

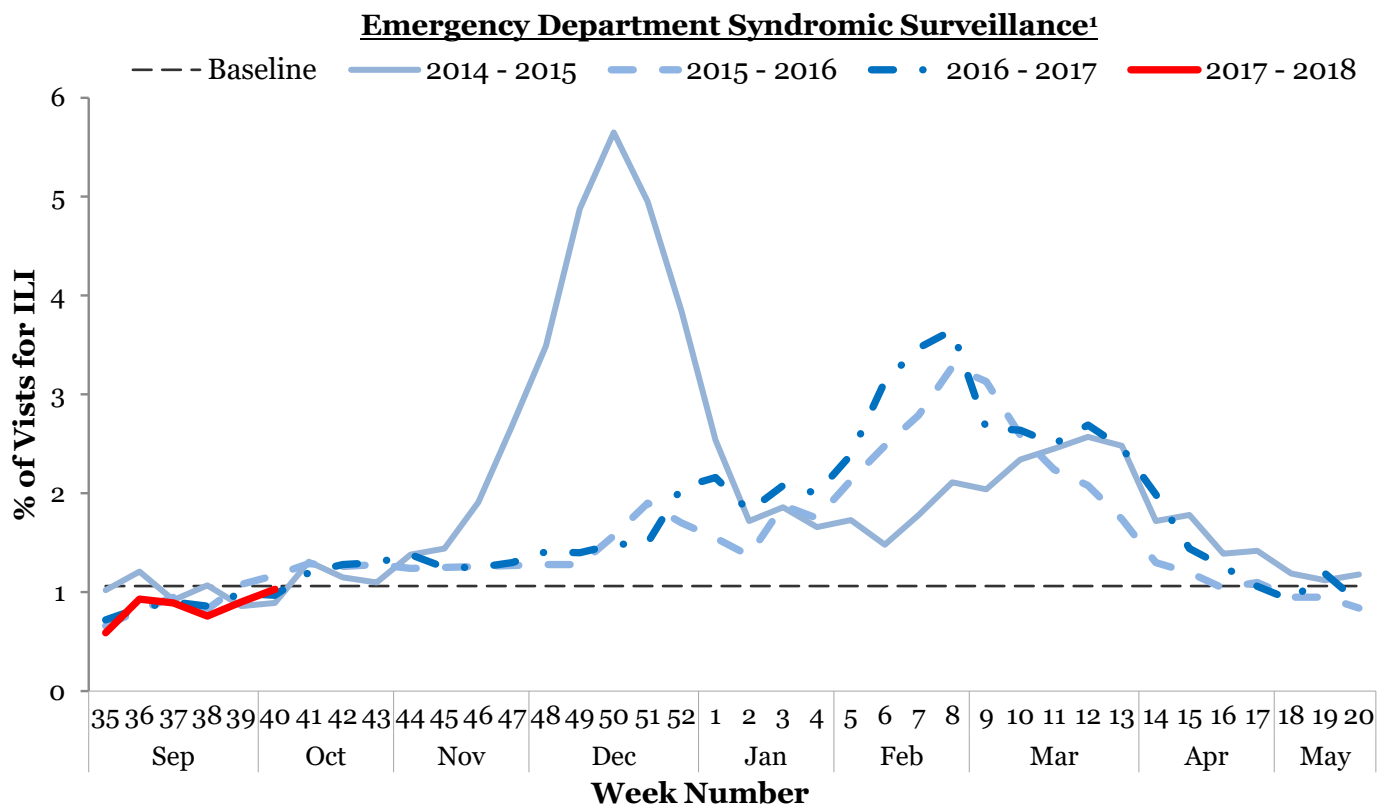


I. Influenza-like Illness (ILI) Weekly Summary

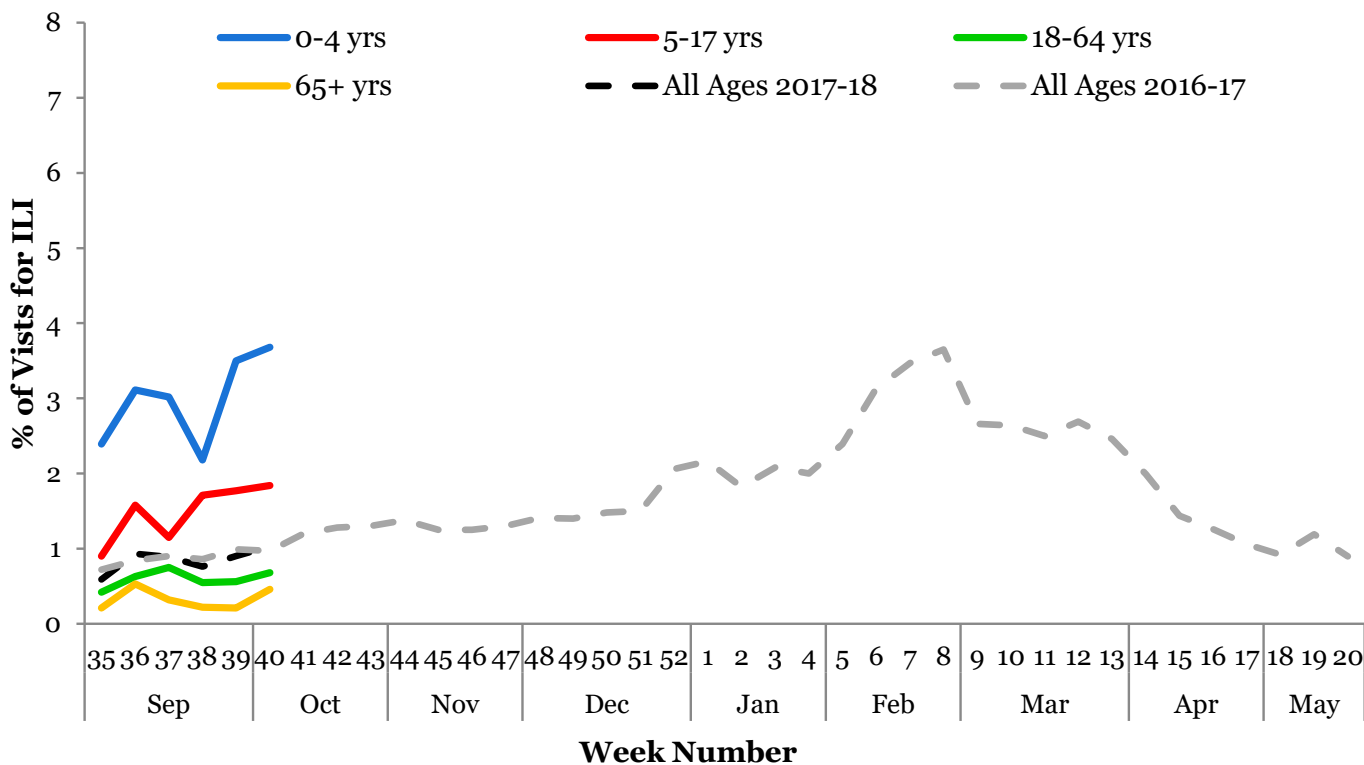
- Influenza activity is currently **low**. This risk assessment is based on:
 - The proportion of emergency department visits for ILI was 1.03%, below the regional baseline of 1.06%, and has been increasing for two weeks.
 - The proportion of outpatient provider visits for ILI was 0.70%, below the regional baseline of 0.81%, and has been increasing for three weeks.
 - The proportion of deaths associated with pneumonia or influenza was 4.01%, below the epidemic threshold of 5.62%.
- Thirty-five (3.79%) laboratory specimens tested positive for influenza: 6 influenza A H3N2, 2 influenza A H1N1, 25 influenza A unknown subtype, and 2 influenza B.
- Two influenza-associated intensive care unit (ICU) hospitalizations were reported during Week 40. Four ICU hospitalizations have been reported since Week 35.
- Since Week 35, 0 influenza-associated pediatric deaths, 0 clusters of ILI in schools, and 0 outbreaks of influenza in long-term care facilities have been reported.
- **Current recommendations** for flu prevention and control are to promote influenza vaccination and respiratory hygiene.

Note: Surveillance for ILI in suburban Cook County involves the weekly collection of data from hospitals, physicians' offices, and laboratories. Thank you to all of our surveillance partners for their help in collecting this information.

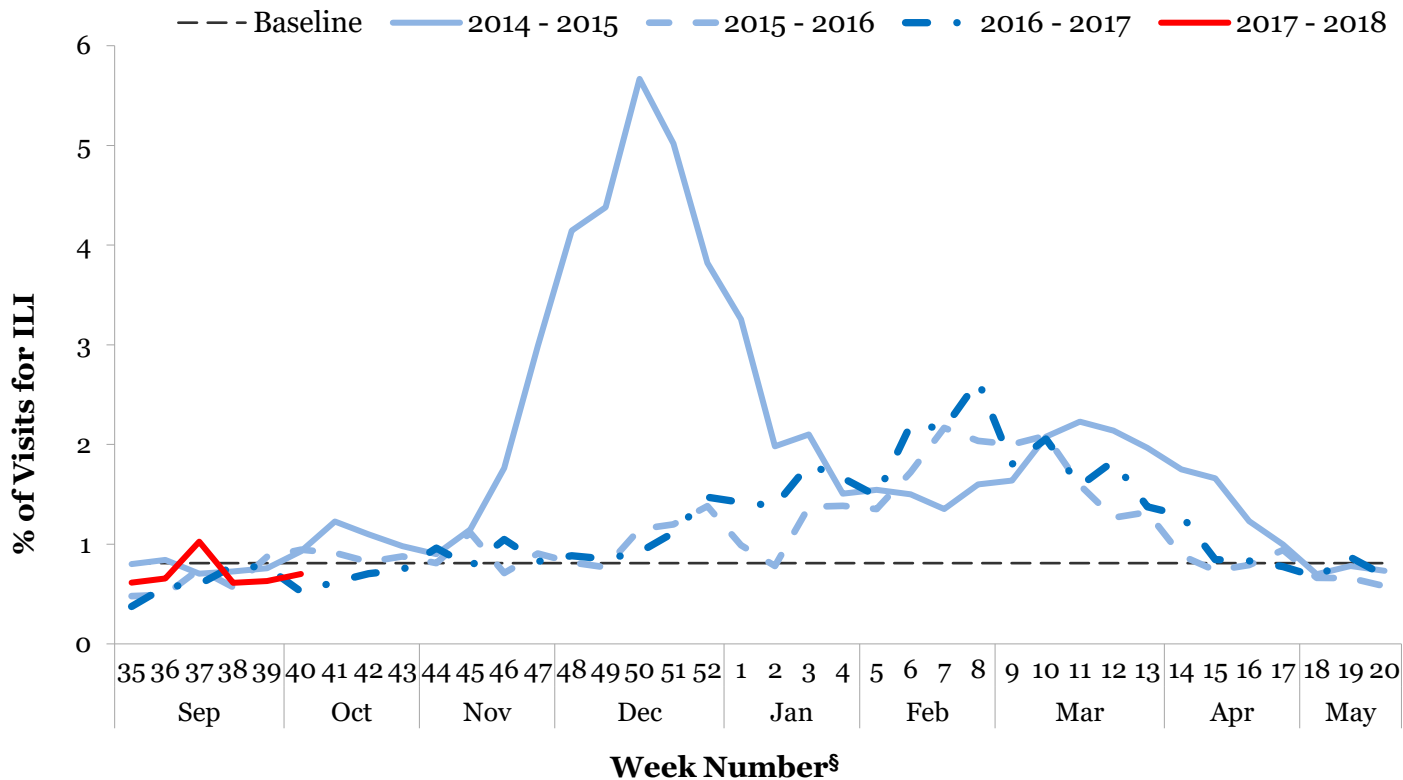
II. Influenza Activity Level / Disease Burden



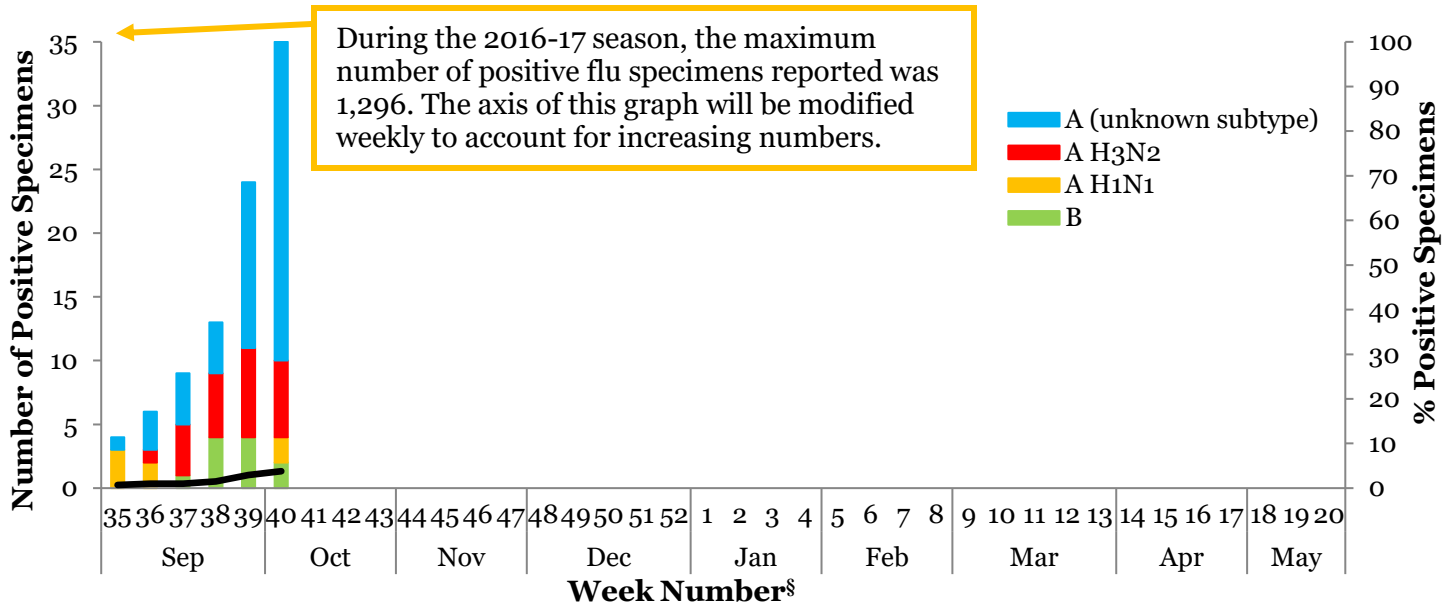
Syndromic Surveillance by Age Group¹



Outpatient Sentinel Providers²



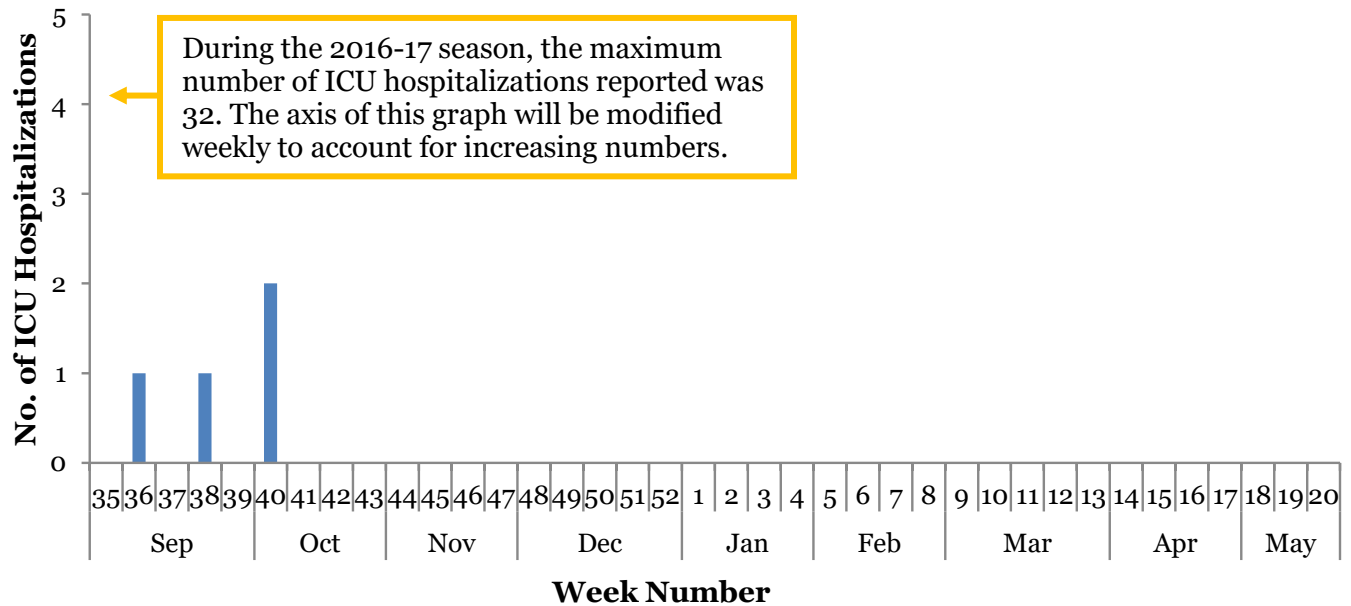
III. Circulating Strains³



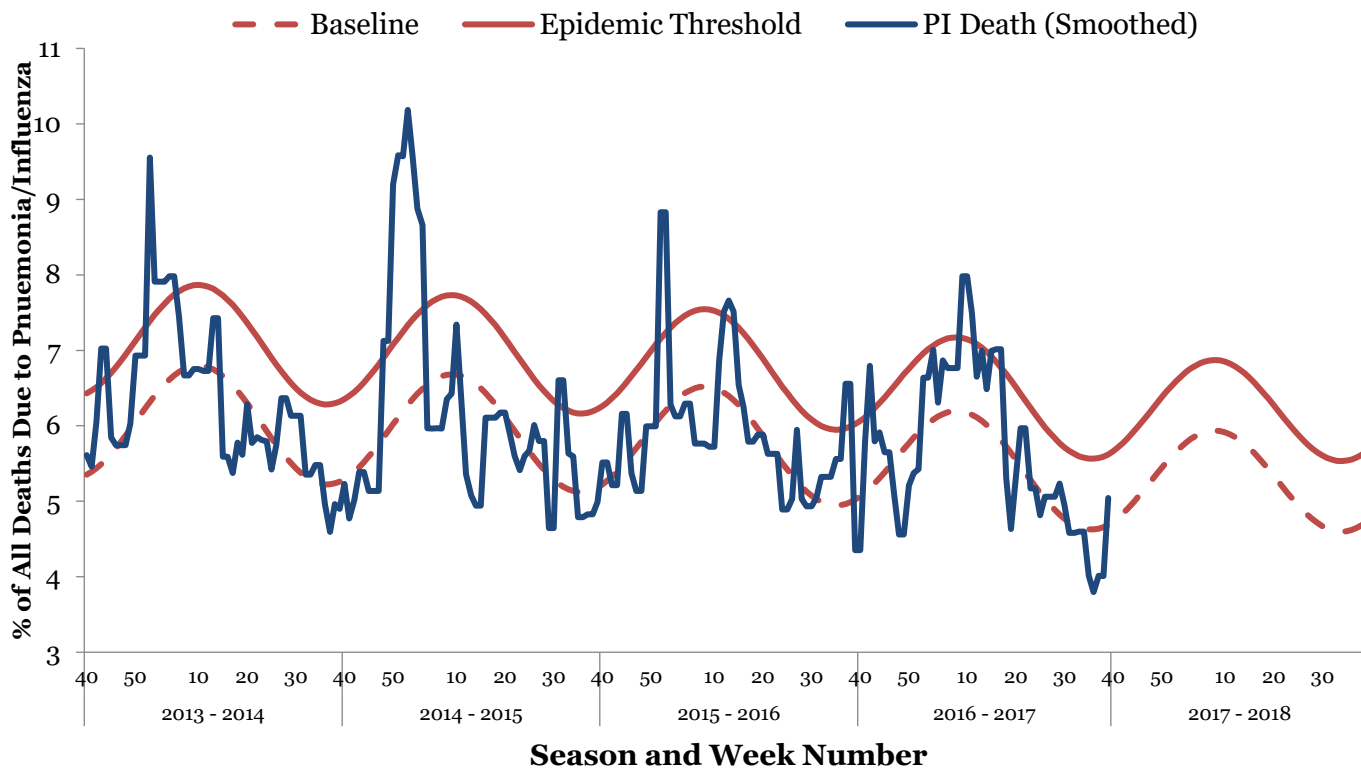
IV. Seasonal Severity

ICU Hospitalizations⁴

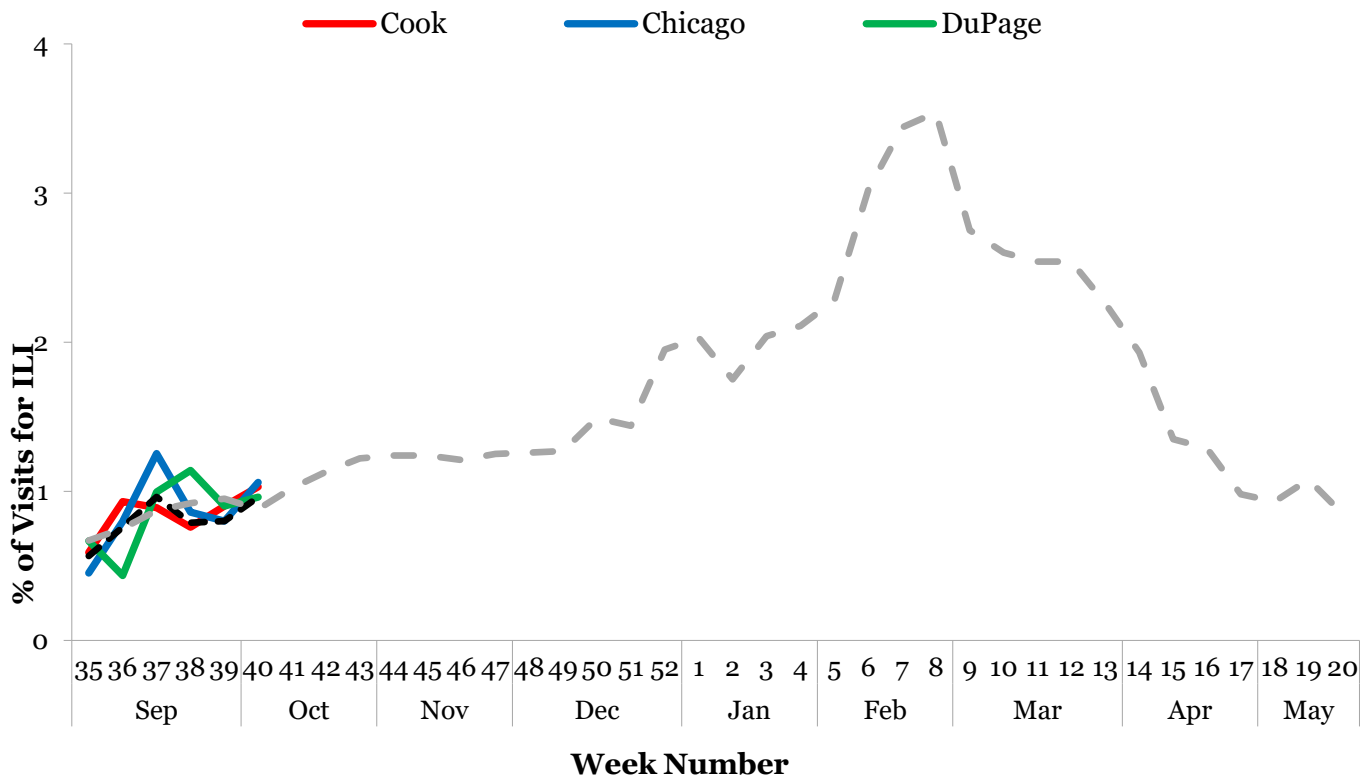
Cumulative Case Count	#	Incidence Rate	Per 100,000
Total Cases	4		0.18
Incidence Rate by Age		Incidence Rate by Region	
0-4	0	North	0.11
5-24	0	West	0
25-49	0.13	Southwest	0.27
50-64	0.22	South	0.42
65+	0.64		



Pneumonia and Influenza Mortality⁵

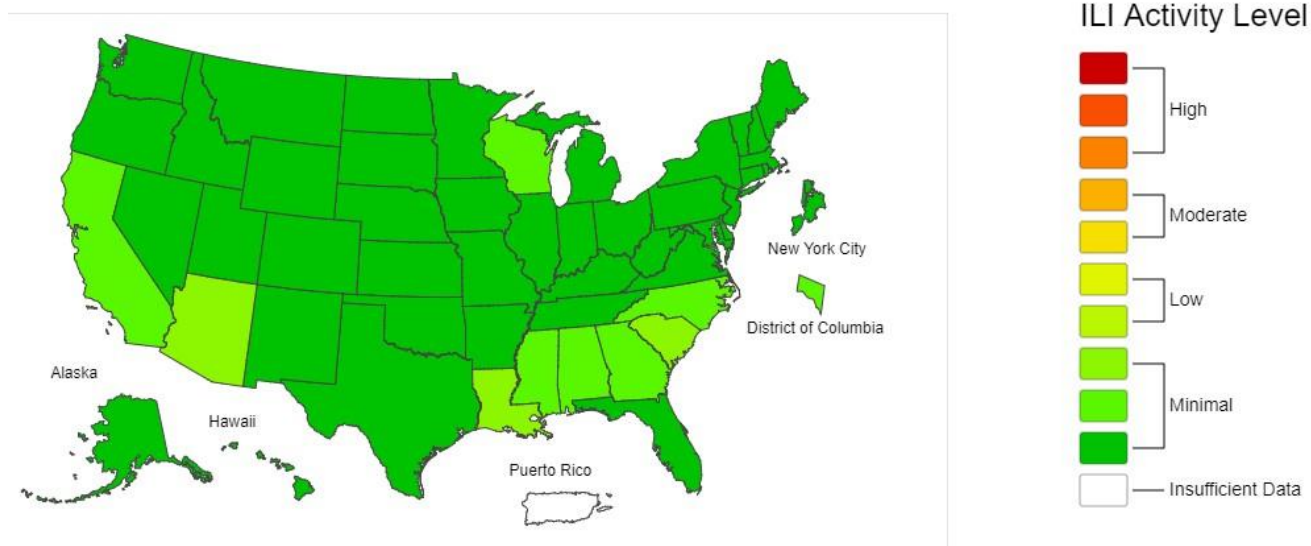


V. Regional Flu Activity¹



VI. United States Flu Activity⁶

2017-18 Influenza Season Week 40 ending Oct 07, 2017



(All data are preliminary and may change as more reports are received.)

For further information about influenza activity see: [City of Chicago Surveillance Report](#), [DuPage County Surveillance Report](#), [Illinois Department of Public Health Surveillance Report](#), [CDC Surveillance Report](#).

1. Data extracted from syndromic surveillance system, ESSENCE; 45 hospital emergency departments (EDs) participate in ESSENCE. Influenza-like-illness (ILI) defined as a symptom complex of fever and cough or sore throat. $ILI = \# \text{ of ED visits for ILI} / \text{total } \# \text{ of ED visits}$.
2. Data extracted from the U.S. Influenza-like Illness Surveillance Network (ILINet); 5 hospitals and 3 physician offices serve as CDC sentinel sites in Cook County. ILI defined as fever $\geq 100^{\circ}F$, cough and/or sore throat in the absence of a known cause other than influenza. $ILI = \# \text{ of visits for ILI} / \text{total } \# \text{ of visits}$.
3. Includes viral culture, RT-PCR, and the rapid antigen test. Cases may reside outside suburban Cook County. Participating laboratories: Illinois Department of Public Health Sentinel Laboratories, NorthShore University Health System, Loyola University Medical Center, and ACL Laboratories.
4. Cases reported are suburban Cook County residents (excluding Evanston, Skokie, Oak Park, and Stickney) with known age and residence. Cases aggregated by week of admission. Includes all cases reported through the presented week. Rates calculated with 2010 census data.
5. Includes all deaths where the immediate cause of death or a contributing factor was pneumonia and/or influenza (aspiration pneumonia excluded). Data includes all of Cook County and has one week lag behind other surveillance indicators. The 3-week running median is displayed. The percentage of deaths due to P&I are compared with a seasonal baseline and epidemic threshold value calculated for each week. Seasonal baseline is calculated using a periodic regression model that incorporates a CDC based robust regression procedure applied to data from the previous four years. An increase of 1.645 standard deviations above the seasonal baseline of P&I deaths is considered the "epidemic threshold," i.e., the point at which the observed proportion of deaths attributed to pneumonia or influenza was significantly higher than would be expected at that time of the year in the absence of substantial influenza-related mortality.
<http://www.cdc.gov/flu/weekly/overview.htm#Mortality>
6. Map produced using the proportion of outpatient visits to health care providers for ILI reported through ILINet. Activity levels are compared to the average percent of ILI visits that occur during weeks with little or no influenza virus circulation. <http://www.cdc.gov/flu/weekly/index.htm>

§Influenza surveillance data are typically aggregated by week. Most years have 52 weeks; however some have 53 weeks. 2014 was a 53-week year. Graphing these years in comparison to 52-week years can be challenging. Because the last week of the calendar year is epidemiologically important for influenza transmission due to holiday family gatherings and school closures, we have graphed these weeks together. In all graphs with 2014-2015 influenza activity represented, Week 53 data appears in the Week 52 column. Consequently, all other data points prior to Week 53 have been moved forward one week, i.e., Week 52 becomes Week 51, Week 51 becomes Week 50, and so on until Week 36 becomes Week 35. This methodology has been adapted from the California Influenza Surveillance Project.