

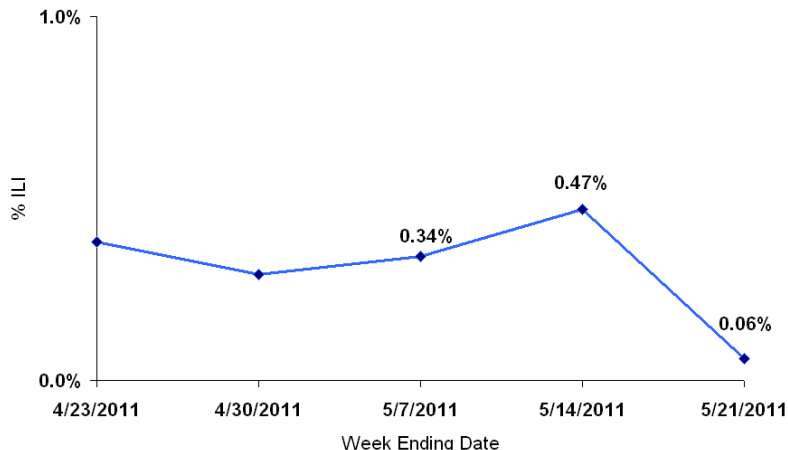
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**NORTH CAROLINA WEEKLY INFLUENZA SURVEILLANCE SUMMARY #33**  
**2010–11 INFLUENZA SEASON**  
**WEEK 20: ENDING MAY 21, 2011**

**Statewide Updates**

- Geographic spread of influenza in the state was NO ACTIVITY.
- ILI activity reported from outpatient facilities and ED visits remained low (graph on page 6).
- No flu flu-associated deaths occurred during week 20.
- No positive specimens were identified by the State Laboratory of Public Health (SLPH) for the seventh consecutive week. Four specimens were submitted during week 20.
- Hospital-based Public Health Epidemiologists (PHEs) reported no positive influenza results for week ending 5/21/11.

Percentage of Visits with Influenza-like Illness (ILI) per Week:  
North Carolina ILINetwork Providers



**Regional Updates**

- The overall percentage of visits due to ILI reported through ILINet for Region 4 (Southeastern US) remained approximately the same (1.1% to 1.2%). The current percentage of ILI seen in Region 4 is below the baseline of 2.3%.
- The unadjusted proportion of outpatient visits due to ILI was below baseline for all ten regions in the US.

**National Updates**

- During the week ending 5/14/11, the proportion of outpatient visits attributed to ILI slightly decreased from 1.2 to 0.9%. Baseline is 2.5%. The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold.

**International Updates**

**From CDC International Seasonal Flu Update – Week 19 (ending May 14, 2011):** According to WHO, the influenza season is almost over in the temperate climate countries of the Northern Hemisphere. In Week 19, influenza activity was low in Europe, Asia, the Middle East, North Africa, South Africa, and the tropical regions.

**Flu Information and Guidance**

North Carolina  
[www.flu.nc.gov](http://www.flu.nc.gov)

CDC  
<http://www.cdc.gov/flu>

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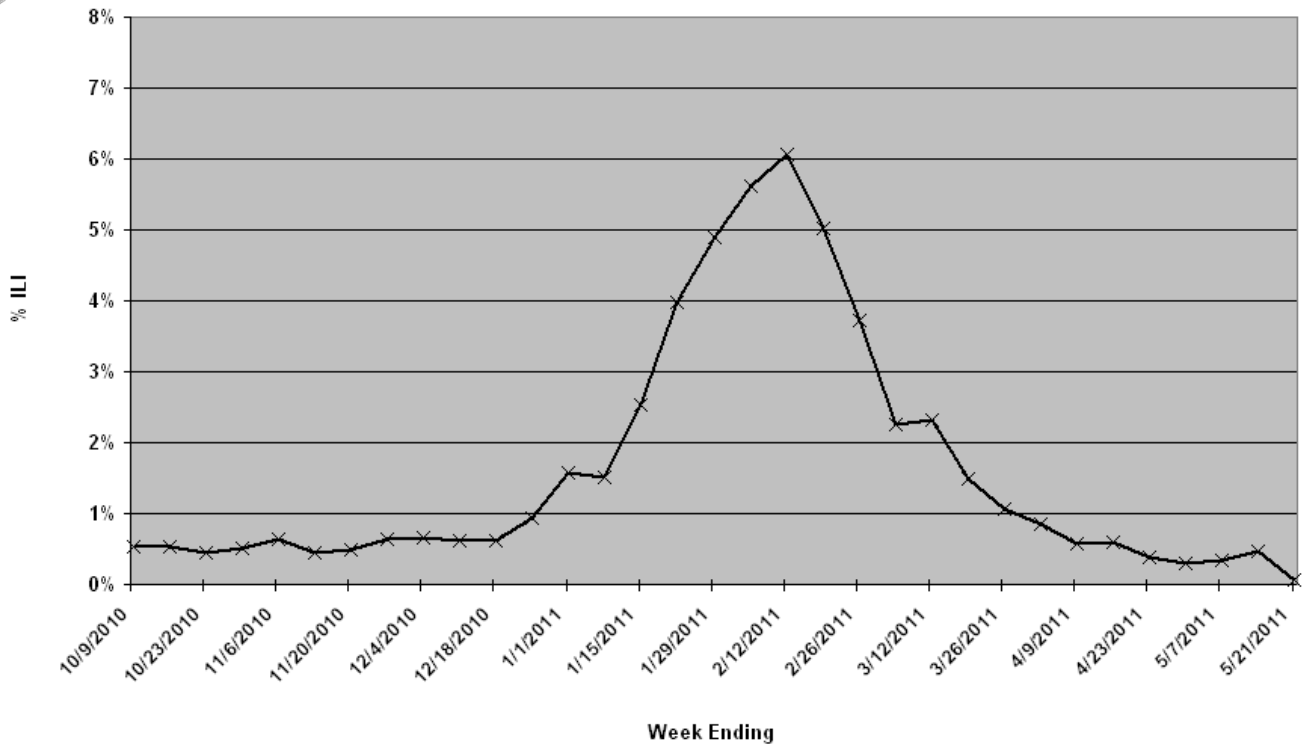
INFLUENZA-LIKE ILLNESSES REPORTED BY SENTINEL SITES, 2010-11

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<u>Week # - Ending</u>	<u>(Sentinels Reporting)</u>	<u># ILI</u>	<u># Patients</u>	<u>% ILI</u>
<b>#40 - 10/09/10 [2010-2011]</b>	(74)	134	25,215	0.53%
#41 - 10/16/10	(77)	141	26,280	0.53%
#42 - 10/23/10	(71)	116	25,377	0.45%
#43 - 10/30/10	(74)	136	26,606	0.51%
#44 - 11/06/10	(70)	169	26,003	0.64%
#45 - 11/13/10	(73)	118	25,726	0.45%
#46 - 11/20/10	(75)	122	25,177	0.48%
#47 - 11/27/10	(77)	102	16,140	0.63%
#48 - 12/04/10	(77)	170	25,844	0.65%
#49 - 12/11/10	(75)	132	21,512	0.61%
#50 - 12/18/10	(74)	119	18,927	0.62%
#51 - 12/25/10	(68)	107	11,326	0.94%
#52 - 01/01/11	(73)	158	9,938	1.58%
#1 - 01/08/11	(73)	289	18,931	1.52%
#2 - 01/15/11	(77)	469	18,505	2.53%
#3 - 01/22/11	(77)	910	22,856	3.98%
#4 - 01/29/11	(76)	1260	25,738	4.89%
#5 - 02/05/11	(72)	1370	24,368	5.62%
#6 - 02/12/11	(71)	1406	23,157	6.07%
#7 - 02/19/11	(72)	1305	25,923	5.03%
#8 - 02/26/11	(74)	962	25,728	3.73%
#9 - 03/05/11	(69)	522	23,115	2.25%
#10 - 03/12/11	(61)	381	16,378	2.32%
#11 - 03/19/11	(62)	298	20,055	1.48%
#12 - 03/26/11	(62)	226	21,277	1.06%
#13 - 04/02/11	(57)	175	20,289	0.86%
#14 - 04/09/11	(53)	103	17,941	0.57%
#15 - 04/16/11	(55)	112	18,403	0.60%
#16 - 04/23/11	(50)	57	14,912	0.38%
#17 - 04/30/11	(52)	49	16,810	0.29%
#18 - 05/7/11	(51)	49	14,409	0.34%
#19 - 05/14/11	(44)	50	10,633	0.47%
#20 - 05/21/11	(32)	5	7,968	0.06%

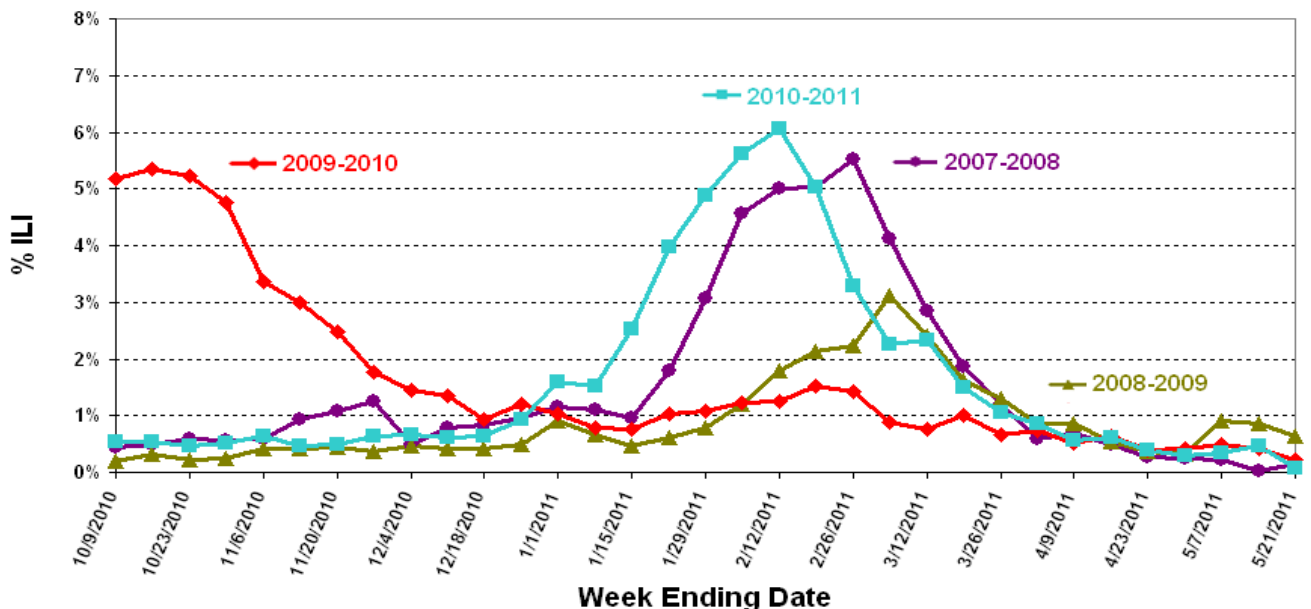
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INFLUENZA SURVEILLANCE NC 2010-2011  
 Influenza-Like Illness (ILI) in Sentinel Site Patients  
 -- As of 26 May, 2011 --



For more information about comparable national data, visit [www.cdc.gov/ncidod/diseases/flu/weekly.htm](http://www.cdc.gov/ncidod/diseases/flu/weekly.htm) and in particular, click on the link "View Chart Data" below "Percentage of Visits for Influenza-like Illness Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet)".

INFLUENZA SURVEILLANCE, NC 2007-2011  
 Influenza-Like Illness in Sentinel Site Patients  
 (Shown for Comparison)

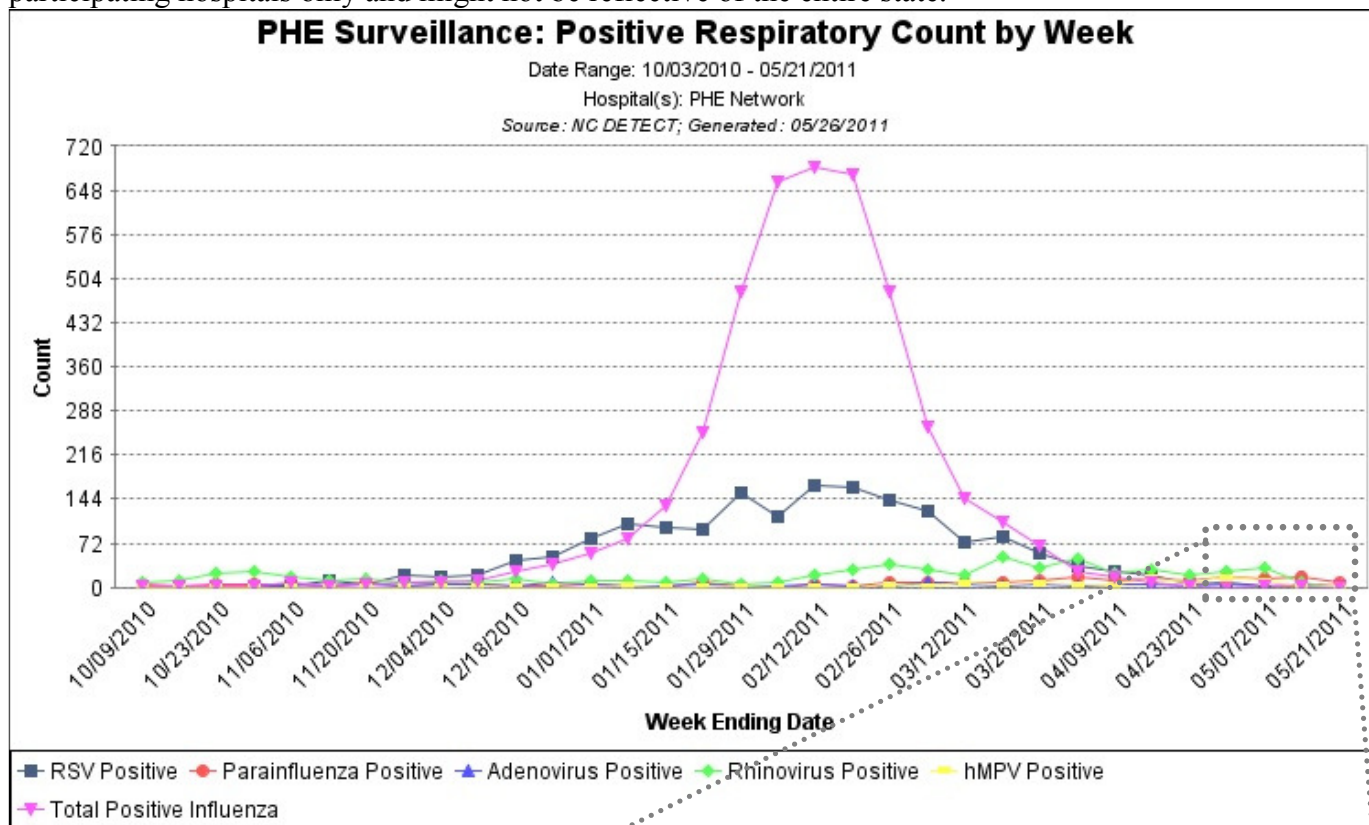


Note: Week ending displayed is for 2010–2011 influenza season. Flu seasons for previous years may have different week ending dates, but these only vary by a few days.

## PHE Respiratory Viral Pathogen Surveillance

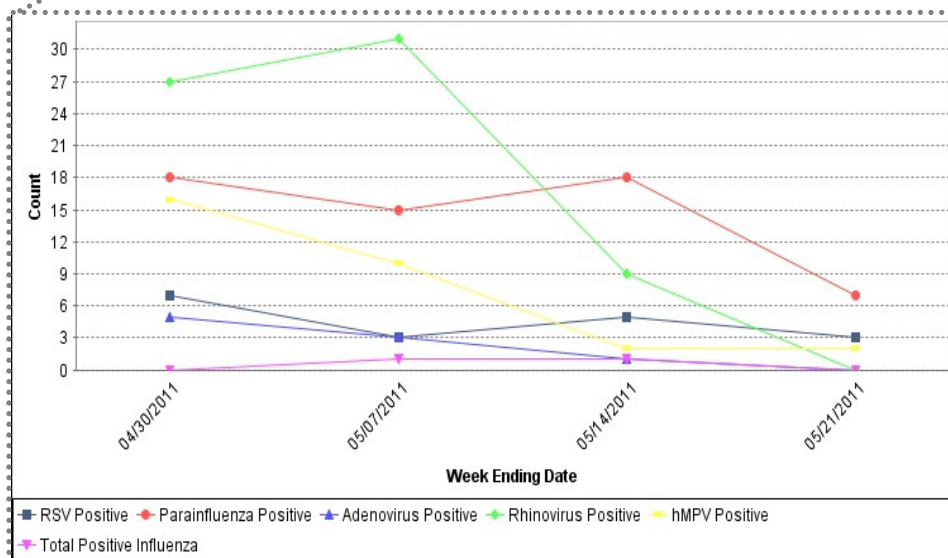
Positive test results for selected respiratory viruses are reported on a weekly basis by Public Health Epidemiologists (PHEs) located in ten of the largest hospital networks across North Carolina. The graph below shows the number of positive tests for respiratory syncytial virus (RSV), parainfluenza, adenovirus, rhinovirus, and human metapneumovirus (hMPV) by week beginning with the week ending 10/10/2009.

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 the hospitals. Finally, these numbers reflect test results from participating hospitals only and might not be reflective of the entire state.



Note: Data from two PHE hospital networks had not been available since the beginning of the 2010–11 influenza season. Data from all PHE hospital networks became available during week ending 2/19/11.

- There were no positive influenza results reported for week ending 5/21/11.
- Parainfluenza was the most frequently identified respiratory viral pathogen for week ending 5/21/11, followed by respiratory syncytial virus (RSV) and human metapneumovirus (hMPV).



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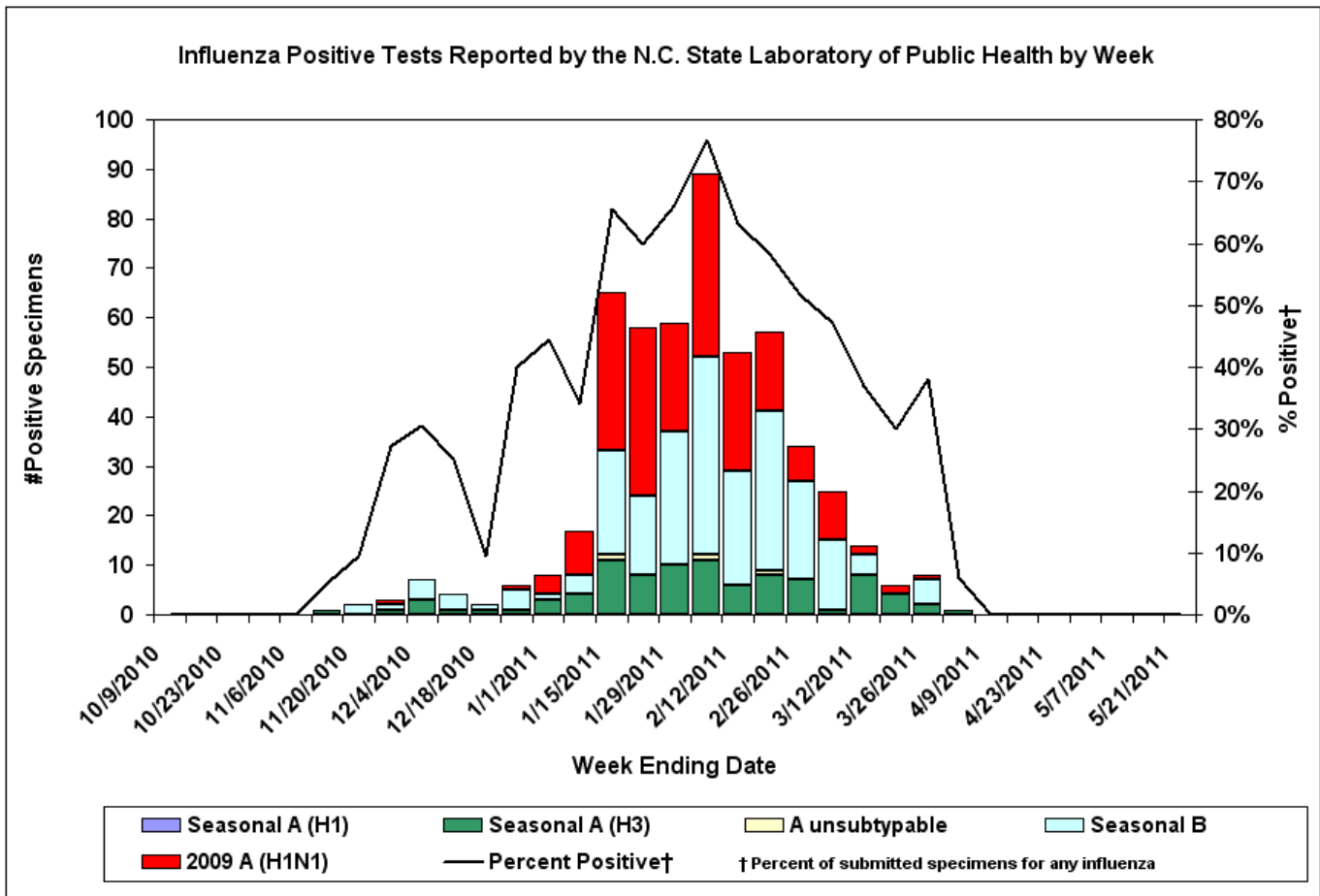
**INFLUENZA VIRUS ISOLATES FROM IN-STATE PATIENTS  
IDENTIFIED BY THE STATE LABORATORY OF PUBLIC HEALTH  
2010–2011 SEASON\***

Virus Type	# New Positive Results (5/15/11–5/21/11)	# Cumulative Positive Results (10/03/10–5/21/11)
A	0	3
A/H1	0	0
2009 A(H1N1)	0	202
A/H3	0	92
B	0	222
<b>Total</b>	<b>0</b>	<b>519</b>

\* 2010-2011 Season began October 3, 2010

**NOTE:** This table only includes isolates tested as of 5/20/11.

This table does not include influenza isolates identified by other laboratories.



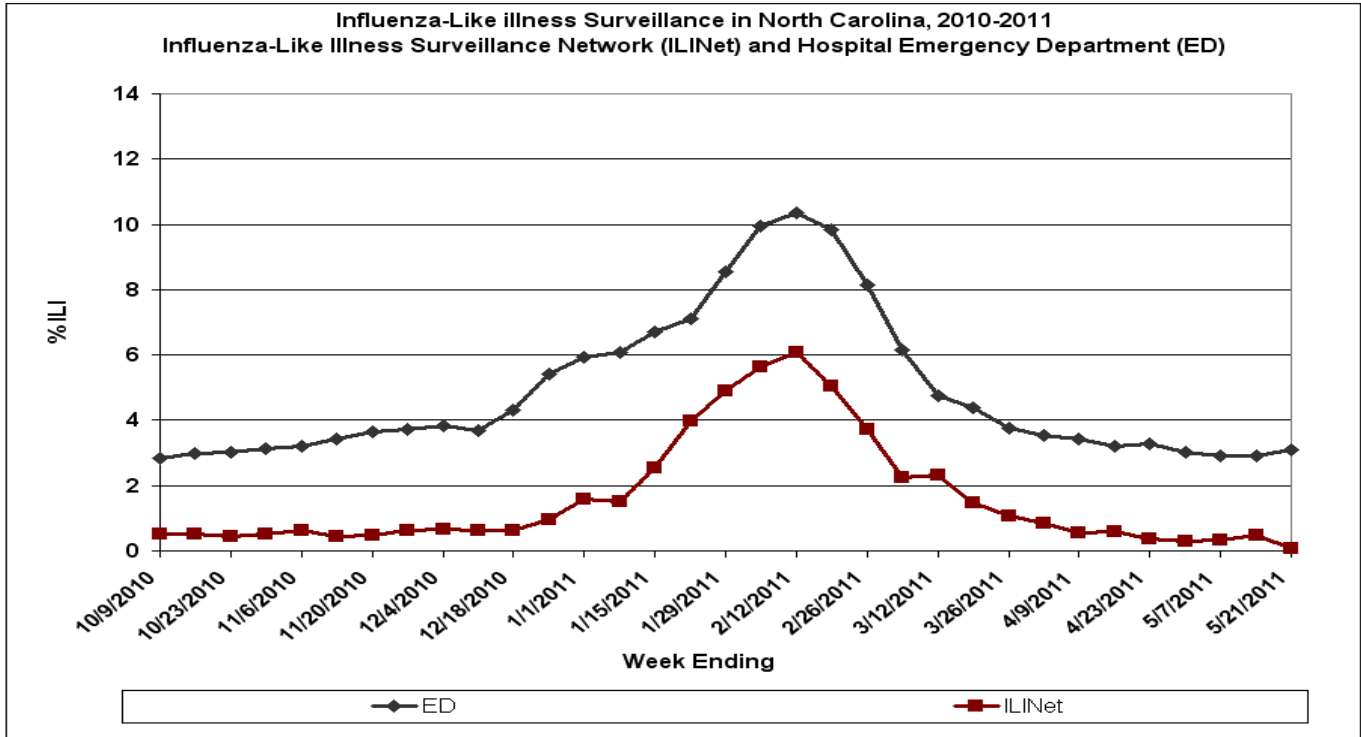
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**North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT)**

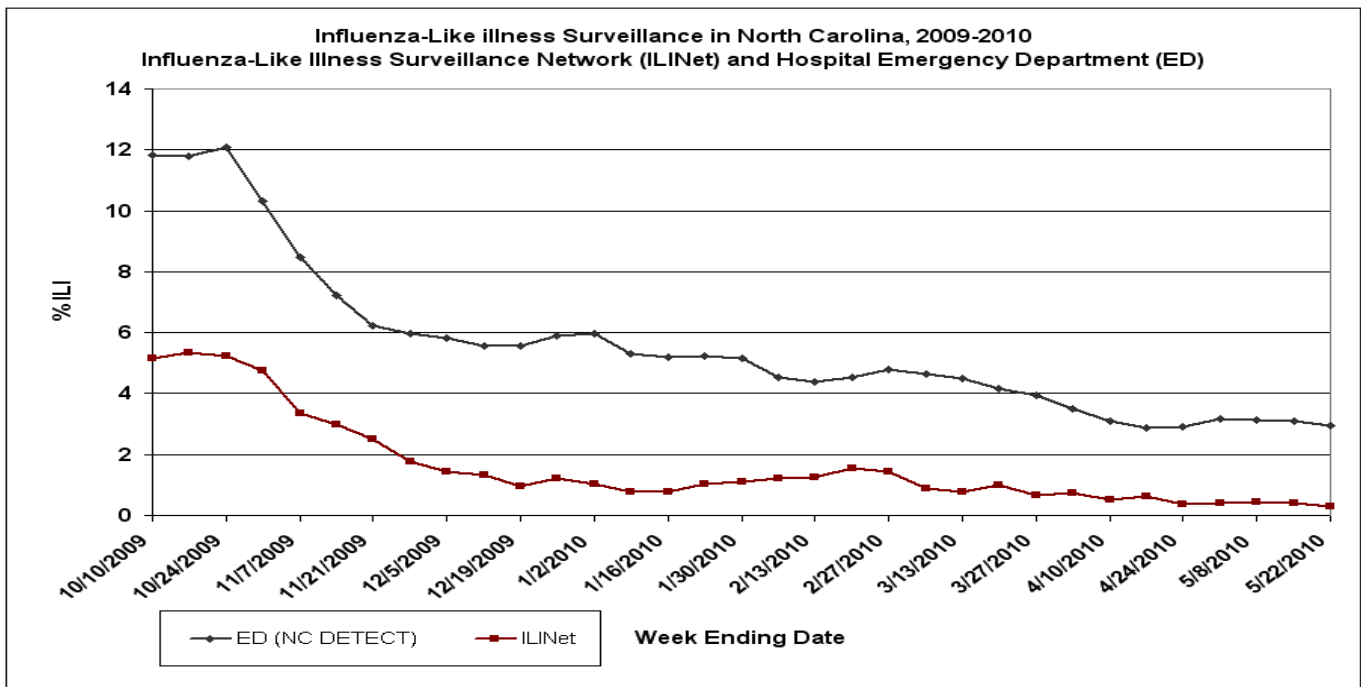
**ILI Surveillance**

Near real-time syndromic surveillance for ILI is conducted through the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT). This system uses a variety of data sources including emergency departments (EDs). NC DETECT is currently receiving data daily from 112 of the 114 24/7 EDs in North Carolina. For the purposes of biosurveillance, ED visits are grouped into syndromes based on analyses of the chief complaint, initial ED temperature (when available), and history of present illness (when available). The NC DETECT ILI syndrome case definition includes any case with the term “flu” or “influenza”, or at least one fever term and one influenza-related symptom. Because these data are submitted and updated twice a day, they are particularly useful for real-time monitoring and for early detection of outbreaks.

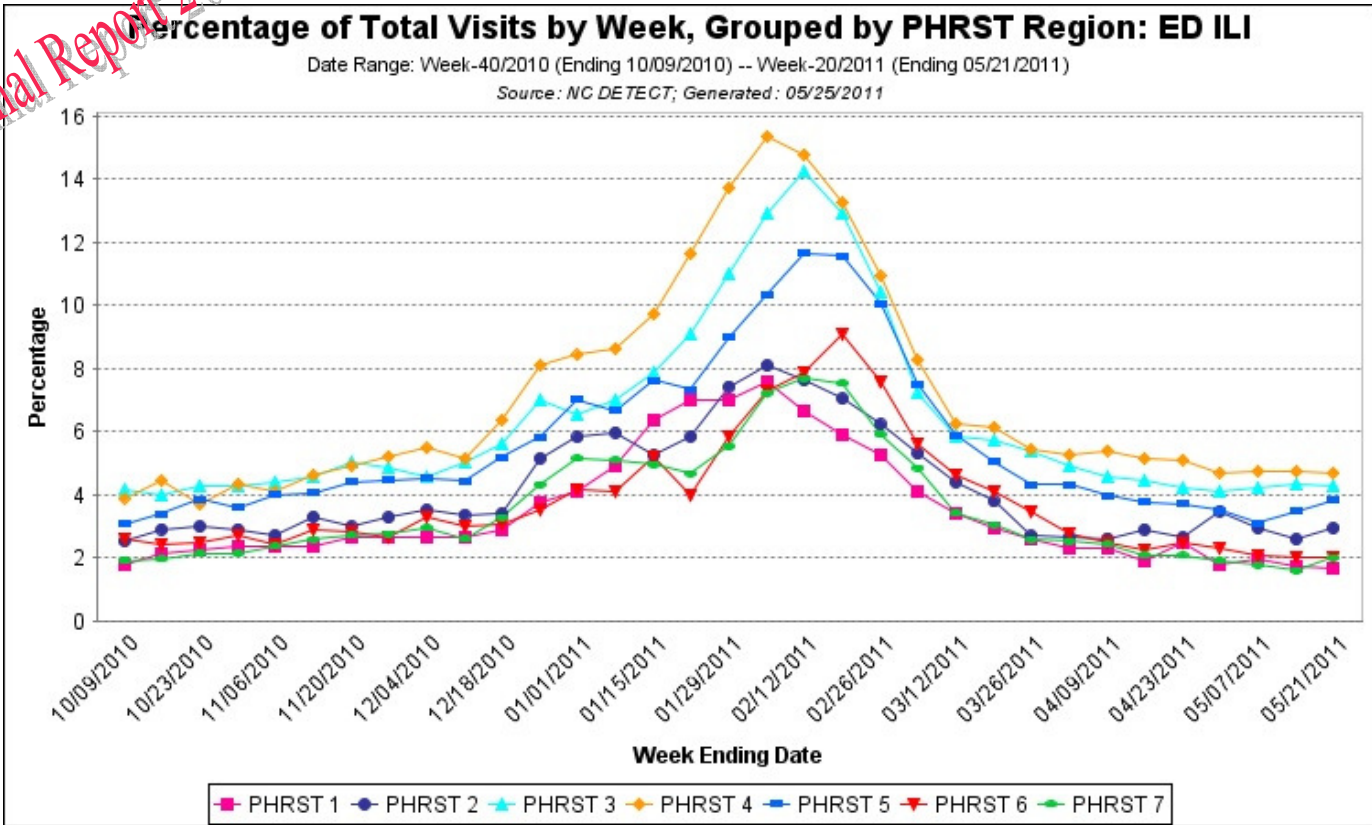
The proportion of ED visits meeting the ILI syndrome definition is monitored throughout the year and compared to data obtained from Influenza-like Illness Surveillance Network (ILINet). In past years, data from the two systems have shown similar trends (below). The higher proportion of ILI seen in NC DETECT compared to ILINet reflects differences in the case definitions and patient populations rather than a difference in the sensitivity of these surveillance systems.



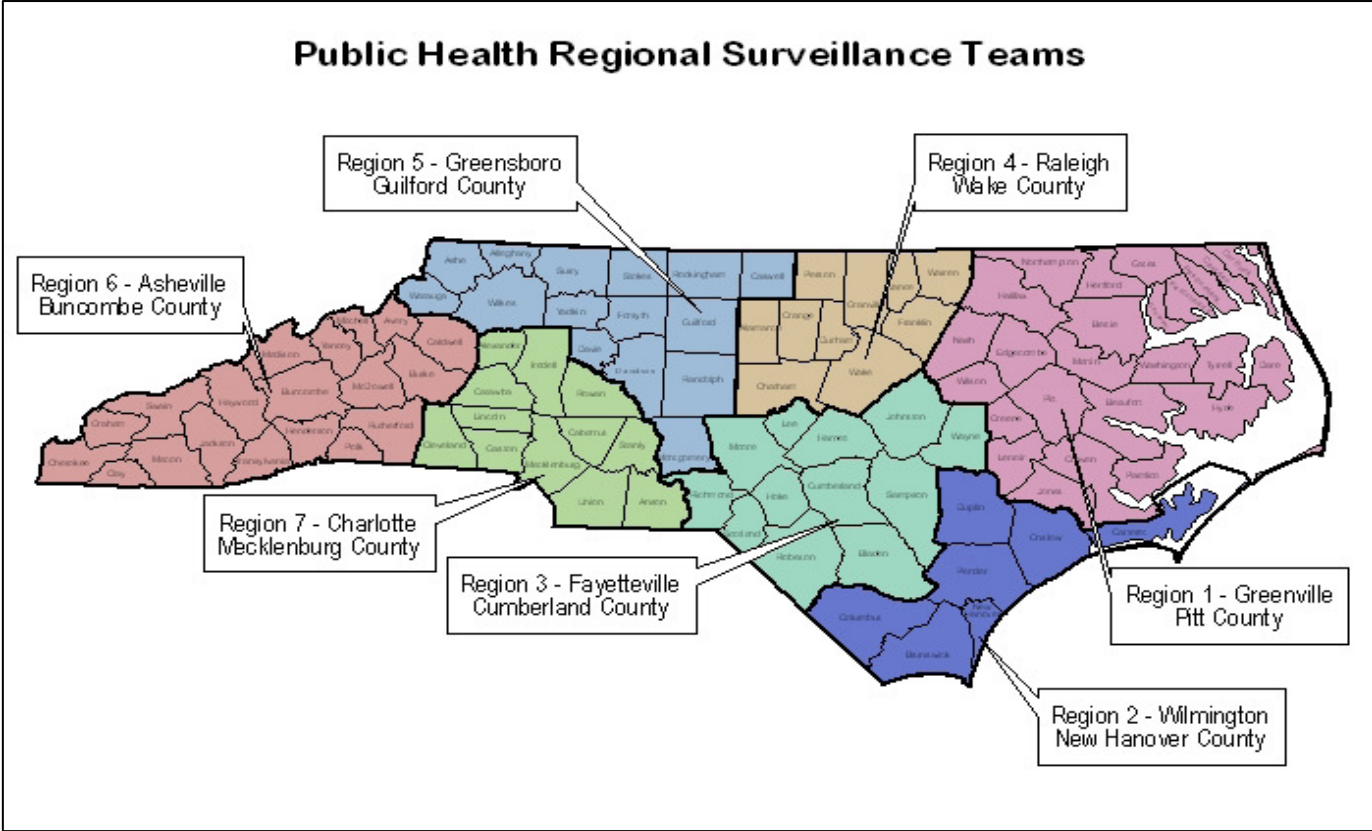
**2009-2010 Influenza Season: Shown For Comparison**



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NOTE: This graph begins with data for the week ending October 9, 2010 – the first week of the 2010–2011 influenza season.

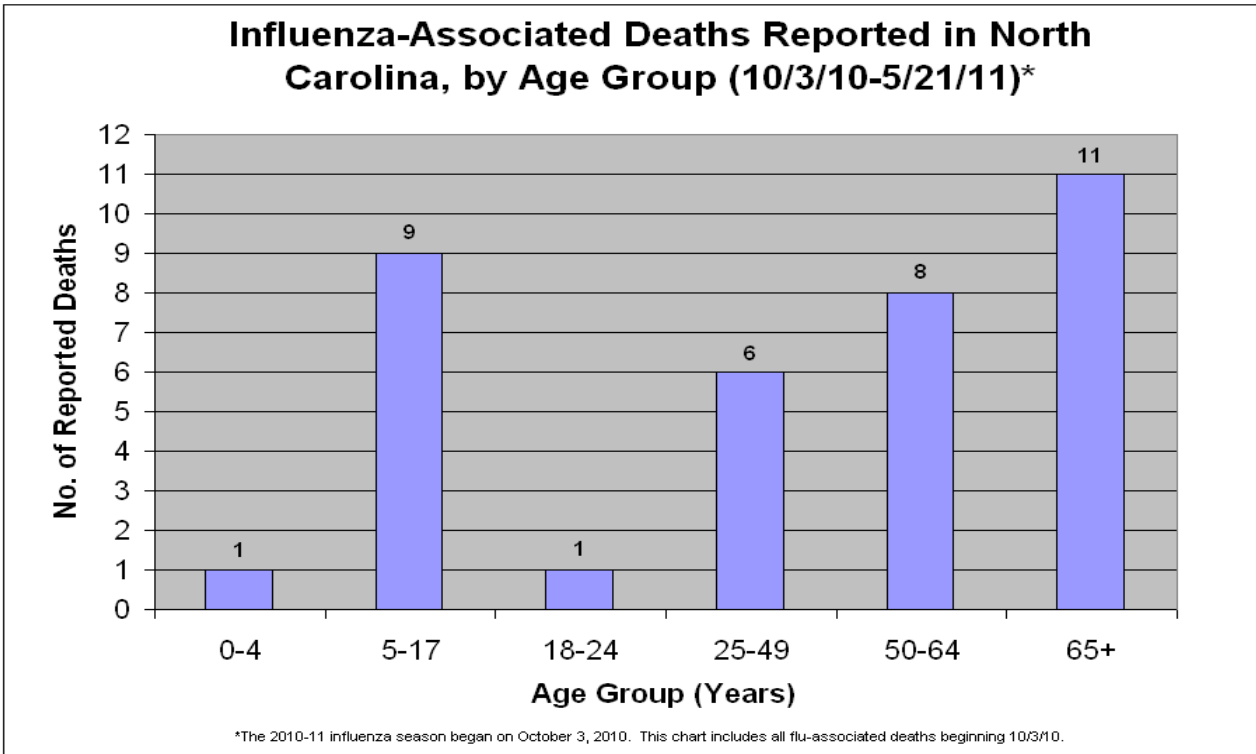
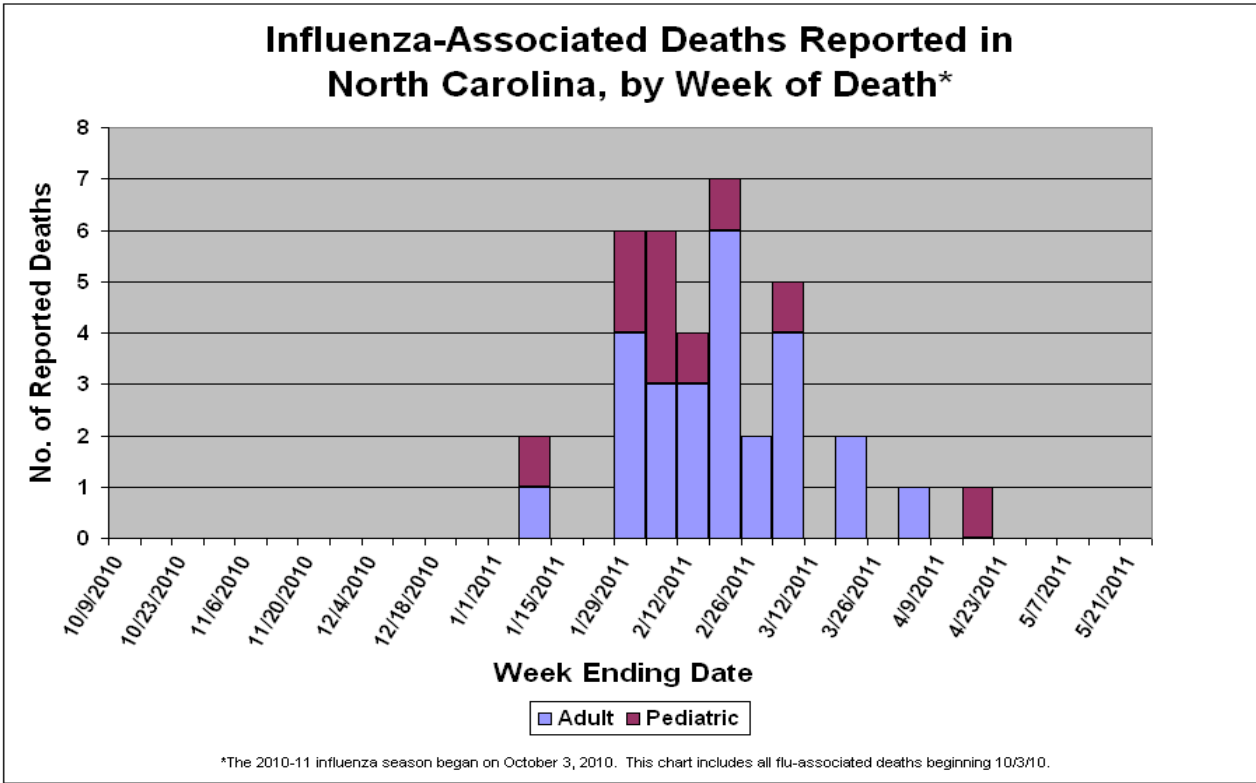


**North Carolina Influenza-Associated Deaths**

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NC Influenza-Associated Deaths*	
<b>Influenza-Associated Deaths 5/15/11–5/21/11</b>	<b>Total Influenza-Associated Deaths Since Week 40 (ending 10/09/10)</b>
<b>0</b>	<b>36</b>

\***Influenza-associated Deaths** - This number is based on reports submitted by clinicians and local health departments to the North Carolina Division of Public Health. An influenza-associated death is defined for surveillance purposes as a death 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.





**PARTICIPANTS IN NORTH CAROLINA'S INFLUENZA SENTINEL SURVEILLANCE PROGRAM THAT HAVE REPORTED DATA TO CDC**

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**LOCAL HEALTH DEPARTMENT/DISTRICT OFFICES [31]:**

Alamance County Health Department (Burlington)  
Cabarrus County Health Department (Kannapolis)  
Caldwell County Health Department (Lenoir)  
Catawba County Health Department (Hickory)  
Chatham County Health Department (Siler City)  
Duplin County Health Department (Kenansville)  
Franklin County Health Department (Louisburg)  
Greene County Health Department (Snow Hill)  
Henderson County Health Department (Hendersonville)  
Johnston County Health Department (Smithfield)  
Jones County Health Department (Trenton)  
Lee County Health Department (Sanford)  
Martin County Office [Martin-Tyrrell-Washington County Health District] (Williamston)  
Montgomery County Health Department (Troy)  
Northampton County Health Department (Jackson)  
Pender County Health Department (Burgaw)  
Pitt County Health Department (Greenville)  
Richmond County Health Department (Rockingham)  
Robeson County Health Department (Lumberton)  
Rockingham County Health Department (Wentworth)  
Rowan County Health Department (Salisbury)  
Stanly County Health Department (Albemarle)  
Stokes County Health Department (Danbury)  
Surry County Health Department (Dobson)  
Tyrrell County Office [Martin-Tyrrell-Washington County Health District] (Columbia)  
Union County Health Department (Monroe)  
Washington County [Martin-Tyrrell-Washington County Health District] (Plymouth)  
Watauga County Office [Appalachian Health District] (Boone)  
Wilkes County Health Department (Wilkesboro)  
Wilson County Health Department (Wilson)  
Yancey County Office [Toe River Health District] (Burnsville)

**COLLEGES AND UNIVERSITIES STUDENT HEALTH PROGRAMS [17]:**

Appalachian State University Student Health Services (Boone; Watauga Co.)  
Davidson College Student Health Center (Davidson; Mecklenburg Co.)  
Duke University Medical Center (Durham; Durham Co.)  
ECU Student Health Services (Greenville; Pitt Co.)  
Elizabeth City State University Student Health Services (Elizabeth City; Pasquotank Co.)  
Elon University R. N. Ellington Health and Counseling Center (Elon; Alamance Co.)  
Fayetteville State University (Fayetteville; Cumberland Co.)  
Mount Olive College Milton M. Lownes Jr., MD Student Health Services (Mount Olive; Wayne Co.)  
NC Agricultural & Technical State University Student Health Services (Greensboro; Guilford Co.)  
NC State University Student Health Services (Raleigh; Wake Co.)  
UNC-Asheville Student Health Services (Asheville; Buncombe Co.)  
UNC-Chapel Hill Student Health Services (Chapel Hill; Orange Co.)  
UNC-Charlotte Student Health Services (Charlotte, Mecklenburg Co.)  
UNC-Greensboro Student Health Services (Greensboro; Guilford Co.)  
UNC-Pembroke Student Health Services (Pembroke; Robeson Co.)  
Wake Forest University Student Health Services (Winston-Salem; Forsyth Co.)  
Winston-Salem State University (Winston-Salem; Forsyth Co.)

**PRIVATE PRACTITIONERS [35]:**

Bakersville Community Medical Center (Bakersville; Mitchell Co.)  
Beaumont Urgent Care (Morehead City; Carteret Co.)  
Blue Cross and Blue Shield of N.C. (Durham; Durham Co.)  
Blue Ridge Community Health Services (Hendersonville; Henderson Co.)  
Butner-Creedmoor Family Medicine (Creedmore; Granville Co.)  
Cabarrus Urgent Care (Concord; Cabarrus Co.)  
Carolina East Medical Associates (Washington; Beaufort Co.)  
Cary Family HealthCare, PA (Cary; Wake Co.)  
Colerain Primary Care (Colerain; Bertie Co.)  
ECU Brody School of Medicine – Department of Pediatrics (Greenville; Pitt Co.)  
Family Care Center (Taylorsville; Alexander Co.)  
First Charlotte Physicians – Epi Center (Charlotte; Mecklenburg Co.)  
Gaston Family Health Services (Gastonia; Gaston Co.)  
Haywood Pediatric and Adolescent Medicine Group, PA (Clyde; Haywood Co.)  
Hot Springs Health Program (Marshall; Madison Co.)  
Matthews Children’s Clinic (Matthews; Mecklenburg Co.)  
MEDAC Health Services at Shipyard Blvd. (Wilmington; New Hanover Co.)  
MEDAC Health Services at Porter’s Neck (Wilmington; New Hanover Co.)  
MEDAC Health Services at Military Cutoff (Wilmington; New Hanover Co.)  
Murfreesboro Primary Care (Murfreesboro; Hertford Co.)  
Oxford Family Physicians (Oxford; Granville Co.)  
Pitt Children’s Clinic (Greenville; Pitt Co.)  
Presbyterian Urgent Care – Charlotte (Charlotte; Mecklenburg Co.)  
Presbyterian Urgent Care – Matthews (Matthews; Mecklenburg Co.)  
PrimeCare (Winston-Salem; Forsyth Co.)  
PrimeCare of Kernersville (Kernersville; Forsyth Co.)  
PrimeCare of Northpoint (Winston-Salem; Forsyth Co.)  
Roanoke Chowan Community Health Center (Ahoskie; Hertford Co.)  
SAS Institute Health Care Center (Cary; Wake Co.)  
Sisters of Mercy Urgent Care, North Center (Weaverville; Buncombe Co.)  
Sisters of Mercy Urgent Care, Airport (Arden; Buncombe Co.)  
Sisters of Mercy Urgent Care, South (Asheville; Buncombe Co.)  
Sisters of Mercy Urgent Care, West (Asheville; Buncombe Co.)  
Stanly Family Care Clinic (Albemarle; Stanly Co.)  
Steven C. Hill, MD, PC (Spruce Pine; Mitchell Co.)

**HOSPITALS [6]:**

Blue Ridge Regional Hospital (Spruce Pine; Mitchell Co.)  
Cape Fear Valley Health System Primary Care Practices (Fayetteville; Cumberland Co.)  
Charles C. George VA Medical Center (Asheville; Buncombe Co.)  
Duke Family Medicine (Durham; Durham Co.)  
Durham VAMC (Durham; Durham Co.)  
Seymour Johnson Air Force Base Medical Group (Goldsboro; Wayne Co.)

**OTHER [1]:**

PotashCorp (Aurora; Beaufort Co.)

**TOTAL SENTINELS ENROLLED – 90**

Counties covered (53): Alexander, Alamance (2), Beaufort (2), Bertie, Buncombe (6), Cabarrus (2), Caldwell, Carteret, Catawba, Chatham, Cumberland (2), Duplin, Durham (4), Forsyth (5), Franklin, Gaston, Granville (2), Greene, Guilford (2), Haywood, Henderson (2), Hertford (2), Johnston, Jones, Lee, Madison, Martin, Mecklenburg (6), Mitchell (3), Montgomery, New Hanover (3), Northampton, Orange, Pasquotank, Pender, Pitt (4), Richmond, Robeson (2), Rockingham, Rowan, Stanly (2), Stokes, Surry, Tyrrell, Union, Wake (3), Washington, Watauga (2), Wayne (2), Wilkes, Wilson, Yancey