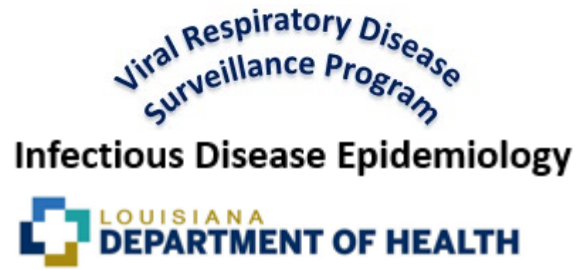


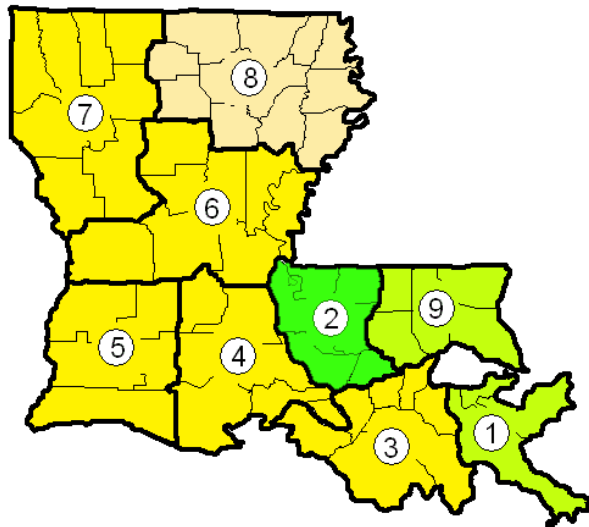
Influenza & Other Respiratory Viruses
 Surveillance Report
 2022 - 2023 Season
 Week 51 ending December 24, 2022



Statewide ILI Activity

Minimal			Low		Moderate		High			Very High		
1	2	3	4	5	6	7	8	9	10	11	12	13

Regional ILI Activity



Overall Severity
LOW
 ILI – Low
 Laboratory – Low
 Mortality – Low

Louisiana COVID-19 data: [LDH COVID dashboard](#)

- Page 2 – Influenza-like Illness (ILI) & COVID-like Illness (CLI) Activity
- Page 3 – ILI activity by age group & ILI activity indicator
- Page 4 – Louisiana influenza virologic surveillance
- Page 5 – Hospitalization & Mortality Surveillance
- Page 6 – State and National influenza subtyping/characterization data
- Page 7 - National Assessment of Virus Susceptibility to Antiviral Medications
- Page 8 - National influenza surveillance
- Page 9 – Non-influenza respiratory virus surveillance
- Page 10 - Methodology

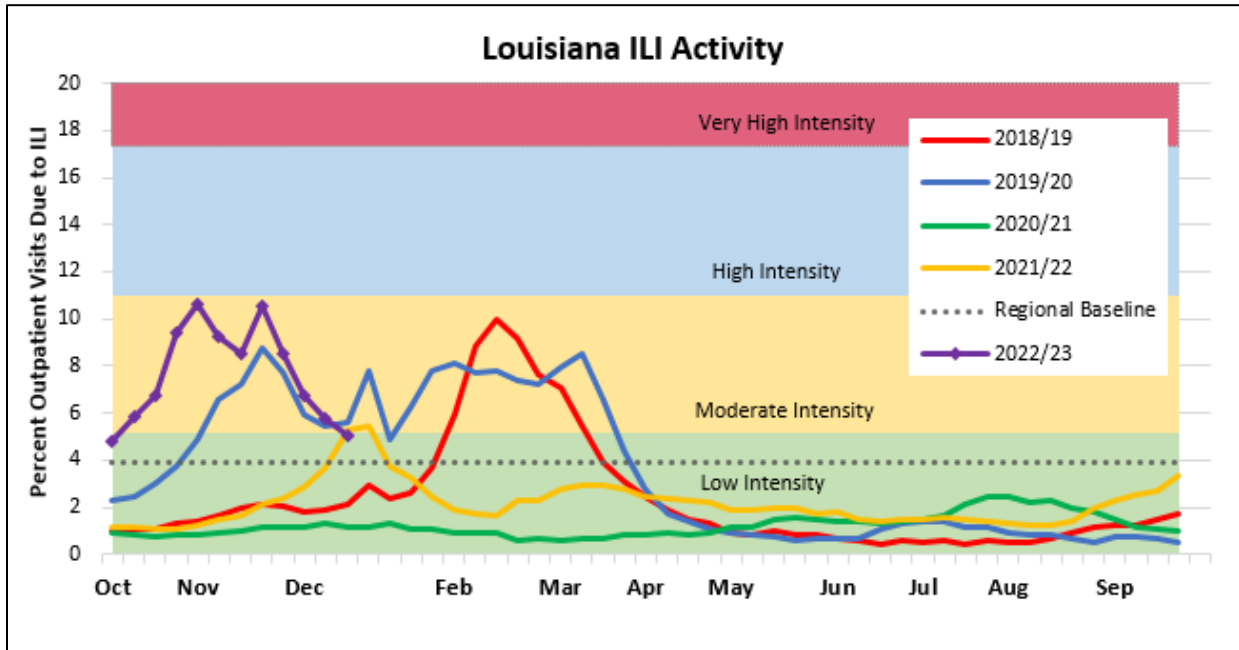
For more information, contact: Julie Hand at 504-568-8298 or julie.hand@la.gov

Note: This report includes data from numerous sources and should be viewed as preliminary each surveillance week. The information may be updated in future reports as additional data are received.

ILI Activity

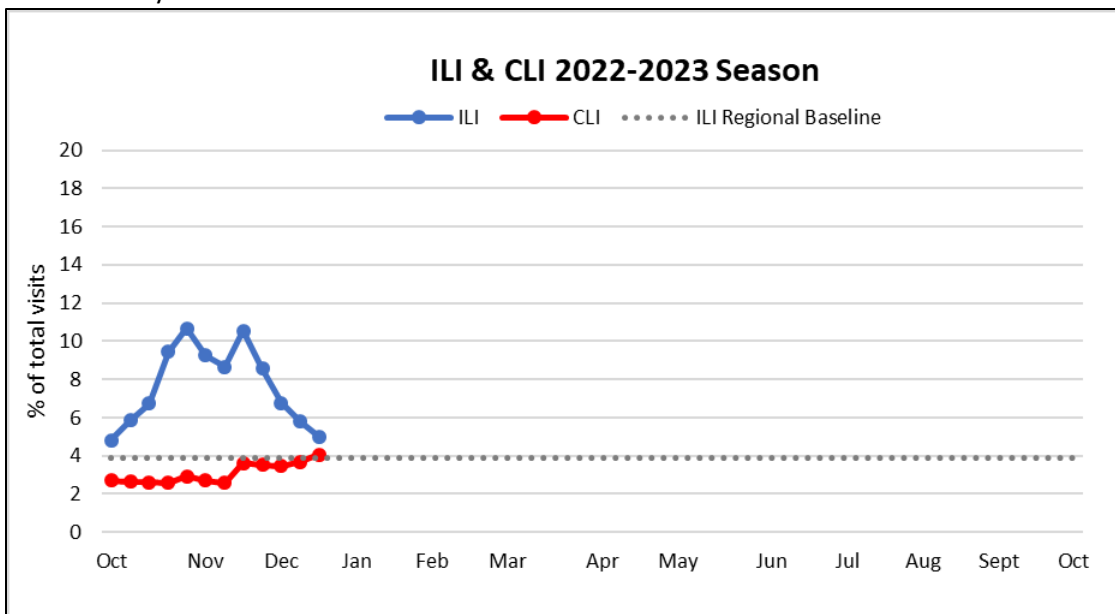
In Louisiana, during Week 51, 5.1% of patient visits reported through the U.S. Outpatient Influenza-like illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is above the regional baseline of 3.9%. The ILI case definition changed starting with the 2021-2022 season: fever ≥ 100.3 AND cough and/or sore throat.
Week 2251: Louisiana ILI: 5.1% **Low Intensity**

U.S. ILI: 6.1% **Above** the national baseline
for more information on the U.S. ILI Activity assessment: [FluView Interactive](#)



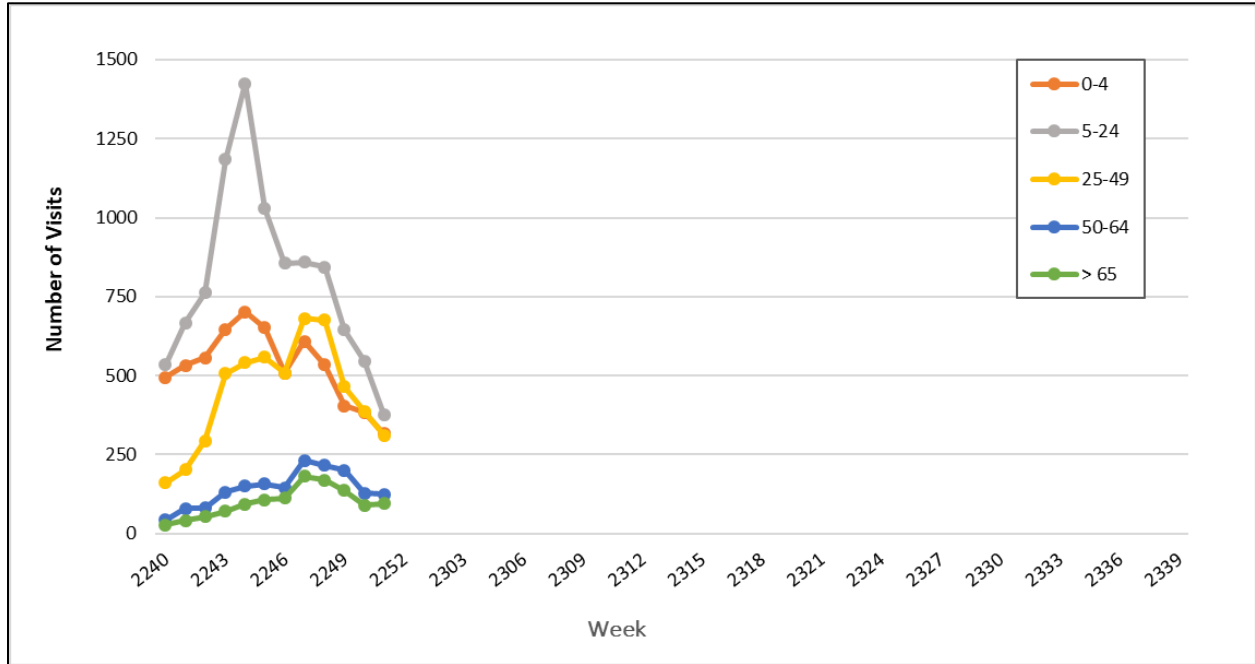
ILI & CLI Activity

In addition to ILINet, COVID-19 surveillance is being monitored through the National Syndromic Surveillance Program (NSSP) using a CLI syndrome. CLI is defined as fever and cough or shortness of breath or difficulty breathing or the presence of a coronavirus diagnosis code. ILI and CLI are used to monitor trends in outpatient and emergency department visits that may be related to COVID-19.



Louisiana ILI Activity by Age Group:

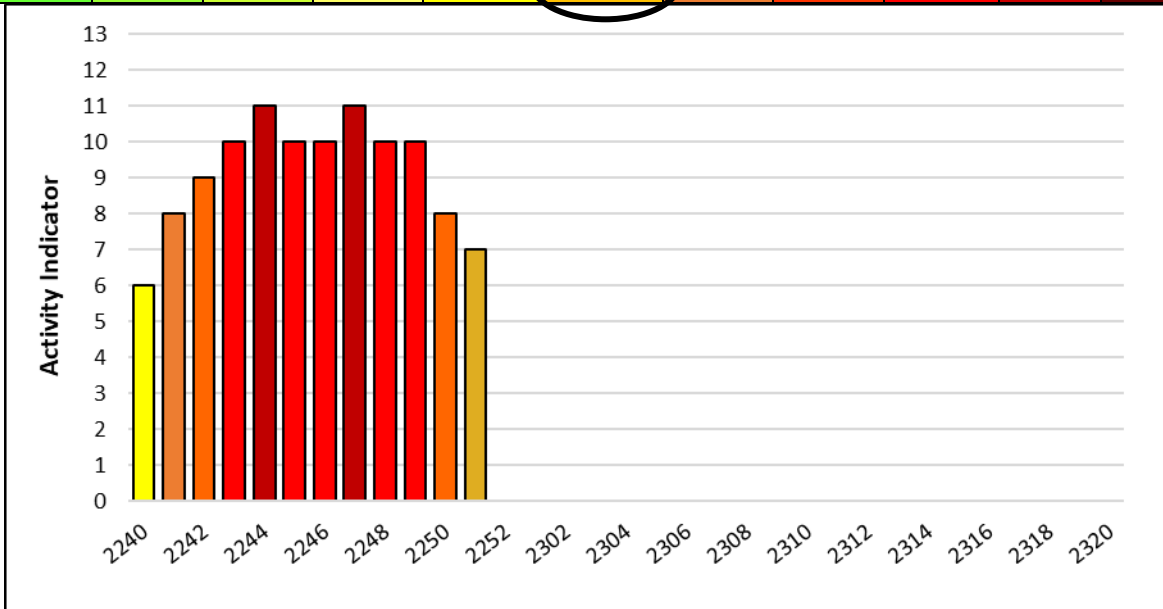
ILINet activity is reported by age group: 0-4 years, 5-24 years, 25-50 years, 50-64 years, and ≥ 65 years.



CDC ILINet Activity Indicator:

ILI Activity Levels compare the mean reported percent of visits due to ILI for the current week to the mean reported percent of visits due to ILI for non-influenza weeks. The 13 activity levels correspond to the number of standard deviations below, at, or above the mean for the current week compared with the mean of the non-influenza weeks. For more information, refer to page 9 of report.

Minimal			Low		Moderate		High			Very High		
1	2	3	4	5	6	7	8	9	10	11	12	13

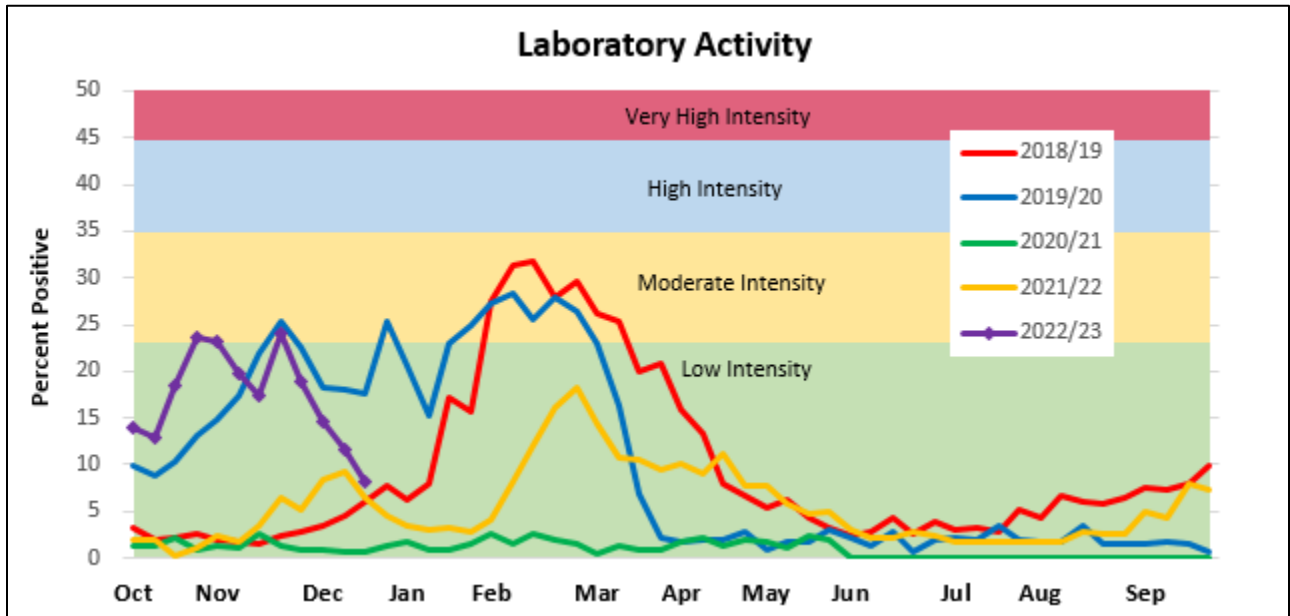
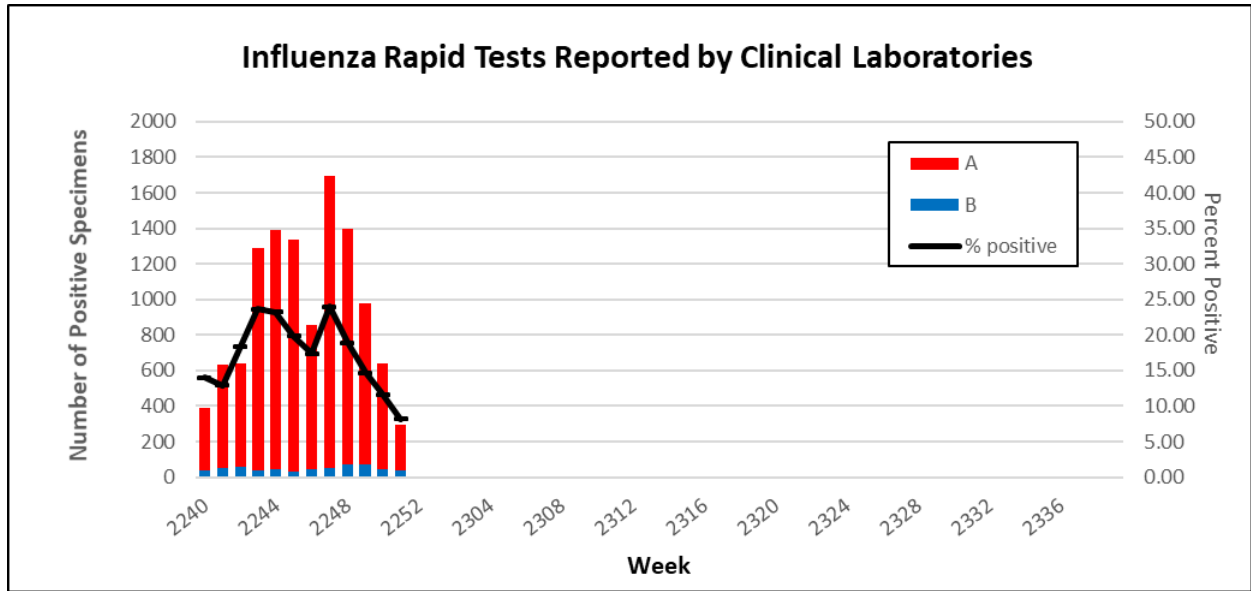


Virologic Surveillance:

Louisiana virologic surveillance for respiratory viruses consists of data reported by clinical laboratories throughout the state and testing done at the State Public Health Laboratory. Data on influenza testing is presented below, data for other respiratory viruses is on page 8 of report.

Week 2251: Louisiana % influenza positive tests: 8.1%

U.S. % influenza positive tests: 19.8%



HHS Protect Hospitalization Surveillance:

Hospitals report to HHS Protect the number of patients admitted with laboratory-confirmed influenza. During week 50, 749 patients with laboratory-confirmed influenza were admitted to a hospital in Louisiana. National Surveillance for influenza hospitalizations can be found [here](#). For more information, refer to page 9 of report.

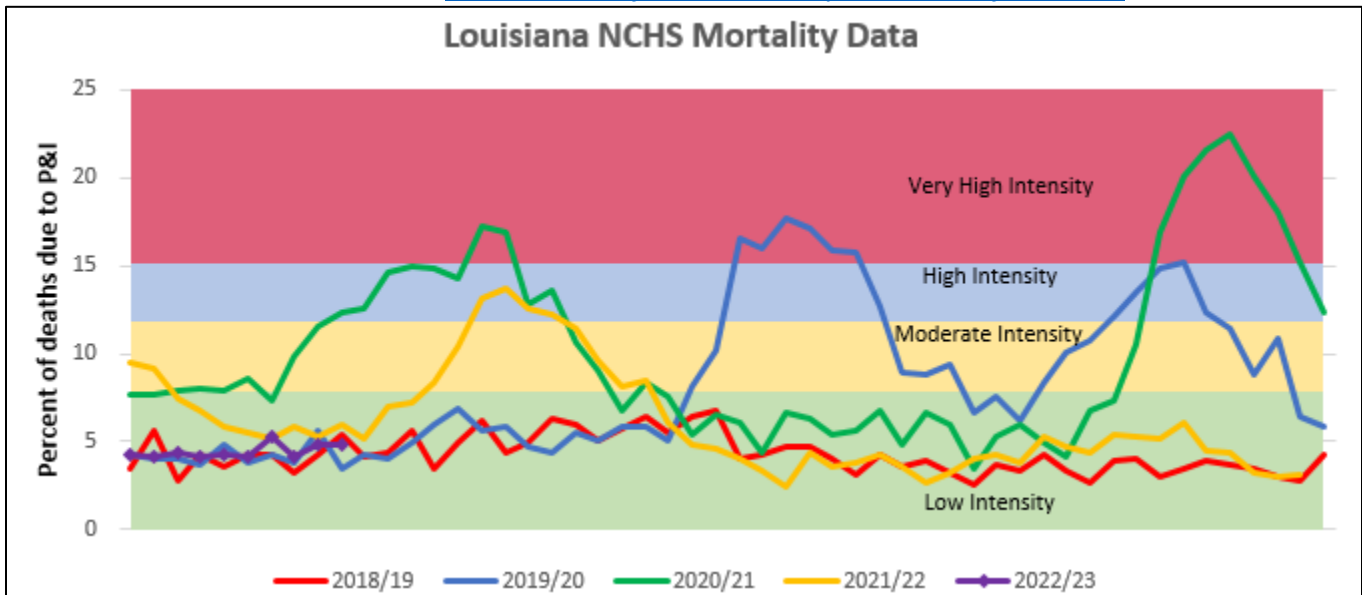


Mortality Surveillance:

Weekly mortality surveillance data include a combination of machine coded and manually coded causes of death collected from death certificates. Due to the additional time needed for manual coding, the initially reported percentages are likely to increase as more data are received and processed. For more information, refer to page 9 of report.

Week 2251: Louisiana Mortality: **Low**

U.S. Mortality: **Above** the epidemic threshold
for more information on the U.S. mortality assessment:
[Pneumonia & Influenza Mortality Surveillance from NCHS](#)



Summary of Influenza Testing & Subtyping:

	Louisiana Public Health Laboratory	CDC/Public Health Laboratories
Number of specimens tested	36	115,821
Number of positive specimens	16	19,337
Influenza A	16 (100%)	19,337 (99.7%)
Influenza A/H1N1	7 (44%)	3,314 (21.6%)
Influenza A/H3N2	9 (56%)	12,026 (78.4%)
Influenza A/H3N2v	0	1 (<0.1%)
Influenza A not subtyped	0	3,930
Influenza B	0	66 (0.3%)
Influenza B/Yamagata	0	0
Influenza B/Victoria	0	38 (100%)
Lineage not performed	0	28

National Influenza Virus Characterizations: *since May 1, 2022*

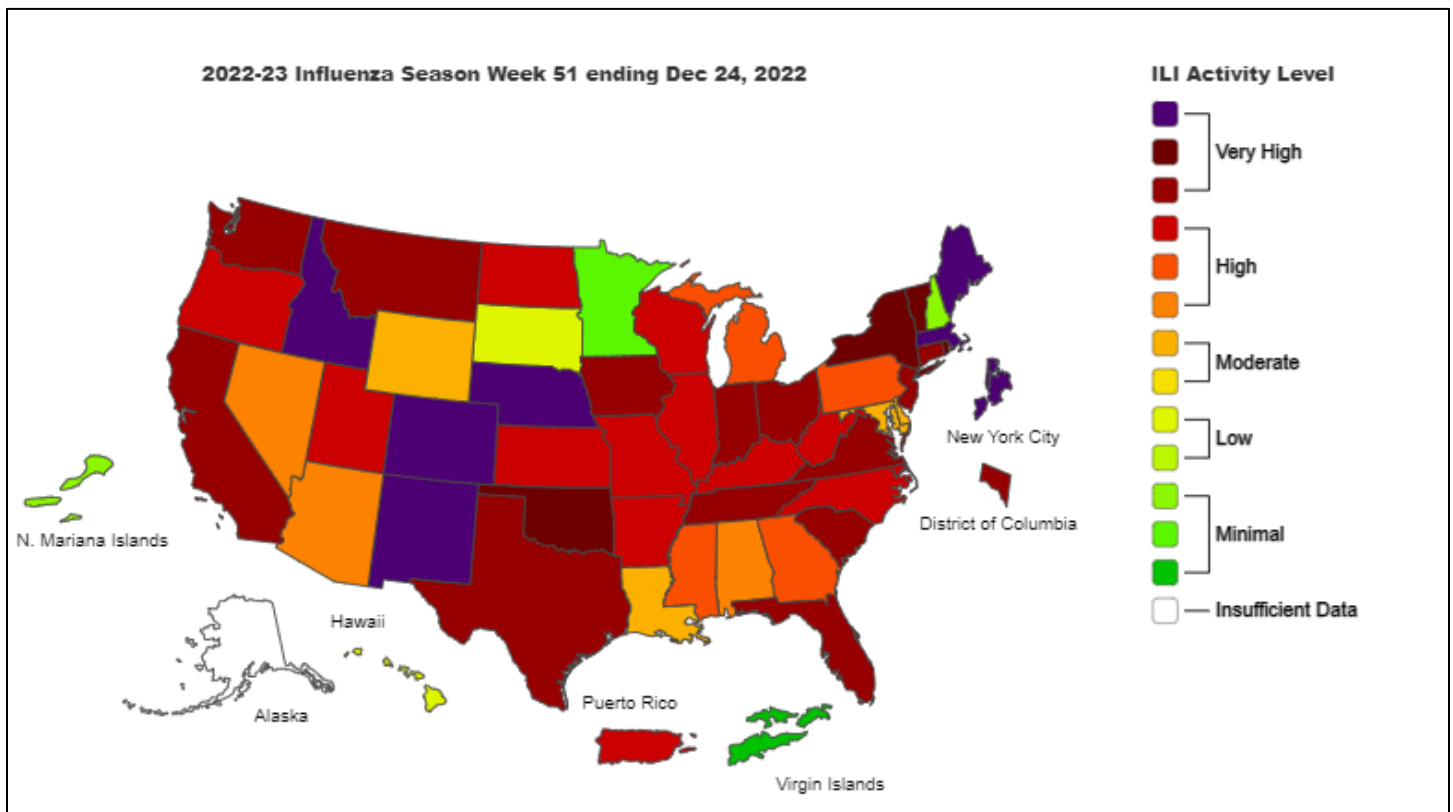
Virus Subtype or Lineage	Genetic Characterization				
	Total # Subtype/Lineage Tested	HA Clade	Number (% of subtype/lineage tested)	HA Subclade	Number (% of subtype/lineage tested)
A/H1	340				
		6B.1A	340 (100%)	5a.1	6 (1.8%)
				5a.2	334 (98.2%)
<i>89 A/H1N1 viruses were further characterized and 98% match the virus component in this season's vaccine</i>					
A/H3	1,040				
		3C.2a1b	1,040 (100%)	1a	0
				1b	0
				2a	0
				2a.1	1 (0.1%)
				2a.2	1,039 (99.9%)
		3C.3a	0	3a	0
<i>60 A/H3N2 viruses were further characterized and 97% matched the virus component in this season's vaccine</i>					
B/Victoria	19				
		V1A	12 (100%)	V1A	0
				V1A.1	0
				V1A.3	1 (5.3%)
				V1A.3a	0
				V1A.3a.1	0
				V1A.3a.2	18 (94.7%)
<i>8 B/Victoria virus was further characterized and it matched the virus component in this season's vaccine</i>					
B/Yamagata	0				
		Y3	0		
<i>No B/Yamagata viruses were available for virus characterization</i>					

National Assessment of Virus Susceptibility to Antiviral Medications:

Antiviral Medication			Total Viruses	A/H1	A/H3	B/Victoria	B/Yamagata
Neuraminidase Inhibitors	Oseltamivir	Viruses Tested	881	285	580	16	0
		Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Peramivir	Viruses Tested	881	285	580	16	0
		Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Zanamivir	Viruses Tested	881	285	580	16	0
		Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
PA Cap-Dependent Endonuclease Inhibitor		Viruses Tested	850	270	564	16	0
		Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

National surveillance updates:

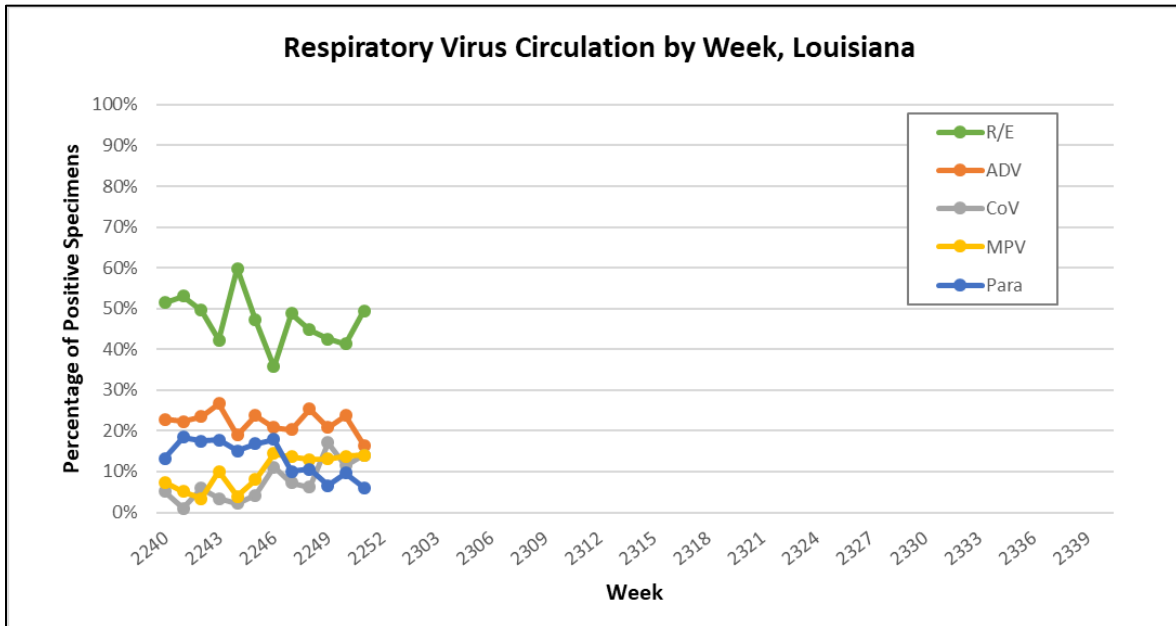
- FluSurv-Net: 44.3 per 100,000 cumulative hospitalization rate.
- HHS Protect Hospitalizations: 18,848 patients with laboratory-confirmed influenza were admitted to the hospital.
- NCHS Mortality: 12.1% of deaths attributed to pneumonia, influenza, or COVID-19 (above threshold of 5.8%).
- Long-term Care Facility (LTCF) Surveillance: 794 (5.6%) of 14,135 LTCFs reported at least one laboratory-confirmed influenza tests among their residents.
- 61 pediatric influenza-associated deaths have been reported this season; three of these deaths occurred in Louisiana.



Non-Influenza Respiratory Viruses Update:

Surveillance for non-influenza respiratory virus surveillance is based on data from clinical laboratories statewide and testing done at the state public health laboratory. Data is collected on the following viruses: Rhino/Enterovirus (R/E), Adenovirus (ADV), Coronavirus (CoV), Human Metapneumovirus (MPV), Parainfluenza 1-4 (Para), and Respiratory Syncytial virus (RSV). RSV data is analyzed apart from other respiratory viruses due to the high prevalence of testing and seasonality of the virus.

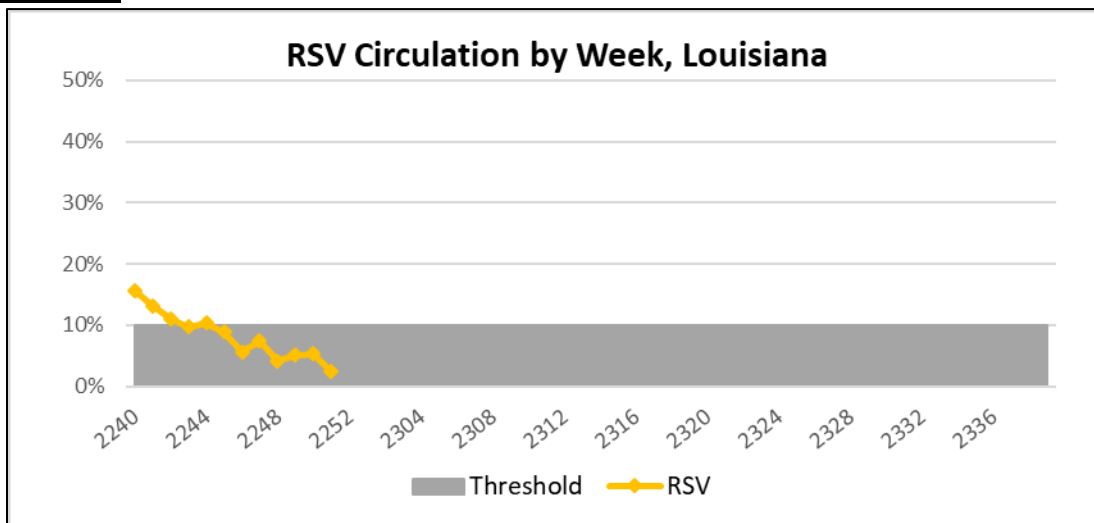
CoV circulation represents Human Coronavirus types 229E, NL63, OC46, and HKUL; it does not include COVID-19.



RSV usually circulates during fall, winter, and spring, but the timing and severity of RSV season can vary from year to year. RSV season onset is defined as the first week of two consecutive weeks when the percent positive of ALL laboratory confirmed tests are greater than or equal to 10%. The end of RSV season is defined as the first of two consecutive weeks when the percent positive of ALL laboratory confirmed tests are less than 10%.

Information on National RSV surveillance can be found at: [CDC RSV surveillance](https://www.cdc.gov/nczod/dzdx/RSV-surveillance.html)

RSV Season Status: OFF



Indicator Methodologies:

- **Intensity/Severity Measurements:** Intensity thresholds are calculated for activity measures to assess influenza season severity; for Louisiana these measurements are 1) ILI Activity, 2) Laboratory Activity, and 3) Mortality Data. Establishing these thresholds based on historical data allow epidemiologists to assign severity levels (low, moderate, high, very high) to weekly data points and overall seasons. This methodology was published in the [American Journal of Epidemiology](#), October 2017.

Season	Severity Ranking
2015-2016	Low
2016-2017	Low
2017-2018	High
2018-2019	Moderate
2019-2020	Moderate
2020-2021	*
2021-2022	Low

*Due to the COVID-19 pandemic the 2020-2021 season is excluded from calculating severity thresholds.

- **ILI Activity Level Indicator:** Collected ILI data is used to produce a measure of ILI activity by state. Activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during weeks with little or no influenza virus circulation. Activity levels range from minimal, which would correspond to ILI activity from outpatient clinics being below, or only slightly above, the average, to high, which would correspond to ILI activity from outpatient clinics being much higher than average. Intensity does not measure geographic spread within the state. For example, outbreaks occurring in a single city could cause the state to display high activity levels.
- **ILI Regional Baselines:** Regional baselines are calculated by CDC at the beginning of the influenza season. Louisiana is in Region 6 which also includes: Arkansas, Texas, New Mexico, and Oklahoma. The Region 6 baseline for the 2022-2023 season is 3.9%. The regional baselines are developed by calculating the mean percentage of ILI visits during non-influenza weeks for the previous three seasons and adding two standard deviations. A non-influenza week is defined as periods of two or more consecutive weeks in which each week accounted for less than 2% of the season’s total number of specimens that tested positive for influenza in public health laboratories.
- **HHS Protect Hospitalization Surveillance:** As of March 2020, all hospitals registered with CMS and non-CMS hospitals were required to report COVID-19 data elements to facilitate the public health response to the 2019 Novel Coronavirus (COVID-19) pandemic. The data are reported to HHS Protect and are made available on the [HHS Protect Public Data Hub](#).
In February 2022, three data elements were added for influenza surveillance:
 - Total number of hospitalized patients with laboratory-confirmed influenza virus infection.
 - Previous day’s number of admissions with laboratory-confirmed influenza virus infection.
 - Total number of hospitalized ICU patients with laboratory-confirmed influenza virus infection.
 These fields were intended to be seasonal for 2022, however, due to significant continuous activity influenza fields remained required through the summer.
- **Mortality Surveillance:** In previous seasons, the NCHS surveillance data were used to calculate the percent of all deaths occurring each week that had pneumonia and/or influenza (P&I) listed as a cause of death. Because of the ongoing COVID-19 pandemic, during the 2020-2021 season, COVID-19 coded deaths were added to P&I to create the PIC (pneumonia, influenza, and/or COVID-19) classification. PIC includes all deaths with pneumonia, influenza, and/or COVID-19 listed on the death certificate. As of February 2022, Louisiana data shown below from NCHS has reverted to P&I.