



**COVID-19 Surveillance: September 6 – September 12, 2020  
Updated September 17, 2020**

**Key findings for the week ending September 12, 2020**

- During the week ending September 12, 2020, emergency department visits for COVID-like illness decreased in all areas of the state.
- The percent of people seen in the emergency department for COVID-like illness who had to stay in the hospital increased.
- Emergency department visits for fever/respiratory illness (COVID-like illness) are higher than normal for this time of year.
- The total number of people admitted to hospitals in the Public Health Epidemiologist network for COVID-19 went down, and the percentage admitted to the ICU went up.
- Seven new cases of MIS-C meeting the CDC case definition were reported this week

**Introduction**

The North Carolina Department of Health and Human Services (NCDHHS) is using all available tools to monitor the spread of COVID-19 across the state. In addition to tracking and reporting of laboratory-confirmed cases, NCDHHS is using many of the same systems that are used to track influenza and other respiratory illnesses each season. Mild COVID-19 illness presents with symptoms similar to influenza-like illness, so surveillance systems that have historically been used to monitor influenza-like illnesses are being used to track trends of mild COVID-19 illness and allow for comparison with prior influenza seasons.

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. As additional data sources become available, that information will be shared weekly.

**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.

For monitoring COVID-19, NC DETECT epidemiologists are using a syndrome called the COVID-like Illness (CLI) Syndrome. CLI Syndrome looks for ED visits with COVID-19 diagnosis codes or mention

of COVID signs and symptoms (fever/chills and cough or shortness of breath) in the ED chief complaint or triage notes. Keywords related to the symptoms of loss of taste and smell and COVID-19 associated diagnosis codes were added to the CLI syndrome on May 14 and June 18 respectively. Two additional new COVID-19 diagnosis codes were added to CLI definition on August 15. Each update has been applied backwards so that all NC DETECT data in this report use the updated definition. These changes represent 2-4% of total CLI visits; there may be minor differences between the published reports before and after the dates of each change. Region is determined by the patient's county of residence. Please note that CLI syndrome **does NOT** indicate confirmed cases of COVID-19.

Changes in health care seeking behavior impact trends in CLI syndrome and other ED data, making it difficult to draw conclusions. Tracking these systems moving forward will give additional insight into illness related to COVID-19.

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**

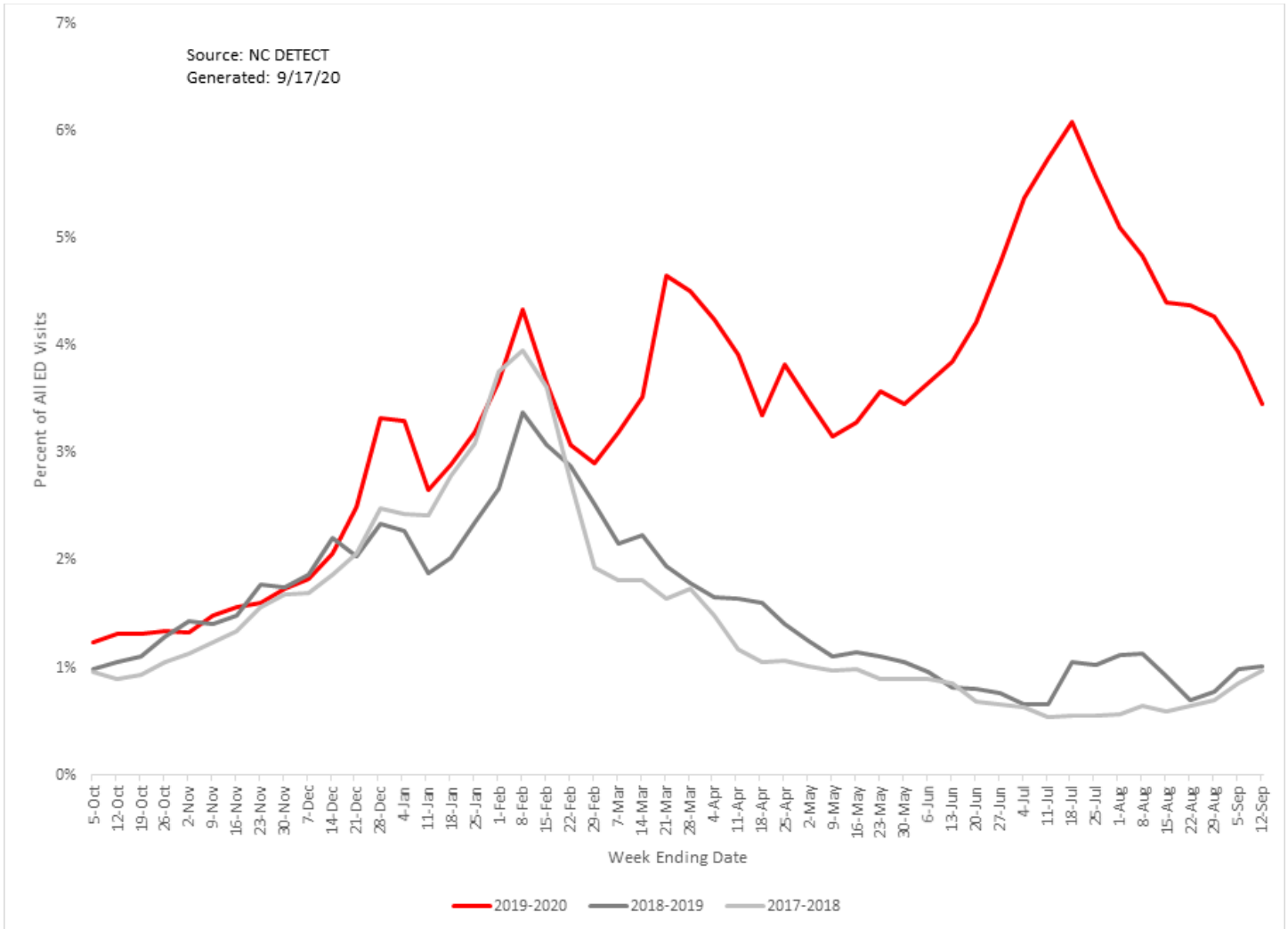
In 2003, NCDPH created a hospital-based Public Health Epidemiologist (PHE) program to strengthen coordination and communication between hospitals, health departments and the state. The PHE program covers approximately 38 percent of general/acute care beds and 40 percent of ED visits in the state. PHEs play a critical role in assuring routine and urgent communicable disease control, hospital reporting of communicable diseases, outbreak management and case finding during community wide outbreaks.

### **Influenza-like Illness Network**

The U.S. Outpatient Influenza-like Illness Surveillance Network ([ILINet](#)), 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 sample 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 in both symptomatic and asymptomatic patients. Providers are asked to submit up to 10 samples from symptomatic patients and 10 samples from asymptomatic patients each week. For ILINet surveillance purposes symptomatic is defined as fever (>100F) and cough or sore throat. More information about ILINet can be found at [flu.nc.gov](http://flu.nc.gov).

Data from NC DETECT, PHEs and ILINet are presented below.

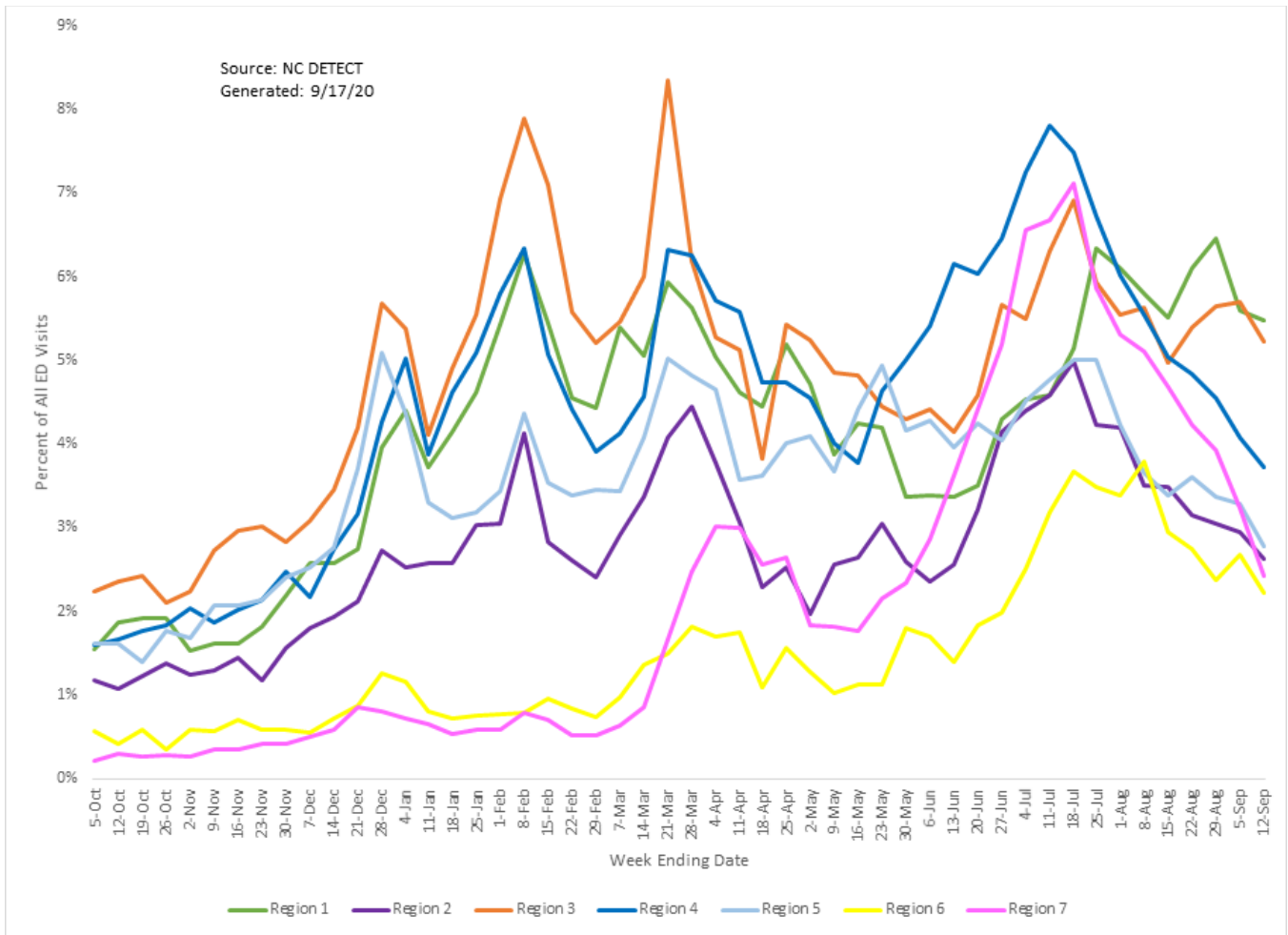
## What percent of ED visits this season are for COVID-like illness compared to previous seasons?



The above graph shows how the percentage of ED visits for COVID-like illness this season compares to previous seasons. Note that the **first two peaks** correspond to the influenza peaks for the 2019-2020 season. This is because COVID-19 and influenza can both cause fever and respiratory illness, so COVID-like illness syndrome and influenza-like illness syndrome detect many of the same ED visits.

The percentage of ED visits for COVID-like illness **DECREASED** the week ending September 12, 2020.

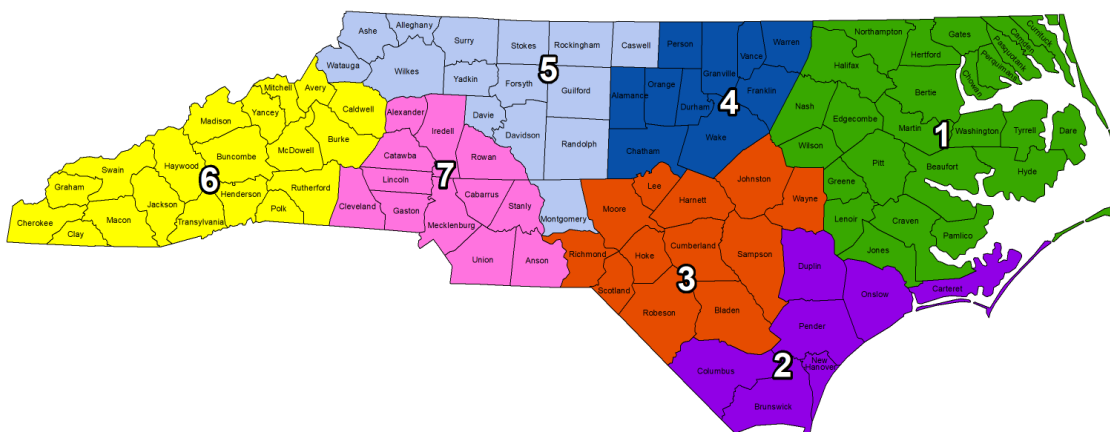
## How does the percentage of ED visits for COVID-like illness compare between regions of the state?



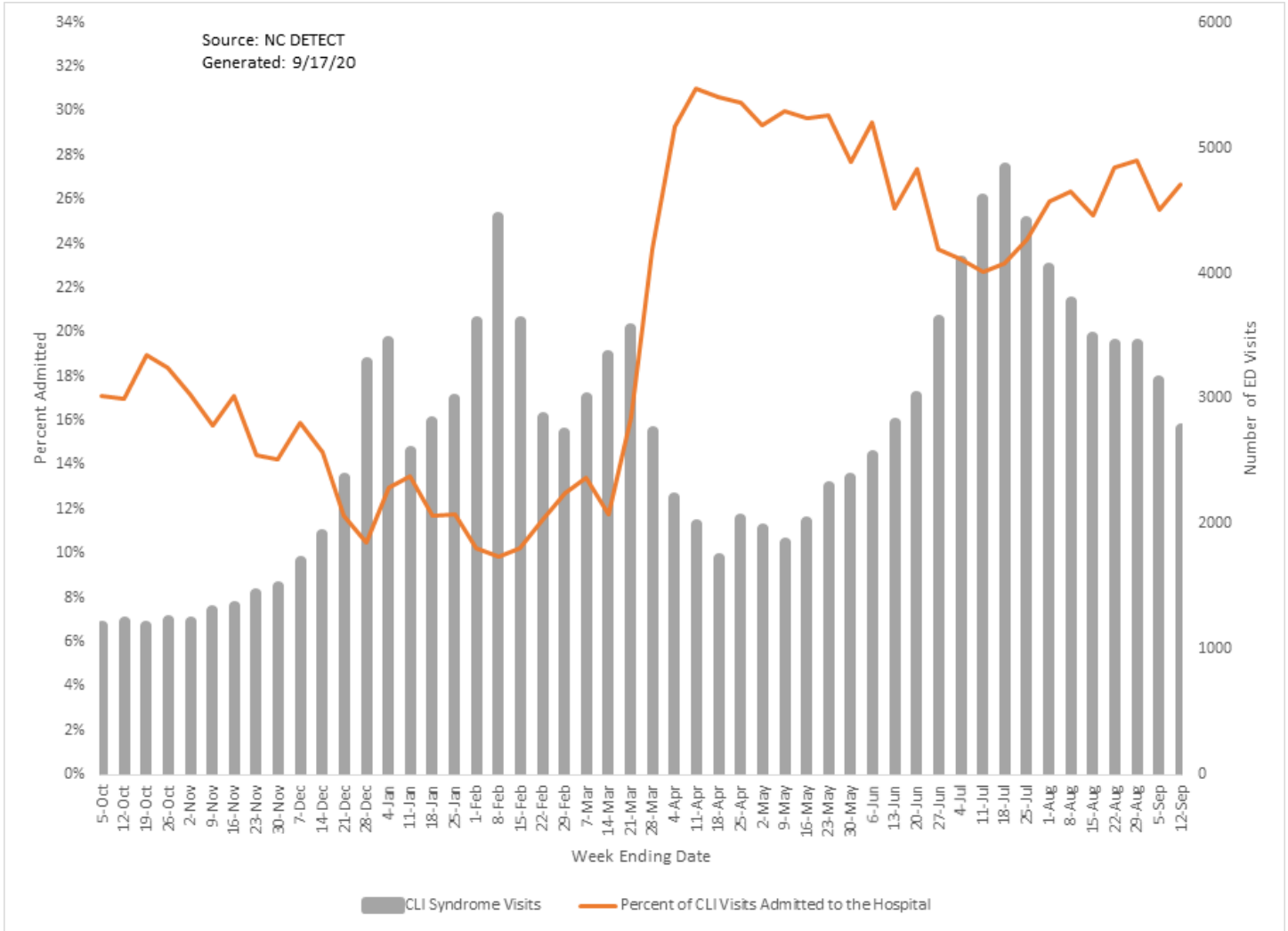
Diseases, including COVID-19, do not spread across the state evenly. The above graph shows the differences between regions in the percentage of ED visits for COVID-like illness. The colors of the lines correspond to the colors on the region map below.

**All regions showed a DECREASE** in the percent of ED visits for COVID-like illness the week ending September 12, 2020. **No regions showed an INCREASE** in the percent of ED visits for COVID-like illness the week ending September 12, 2020.

Flu Surveillance Regions

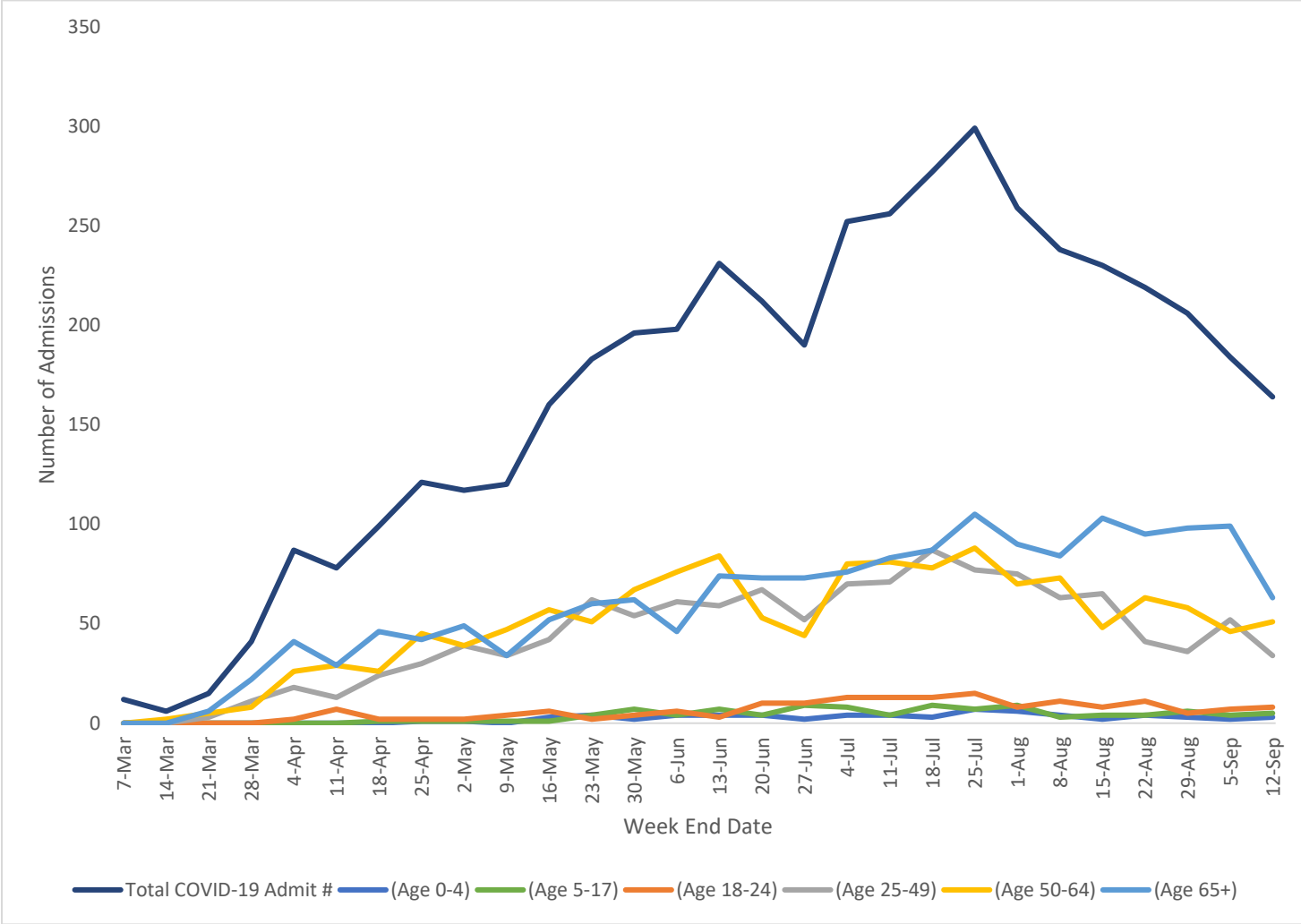


## What percentage of people who go to the ED for COVID-like illness have to stay in the hospital?



The percentage of patients seen in the ED for COVID-like illness who were admitted to the hospital **INCREASED** the week ending September 12, 2020.

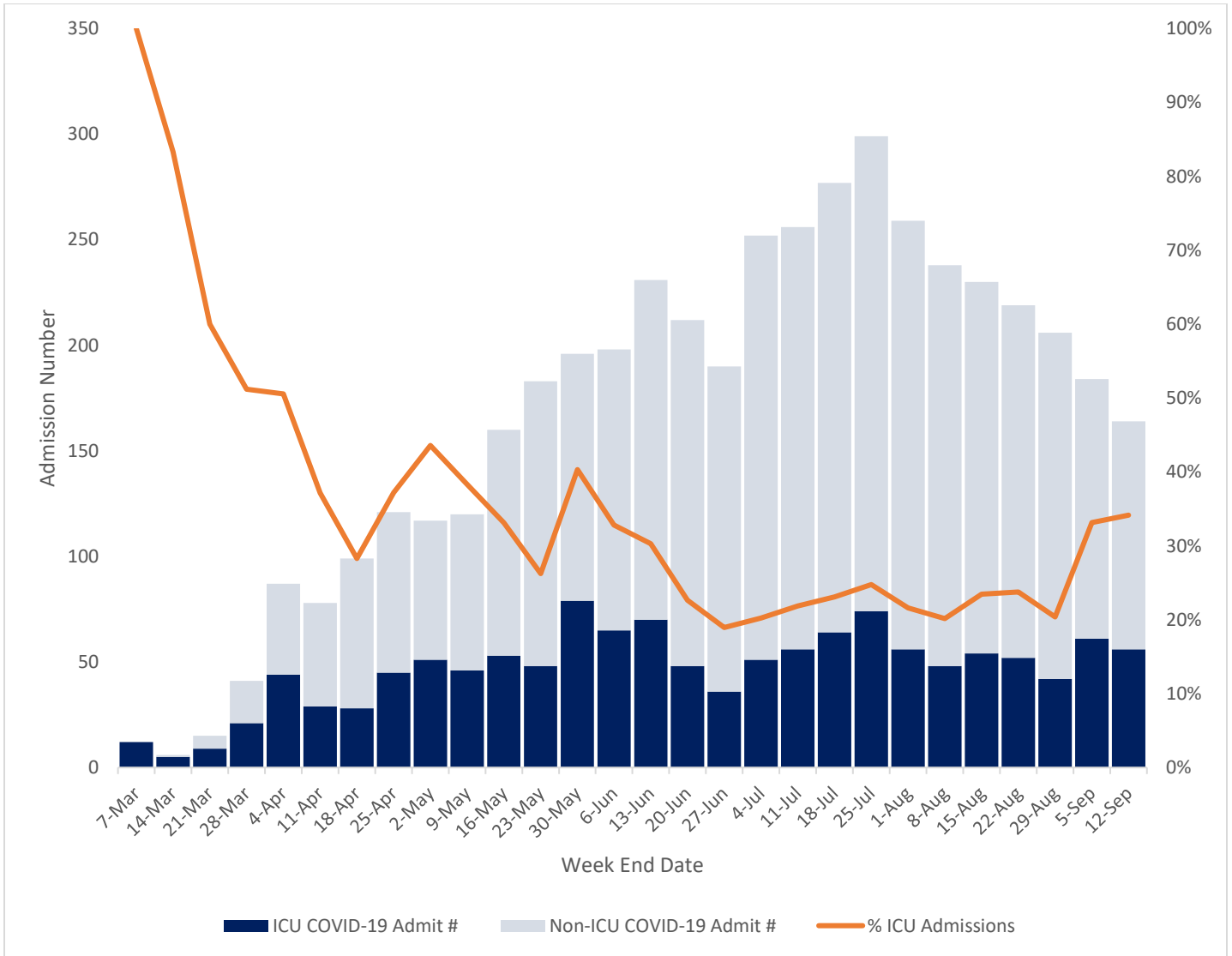
**How many people were admitted to a hospital in the PHE network with COVID-19?  
What age groups were admitted most often?**



The number of people admitted to hospitals in the PHE network for COVID-19 **DECREASED** the week ending September 12, 2020.

The most hospital admissions were among those **65+ years old** the week ending September 12, 2020.

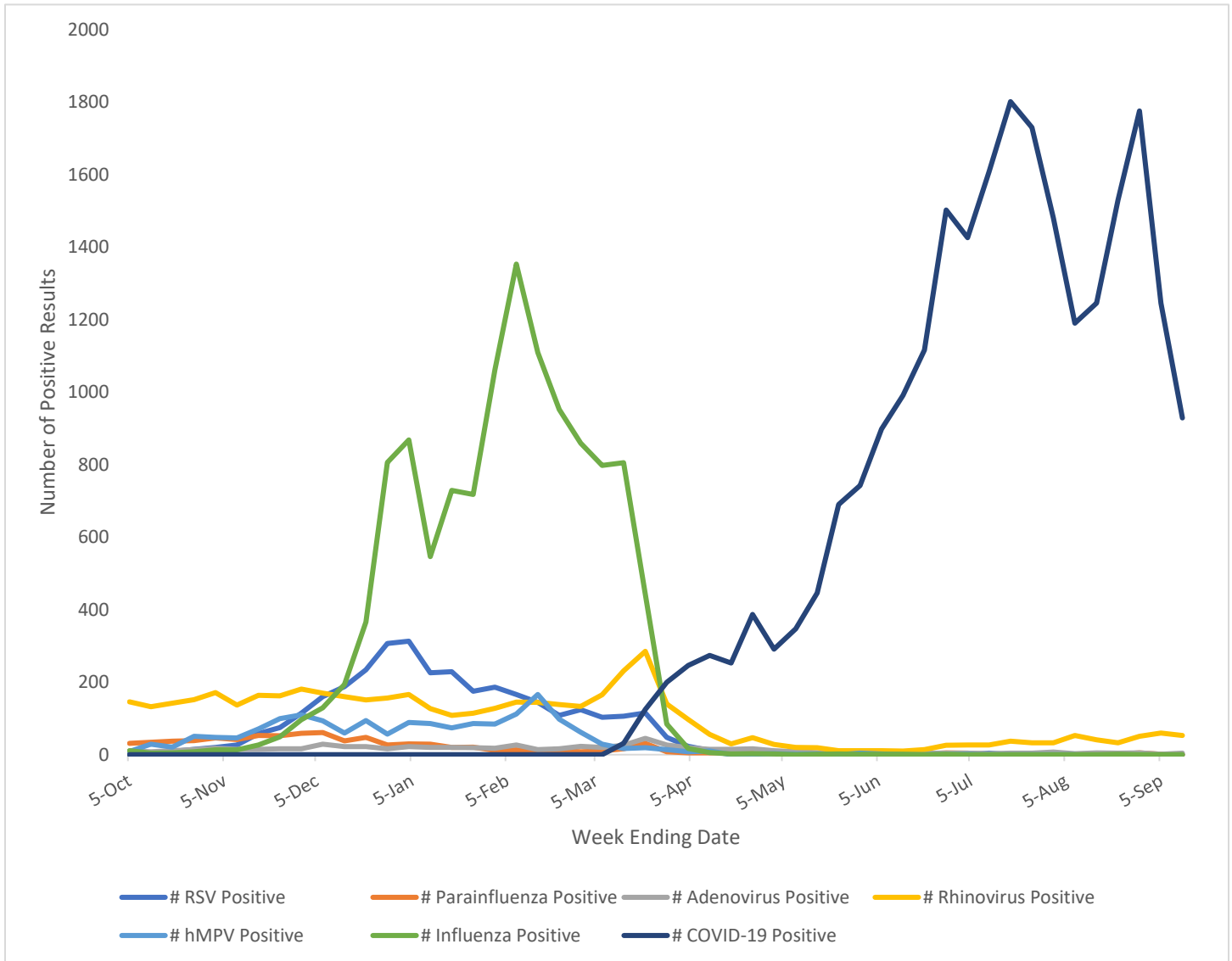
## What level of care did patients admitted to a hospital in the PHE network require?



Patients who are admitted to the ICU versus other parts of the hospital require a higher level of care, may require a ventilator to help them breath, and are more likely to die from their illness.

The percentage of patients requiring ICU level of care **INCREASED** the week ending September 12, 2020.

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

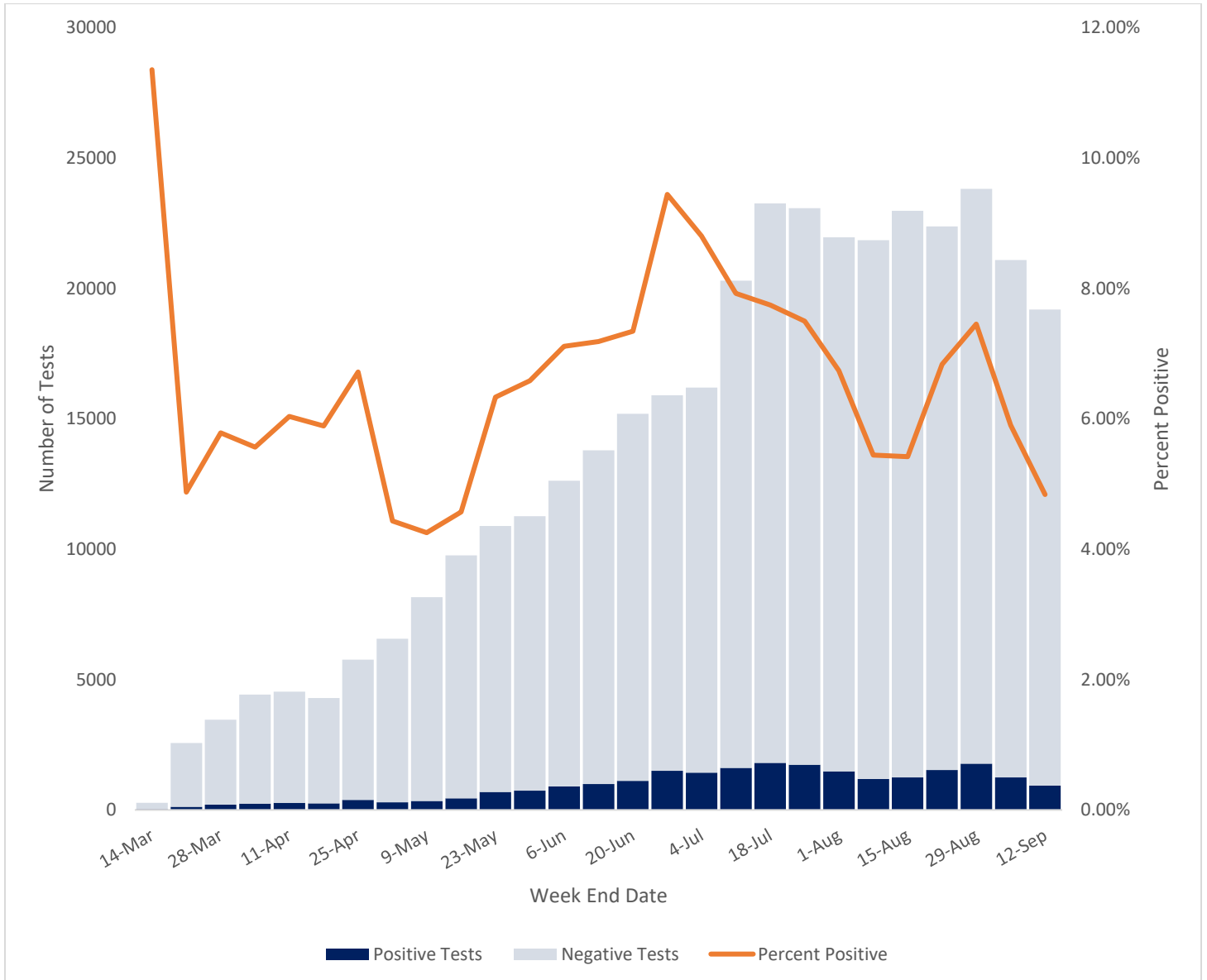


Many viruses can cause respiratory illness. The graph above shows all tests for the listed respiratory viruses done at hospital laboratories in the PHE network. Tracking test results for patients in this network of health systems can help us to understand what other viruses are making people sick. It 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.

The most common respiratory virus seen in PHE facilities was **SARS-CoV-2, the virus that causes COVID-19** the week ending September 12, 2020.



## What percentage of people tested for the virus that causes COVID-19 at PHE facilities are positive?

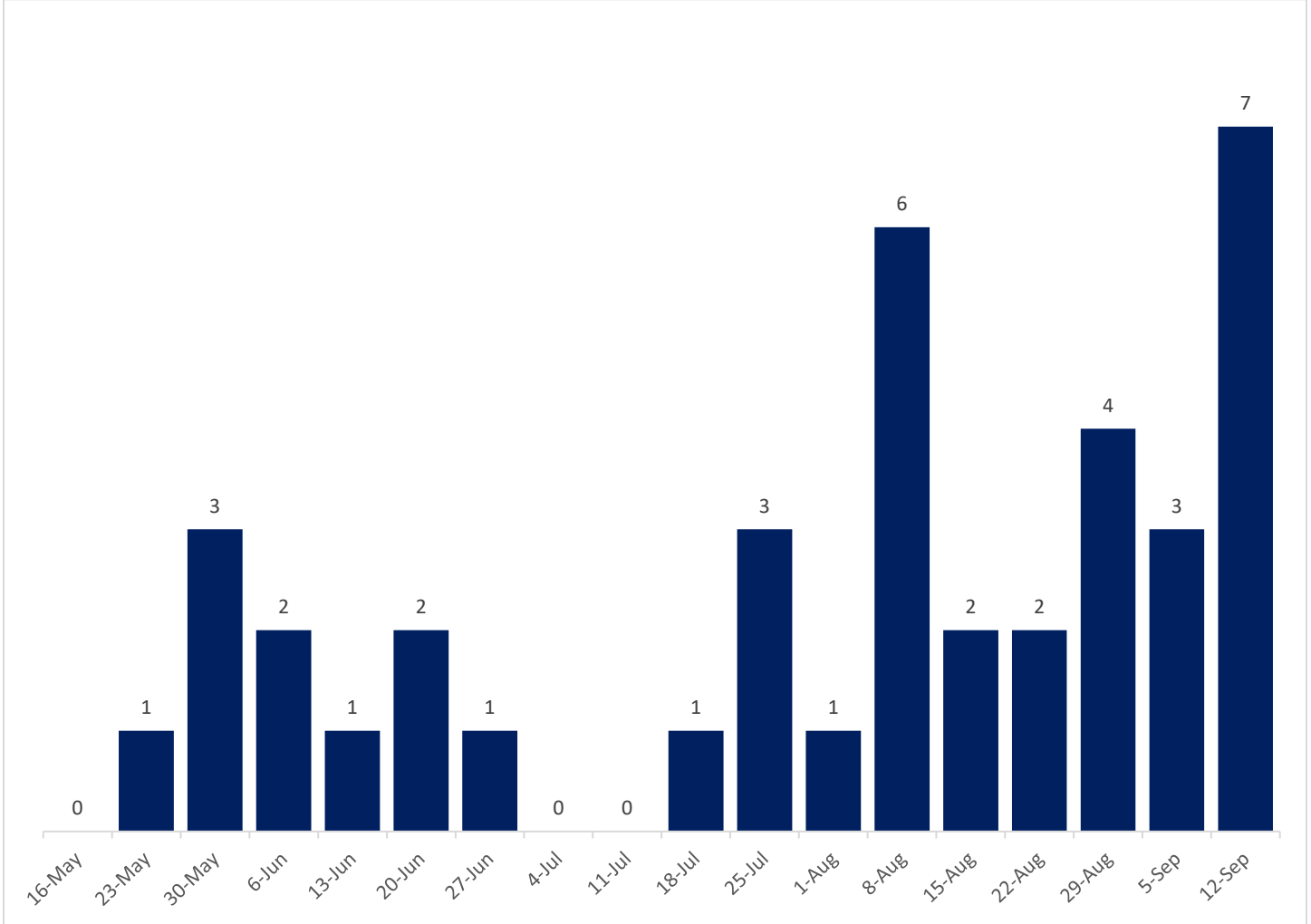


In the week ending September 12, 2020 a total of **19,195** people were tested for the virus that causes COVID-19 at PHE facilities of which **929** were positive. The percentage of people who were tested and were positive helps us to understand how common the virus is in people who have symptoms consistent with COVID-19.

The percentage of people tested who were positive for the virus that causes COVID-19 **DECREASED** the week ending September 12, 2020.

**How many cases meeting the CDC case definition for Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with COVID-19 have been reported in North Carolina?**

Number of New Cases Reported Week Ending September 12, 2020	Total Reported Cases in NC
7	39



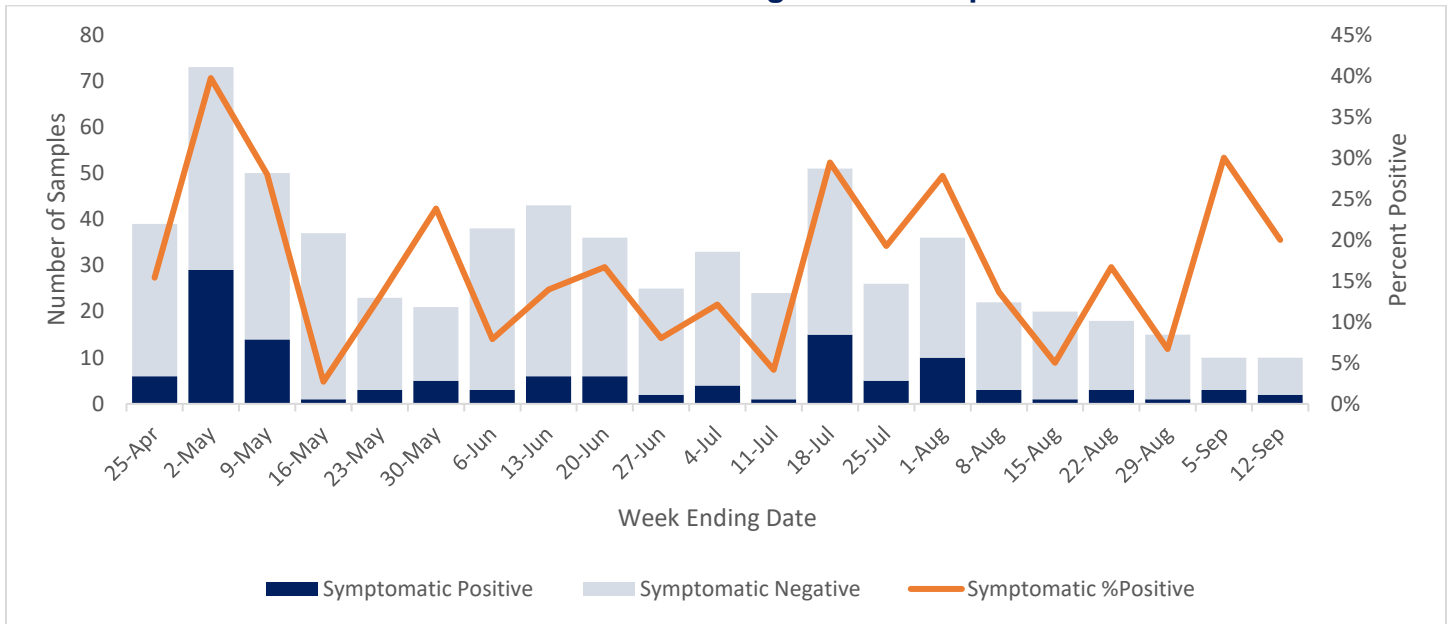
Multisystem inflammatory syndrome in children (MIS-C) is a rare health condition that has been newly identified in a small subset of children with current or recent COVID-19. MIS-C is like other serious inflammatory conditions such as [Kawasaki disease](#) and toxic shock syndrome. Children with MIS-C can have problems with their heart and other organs and need to receive medical attention.

NCDPH is looking for cases of this new syndrome in three different ways:

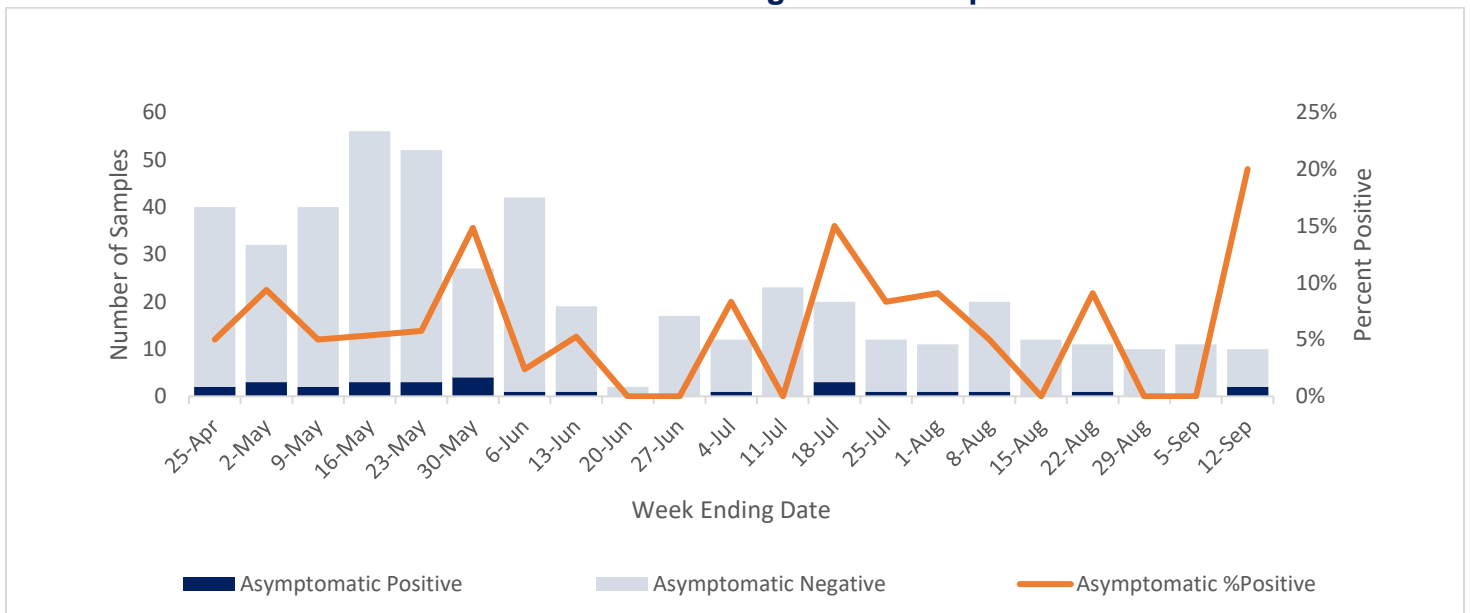
1. Physicians directly report suspect cases to NCDPH
2. PHEs report suspect cases to NCDPH
3. NC DETECT does surveillance for children with compatible symptoms

The graph above shows the number of cases that met the [CDC case definition](#) for MIS-C by the week they were first reported to NCDPH. More information on MIS-C is available from CDC [here](#).

### What percentage of symptomatic people tested for the virus that causes COVID-19 through ILINet are positive?



### What percentage of asymptomatic people tested for the virus that causes COVID-19 through ILINet are positive?



ILINet samples are collected from patients presenting for care in primary care clinics across the state. Because of the low number of samples at this time, these results may show large fluctuations from week to week that are not reflective of true changes in the percent positive.

The percentage of symptomatic people tested who were positive for the virus that causes COVID-19 **DECREASED** the week ending September 12, 2020.

The percentage of asymptomatic people tested who were positive for the virus that causes COVID-19 **INCREASED** the week ending September 12, 2020.