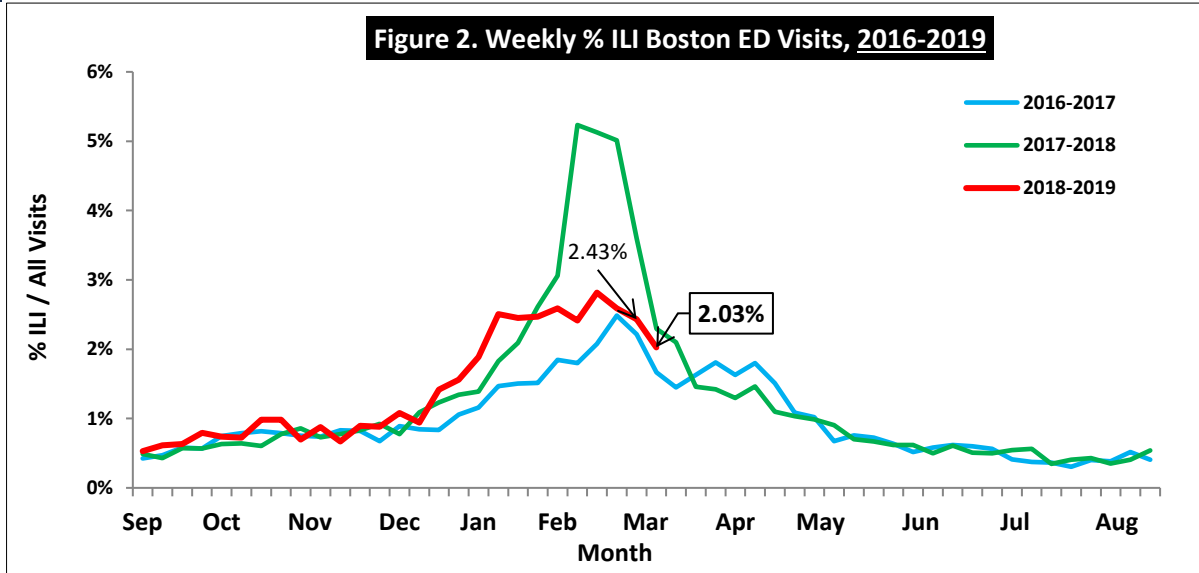
Figure 1. Weekly Reported Influenza Cases (in Boston Residents) and % ILI ED Visits, 2018-2019 Season





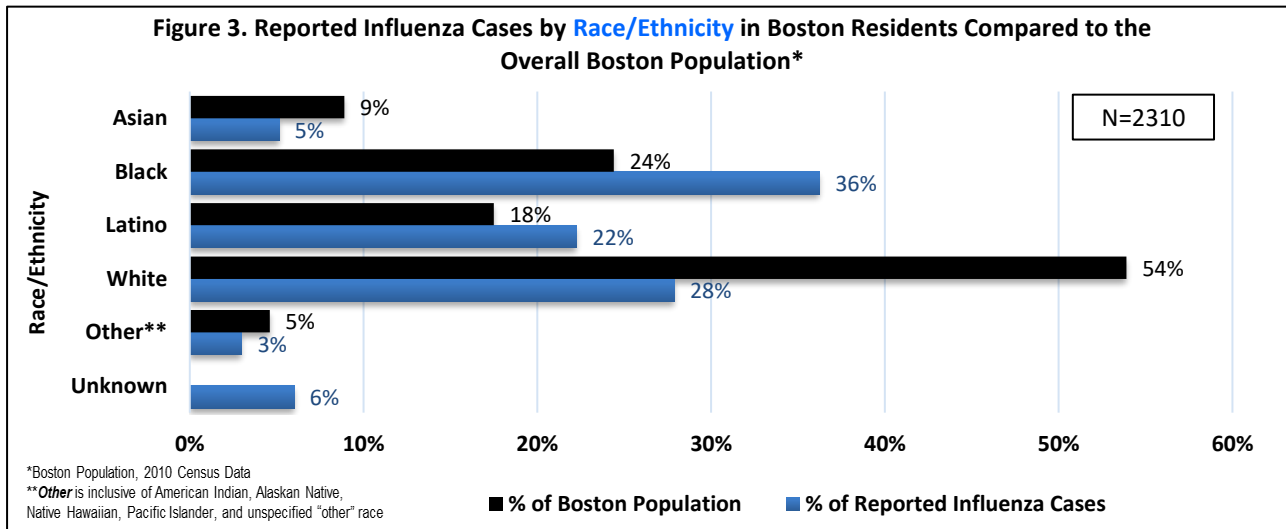
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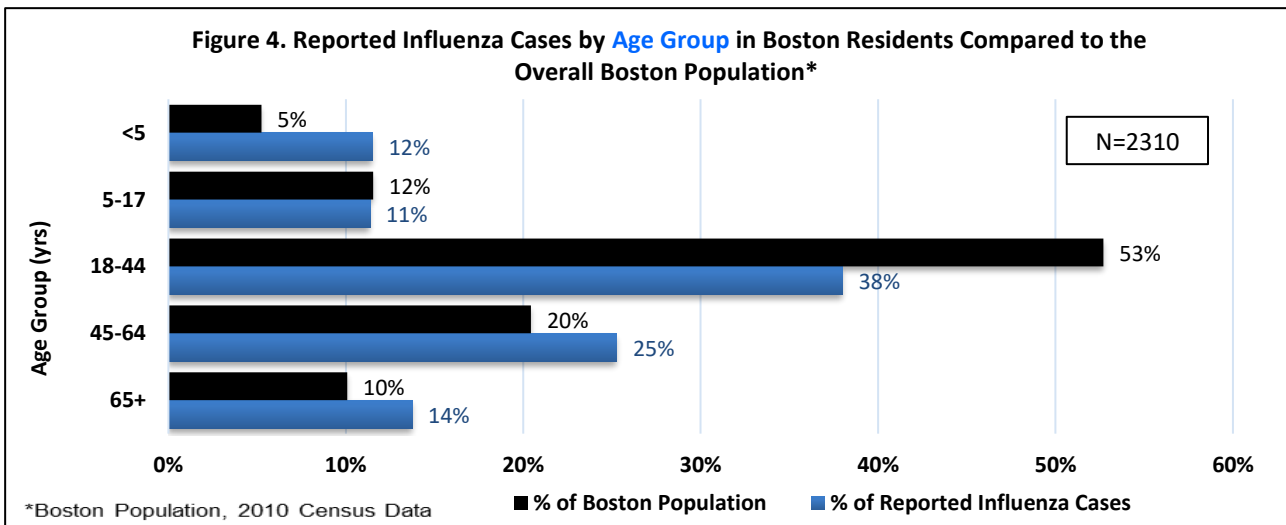


Weekly ILI ED visits are shown from the 2016-2017 season to present. For the week ending 3/2/2019, ILI accounted for 2.03% of ED visits, a decrease of 0.40% from the prior week.

Race/Ethnicity and Age Distribution Through Week Ending 3/2/2019



Black and Latino Boston residents, who account for 42% of all Boston residents, continue to be disproportionately impacted by influenza, representing a total of 58% of all confirmed cases reported to BPHC.





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Race/Ethnicity and Age Distribution of Confirmed Cases Through MMWR Week 9 2018-2019 Season Compared to 2017-2018 Season

Figure 5a.
Race/Ethnicity of Confirmed Influenza Cases,
Boston Residents
2018-2019 Season Through MMWR Week 9

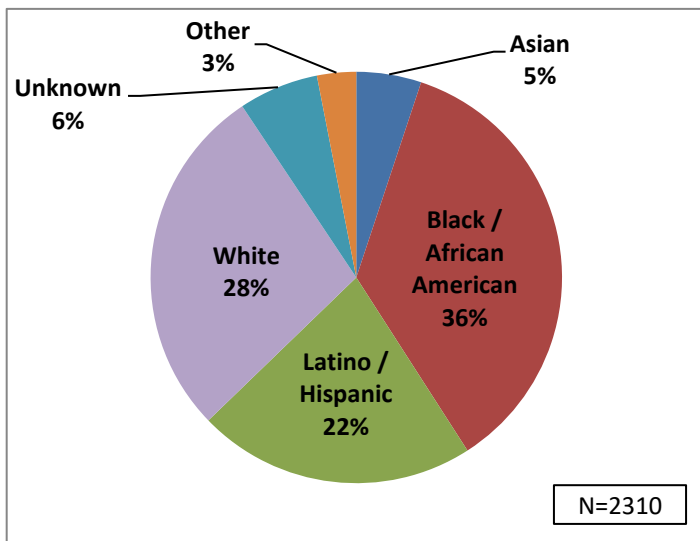
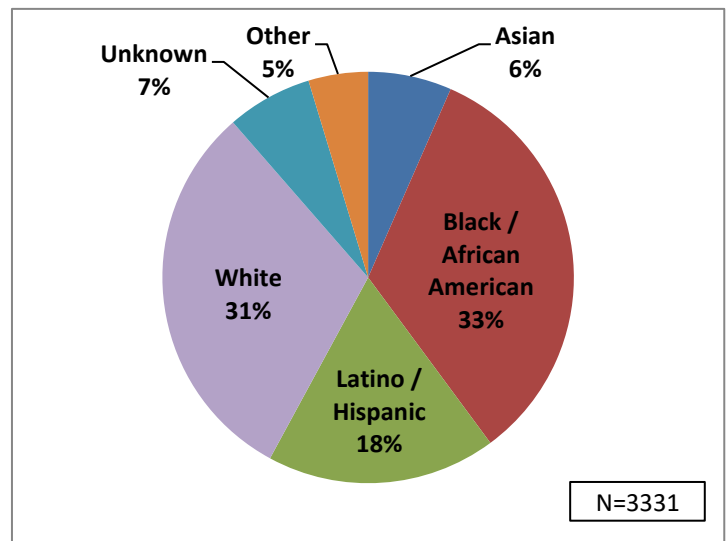


Figure 5b.
Race/Ethnicity of Confirmed Influenza Cases,
Boston Residents
2017-2018 Season Through MMWR Week 9



Influenza disproportionately impacts Black and Latino residents as seen in Figure 3. For the 2018-19 season through MMWR week 9, Black and Latino residents comprise 58% of all cases, compared to 51% of cases during the previous 2017-18 season through MMWR week 9.

Figure 6a.
Age Distribution of Confirmed Influenza Cases,
Boston Residents
2018-2019 Season Through MMWR Week 9

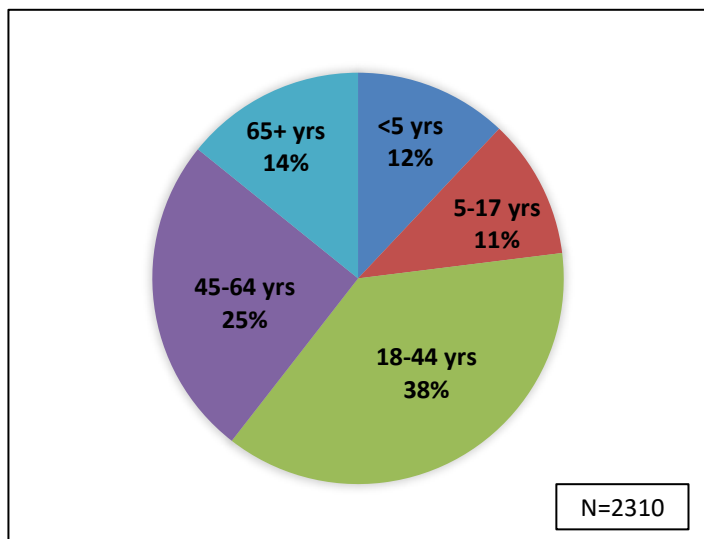
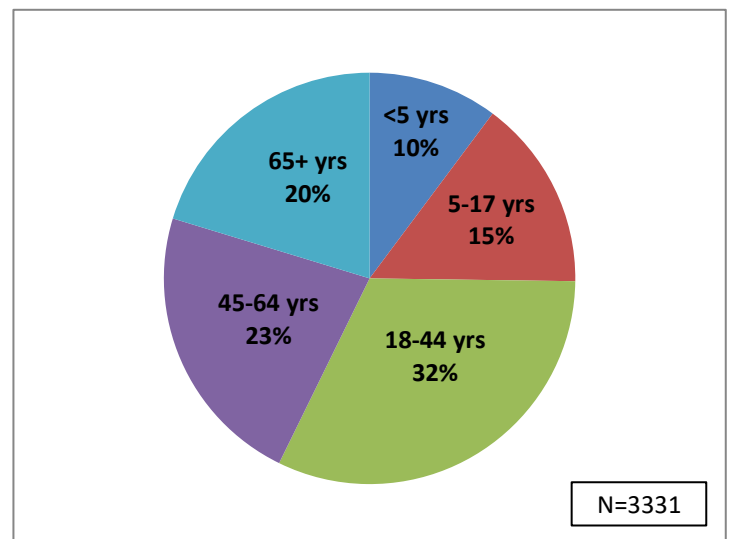


Figure 6b.
Age Distribution of Confirmed Influenza Cases,
Boston Residents
2017-2018 Season Through MMWR Week 9

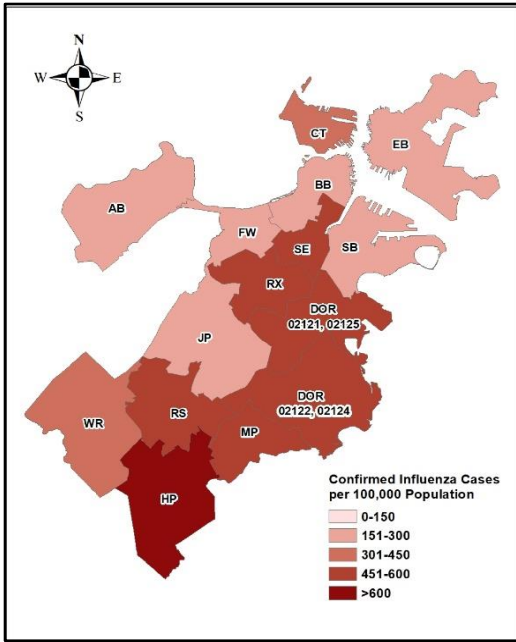


For the 2018-19 season through MMWR week 9, adults 65 years of age and older accounted for 14% of confirmed influenza cases compared to 20% for the 2017-18 season through MMWR week 9. This is likely related to the current predominant circulation of H1N1 viruses in contrast to the predominance of H3N2 viruses during the 2017-18 season.

Geographic Distribution

Figure 7a. Rate of Confirmed Influenza Cases by Neighborhood per 100,000 Population September 30, 2018 - March 2, 2019

Figure 7b. Rate of ILI Syndrome ED Visits by Neighborhood per 100,000 Population September 30, 2018 - March 2, 2019



Neighborhood Legend

A/B=Allston/Brig hton
 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

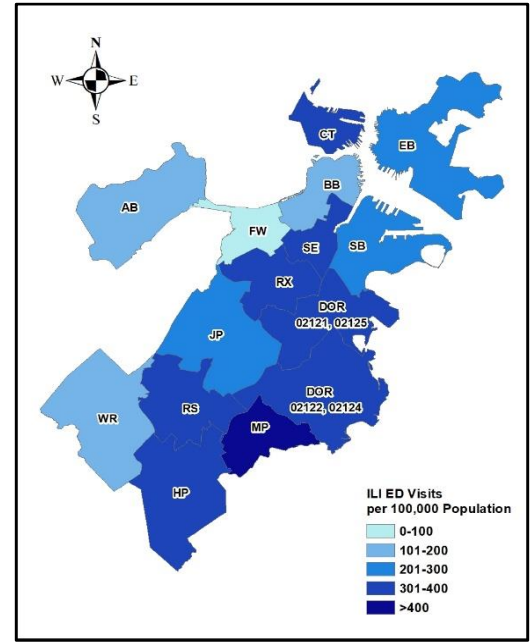
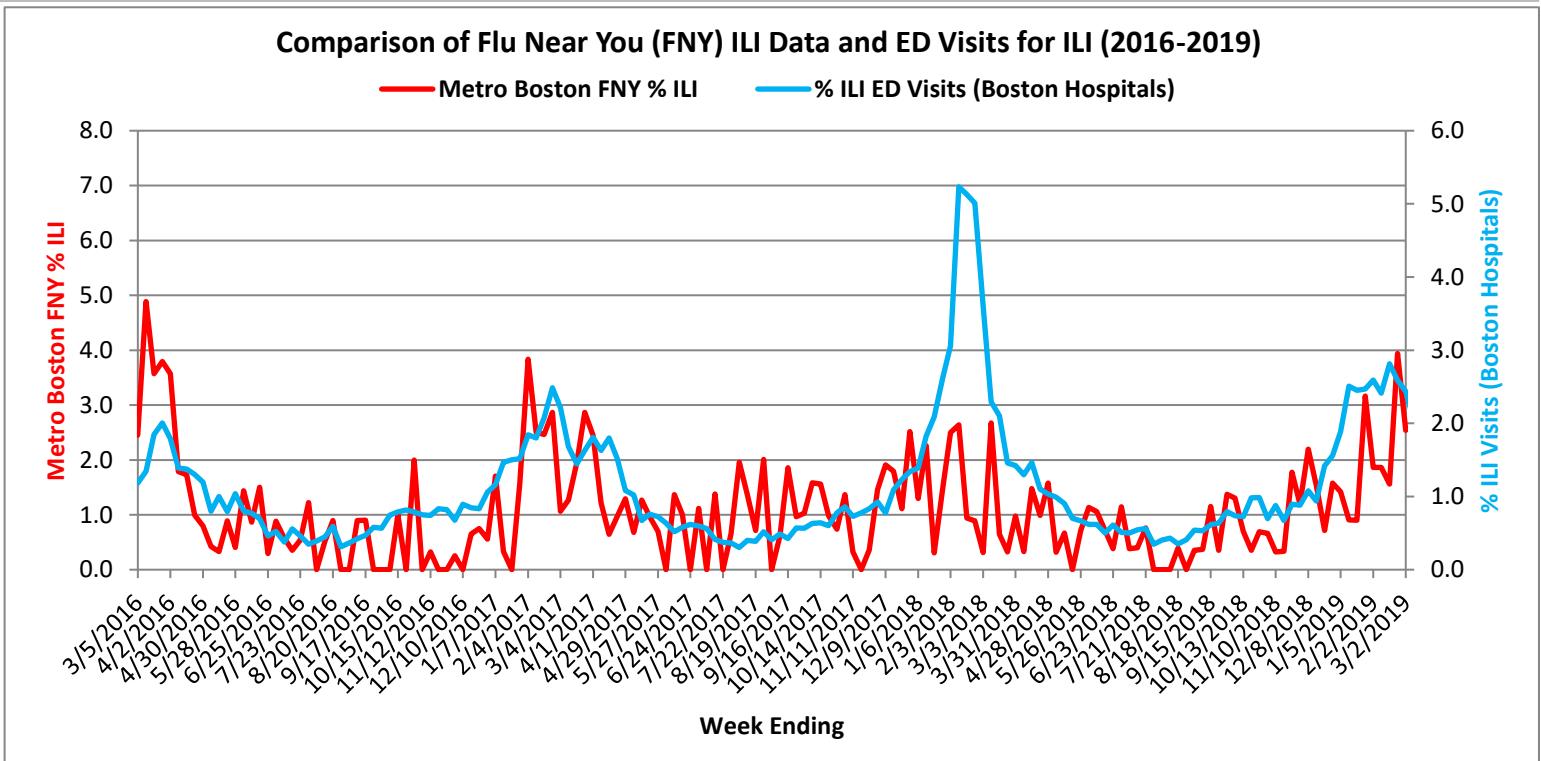


Figure 8. Comparison of ILI Using Flu Near You (FNY)* ILI Data and ED Visits for ILI, 2016-2019



*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/>