

Erie County 2009 – 2010 Influenza Season Report

For the Week Ending 1/9/2010



ERIE COUNTY DEPARTMENT OF HEALTH

**Division of Public Health Laboratories, Epidemiology, and
Environmental Health**

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Commissioner of Health**

Erie County Surveillance Summary for the Week Ending January 9, 2010

- No circulating seasonal influenza A detected
- All influenza A positive specimens that were further subtyped were 2009 H1N1 influenza.
- Total of 380 laboratory confirmed 2009 H1N1 influenza cases in Erie County with an additional 1141 influenza A (subtype not specified) cases since October 4, 2009
- Approximately 48% of laboratory confirmed cases of 2009 H1N1 influenza were among children aged 5-18 years of age

INTRODUCTION

The Centers for Disease Control and Prevention (CDC), New York State Department of Health (NYSDOH), and Erie County Department of Health (ECDOH) have all established surveillance priorities for the 2009-10 influenza season and 2009 H1N1 pandemic. Surveillance efforts are shifted from spring, 2009 due to the fact that 2009 H1N1 has been documented in all regions throughout New York State and Erie County (see New York State Department of Health *Statewide Influenza Surveillance Plan, 2009-2010 – September 10, 2009*). Furthermore, surveillance globally, nationally, and in NYS has indicated that 2009 H1N1 has been the predominant strain of influenza circulating at this time, accounting for over 99% of all flu virus isolates subtyped. However, influenza viruses are known for their ability to rapidly mutate. Therefore, ongoing surveillance with enough finesse to rapidly detect local changes is important and must particularly focus on: changes in the severity of illness among those currently known to be at risk, demographics of those who present with severe disease possibly due to H1N1, outbreaks, particularly among vulnerable populations, magnitude of disease incidence and severity to help predict upcoming healthcare needs, and, finally, rapid detection of local changes in causes of disease from 2009 H1N1 to seasonal influenzas. The priorities focus on the following:

1. **Hospitalized patients with acute respiratory illness (ARI):** to serve as an indicator of any change in disease severity (e.g., from genetic mutation or reassortment), as well as in the magnitude of the pandemic to prepare for possible surge in demand for healthcare. Also, to provide surveillance for changes in the demographics of those severely infected by H1N1.
2. **Community & Healthcare Facility Outbreaks:** to monitor influenza-like illness prevalence in community and hospital settings, and to provide real-time local surveillance for changes from H1N1 predominance to other causes of ARI especially seasonal influenzas.
3. **Deaths with associated ARI:** to serve as an indicator of any change in disease severity (e.g., from genetic mutation or reassortment), as well as in the magnitude of the epidemic to prepare for possible surge in demand for healthcare.

ECDOH will coordinate public health surveillance activities to focus on the priorities listed above. Additionally, ECDOH will implement surveillance efforts to assess an anticipated increase in influenza-like illness (ILI) during fall 2009 and the ability to determine the variety and proportion of predominating influenza strains, both seasonal and novel. It must be noted that surveillance must be flexible to adjust to the evolution of the epidemic. Therefore, the current plan will likely require modification(s) and it should be expected that the plan will not remain static.

Erie County Surveillance Data

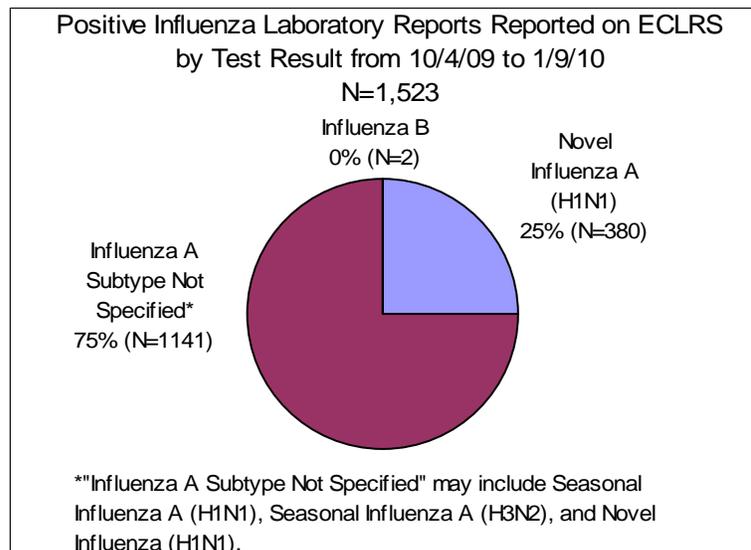
Erie County: Positive Influenza Laboratory Tests Reported via Electronic Clinical Laboratory Reporting System (ECLRS)

Hospital, commercial and public health laboratories report positive influenza tests via the New York State Department of Health's Electronic Clinical Laboratory Reporting System (ECLRS). Positive tests results are shown below. Patients for whom multiple tests are performed (e.g. Influenza A and H1N1) are reported only once with the most specific test taking priority.

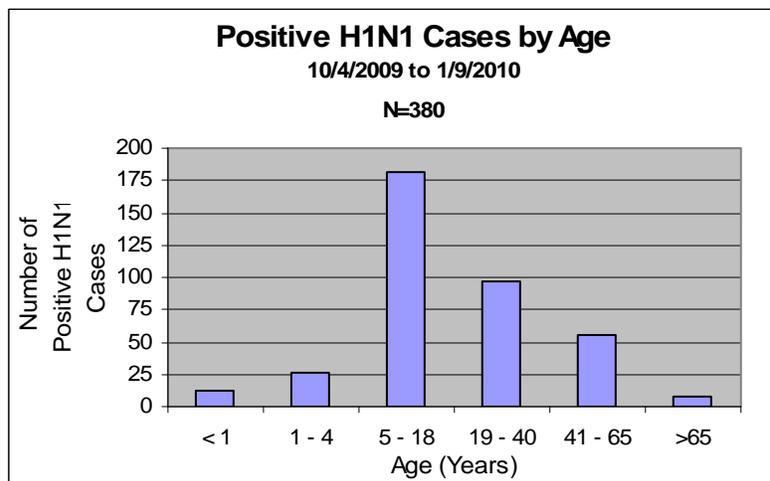
a. Current Week

There have been no positive influenza cases reported for the week ending 1/9/2010.

b. Influenza Season to Date



c. Influenza by Age



Erie County Public Health Laboratory Influenza Testing

The Erie County Public Health Laboratory (ECPHL) has the capability to test for seasonal influenza A and B, and novel 2009 H1N1 influenza using rRT-PCR methods. Testing is performed for patients with influenza-like illness (ILI) at 6 sentinel outpatient sites (maximum of 10 specimens per site per week) and for selected hospitalized patients with ILI. The results of ECPHL testing are shown below.

a. Erie County Influenza Sentinel Surveillance System Testing

<i>SENTINEL SITES</i>	TOTAL SPECIMENS TESTED	POSITIVE A/H1 SEASONAL	POSITIVE A/H3 SEASONAL	POSITIVE H1N1 2009 NOVEL	POSITIVE INFLUENZA B
(01/03/10-01/09/10)	1	0	0	0	0
Season-to-date total	91	0	0	74	0

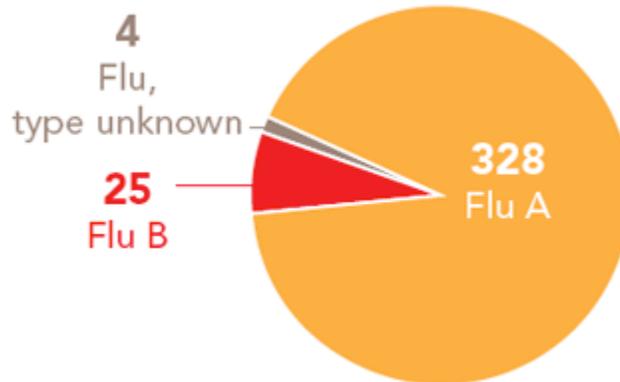
b. Erie County Hospitalized Patient Testing

<i>HOSPITALIZED/ OTHER SITES</i>	TOTAL SPECIMENS TESTED	POSITIVE A/H1 SEASONAL	POSITIVE A/H3 SEASONAL	POSITIVE H1N1 2009 NOVEL	POSITIVE INFLUENZA B
01/03/10-01/09/10)	6	0	0	0	0
Season-to-date total	228	1	0	116	0

New York State Surveillance Data

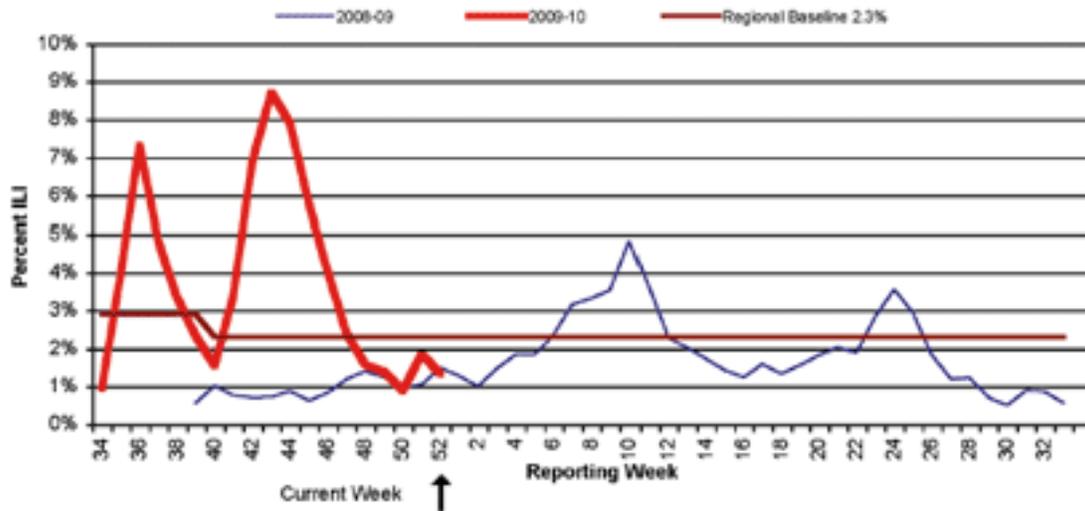
Summary of New York State-wide Influenza Testing Reported via ECLRS and New York State Sentinel Provider Surveillance

All Positive Flu Reports for week ending 1/9/10



Source: <http://www.health.state.ny.us/diseases/communicable/influenza/surveillance/2009-2010/>

Percent of Visits to Sentinel Providers in NYS (Outside of NYC) for Flu-like Illness (season to date, by week)



Source: <http://www.health.state.ny.us/diseases/communicable/influenza/surveillance/2009-2010/>

Hospitalizations for Flu - Sentinel Hospitals

- Sentinel hospitals are a select group of hospitals from around the state, called "sentinel" hospitals, who have agreed to do extra monitoring to help NYSDOH keep track of flu in the hospital.
- The information learned from these "sentinel" hospitals gives a snapshot of what is going on with flu at hospitals around the state.

Age Groups for Hospitalized Flu Patients at Sentinel Hospitals,

10/1/09 – 1/9/10

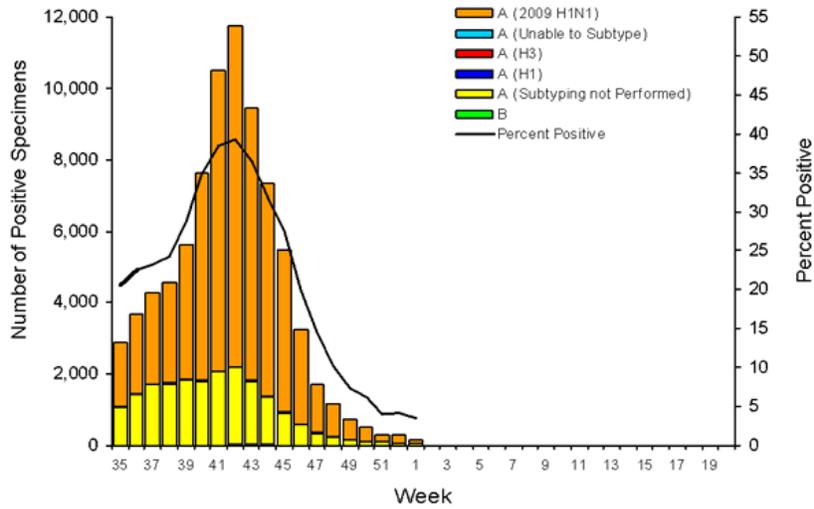
Age Group	Count	Percentage
0-4	72	26.0%
5-19	102	36.8%
19-24	20	7.2%
25-49	38	13.7%
50-64	35	12.6%
65+	10	3.6%

Source: <http://www.health.state.ny.us/diseases/communicable/influenza/surveillance/2009-2010/>

National Surveillance Data

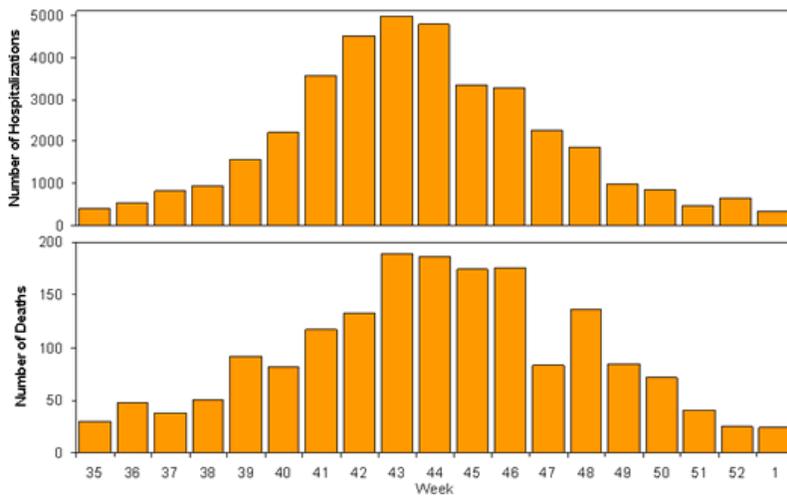
Summary of National Influenza Activity (CDC):

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2009-10



Source: <http://www.cdc.gov/flu/weekly/>

Weekly Laboratory-Confirmed Influenza-Associated Hospitalizations and Deaths Reported to AHDRA, National Summary, August 30, 2009 – January 9, 2010



Source: <http://www.cdc.gov/flu/weekly/>

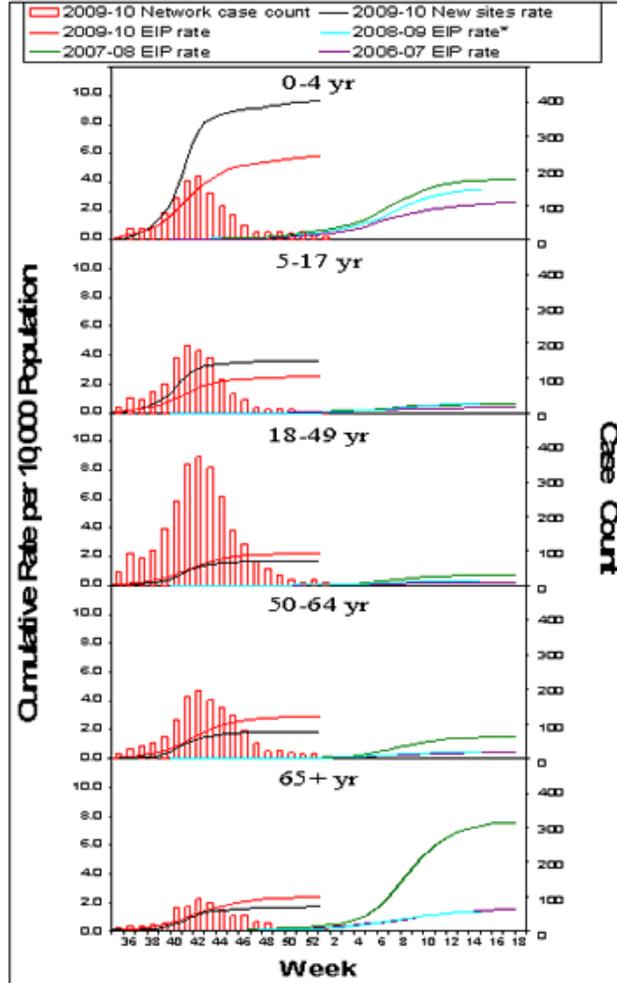
Influenza-Associated Hospitalizations

Laboratory-confirmed influenza-associated hospitalizations are monitored using a population-based surveillance network that includes the 10 Emerging Infections Program (EIP) sites (CA, CO, CT, GA, MD, MN, NM, NY, OR and TN) and 6 new sites (IA, ID, MI, ND, OK and SD).

During September 1, 2009 – January 9, 2010, the following preliminary laboratory-confirmed overall influenza associated hospitalization rates were reported by EIP and the new sites (*rates include influenza A, influenza B, and 2009 influenza A (H1N1)*):

Rates [EIP (new sites)] for children aged 0-4 years and 5-17 years were 5.9 (9.7) and 2.5 (3.6) per 10,000, respectively. Rates [EIP (new sites)] for adults aged 18-49 years, 50-64 years, and ≥ 65 years were 2.2 (1.7), 2.9 (1.8) and 2.4 (1.7) per 10,000, respectively.

EIP Influenza Laboratory-Confirmed Cumulative Hospitalization Rates, 2009-10 and Previous Three Seasons*



*The 2008-09 EIP rate ended as of April 14, 2009 due to the onset of the 2009 H1N1 season.

Source: <http://www.cdc.gov/flu/weekly/>

Disclaimer: The Erie County Department of Health does not provide medical advice. The information provided herein and on the Erie County Department of Health website is not intended as a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your personal physician or other qualified health provider with any questions you may have regarding a medical condition or issue. Never disregard professional medical advice or delay in seeking it because of the content found on the Erie County Department of Health website or this correspondence.