

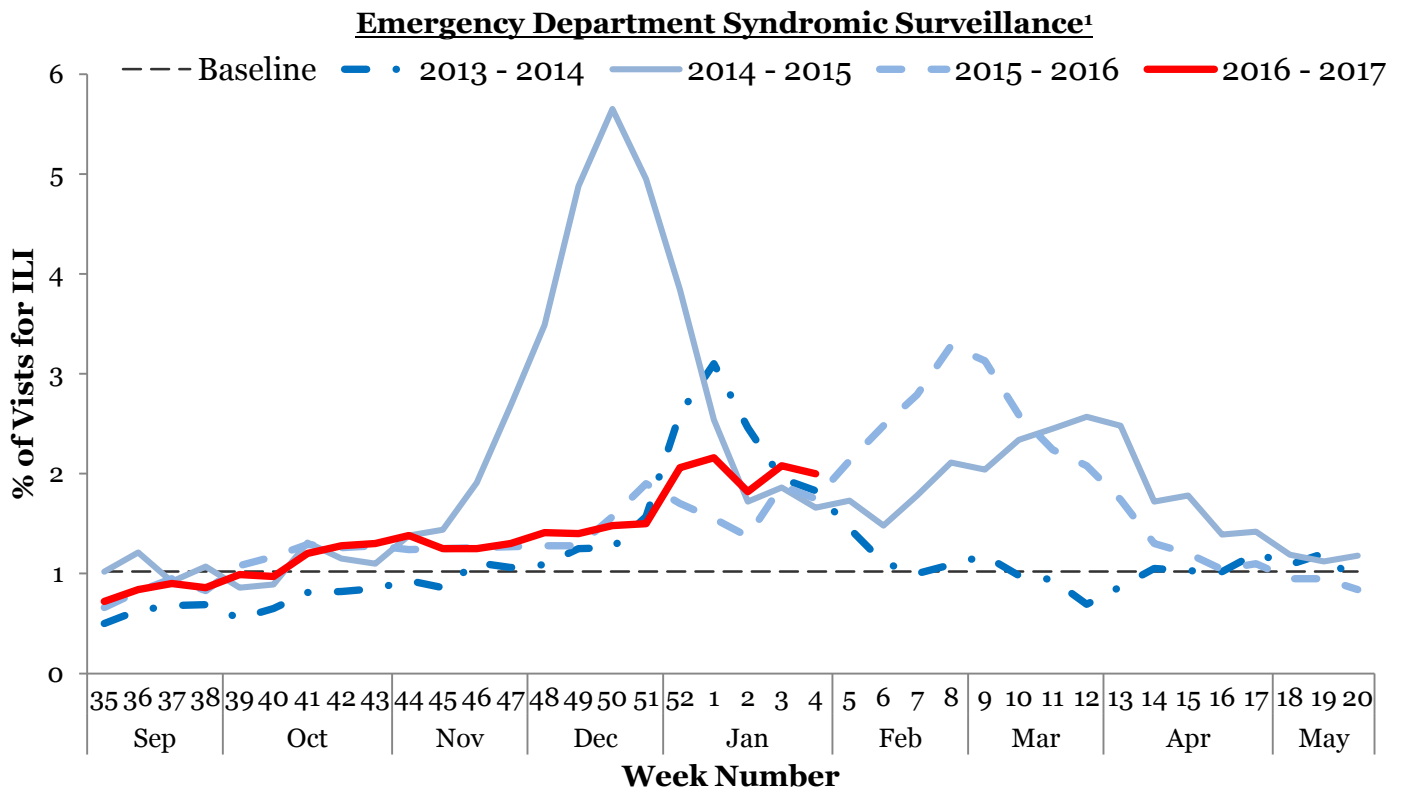


I. Influenza-like Illness (ILI) Weekly Summary

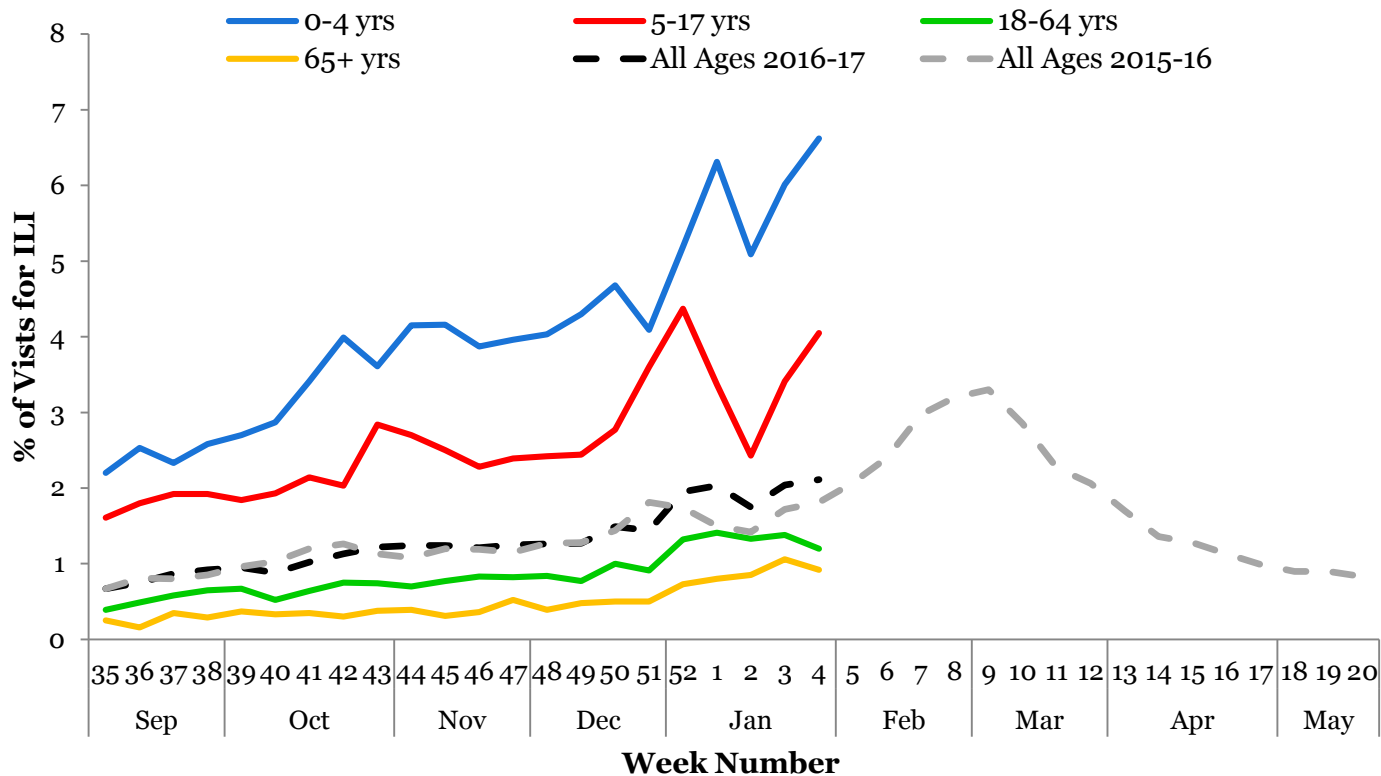
- Influenza activity is currently **high**. This risk assessment is based on:
 - The proportion of emergency department visits for ILI was 2.00%, above the regional baseline of 1.02%, and has been decreasing for one week.
 - The proportion of outpatient provider visits for ILI was 1.66%, above the regional baseline of 0.84%, and has been decreasing for one week.
 - The proportion of deaths associated with pneumonia or influenza was 6.31%, below the epidemic threshold of 7.41%.
- Three hundred and seventy-five (16.72%) lab specimens tested positive for influenza: 64 influenza A H3N2, 1 influenza A H1N1, 238 influenza A unknown subtype, and 72 influenza B.
- Five influenza-associated intensive care unit (ICU) hospitalizations were reported during Week 4. Fifty-four ICU hospitalizations have been reported since Week 35 (8/28/16).
- Since Week 35, suburban Cook County has had 0 influenza-associated pediatric deaths, 2 clusters of ILI in schools, and 15 outbreaks of influenza in long-term care facilities.
- **Current recommendations:** Promote vaccination, respiratory hygiene, and prompt treatment with antivirals. Facilities may wish to consider temporary visitor restrictions.

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.

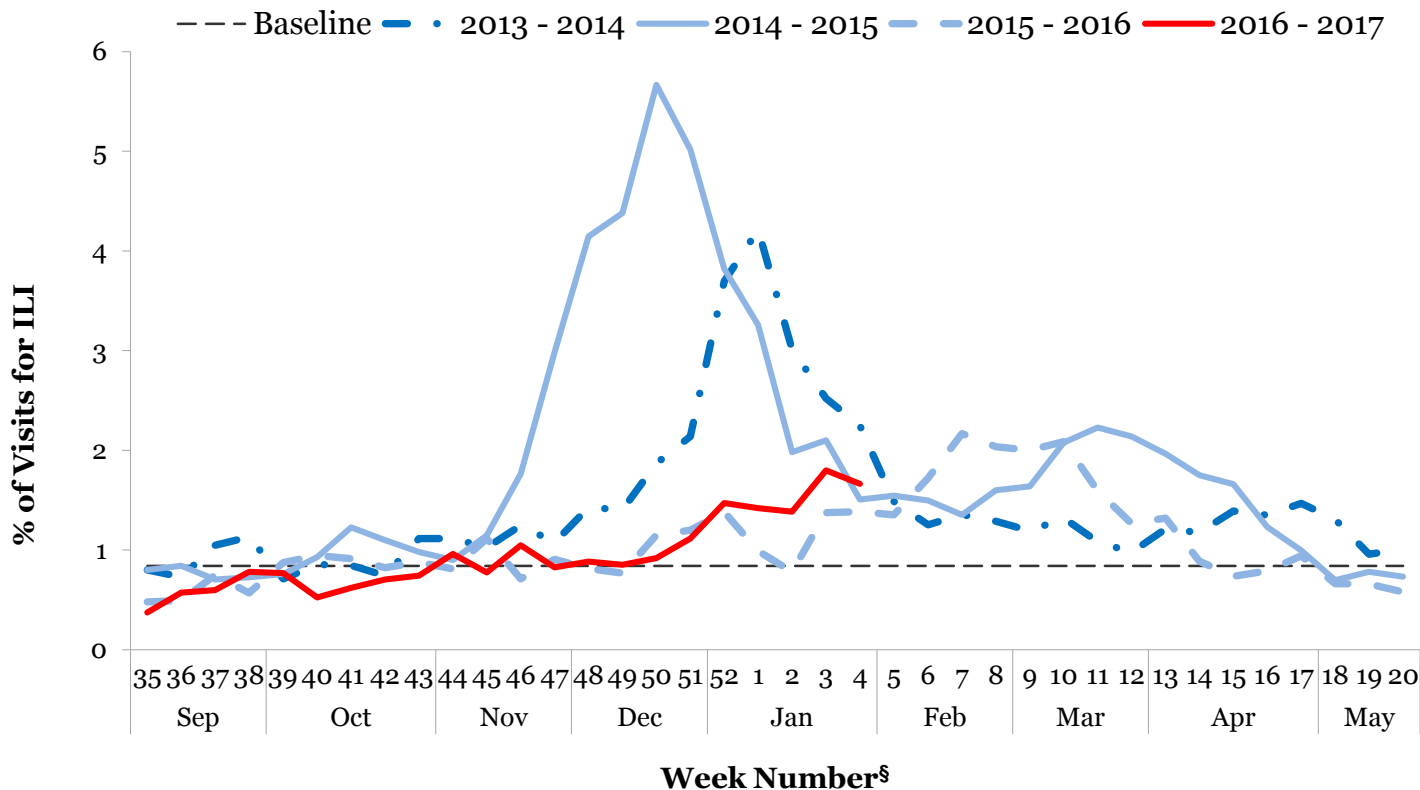
II. Influenza Activity Level / Disease Burden



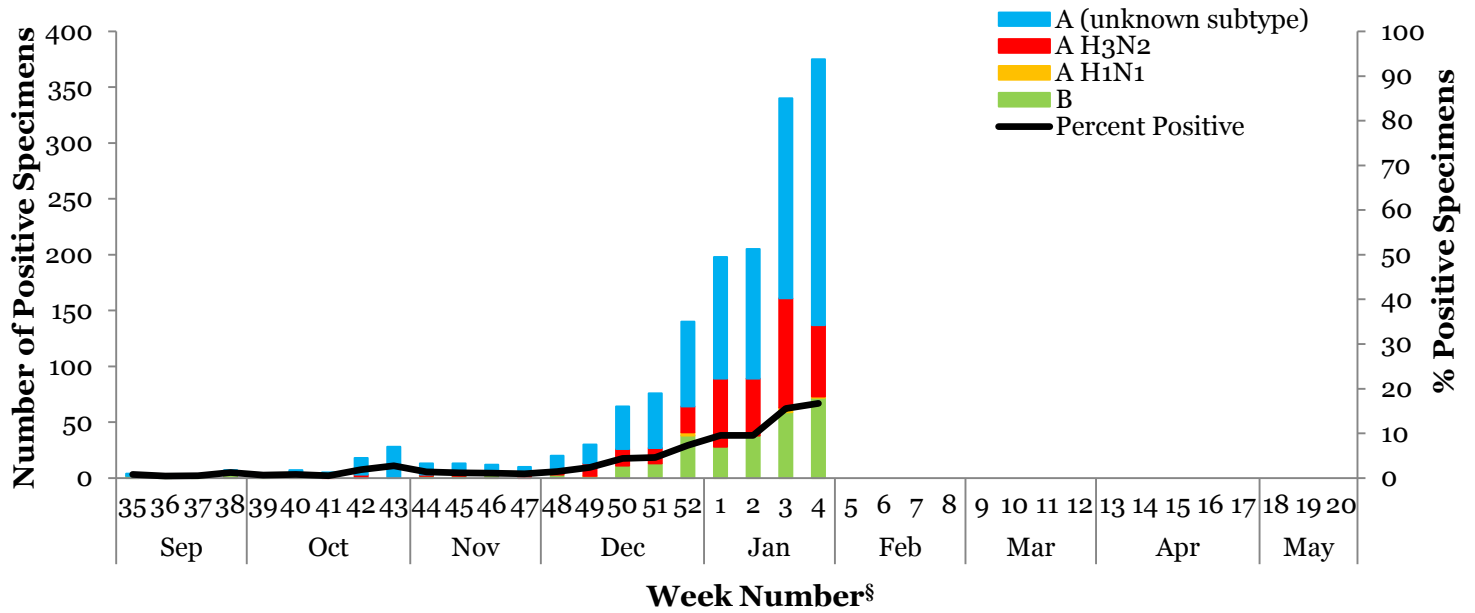
Syndromic Surveillance by Age Group¹



Outpatient Sentinel Providers²



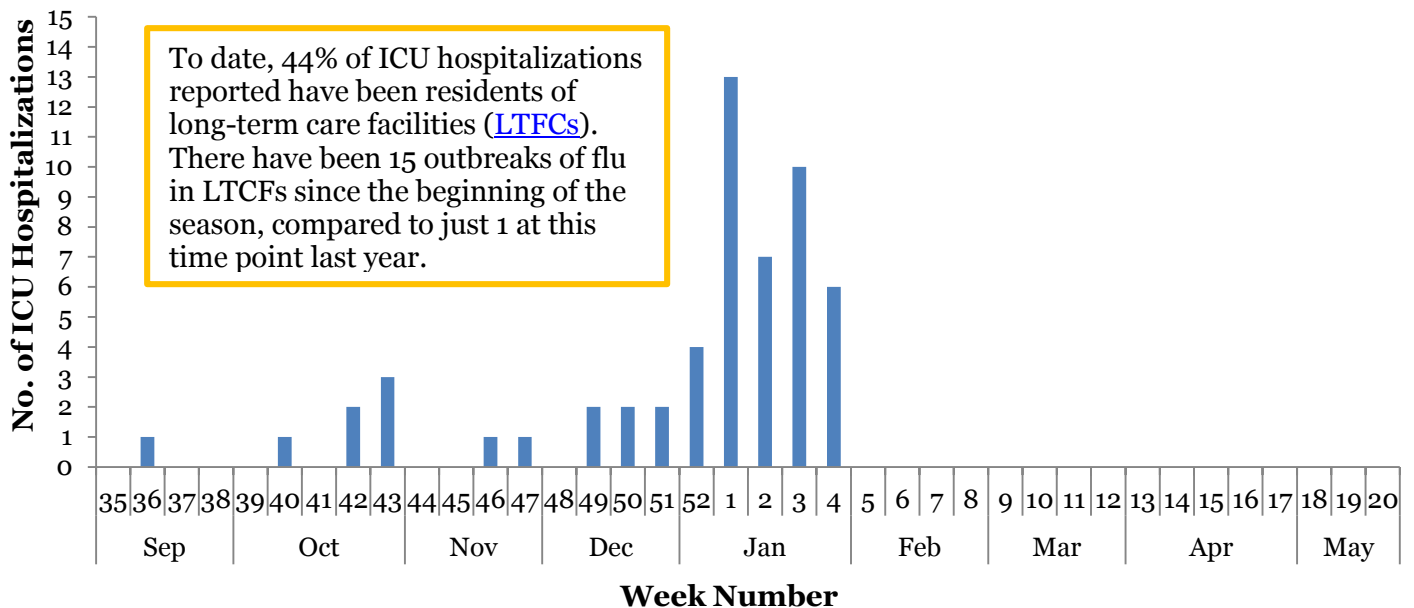
III. Circulating Strains³



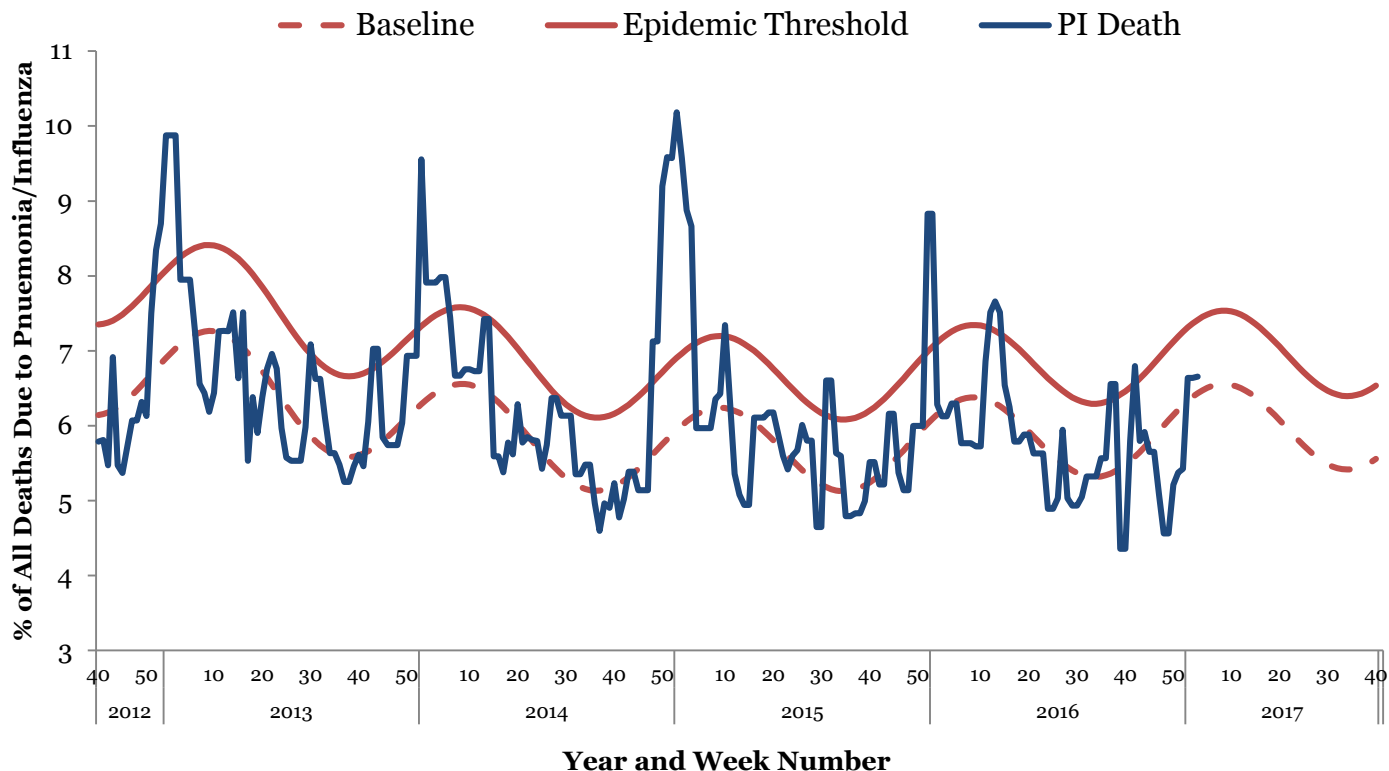
IV. Seasonal Severity

ICU Hospitalizations⁴

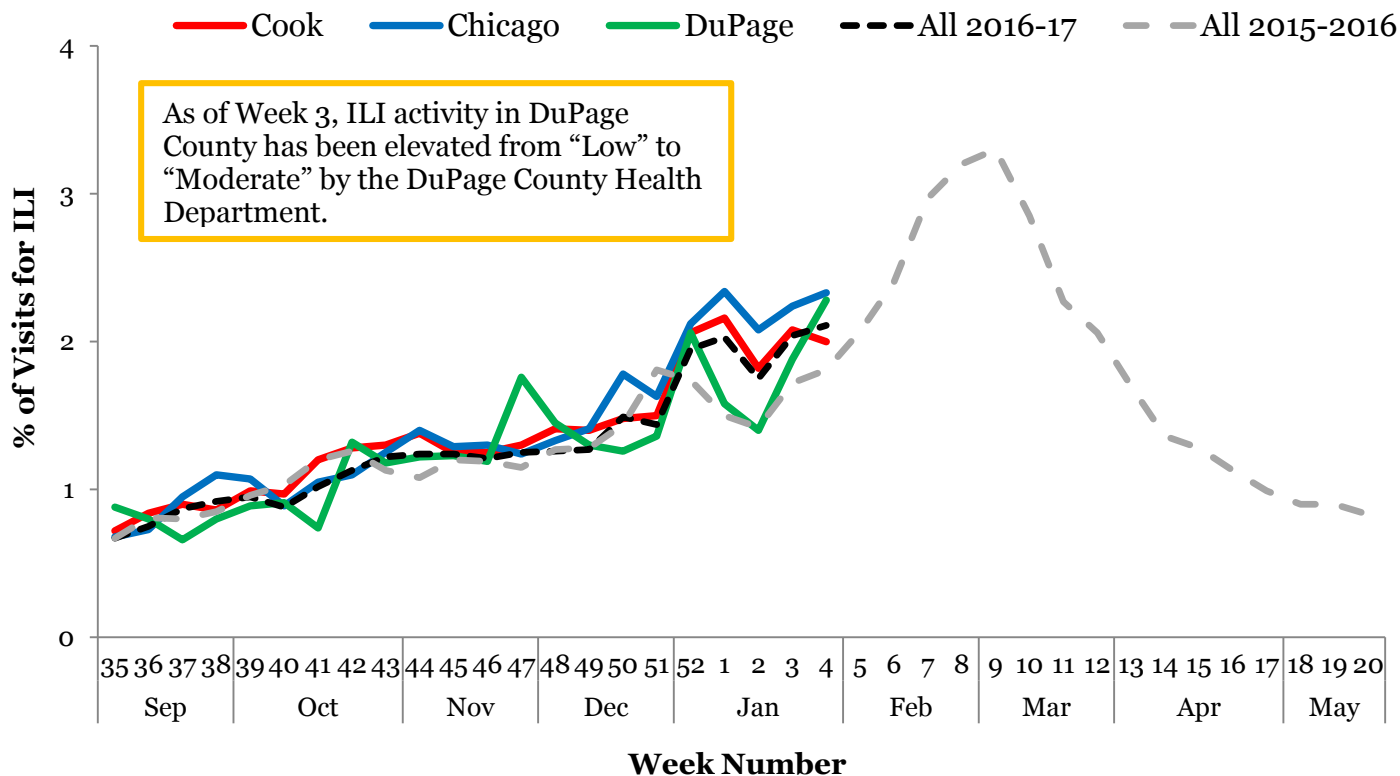
Hospitalized Case Counts		#	
Total Cases	54		
Incidence by Age		Incidence by Region	
0-4	0	North	28
5-24	2	West	9
25-49	5	Southwest	4
50-64	11	South	13
65+	36		



Pneumonia and Influenza Mortality⁵

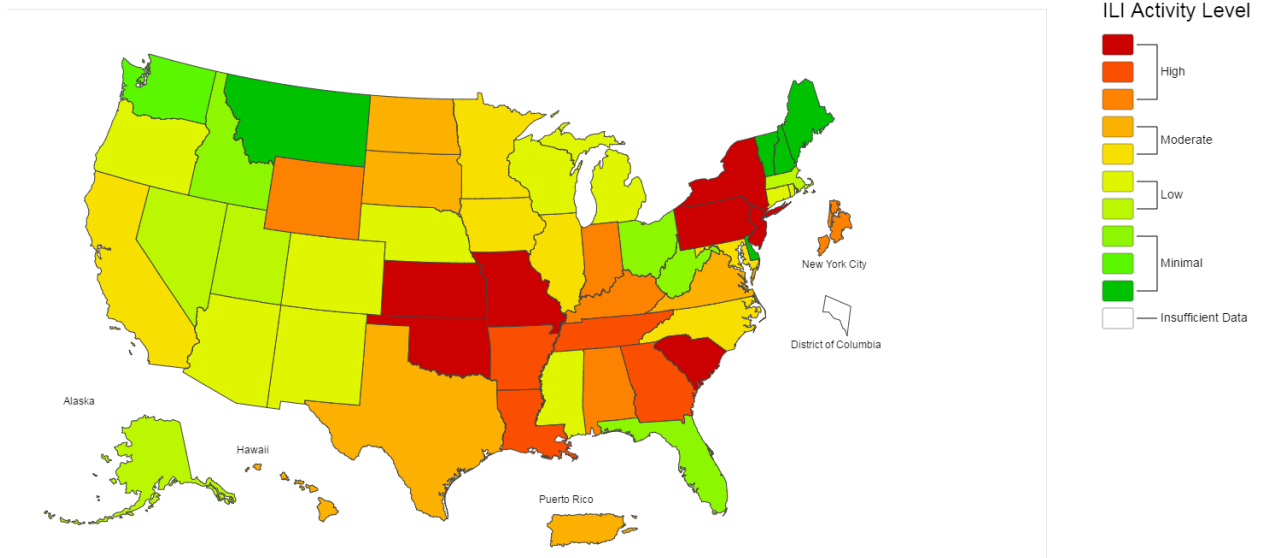


V. Regional Flu Activity¹



VI. United States Flu Activity⁶

2016-17 Influenza Season Week 4 ending Jan 28, 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); 6 hospitals and 2 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. Includes only suburban Cook County residents (excludes Evanston, Skokie, Oak Park, and Stickney) with known age and residence. Includes all cases reported through the presented week.
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. 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.