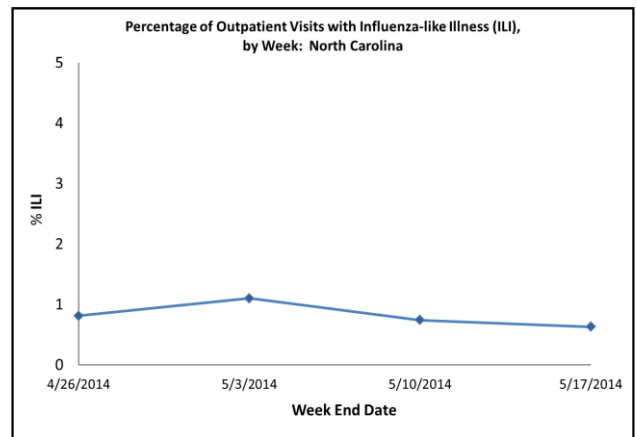


# Final Summary 2013-14

## NORTH CAROLINA WEEKLY INFLUENZA SURVEILLANCE SUMMARY #33 2013–14 INFLUENZA SEASON WEEK 20: ENDING MAY 17, 2014

### Statewide Updates

- Influenza-like illness remains low for week 20 ending on 5/17/2014.
- The geographic spread of flu was NO ACTIVITY for the week ending 5/17/2014.
- Of the 3 samples submitted to the State Laboratory of Public Health (SLPH) for viral testing this week NONE were positive.
- Hospital-based Public Health Epidemiologists (PHEs) reported 13 positive influenza results during week 20 (ending 5/17/2014); 11 influenza B, 1 influenza A (H1N1), and 1 influenza A (subtype unknown).



### Regional Updates

- Influenza like illness was below baseline in Region 4 (Southeastern US) during week 19 ending 5/10/2014.
- The proportion of visits due to ILI in region 4 was 0.8% for week 19. The baseline for the region is 1.9%.

### National Updates

- The proportion of outpatient visits due to ILI nationally was 1.3% for week 19 (ending 5/10/2014). The national baseline for ILI is 2.0%.

**International Updates: May 19, 2014** – Globally the northern hemisphere influenza season approached inter-seasonal levels in most countries. Influenza B continued to comprise the majority of late season detections in most regions. In North America, influenza levels slowly declined with influenza B still circulating. In Europe, influenza activity was at inter-seasonal levels. In Eastern Asia, influenza activity approached inter-seasonal levels in most countries, and influenza B was predominant. In Tropical Asia, influenza activity continued to decline in most countries. In northern Africa and western Asia, influenza activity remained low in most countries, with influenza B the predominant virus detected. In the southern hemisphere, influenza activity is still low, although in some countries influenza-like illness (ILI) activity is slowly increasing. Influenza detections were still low.

### Flu Information and Guidance

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

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

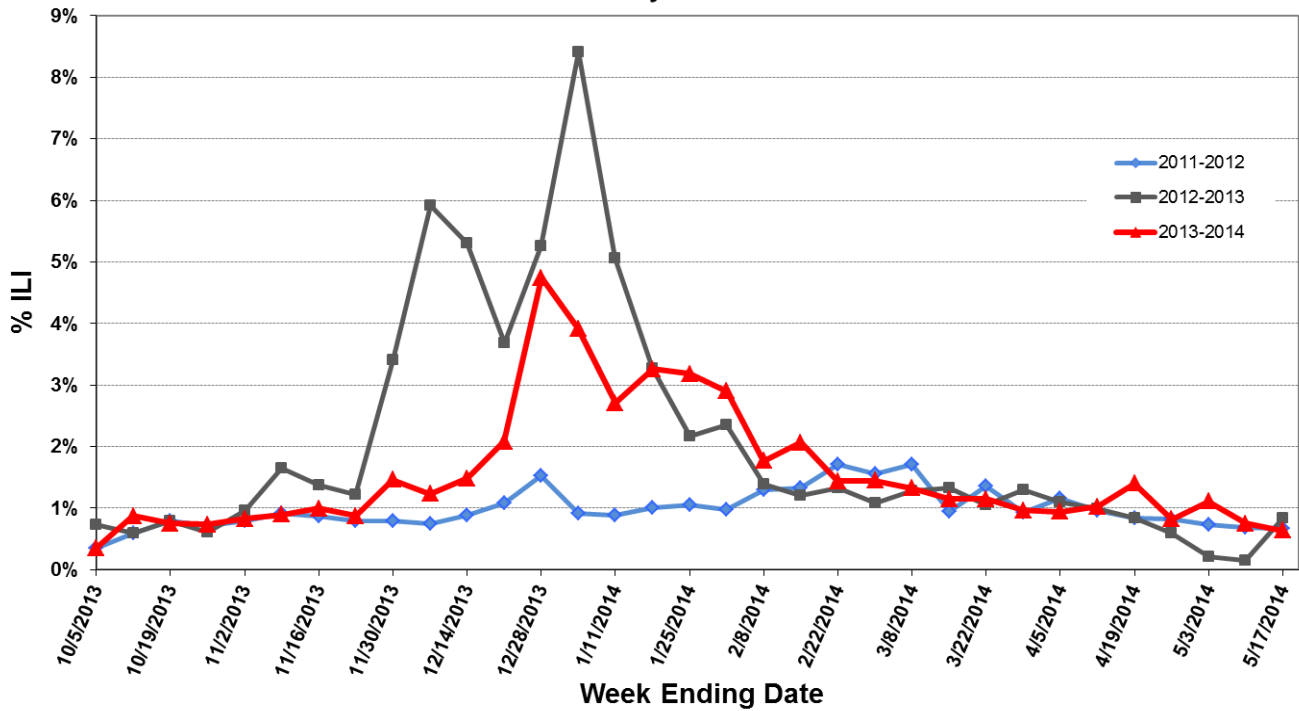
# Final Summary 2013-14

## INFLUENZA-LIKE ILLNESSES REPORTED BY ILINET SITES, 2013-14

Week # - Ending	(Sentinels Reporting)	# ILI	# Patients	% ILI
#40 – 10/05/2013	53	63	17928	0.35
#41 – 10/12/2013	56	151	17409	0.86
#42 – 10/19/2013	55	124	16615	0.74
#43 – 10/26/2013	54	132	17968	0.73
#44 – 11/02/2013	53	140	17051	0.82
#45 – 11/09/2013	50	144	16151	0.89
#46 – 11/16/2013	55	168	16961	0.99
#47 – 11/23/2013	54	153	17586	0.87
#48 – 11/30/2013	53	145	9939	1.45
#49 – 12/07/2013	54	218	17708	1.23
#50 – 12/14/2013	54	199	13446	1.47
#51 – 12/21/2013	52	274	13185	2.07
#52 – 12/28/2013	50	300	6325	4.74
#1 – 01/04/2014	54	414	10567	3.91
#2 – 01/11/2014	51	406	14982	2.7
#3 – 01/18/2014	54	583	17911	3.25
#4 – 01/25/2014	54	491	15428	3.18
#5 – 02/01/2014	53	382	13168	2.9
#6 – 02/08/2014	53	308	17410	1.76
#7 – 02/15/2014	51	240	11610	2.06
#8 – 02/22/2014	50	240	16706	1.43
#9 – 03/01/2014	49	233	16106	1.44
#10 – 03/08/2014	48	185	14001	1.32
#11 – 03/15/2014	48	144	12573	1.14
#12 – 03/22/2014	48	164	14345	1.14
#13 – 03/29/2014	46	142	14729	0.96
#14 – 04/05/2014	48	133	14196	0.93
#15 – 04/12/2014	46	143	14018	1.02
#16 – 04/19/2014	45	188	13475	1.39
#17 – 04/26/2014	43	113	13889	0.81
#18 – 05/03/2014	35	129	11664	1.1
#19 – 05/10/2014	29	62	8292	0.74
#20 – 05/17/2014	22	39	6150	0.63

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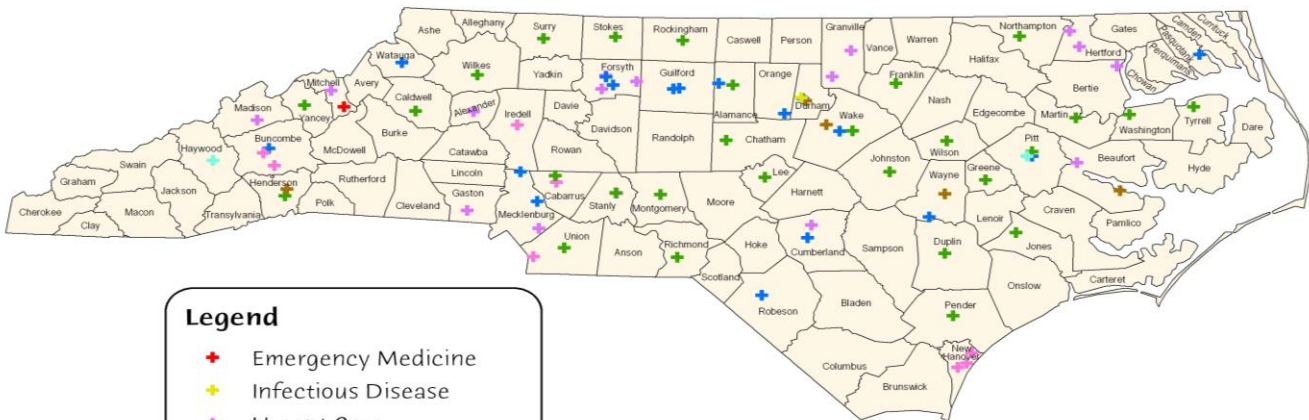
## INFLUENZA SURVEILLANCE, NC 2011-2013 Influenza-Like Illness in ILINet Outpatient Visits, as of May 17, 2014



Note: Week ending displayed is for 2013–2014 influenza season. Flu seasons for previous years may have different week ending dates, but these only vary by a few days.

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)”.

## North Carolina ILINetwork Provider Locations 2013-2014

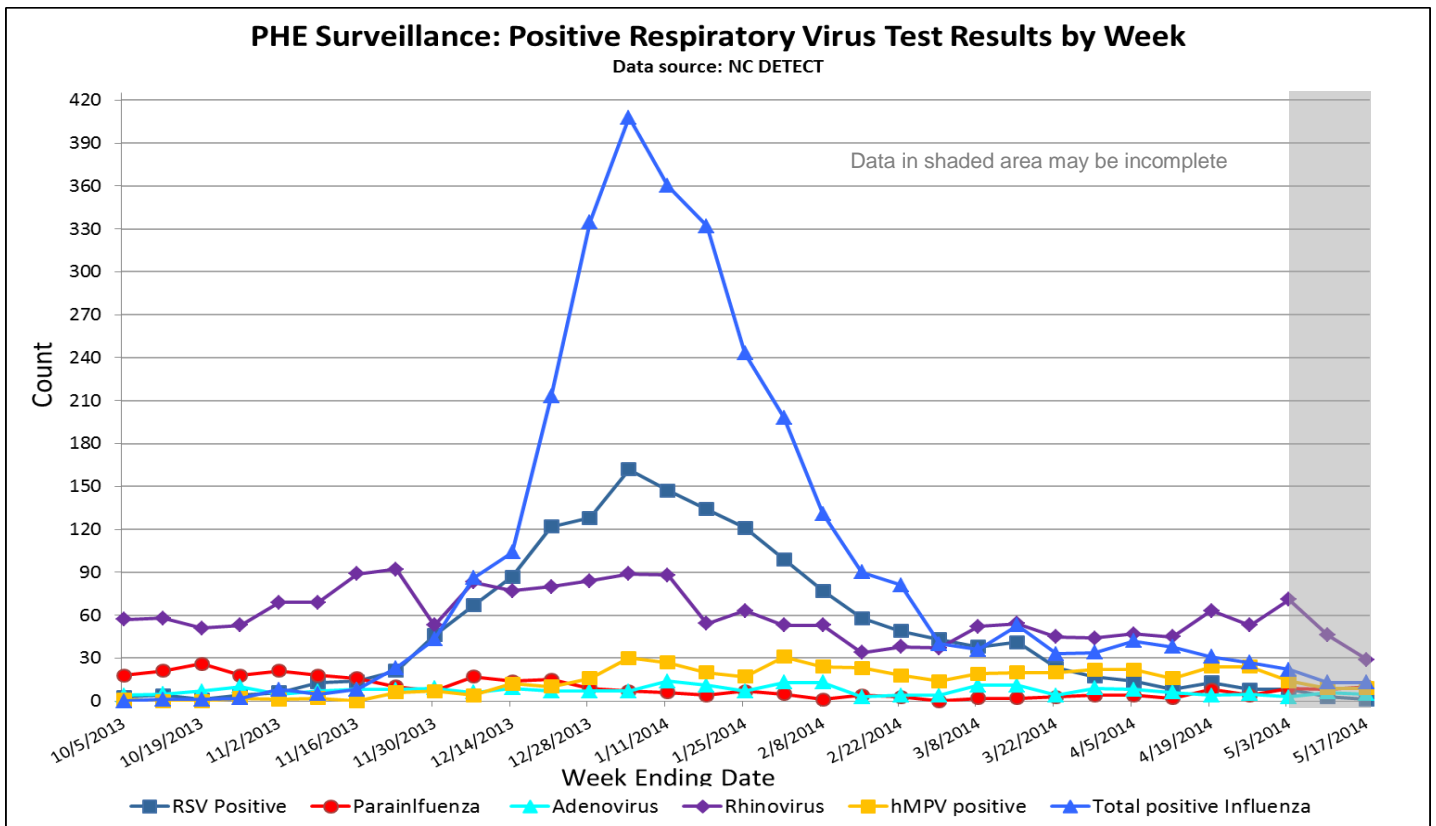


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## PHE Respiratory Viral Pathogen Surveillance

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 ending with 10/5/2013.

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.



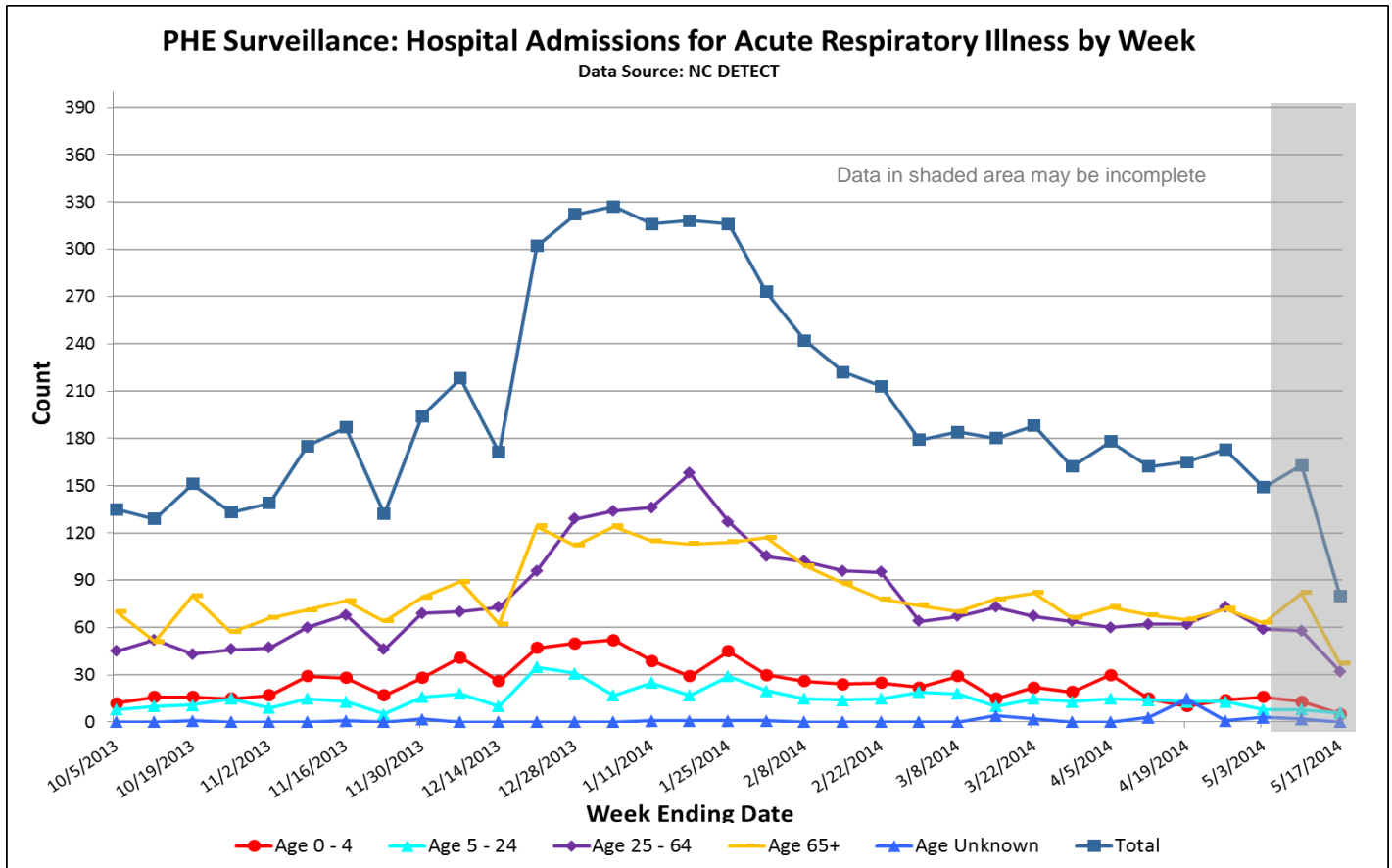
- Hospital-based Public Health Epidemiologists (PHEs) reported 13 positive influenza results during week 20 (ending 5/17/2014); 11 influenza B, 1 influenza A (H1N1), and 1 influenza A (subtype unknown).
- Rhinovirus was the most frequently identified respiratory viral pathogens during week 20 (ending 5/17/2014) followed by influenza.

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## 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 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 might not be reflective of the entire state.



- Acute respiratory admissions decreased during week 20 (ending 5/17/2014).
- The highest number of acute respiratory admissions was reported among patients age 65 and over followed by age 25- 64 years during week 20.

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## Virologic Surveillance Information from the North Carolina State Laboratory of Public Health

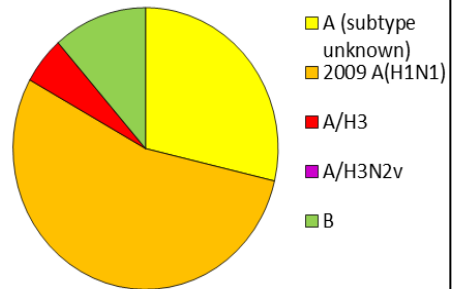
### INFLUENZA VIRUS ISOLATES FROM IN-STATE PATIENTS IDENTIFIED BY THE STATE LABORATORY OF PUBLIC HEALTH 2013–2014 SEASON\*

Virus Type	# New Positive Results (5/11/14 - 5/17/14)	# Cumulative Positive Results (10/05/13-5/17/14)
A (subtype unknown)	0	3
2009 A(H1N1)	0	186
A/H3	0	9
A/H3N2v	0	0
B	0	14
<b>Total</b>	<b>0</b>	<b>212</b>

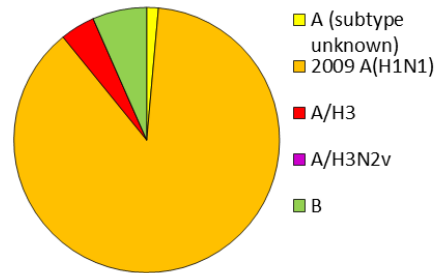
\* 2013-2014 influenza season began September 29, 2013.

**NOTE:** This table only includes isolates tested as of 5/17/14. This table does not include influenza isolates identified by other laboratories.

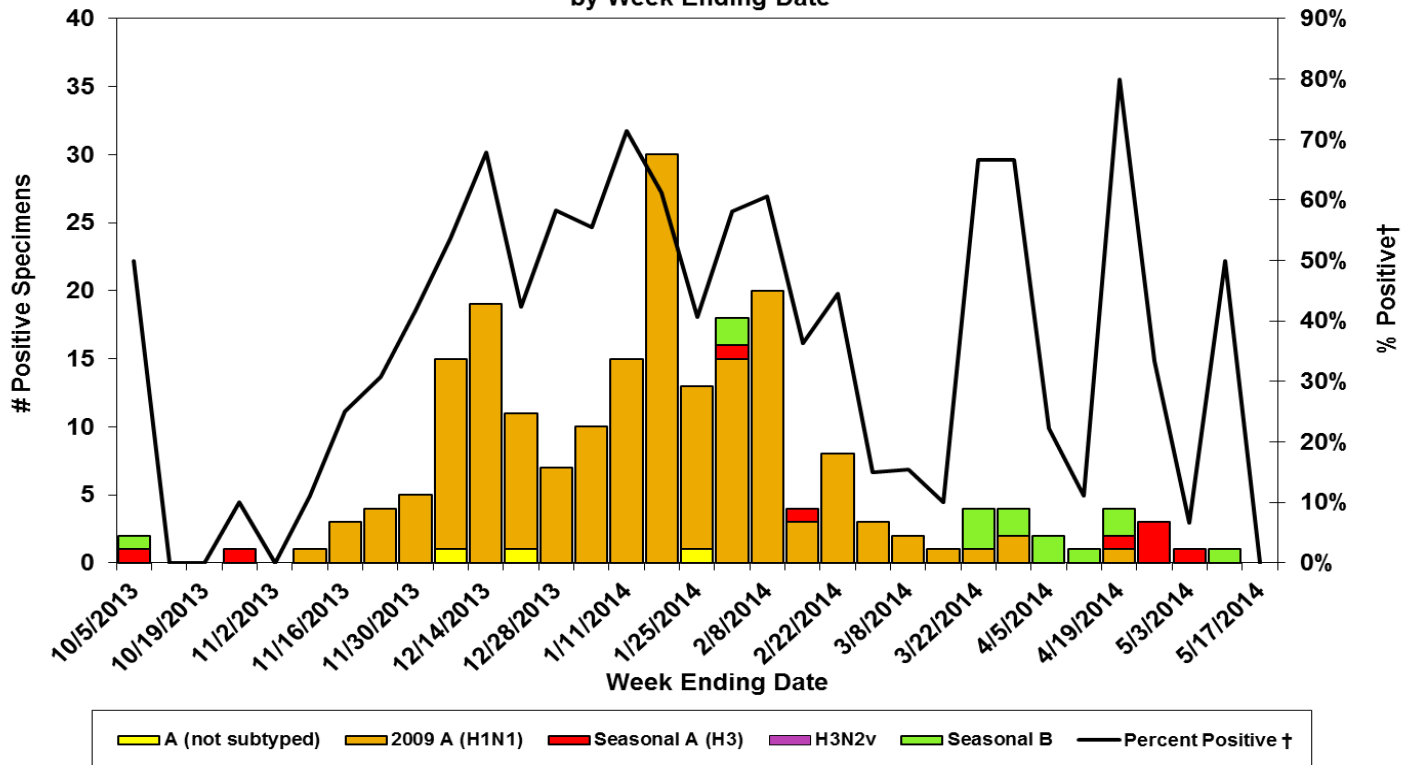
US: Number of positive isolates  
10/5/2013 -5/10/2014



NC: Number of positive isolates  
10/5/2013 -5/17/2014



Influenza Positive Tests Reported by the N.C. State Laboratory of Public Health (SLPH) by Week Ending Date



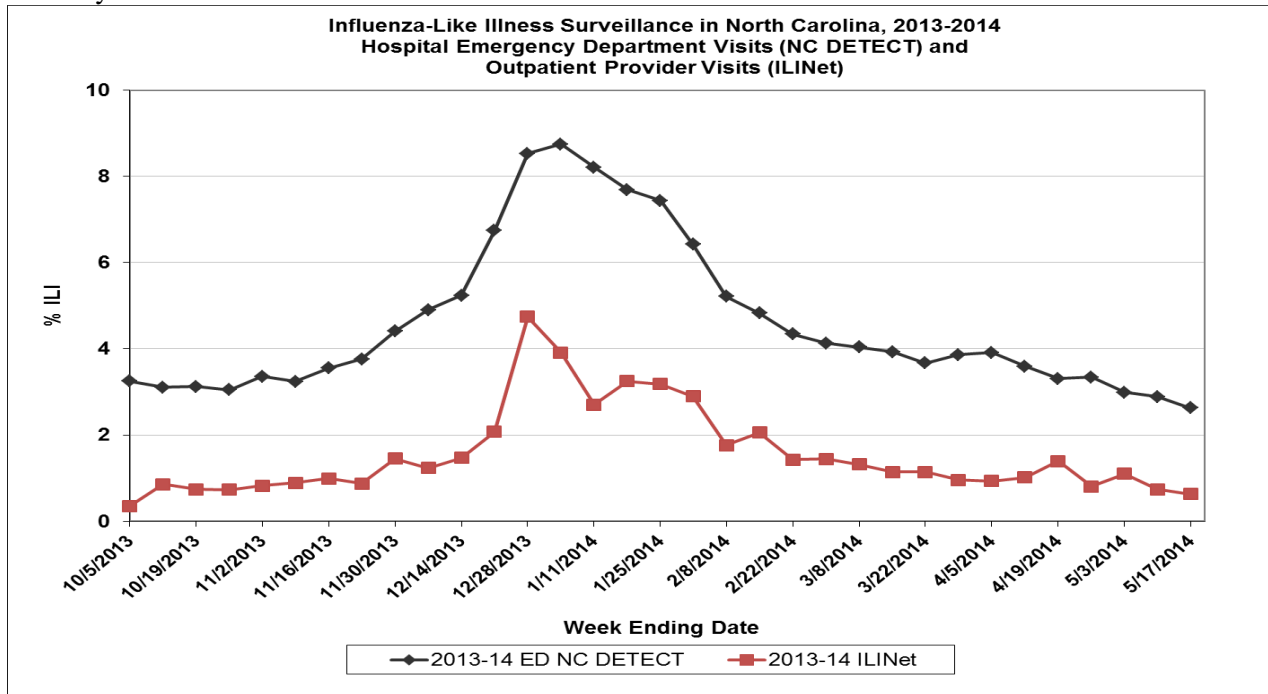
† Percent of submitted specimens for any influenza

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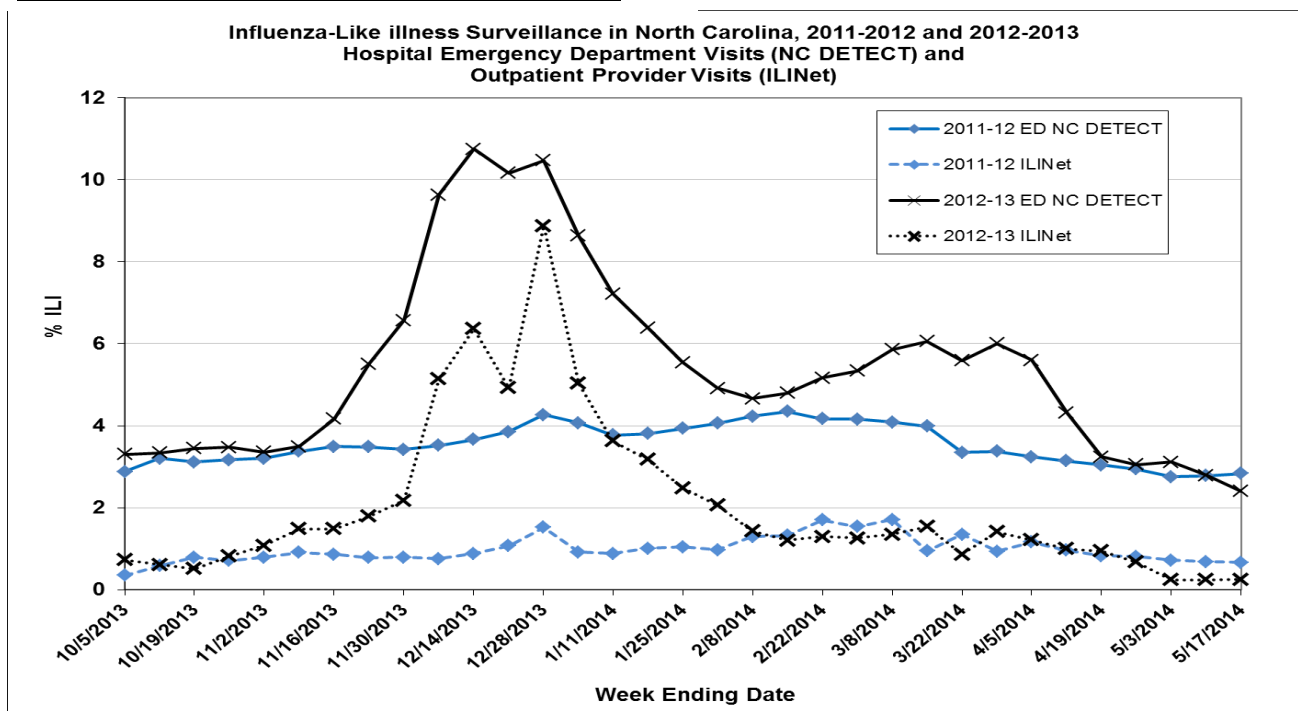
## North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) ILI Surveillance

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 122 of the 123 24/7 EDs in North Carolina. 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.

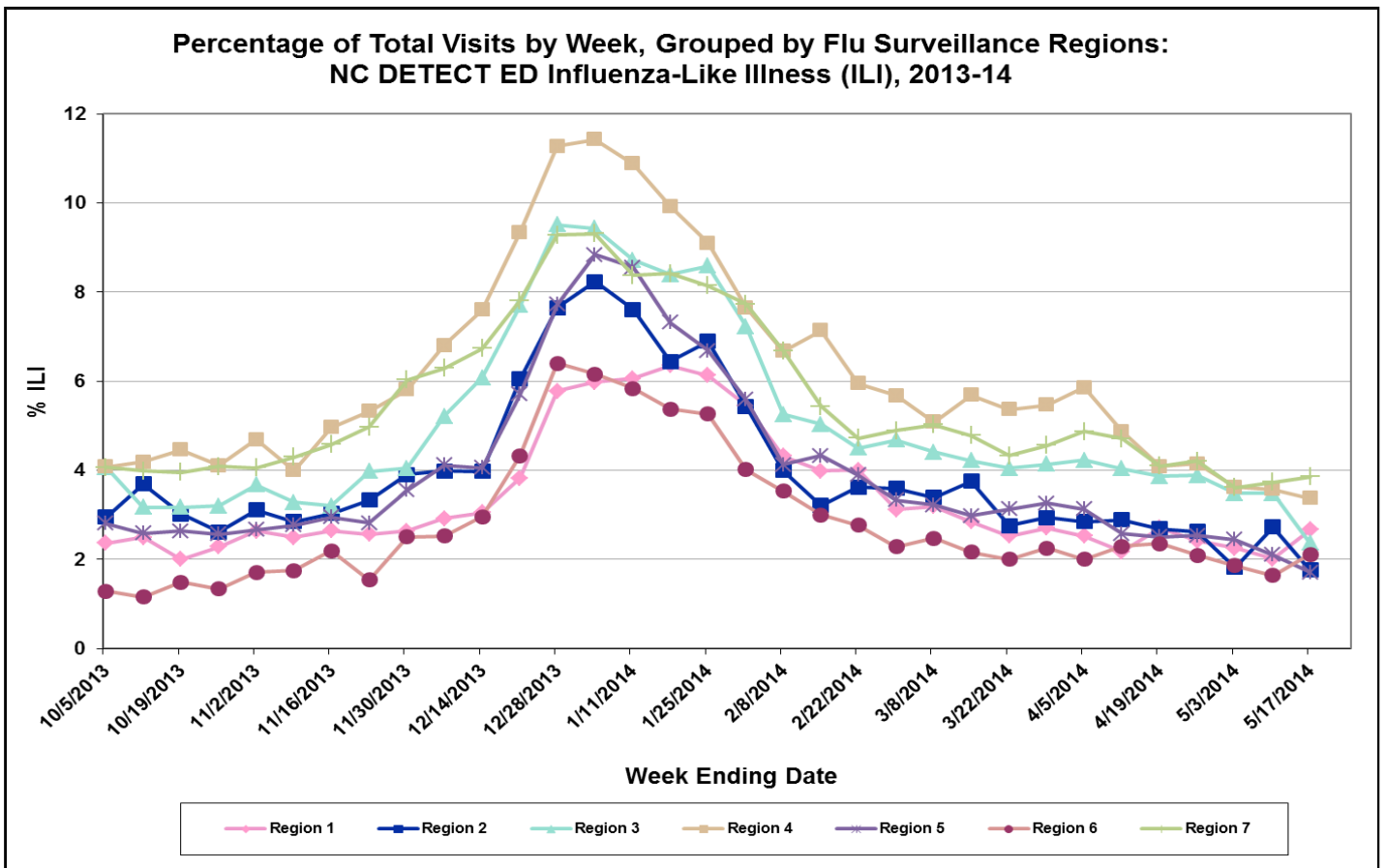
The proportion of ED visits meeting the ILI syndrome definition is monitored throughout the year and compared to data obtained from Influenza-like Illness Surveillance Network (ILINet). In past years, data from the two systems have shown similar trends (below). The higher proportion of ILI seen in NC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



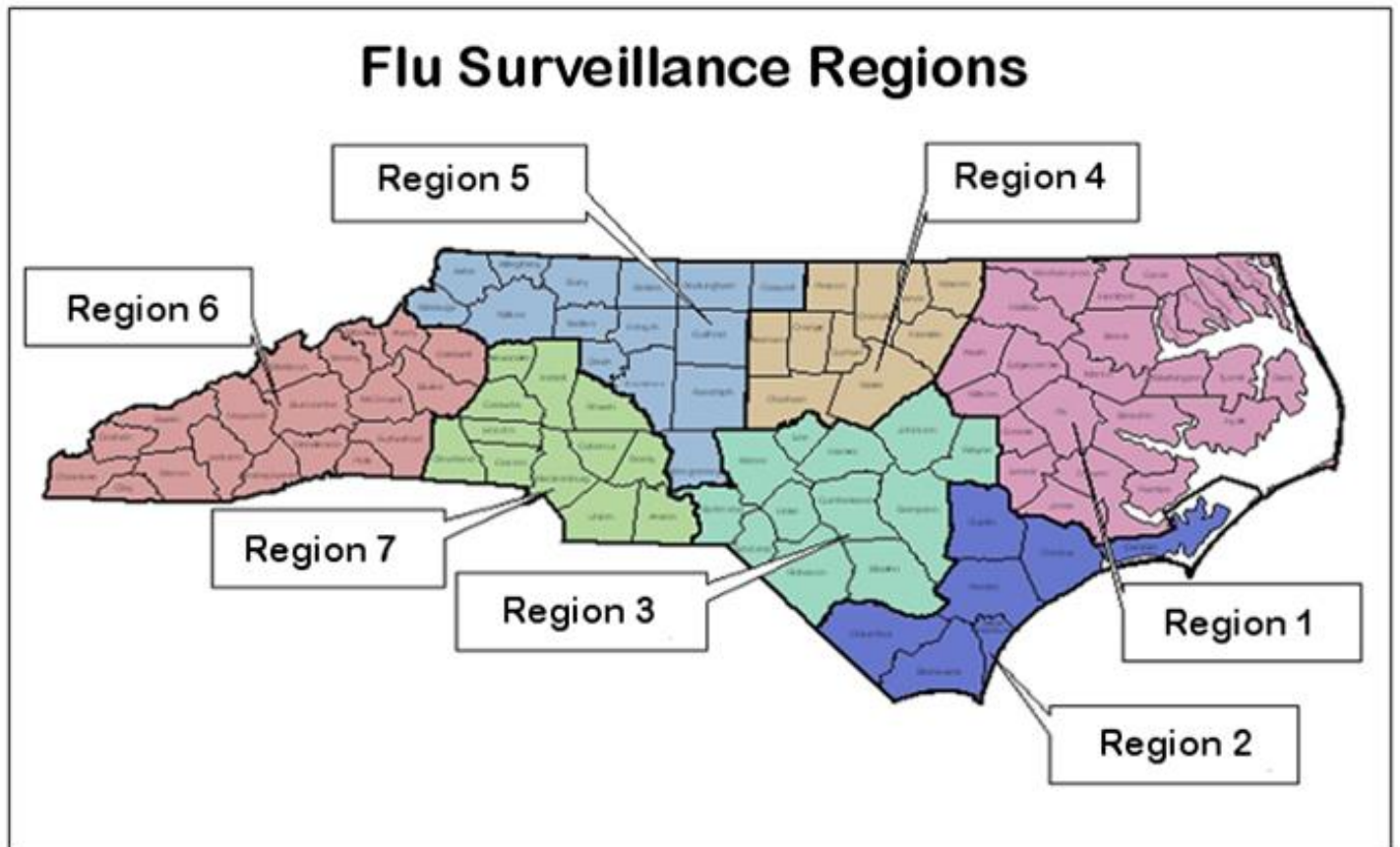
### 2011-2013 Influenza Season: Shown For Comparison



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**NOTE:** This graph begins with data starting week ending October 5, 2013 – the first week of the 2013–2014

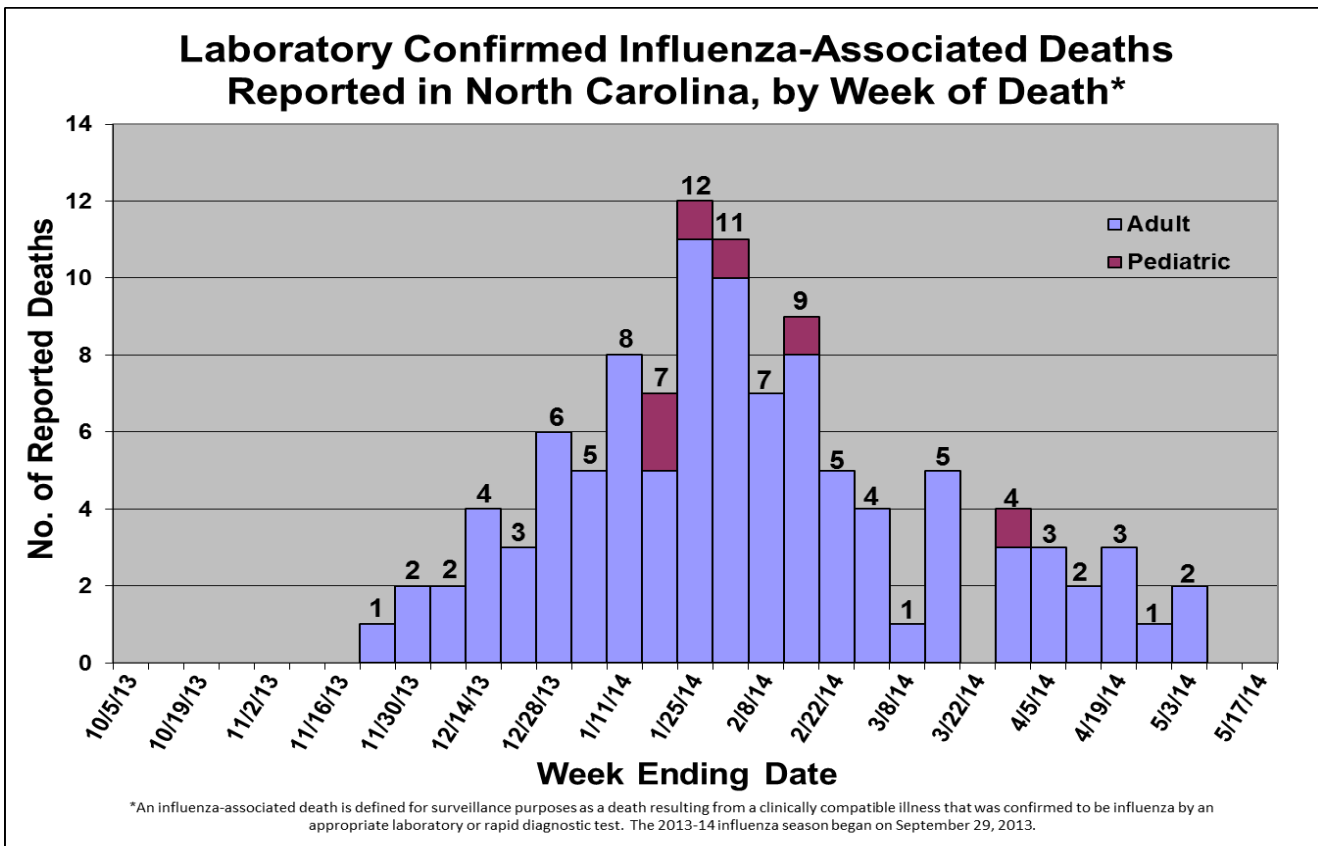
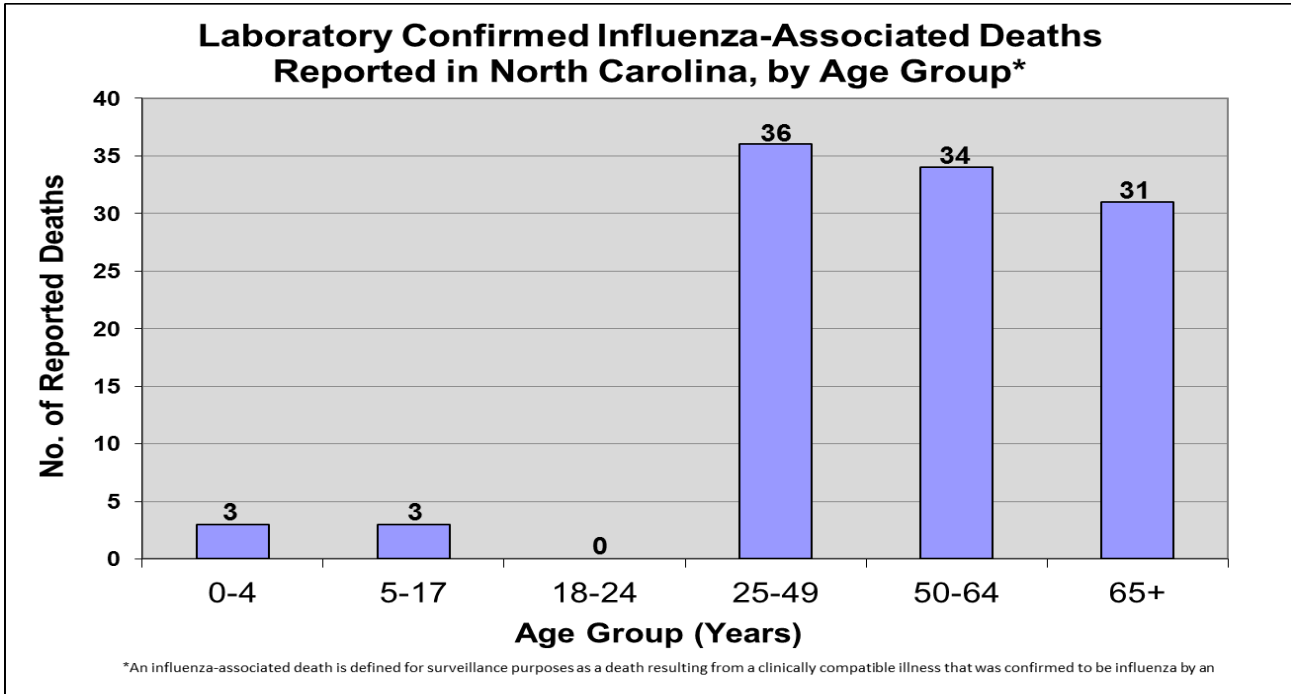




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NC Influenza-Associated Deaths*	
Influenza-Associated Deaths 5/11/14 – 5/17/14	Total Influenza-Associated Deaths Since Week 40 (ending 10/05/13)
<b>0</b>	<b>107</b>

**\*Influenza-associated Deaths** –This number is based on reports submitted by providers to the North Carolina Division of Public Health. 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. Deaths that occurred after 5/17/2014 will be included in subsequent surveillance summaries.



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

### LOCAL HEALTH DEPARTMENT/DISTRICT OFFICES [28]:

Alamance County Health Department (Burlington)  
Cabarrus Health Alliance (Kannapolis)  
Caldwell County Health Department (Lenoir)  
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 Primary Care (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 Public Health Center (Greenville)  
Richmond County Health Department (Rockingham)  
Rockingham County Health Department (Wentworth)  
Stanly County Health Department (Albemarle)  
Stokes Family Health Center (Danbury)  
Surry County Health and Nutrition Center (Dobson)  
Tyrrell County Office [Martin-Tyrrell-Washington County Health District] (Columbia)  
Union County Health Department (Monroe)  
Wake County Health Department, Children's Clinic (Raleigh)  
Washington County [Martin-Tyrell-Washington County Health District] (Plymouth)  
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 Student Health Services (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.)

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## PRIVATE PRACTITIONERS [29]:

Bakersville Community Medical Center (Bakersville; Mitchell 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.)  
Colerain Primary Care (Colerain; Bertie Co.)  
ECU Brody School of Medicine – Department of Pediatrics (Greenville; Pitt Co.)  
Family Care Center (Taylorsville; Alexander 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.)  
MinuteClinic Mooresville (Mooresville; Iredell Co.)  
MinuteClinic Waxhaw (Waxhaw; Union Co.)  
Murfreesboro Primary Care (Murfreesboro; Hertford Co.)  
Oxford Family Physicians (Oxford; Granville 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, 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 [4]:

Blue Ridge Regional Hospital (Spruce Pine; Mitchell Co.)  
Cape Fear Valley Health System Primary Care Practices (Fayetteville; Cumberland 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 – 78

Counties covered (50): Alamance (2), Alexander, Beaufort (2), Bertie, Buncombe (3), Cabarrus (2), Caldwell, Chatham, Cumberland (2), Duplin (2), Durham (3), Forsyth (4), Franklin, Gaston, Granville (2), Greene, Guilford (2), Haywood, Henderson (2), Hertford (2), Iredell, Johnston, Jones, Lee, Madison, Martin, Mecklenburg (3), Mitchell (2), Montgomery, New Hanover (3), Northampton, Orange, Pasquotank, Pender, Pitt (3), Richmond, Robeson, Rockingham, Stanly (2), Stokes, Surry, Transylvania, Tyrrell, Union (2), Wake (3), Washington, Watauga, Wayne (2), Wilkes, Wilson, Yancey