Flu Watch

Summer Edition

South Carolina Department of Health and Environmental Control

Division of Acute Disease Epidemiology

Week Ending September 6, 2014 (MMWR Week 36)

All data are provisional and may change as more reports are received.

In this issue:

Summary	1
I. Confirmatory testing	2
II. Positive rapid antigen tests	4
III. ILINet	5
IV. Hospitalizations & deaths	6
V. SC surveillance	7
VI. Definitions for influenza surveillance	8

Current influenza activity level: SPORADIC

All data are provisional and may change as new reports are received.

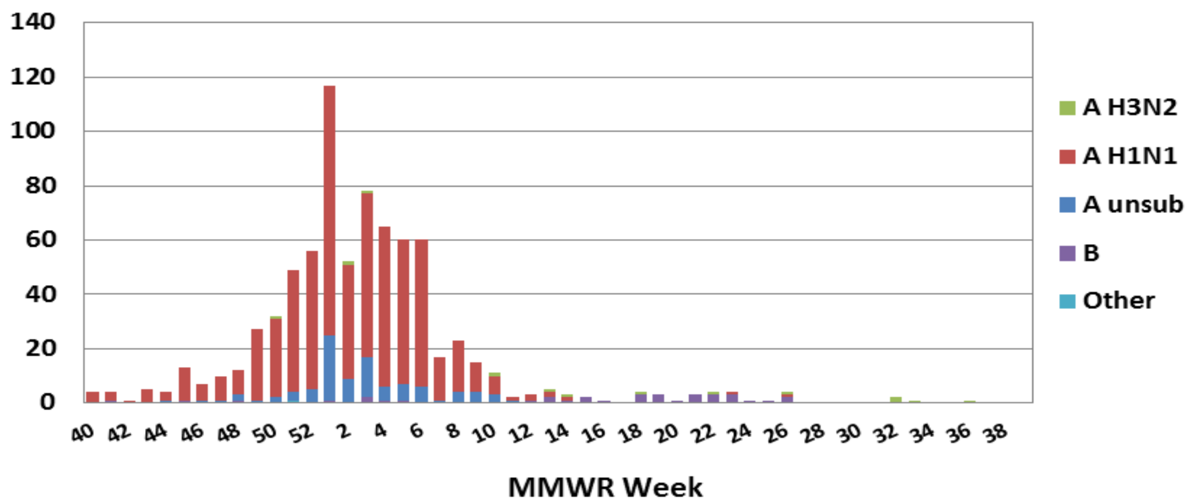
Summary of ILI Activity, Positive Confirmatory Tests, and Influenza Associated Hospitalizations and Deaths Compared to Previous Week and Season

	Current week	*Previous week*	*Change from previous week*	*Cumulative* (2013-14)	*Cumulative* (2012-13)	*Cumulative change 2013-14 compared to 2012-13*
Number of positive confirmatory tests (culture, RT-PCR, DFA, IFA)	1	0	▲	768*	1179	▼ 34.9%
Percent of ILI visits reported by ILINet providers	0.97%	0.82%	▲ 0.15%	--	--	--
Number of lab confirmed flu hospitalizations	1	1	--	1943	1721	▲ 12.9%
Number of lab confirmed flu deaths	0	0	--	78	46	▲ 69.6%

*Data have been cleaned and de-duplicated for end of season reporting.

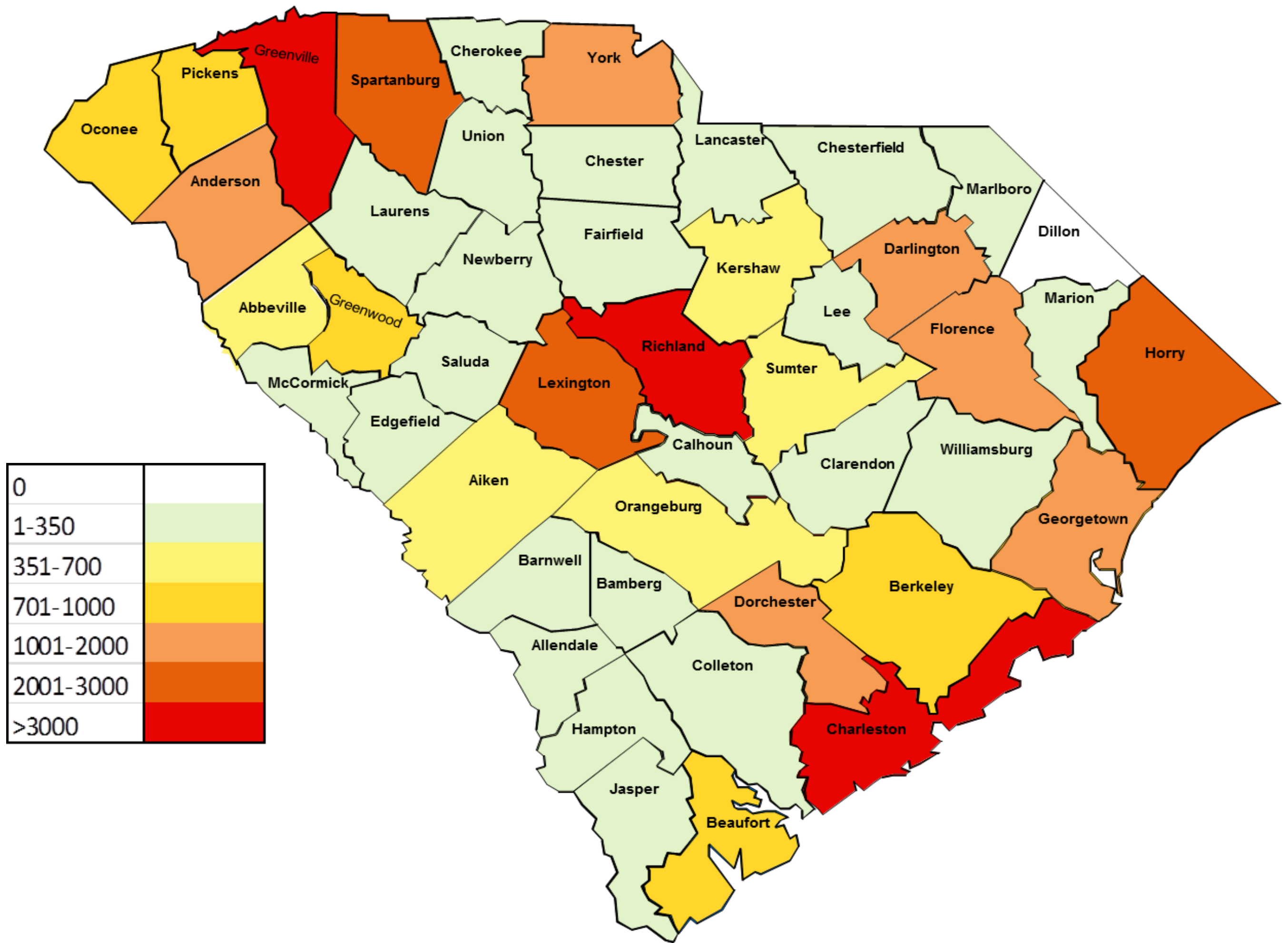
I. Confirmatory testing

*Positive confirmatory influenza test results** *Cumulative (09/29/13 – 9/6/14)*	
	BOL and reference labs
Number of positive confirmatory tests	768
Influenza A unsubtyped	94 (12.2%)
Influenza A H1N1	625 (81.4%)
Influenza A H3N2	13 (1.7%)
Influenza B	33 (4.3%)
Unk/Other	3 (0.39%)
Includes culture, RT-PCR, DFA, and IFA	



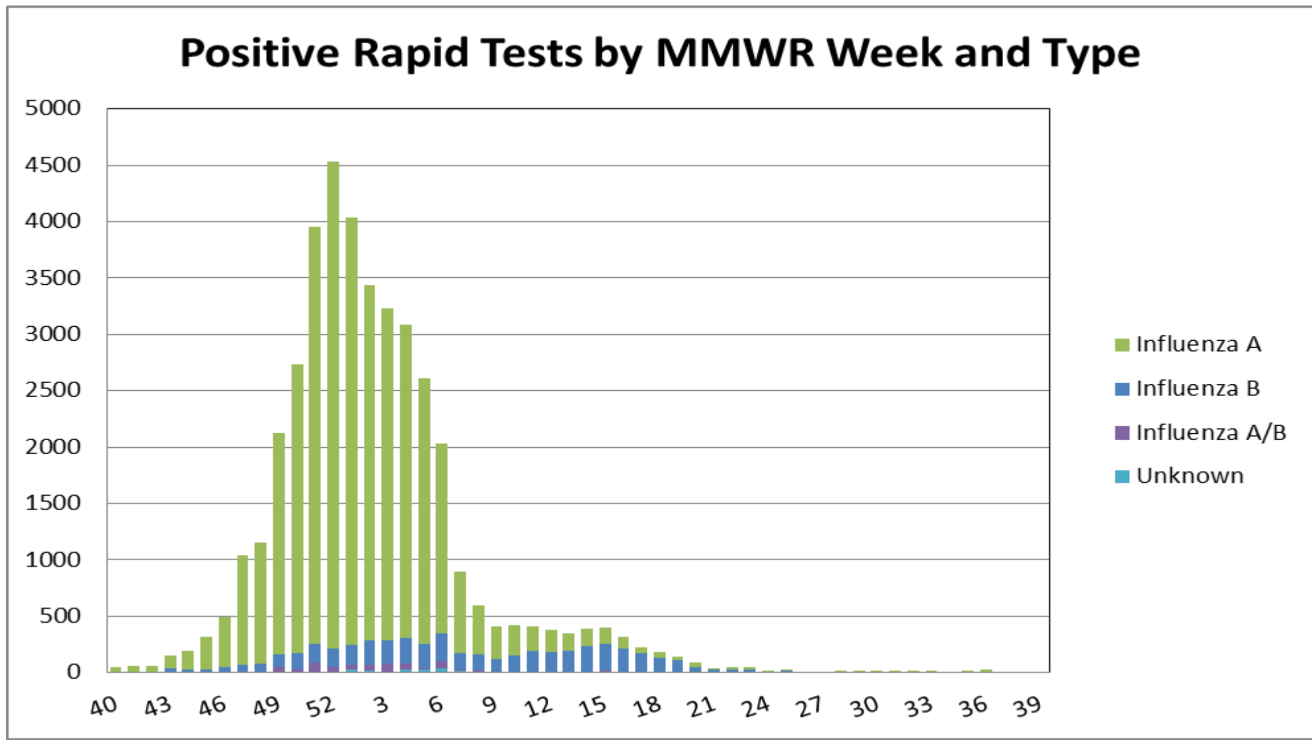
*Includes culture, PCR, DFA, IFA

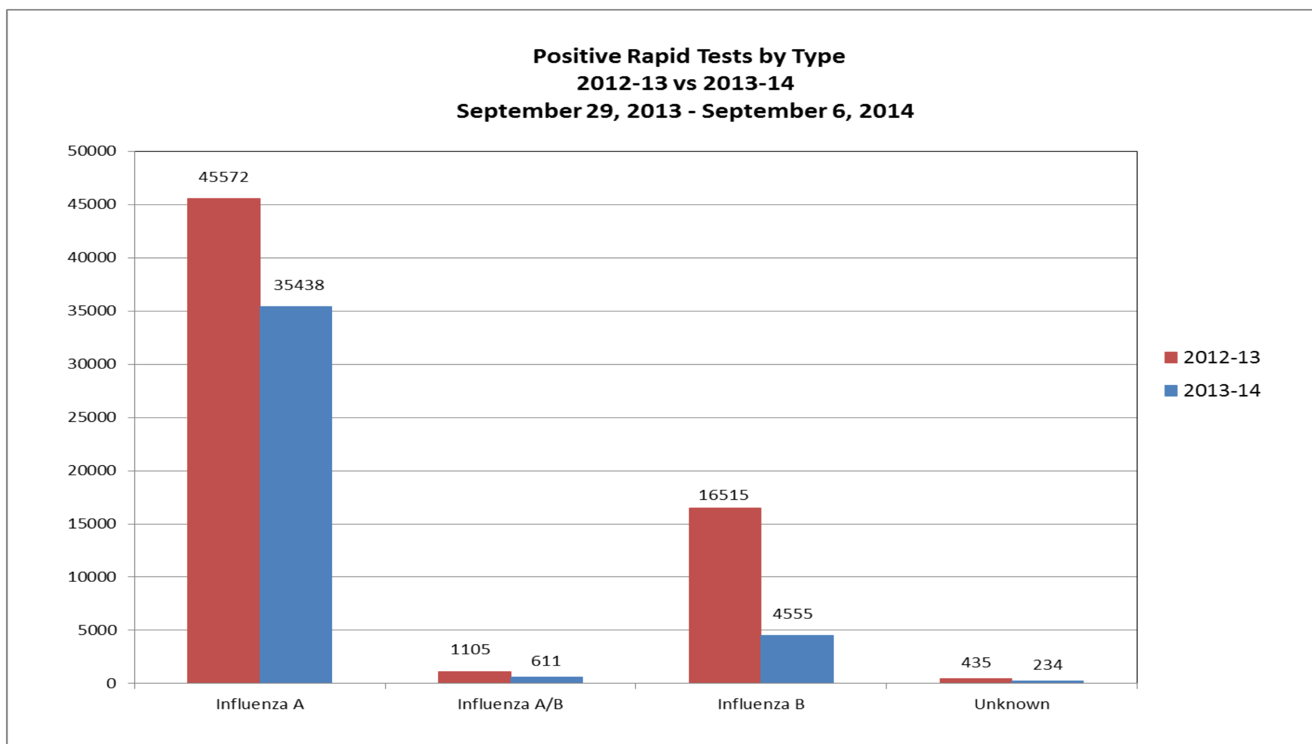
Map of all Laboratory Confirmed Cases* by County
Cumulative 09/29/13 – 9/6/14



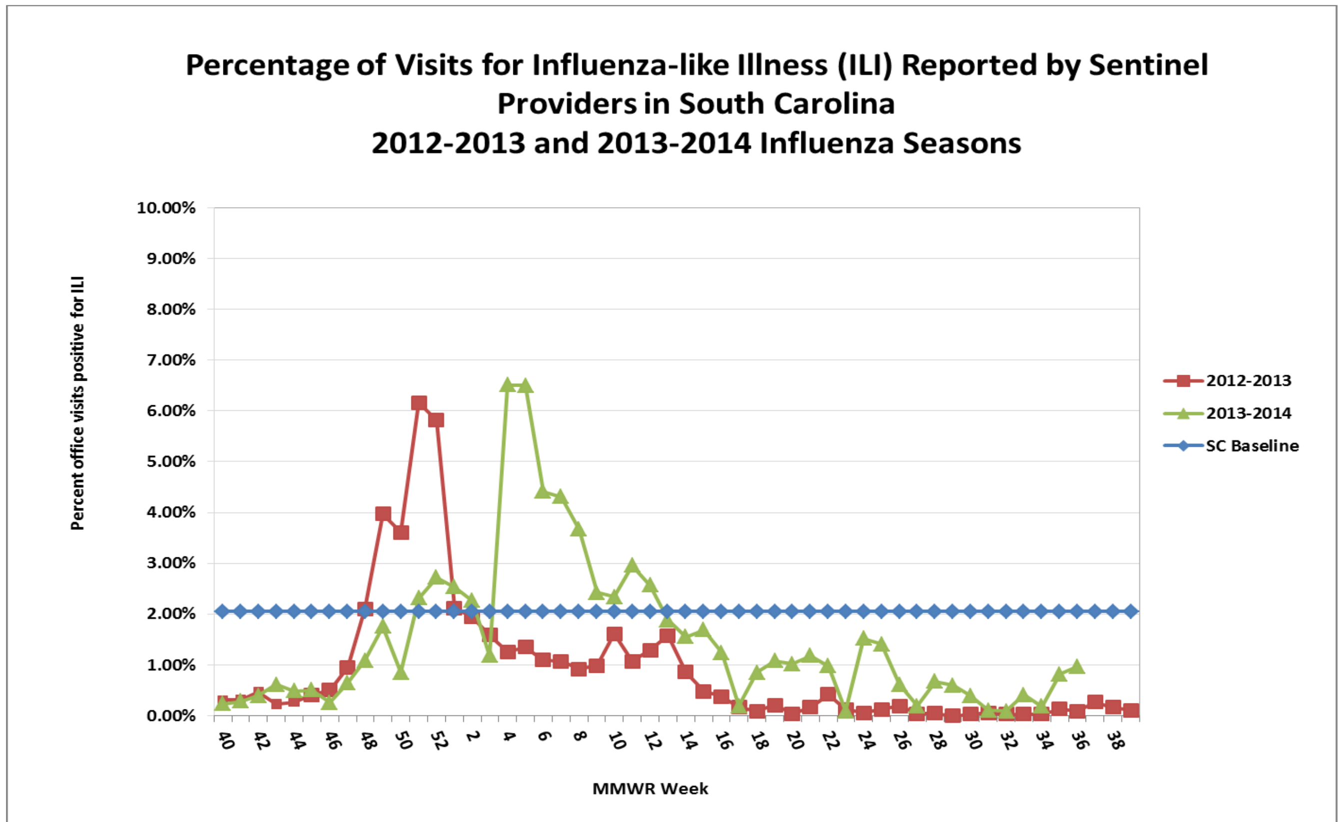
*Includes all laboratory tests (rapid antigen, culture, PCR, IFA, DFA.)

II. Positive Rapid Antigen Tests

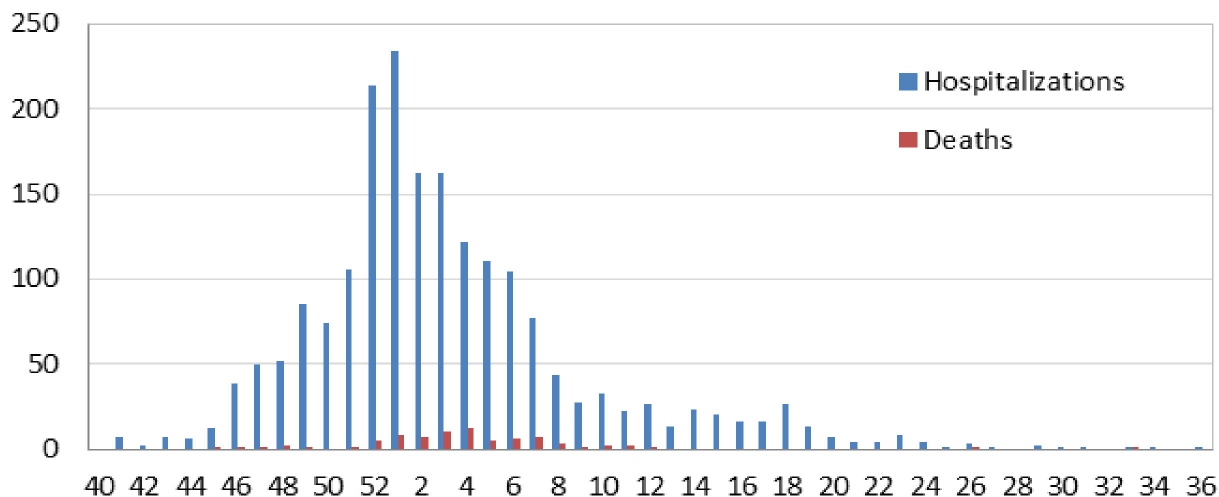


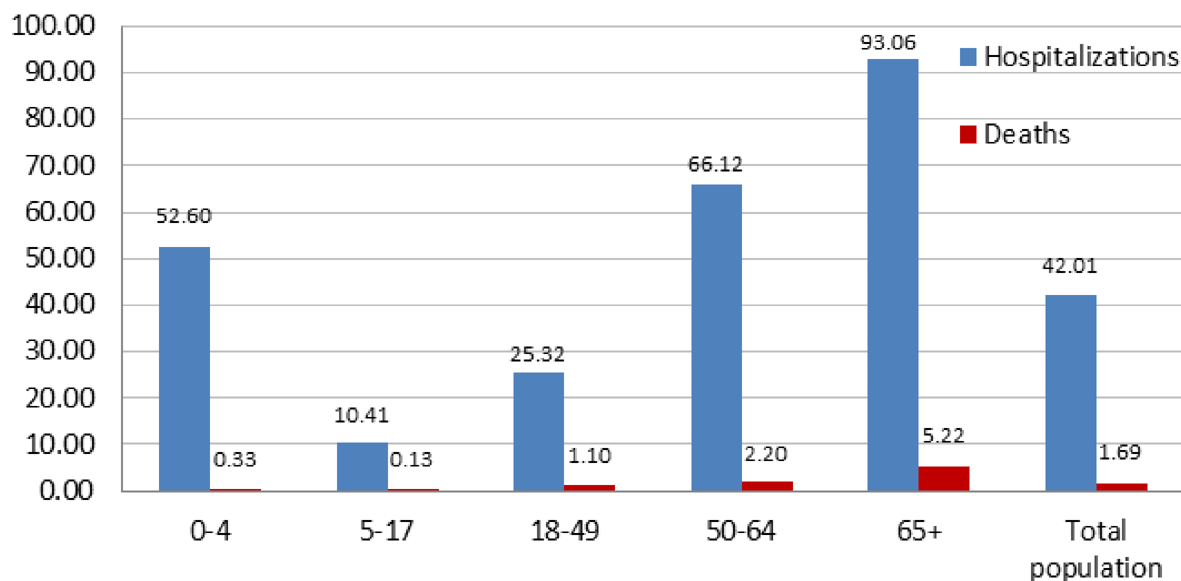


During the most recent MMWR week, 0.97%* of patient visits to SC ILINet providers were due to ILI. This is below the state baseline **(2.05%)**. This ILI percentage compares to 0.09% this time last year. Reports were received from providers in 9 counties, representing all of the 4 regions.



*The SC baseline is the mean percentage of patient visits for ILI during non-influenza weeks (weeks when percent of positive lab tests was below 20%) for the previous three seasons plus two standard deviations. * ILI percentage is dependent upon the number of reporting providers and can be greatly influenced by a single provider with high numbers of ILI.


Reported Cases of Laboratory Confirmed Influenza
Hospitalizations and Deaths by MMWR week
September 29, 2013 - September 6, 2014
250
200
150
100
50
0
Hospitalizations
Deaths
40 42 44 46 48 50 52 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36


Laboratory Confirmed Influenza Case rate/100,000
Hospitalizations (n=1943) and Deaths (n=78) by age group
September 29, 2013 - September 6, 2014
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Hospitalizations
Deaths
52.60
0.33
10.41
0.13
25.32
1.10
66.12
2.20
93.06
5.22
42.01
1.69
0-4
5-17
18-49
50-64
65+
Total population

V. South Carolina Influenza Surveillance Components

South Carolina influenza surveillance consists of mandatory and voluntary reporting systems for year-round influenza surveillance. These networks provide information on influenza virus strain and subtype and influenza disease burden.

Mandatory Reporting

Positive confirmatory test reporting
Positive influenza culture, PCR, DFA, and IFA results from commercial laboratories should be reported to DHEC within 3 days electronically via CHESS or using a DHEC 1129 card.

Positive rapid antigen test reporting
Summary numbers of positive rapid influenza tests and influenza type identified should be sent to the regional health department by fax or email before noon on Monday for the preceding week.

Influenza deaths
All lab confirmed influenza deaths in adults should be reported to DHEC within 24 hours. These include results from viral culture, PCR, rapid flu tests, DFA, IFA or autopsy results consistent with influenza.

Influenza hospitalizations
DHEC requires weekly submission of laboratory confirmed influenza hospitalizations. Hospitals should report these to their regional health department by noon on Monday for the preceding week.

For additional information about ILINet or to become an ILINet provider, contact the Acute Disease Epidemiology influenza surveillance coordinator at **springcb@dhec.sc.gov**.

Voluntary Networks

Influenza-Like Illness (ILINet) Sentinel Providers Network
ILINet focuses on the number of patients presenting with influenza-like symptoms in the absence of another known cause. ILI is defined as fever (temperature ≥100°F) plus a cough and/or a sore throat in the absence of another known cause. Providers submit weekly reports to the CDC of the total number of patients seen in a week and the subset number of those patients with ILI symptoms by age group.

South Carolina Disease Alerting, Reporting & Tracking System (SC-DARTS)

SC-DARTS is a collaborative network of syndromic surveillance systems within South Carolina. Currently our network contains the following data sources: SC Hospital Emergency Department (ED) chief-complaint data, Poison Control Center call data, Over-the-Counter (OTC) pharmaceutical sales surveillance, and CDC's BioSense Biosurveillance system. The hospital ED syndromic surveillance system classifies ED chief complaint data into appropriate syndrome categories (ex: Respiratory, GI, Fever, etc.). These syndrome categories are then analyzed using the cumulative sum (CUSUM) methodology to detect any significant increases. Syndromic reports are distributed back to the hospital on a daily basis.

VI. Definitions for Influenza Surveillance

Activity level: Indicator of the geographic spread of influenza activity which is reported to CDC each week.

- ***No activity:*** No increase in ILI activity and no laboratory-confirmed influenza cases.
- ***Sporadic:*** No increase in ILI activity and isolated laboratory-confirmed influenza cases
- ***Local:*** Increased ILI or 2 or more institutional outbreaks in one region and laboratory-confirmed influenza cases within the past 3 weeks in the region with increased ILI or outbreaks
- ***Regional:*** Increased ILI or institutional outbreaks in 2-3 regions and laboratory-confirmed influenza cases within the past 3 weeks in the regions with increased ILI or institutional outbreaks
- ***Widespread:*** Increased ILI and/or institutional outbreaks in at least 4 regions and laboratory confirmed influenza in the state within the past 3 weeks

Confirmatory testing: Influenza testing which is considered to be confirmatory, such as a viral culture or PCR

Influenza-like illness (ILI): Fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat

MMWR week: Term for influenza surveillance week. Each week begins on Sunday and ends on Monday. The influenza season begins with MMWR week 40 and ends with MMWR week 39. The 2013-14 influenza season began on September 29, 2013 and will end on September 27, 2014.

Laboratory-confirmation: Positive influenza resulting from one of the following methods:

- DFA
- IFA
- Rapid influenza antigen test
- RT-PCR
- Viral culture