



Enhanced Surveillance for Influenza

What the project does...

The Infectious Disease Epidemiology Section of the Louisiana Office of Public Health (OPH) conducts year-round enhanced surveillance for influenza through the sentinel provider network (SPN). Participating sites include private physicians' offices, urgent care clinics, and hospital emergency rooms. Sentinel sites provide weekly data on cases of influenza like illness (ILI) and laboratory confirmed influenza throughout the year. The Centers for Disease Control and Prevention (CDC) definition of ILI is fever ($>100^{\circ}\text{F}$) and sore throat or cough, in the absence of a known cause. Although all cases of ILI are not attributable to influenza viruses, it is a good proxy measure of influenza activity.

State influenza data provide OPH and the public with a better understanding of the influenza activity throughout Louisiana each week. This is important because influenza infections exhibit seasonal patterns, typically peaking in the winter. This is also important because influenza seasons differ each year; some years there is more circulating virus than other years.

In addition, sentinel sites submit throat swabs on patients with ILI to the State OPH Laboratory for laboratory confirmation of influenza. These specimens are important as they ensure that Louisiana strains are characterized each year (there are many strains of influenza virus). These specimens also ensure that Louisiana strains are considered for inclusion in each year's vaccine.

How participating sites help Public Health...

Sentinel sites provide OPH with weekly numbers of ILI cases by four age groups: 0-4 years old (preschoolers), 5-24 years old (school aged children and adolescents), 24-64 years old (adults), and <65 years old (older adults). Sites also provide the total number of patients seen for any reason. Using this data, weekly ILI proportions and total case counts are calculated. Data generated is also shared with the CDC as part of the US Outpatient ILI Surveillance Network (ILINet). The Louisiana SPN has 61 private providers, or 1/70,000 population, that regularly contribute weekly the total number of patient visits and number of patients with ILI; this exceeds the recommendation by CDC of 1 site per 250,000.

Surveillance for laboratory confirmed cases is also conducted through sentinel sites. If sites perform testing they report the number of positive influenza tests by the age groups described above. They also report if the results are positive for Influenza A or B and the total number of tests completed.

Participating sites also have the option of submitting samples to the State OPH Lab for rapid testing or viral isolation/subtyping or both. Historically, on average, each site submits 2-3 specimens per season with emphasis on collecting specimens:

- Early in the season (when flu activity first begins to increase)
- Midway in the season (during the season's peak weeks)
- Late in the season (as flu activity begins to decrease)
- From unusual or unusually severe clinical cases

Although sites may have the capacity to perform onsite influenza testing, 2-3 influenza viral isolates should be forwarded to the State Laboratory during the periods listed above. Specimen forwarding is important to ensure that Louisiana influenza strains are included in the World Health Organization (WHO)/ National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories reports and in each year's vaccine.

How Public Health helps participating sites...

To encourage reciprocity of information exchange and resource sharing, OPH provides participating sentinel surveillance sites with...

- Educational materials obtained through the Department of Health and Hospitals (DHH) and CDC
- Weekly statewide reports on influenza activity
- Instructions and supplies for clinical specimen collection and transport
- Timely testing of clinical specimens

To join the Louisiana SPN or to learn more about the program, please contact Julie Hand at 504-219-4542 or julie.hand@la.gov.