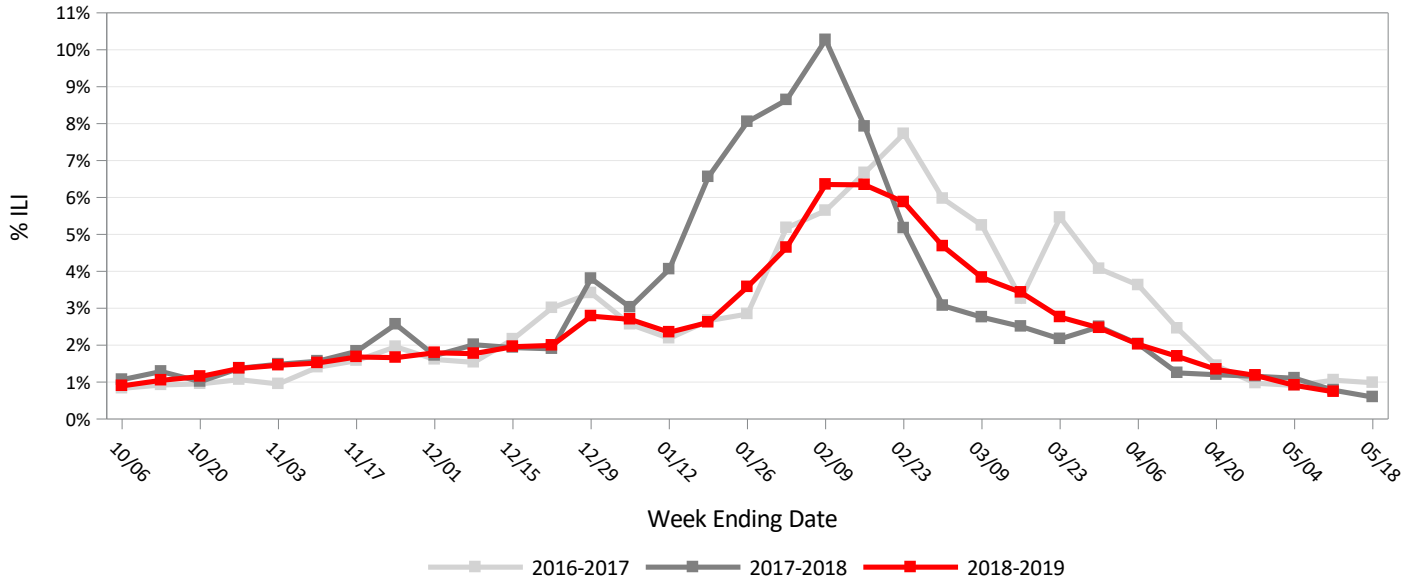
NORTH CAROLINA WEEKLY INFLUENZA SURVEILLANCE SUMMARY

WEEK ENDING MAY 11, 2019 2018-2019 INFLUENZA SEASON

Influenza Surveillance, NC 2016-2019

(Influenza-Like Illness in ILINET)



*For more information about national data visit https://www.cdc.gov/flu/weekly/index.htm.
ILINet has now expanded to include emergency department data that were previously reported separately.

Statewide Updates	Influenza-like illness (ILI) decreased for week ending May 11, 2019. The geographic spread of flu was SPORADIC for this week. Of the 5 specimens submitted to the State Laboratory of Public Health (SLPH) for viral testing this week (ending 5/11/2019) only one was positive for influenza A(H3) virus. Hospital-based Public Health Epidemiologists (PHEs) reported 10 positive influenza virus results out of 727 samples tested during week 19 (ending 5/11/2019); 3 were positive for influenza A(H3), 3 were positive for influenza B, 2 were positive for influenza A(unknown), and 2 were positive for influenza A(H1) virus.
Regional Updates	The proportion of visits due to ILI in Region 4 (Southeastern US) was at 1.42% for week 18 (ending 5/4/2019). The baseline for the region is 2.2%.
National Updates	The proportion of outpatient visits due to ILI nationally was at 1.58% for week 18 (ending 5/4/2019). The national baseline for ILI is 2.2%.
International Updates	Worldwide seasonal influenza subtype A viruses accounted for a majority of detections. For more country specific details please visit: http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/

For more flu information visit https://flu.nc.gov and https://www.cdc.gov/flu.

INFLUENZA-LIKE ILLNESSES

By Reporting Sites, 2018-2019

Week # - Ending	(Sentinels Reporting)	# ILI	# Patients	% ILI
#40 - 10/06/2018	157	974	108,547	0.90
#41 - 10/13/2018	160	1139	108,746	1.05
#42 - 10/20/2018	161	1261	109,669	1.15
#43 - 10/27/2018	161	1425	104,003	1.37
#44 - 11/03/2018	162	1548	106,418	1.45
#45 - 11/10/2018	161	1428	94,176	1.52
#46 - 11/17/2018	162	1389	82,670	1.68
#47 - 11/24/2018	159	1263	75,983	1.66
#48 - 12/01/2018	159	1843	102,756	1.79
#49 - 12/08/2018	158	1793	101,347	1.77
#50 - 12/15/2018	155	1779	90,867	1.96
#51 - 12/22/2018	152	1928	96,749	1.99
#52 - 12/29/2018	155	2573	92,349	2.79
#1 - 01/05/2019	157	2776	102,884	2.70
#2 - 01/12/2019	155	2410	102,604	2.35
#3 - 01/19/2019	159	2698	103,103	2.62
#4 - 01/26/2019	158	3708	103,676	3.58
#5 - 02/02/2019	156	5024	108,229	4.64
#6 - 02/09/2019	157	7738	121,837	6.35
#7 - 02/16/2019	159	7235	114,091	6.34
#8 - 02/23/2019	158	6484	110,373	5.87
#9 - 03/02/2019	158	5017	107,191	4.68
#10 - 03/09/2019	158	3925	102,469	3.83
#11 - 03/16/2019	156	3732	108,878	3.43
#12 - 03/23/2019	158	3045	110,333	2.76
#13 - 03/30/2019	156	2731	110,697	2.47
#14 - 04/06/2019	155	2167	107,181	2.02
#15 - 04/13/2019	155	1866	110,070	1.70
#16 - 04/20/2019	149	1359	101,292	1.34
#17 - 04/27/2019	147	1217	103,099	1.18
#18 - 05/04/2019	145	944	103,589	0.91
#19 - 05/11/2019	140	712	96,692	0.74

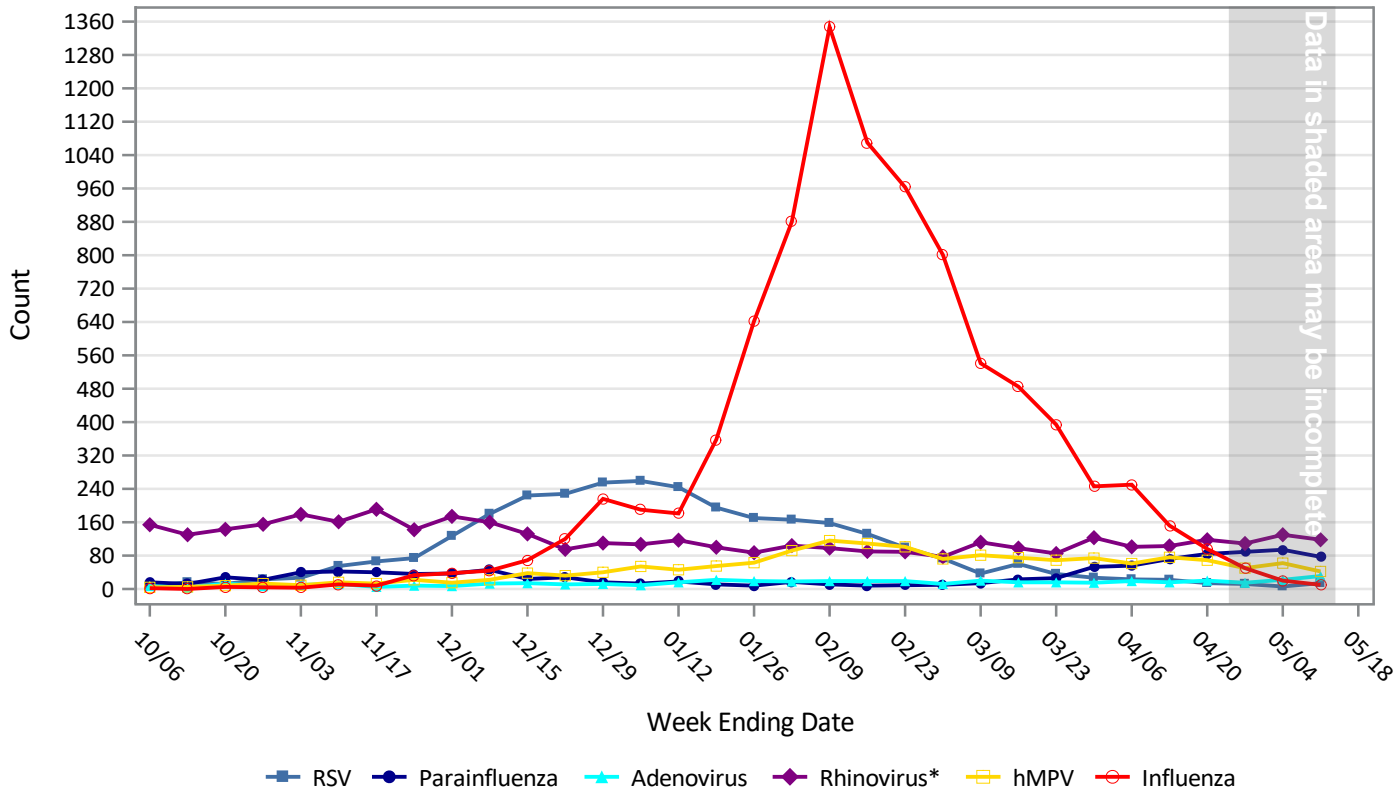
PHE RESPIRATORY VIRAL PATHOGEN SURVEILLANCE

Positive test results for selected respiratory viruses are reported on a weekly basis by Public Health Epidemiologists (PHEs) located in seven of the largest hospital networks across North Carolina. The graph below shows the number of positive tests for respiratory syncytial virus (RSV), parainfluenza, adenovirus, rhinovirus, and human metapneumovirus (hMPV) by week.

These data provide a useful indication of which other respiratory viruses are circulating and possibly contributing to ILI in the state. Please note that the total number of tests performed is not available from all hospital networks, so the overall proportion testing positive cannot be calculated. Also, testing protocols and practices differ among hospitals. Finally, these numbers reflect test results from participating hospitals only and might not be reflective of the entire state.

PHE Surveillance: Positive Respiratory Virus Test Results by Week

(Data source: NC DETECT)



*Most facilities use tests that do not distinguish rhinoviruses from enteroviruses.

- Rhinovirus* was the most frequently identified respiratory viral pathogen during week 19 (ending 05/11/2019) followed by Parainfluenza.

Influenza Virus Isolates Identified by PHE Facilities for 2018–2019 Season*

Virus Type	# New positive results (05/05/2019- 05/11/2019)	# Cumulative positive results (09/30/2018-05/18/2019)
A(H1)	2	804
A/H3	3	1063
A (subtype unknown)	2	7191
B	3	176
Total	**10**	**9234**

*2018-2019 influenza season began September 30, 2018.
NOTE: This table includes isolates tested as of 09/30/2018.

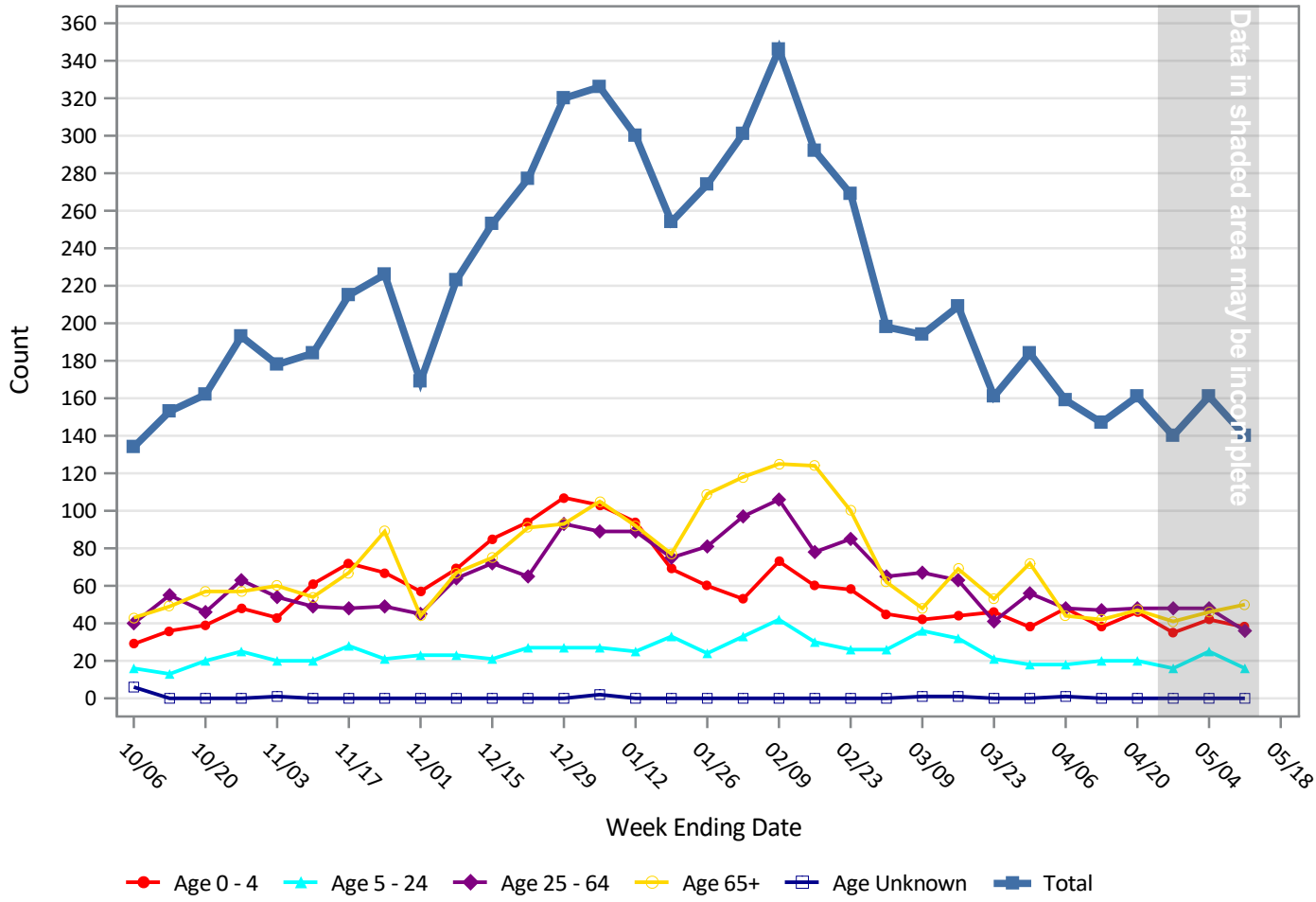
PHE ACUTE RESPIRATORY ADMISSIONS SURVEILLANCE

The number of patients admitted to the hospital with fever plus respiratory symptoms in the absence of a known cause other than influenza is reported on a weekly basis by Public Health Epidemiologists (PHEs) located in seven of the largest hospital networks across North Carolina. The graph below shows the number of acute respiratory illness admissions to participating hospitals by age group.

In conjunction with other surveillance information, these data help us monitor for changes in severity of respiratory illness during periods when influenza is circulating. Please note that these reports are not limited to patients with laboratory-confirmed influenza infection. Also, these numbers reflect admissions to participating hospitals only and are not be reflective of the entire state.

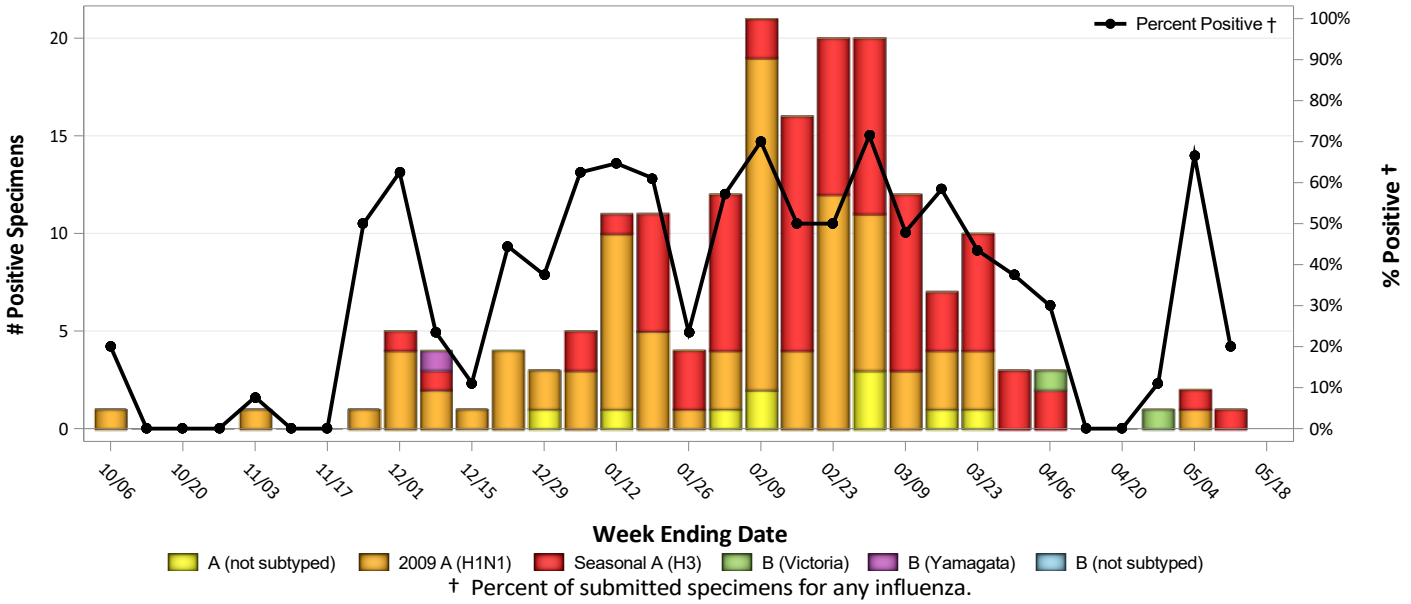
PHE Surveillance: Hospital Admissions for Acute Respiratory Illness by Week

Data source: NC DETECT



- Acute respiratory admissions decreased during week 19 (ending 05/11/2019).
- The highest number of acute respiratory admissions during week 19 was for patients Age 65+ followed by Age 0 - 4.

Influenza Positive Tests Reported by the NC State Laboratory of Public Health (SLPH)



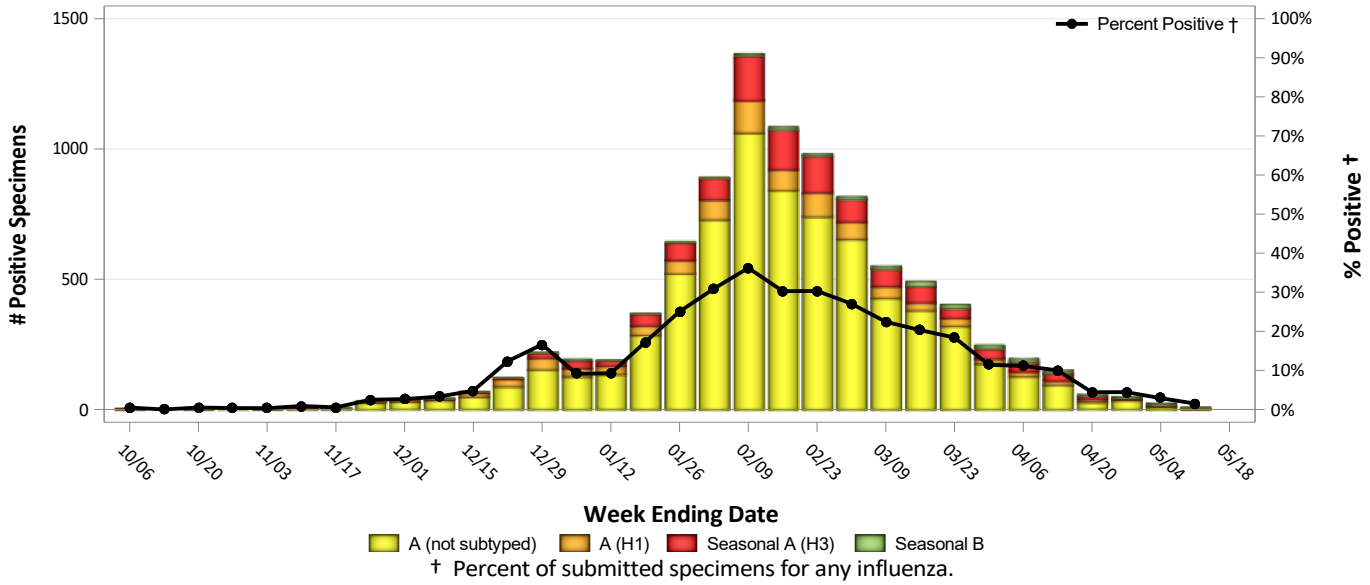
† Percent of submitted specimens for any influenza.

Influenza Virus Isolates From In-State Patients Identified by the State Laboratory Of Public Health 2018–2019 Season*

Virus Type	# New Positive Results (05/05/19- 05/11/19)	# Cumulative Positive Results (09/30/18 - 05/18/19)
A (unknown)	0	10
2009 A(H1N1)	0	88
A(H3)	1	78
B (unknown)	0	0
B (Victoria)	0	2
B (Yamagata)	0	1
Total	**1**	**179**

*2018-2019 influenza season began September 30, 2018. NOTE: This table includes isolates tested as of 09/30/2018. This table does not include influenza isolates identified by other laboratories.

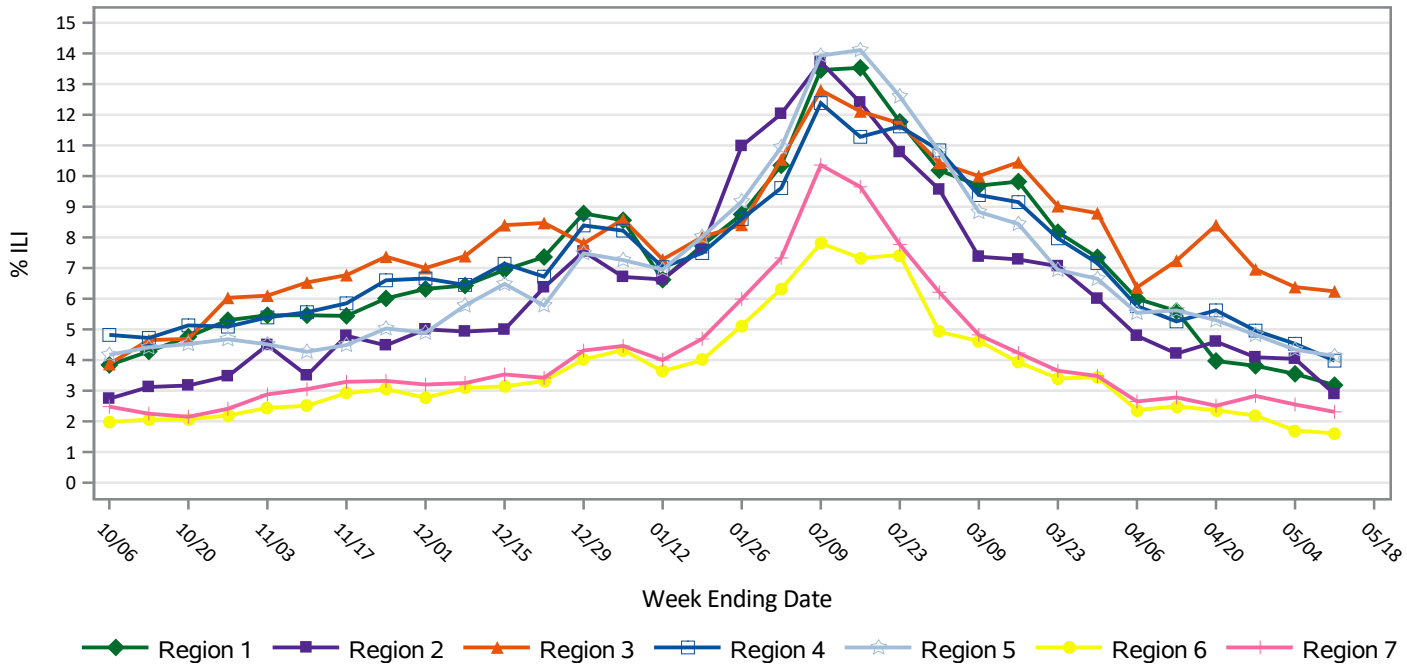
Influenza Positive Tests Reported by the NC State Laboratory of Public Health (SLPH) and PHE Facilities



† Percent of submitted specimens for any influenza.

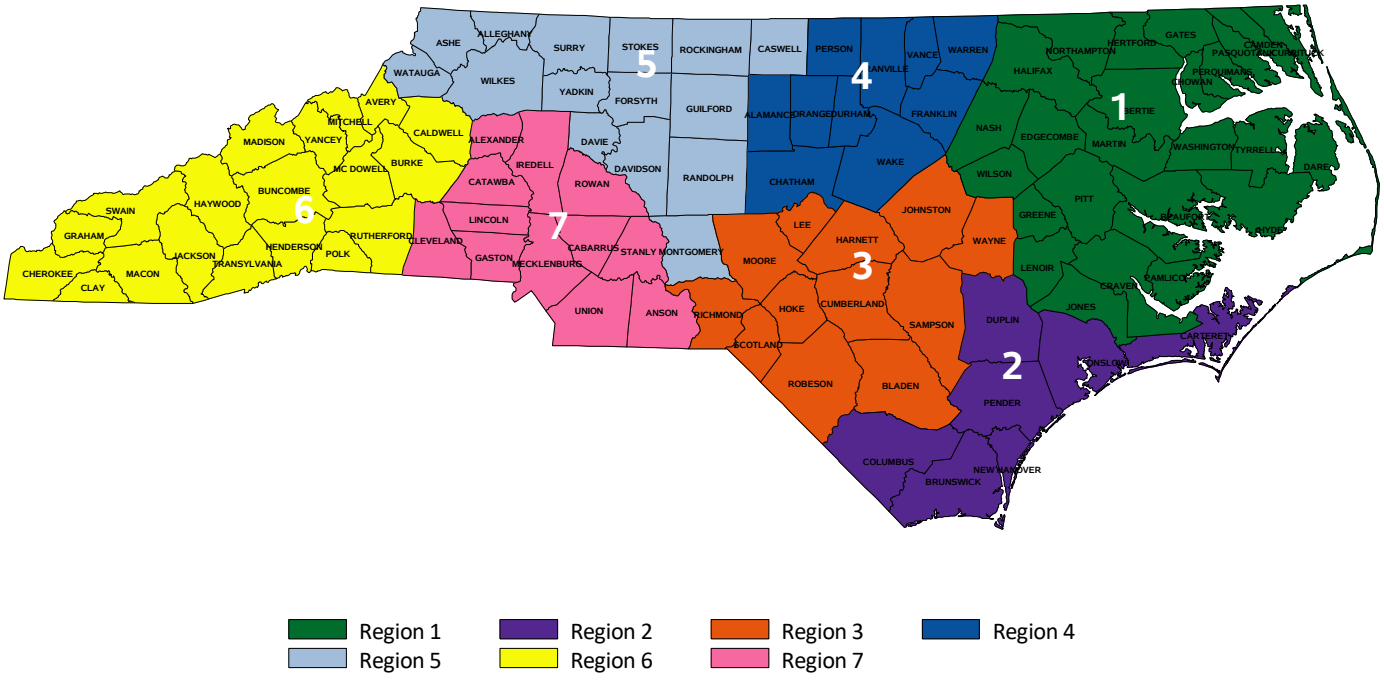
Percentage of Total Visits by Week

NC DETECT ED Influenza-Like Illness (ILI), 2018-2019



*This graph begins with data starting week ending October 6, 2018 for the 2018-2019 influenza season.

Flu Surveillance Regions



NC INFLUENZA-ASSOCIATED DEATHS

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.

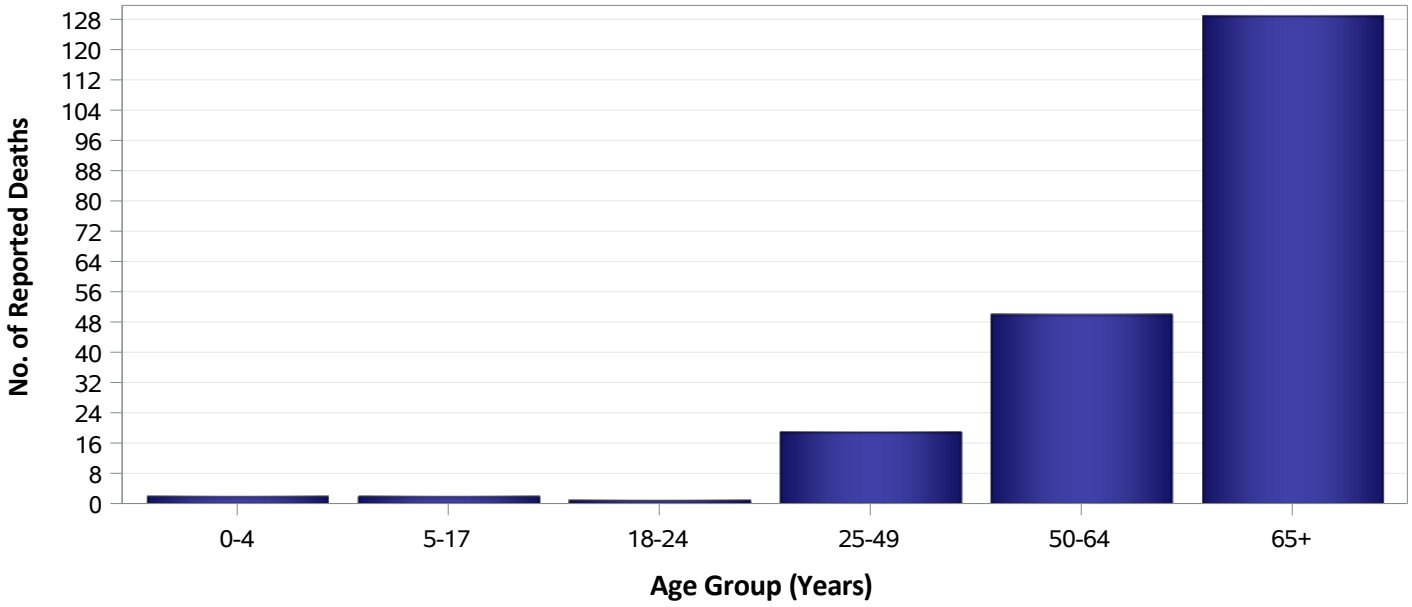
NC Influenza-Associated Deaths*

Influenza-Associated Deaths This Week (05/05/2019 – 05/11/2019)	Total Influenza-Associated Deaths This Season (starting 09/30/2018)
0	203

*These numbers are based on reports submitted by providers to the NC Division of Public Health. Data are preliminary and subject to change as updated information becomes available. Deaths that occurred on or after 09/30/2018 will be reflected in this report for the 2018-2019 season.

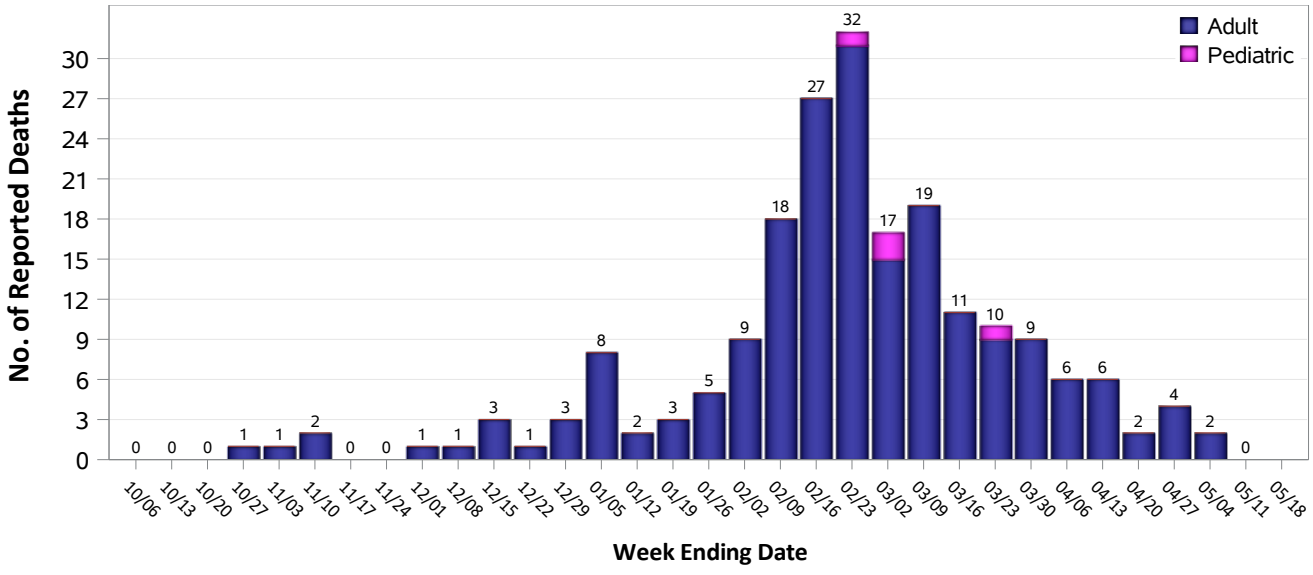
Laboratory Confirmed Influenza-Associated Deaths

*Reported in North Carolina by Age Group**



Laboratory Confirmed Influenza-Associated Deaths

*Reported in North Carolina by Week of Death**



Non-Hospital Participants In North Carolina's Influenza Sentinel Surveillance Program Report Data To CDC

LOCAL HEALTH DEPARTMENT/DISTRICT OFFICES - 21

Alamance County Health Department
Cabarrus Health Alliance
Caldwell County Health Department
Craven County Health Department
Duplin County Health Department
Franklin County Health Department
Henderson County Health Department
Johnston County Health Department
Lee Primary Care
Montgomery County Health Department
Northampton County Health Department
Pender County Health Department
Pitt County Public Health Center
Richmond County Health Department
Rockingham County Health Department
Stanly County Health Department
Stokes Family Health Center
Surry County Health and Nutrition Center
Union County Health Department
Wake County Health Department, Children's Clinic
Wilkes County Health Department

PRIVATE PRACTITIONERS - 24

Bakersville Community Medical Center
Blue Cross and Blue Shield of N.C.
Blue Ridge Community Health Services
Butner-Creedmoor Family Medicine
Catawba Family Care
Coastal Childrens Clinic
Colerain Primary Care
Creswell Primary Care
Dilworth Pediatrics
ECU Brody School of Medicine – Department of Pediatrics
Family Care Center
Haywood Pediatric and Adolescent Medicine Group, PA
Hot Springs Health Program
MEDAC Health Services at Shipyard Blvd.
MEDAC Health Services at Porter's Neck
MEDAC Health Services at Military Cutoff
Minute Clinic - Cary
Murfreesboro Primary Care
Oxford Family Physicians
PrimeCare
PrimeCare of Northpoint
Roanoke Chowan Community Health Center
SAS Institute Health Care Center
Sisters of Mercy Urgent Care, South

COLLEGES AND UNIVERSITIES STUDENT HEALTH PROGRAMS - 15

Appalachian State University Student Health Services
Davidson College Student Health Center
ECU Student Health Services
Elizabeth City State University Student Health Services
Elon University R. N. Ellington Health and Counseling Center
Fayetteville State University
Meredith College Student Health Center
NC Agricultural &Technical State University Student Health Services
NC State University Student Health Services
UNC-Chapel Hill Student Health Services
UNC-Charlotte Student Health Services
UNC-Greensboro Student Health Services
UNC-Pembroke Student Health Services
Wake Forest University Student Health Services
Winston-Salem State University

ILI Network Provider Locations, NC 2018-2019