

### North Carolina Influenza Surveillance Summary: 2022-2023 Season

### Key Findings

Statewide Updates	Influenza-like illness (ILI) increased in the 2022-2023 influenza season compared to the 2021-2022 season. Influenza cases showed an early increase from mid-October 2022 to early January of 2023. However, the proportion of visits due to ILI in North Carolina was below regional and national baselines for most of the remaining season.	
	There were 196 influenza associated deaths during the 2022-2023 influenza season, including 3 pediatric deaths.	
	Over 30,000 influenza tests, from PHE sentinel sites as well as the North Carolina State Laboratory of Public Health (NC SLPH), were positive during the 2022-2023 influenza season. A(H3N2) represented most influenza viruses subtyped during this season.	
	The primary respiratory viruses circulating during the 2022-2023 influenza season were influenza and SARS-CoV-2, the virus that causes COVID-19.	
Regional Updates	The proportion of visits due to ILI in Region 4 was low most of the season with a notable increase from mid-October to early January. The regional baseline for ILI is 3.1%.	
National Updates	The proportion of visits due to ILI nationwide was low most of the season except for an early increase from mid-October to early January. The national baseline for ILI is 2.5%.	
International Updates	In worldwide influenza laboratories, seasonal influenza A viruses accounted for a majority of detections followed by influenza B viruses. More country specific details can be found <u>here</u> .	

### Introduction

The North Carolina Department of Health and Human Services (NCDHHS) uses multiple surveillance systems to monitor influenza activity across the state. These surveillance systems include information related to outpatient visits, emergency department visits, laboratory data, as well as hospital data from epidemiologists at seven of the state's largest healthcare systems. Data sources used to gather the information presented here are described below.

### NC DETECT

The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is North Carolina's statewide, electronic, real-time public health surveillance system. NC DETECT was created to provide early event detection and timely public health surveillance using a variety of secondary data sources, including data from the NC Emergency Departments (EDs). Each ED visit is grouped into syndromes based on keywords in several different fields and/or diagnosis codes. The syndrome used to track influenza-like illness (ILI) is presented in this report. ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat.

ILI data track the number and percent of emergency department visits that are for illnesses compatible with influenza. This includes visits that do not have positive test results.

NC DETECT was created by the North Carolina Division of Public Health (NCDPH) in collaboration with the Carolina Center for Health Informatics (CCHI) in the UNC Department of Emergency Medicine.

### Public Health Epidemiologists Program

In 2003, the North Carolina Department of Public Health (NCDPH) created a hospitalbased Public Health Epidemiologist (PHE) program to strengthen coordination and communication between hospitals, health departments, and the state. The PHE program covers approximately 38 percent of general/acute care beds and 40 percent of ED visits in the state. PHEs play a critical role in assuring routine and urgent communicable disease control, hospital-based reporting of communicable diseases, outbreak identification and management as well as case finding during community outbreaks. More information can be found <u>here</u>.

#### Influenza-like Illness Network

The U.S. Outpatient Influenza-like Illness Surveillance Network (<u>ILINet</u>), is a collaboration with providers, state health departments, and CDC to conduct surveillance for influenza-like illness. ILINet providers in primary care clinics and hospitals across the state send samples collected from patients with influenza-like illness to the North Carolina State Laboratory of Public Health for testing. With the current COVID-19 pandemic, ILINet has been expanded to include testing for SARS-CoV-2. Providers are asked to submit up to 10 samples from symptomatic patients each week. For ILINet surveillance purposes symptomatic is defined as fever (>100°F) and cough or sore throat. More information about ILINet can be found at <u>flu.nc.gov</u>.

### What percent of ED visits this season are for influenza-like illness compared to previous seasons?



The above graph shows how the percentage of ED visits for influenza-like illness (ILI) this season compares to previous seasons. ILI includes key words including fever, cough, and sore throat. Many respiratory diseases share similar symptoms. ILI surveillance may capture other respiratory diseases.



How does the percentage of ED visits for influenza-like illness compare between regions of the state?

Diseases, including influenza, do not spread across the state evenly. The above graph shows the differences between regions in the percentage of ED visits for influenza-like illness. The colors of the lines correspond to the colors on the region map below.



## How many patients had an influenza-associated death this flu season?

An influenza-associated death is defined for surveillance purposes as a death (adult or pediatric) resulting from a clinically compatible illness that was confirmed to be influenza by an appropriate laboratory or rapid diagnostic test with no period of complete recovery between the illness and death.

Influenza-Associated Deaths Reported in North Carolina (10/1/22-5/28/23)

Total Flu Deaths 196



Adult Deaths Pediatric Deaths



#### Influenza-Associated Deaths Reported in North Carolina, by Age Group 2022-23



B (Victoria)6B (Yamagata)0Total417

\* 2022-2023 influenza season began October 2, 2022



#### Influenza Positive Tests Reported by PHE Facilities

N/A 30,746



### What respiratory viruses are being found in patients tested at hospitals in the PHE network?

Many viruses can cause respiratory illness. The graph above shows all positive tests for the listed respiratory viruses done at hospital laboratories in the PHE network. Tracking test results for patients in this network of health systems can help us to better understand what viruses are making people sick. It is important to remember that the number of positive tests depends on how many tests are done, so will change based on access to testing and testing priorities.

### What respiratory viruses are being found in symptomatic patients tested at the State Laboratory of Public Health?



The State Laboratory of Public Health (SLPH) tests specimens submitted from symptomatic patients for influenza and COVID-19 using a multiplex assay. The graph shows the results from all tests for the respiratory viruses listed above and performed at SLPH on specimens from symptomatic patients. Tracking test results for patients at SLPH can help us to understand the distribution of COVID-19 and influenza as well as potential co-infections. Because testing at SLPH focuses on prioritized populations at increased risk for COVID-19 and all results in the graph came from specimens collected from symptomatic patients, the percentage of positive tests for COVID-19 is likely to be higher than the state average.

# Who are the non-hospital participants in North Carolina's Influenza sentinel surveillance program reporting data and/or samples?

Local Health Departments	Other Practices	Colleges and Universities Student Health Programs
Alamance County Health Department	Wake County Human Services Children's Clinic	NCSU Student Health Services
Henderson County Department of Public Health	Duke Primary Care Butner-Creedmoor	NC A&T State University Student Health Center
Franklin County Health Department	CommWell Health of Tar heel	Wake Forest University
Pender County Health Department	SAS Institute Health Care Center	ASU Health Services
Stokes Family Health Center	Roanoke Chowan/Ahoskie Comprehensive Care	UNC-Charlotte Student Health Center
Craven County Health Department	Albemarle Community Care Clinic	UNC Chapel Hill
Johnston County Health Department	Blue Ridge Community Health Services	ECU Student Health Services
Cabarrus Health Alliance	Creswell Primary Care	Davidson College Student Health Center
Wilkes County Health Department		UNC-Greensboro Student Health Services
Rockingham County Division of Public Health		UNC-Pembroke Student Health Services
Stanly County Health Department		WSSU Student Health Service
Montgomery County Health Department		
Pitt County Public Health Center		
Union County Health Department		
Surry County Health and Nutrition Center		
Duplin County Health Department		
Rowan County Health Department		
Carteret County Health Department		

