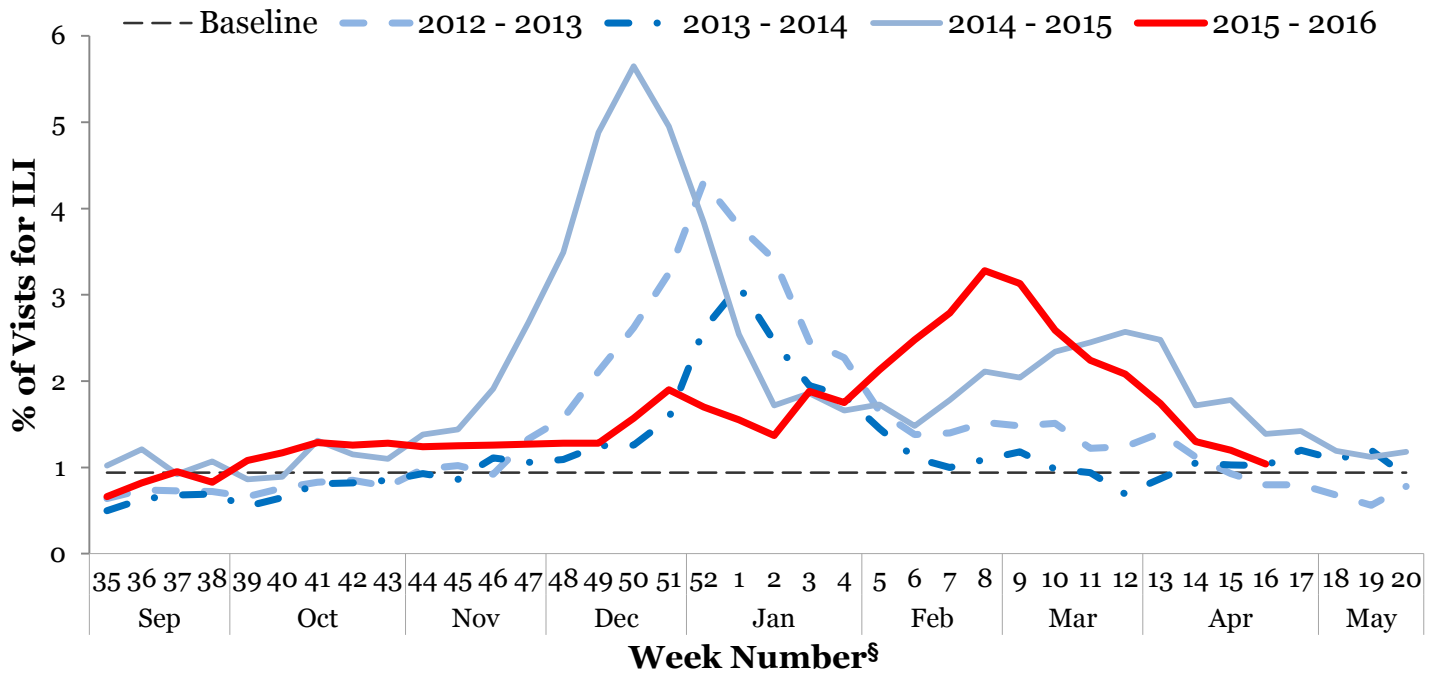




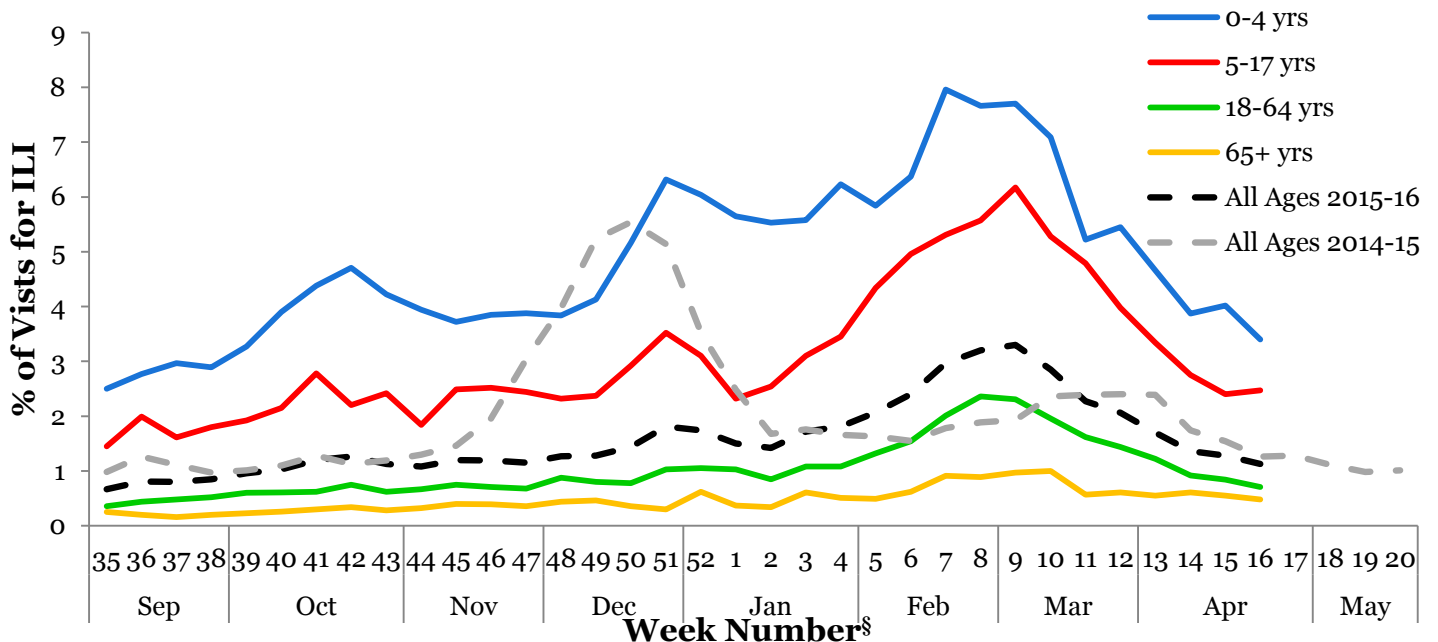
I. Influenza Summary To Date

Surveillance for influenza-like illness (ILI) in suburban Cook County involves the weekly collection of data from a sample of hospitals, private physicians' offices, and laboratory data. Influenza activity is currently **low**. Our sentinel participants reported the following aggregate measures: Syndromic Surveillance: 1.04% ILI¹; Sentinel Surveillance: 1.01% ILI². Forty-seven (7.70%) laboratory specimens tested positive for influenza (8 influenza A H1N1, 3 influenza A H3N2, 16 influenza A unknown subtype [subtyping not performed], and 20 influenza B). Since Week 35 (8/30/2015), suburban Cook County has had 203 influenza-associated intensive care unit (ICU) hospitalizations, 0 influenza-associated pediatric deaths, 12 clusters of ILI in schools or daycares, and 3 outbreaks of influenza in long-term care facilities. During Week 16, 4 ICU hospitalizations due to influenza infection were reported to CCDPH. Thank you to all of our surveillance partners for their help in collecting this information.

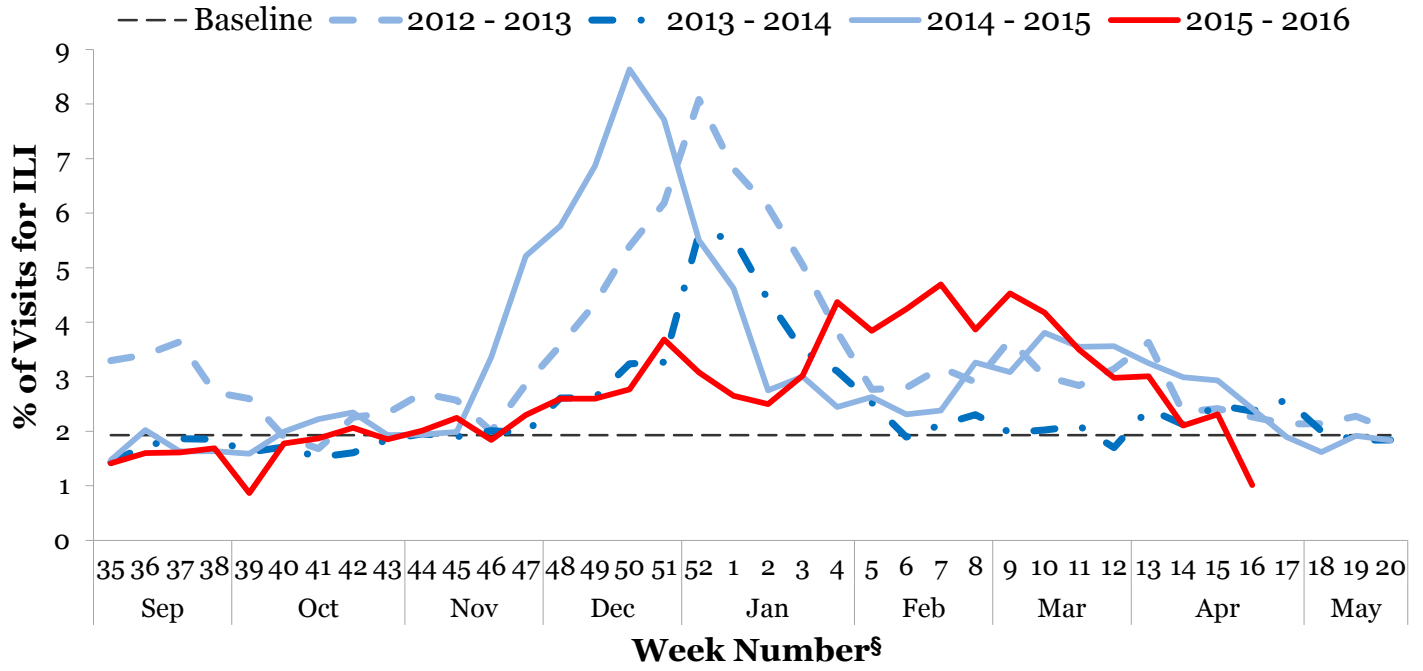
II. Syndromic Surveillance¹



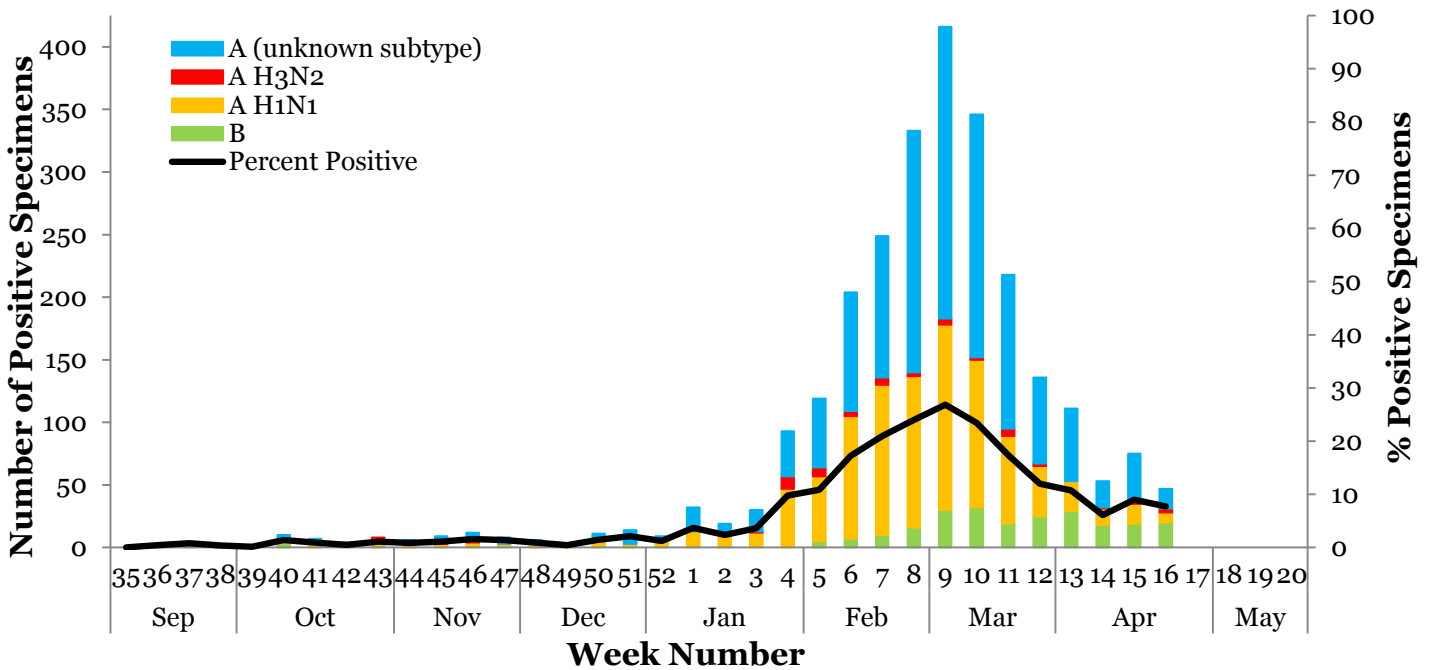
III. Syndromic Surveillance by Age Group¹



IV. Sentinel Providers²

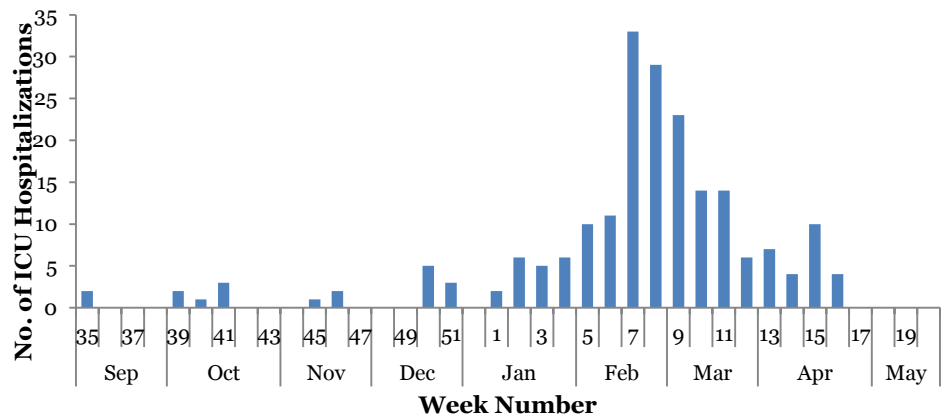


V. Laboratory Surveillance³

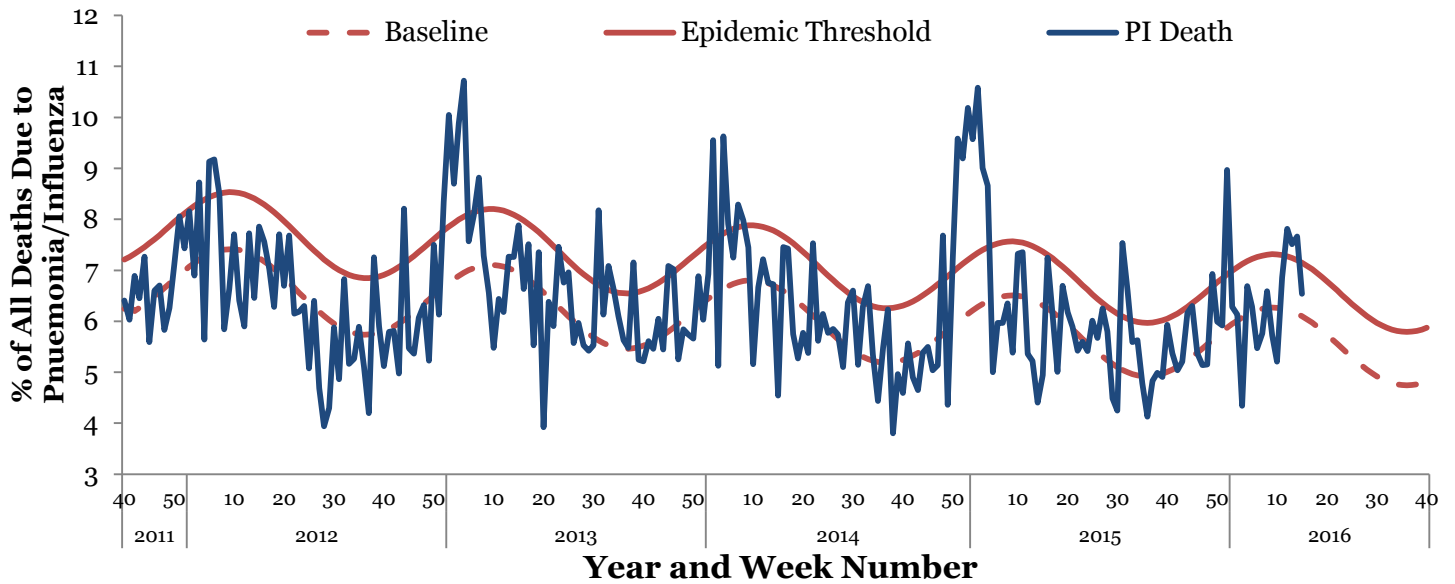


VI. ICU Hospitalizations⁴

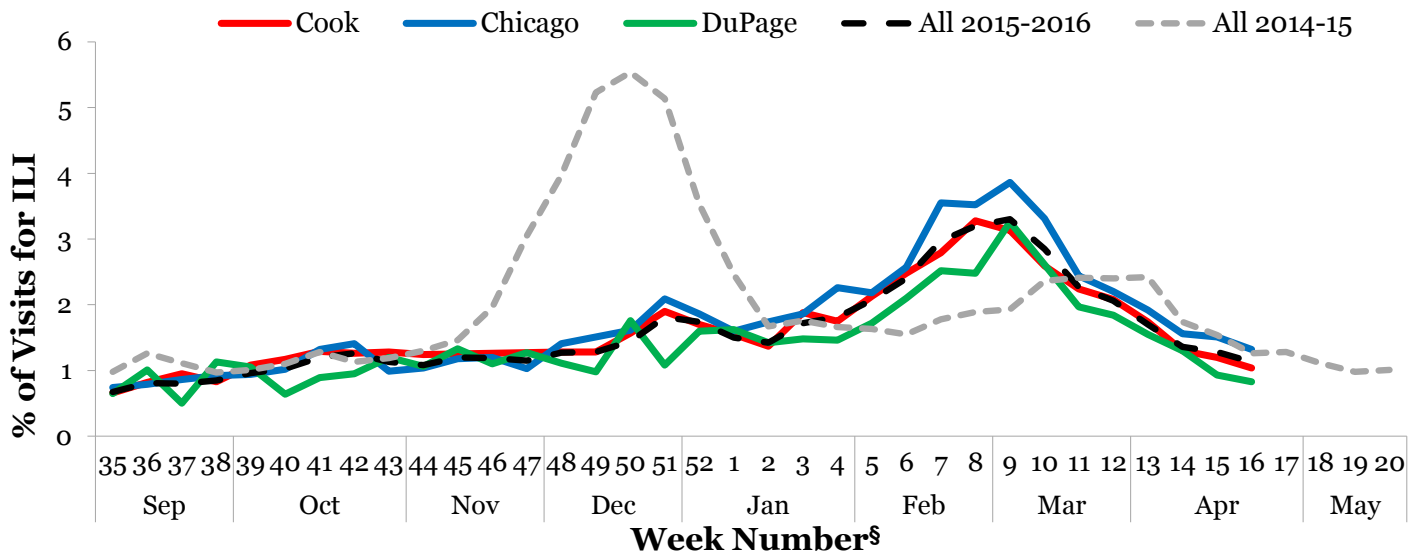
Hospitalized Case Counts		#
Total Cases		203
Incidence by Age		#
0-4		11
5-24		10
25-49		32
50-64		70
65+		80
Incidence by Region		#
North		52
West		43
Southwest		32
South		76



VII. Pneumonia and Influenza Mortality⁵

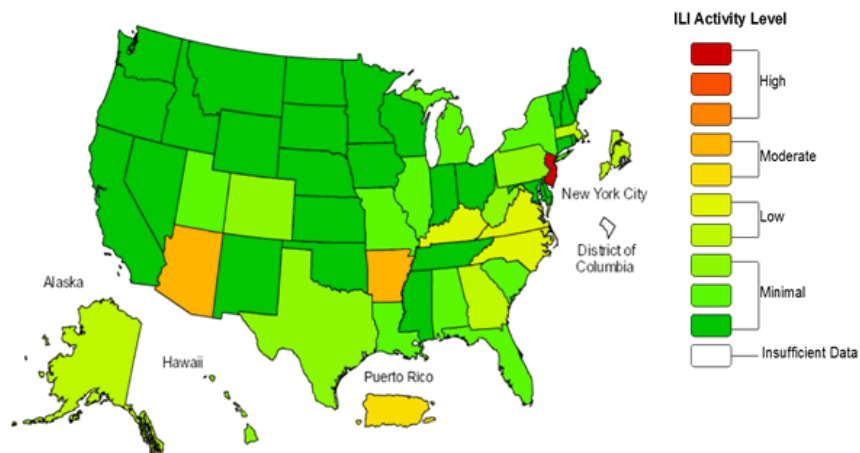


VIII. Regional Syndromic Surveillance⁴



IX. United States Flu Activity⁶

**Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2015-16 Influenza Season Week 16 ending Apr 23, 2016**



(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); 7 hospitals and 3 physician offices serve as CDC sentinel sites in Cook County. ILI defined as fever $\geq 100^{\circ}\text{F}$, 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, 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. Week number assigned by onset date.
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 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.