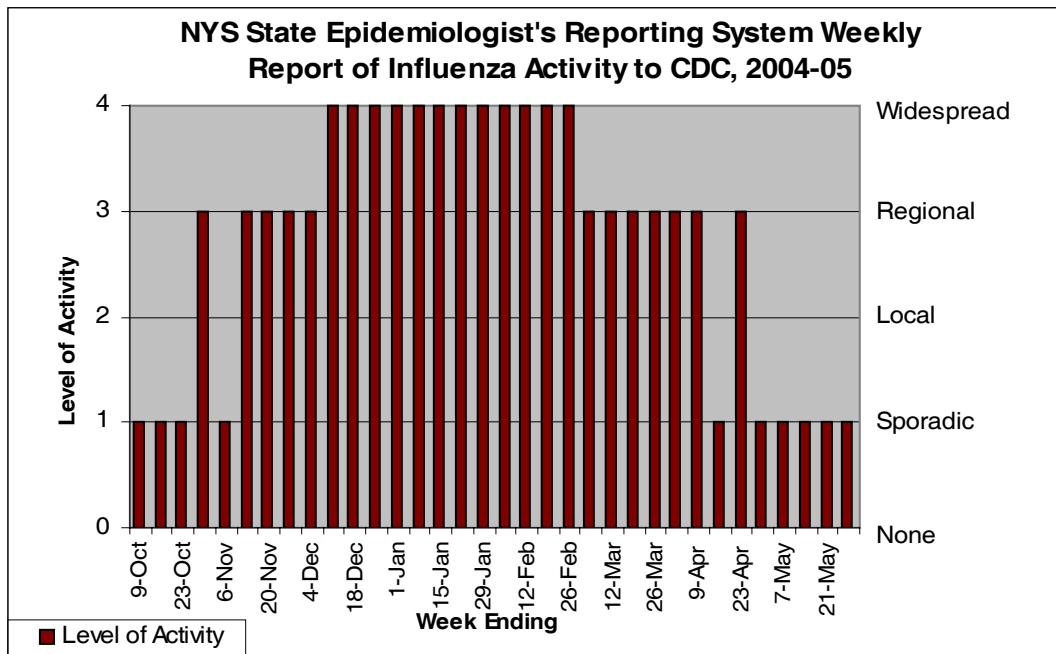


**NEW YORK STATE DEPARTMENT OF HEALTH
BUREAU OF COMMUNICABLE DISEASE CONTROL
REGIONAL EPIDEMIOLOGY PROGRAM**

**STATEWIDE SUMMARY
2004-2005 INFLUENZA SEASON**

1. WEEKLY NEW YORK STATE EPIDEMIOLOGIST'S REPORT TO CDC:

2004 – 2005 Season's Activity



CDC's Definition of Influenza Activity Levels:

Activity Level	ILI¹ activity/Outbreaks		Laboratory data
No activity	Low	And	No lab-confirmed ² cases
Sporadic	Not increased	And	Isolated lab-confirmed cases
	OR		
	Not increased	And	Lab-confirmed outbreak in one institution ³
Local	Increased ILI in one region; ILI activity in other regions is not increased	And	Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI
	OR		
	2 or more institutional outbreaks (ILI or lab-confirmed) in one region; ILI activity in other regions is not increased	And	Recent (within the past 3 weeks) lab evidence of influenza in region with the outbreaks; virus activity is no greater than sporadic in other regions
Regional	Increased ILI in \geq two but less than half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
	OR		
	Institutional outbreaks (ILI or lab confirmed) in \geq two and less than half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
Widespread	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the state.

[NOTE: CDC's nationwide summary of the 2004-2005 influenza season is available at the following website: <http://www.cdc.gov/flu/weekly/weeklyarchives2004-2005/04-05summary.htm>]

¹ ILI = influenza-like illness, defined as temperature \geq 100° F with cough or sore throat in the absence of a known cause

² Lab-confirmed = positive rapid antigen test or culture

³ Institution includes nursing home, hospital, prison, school, etc.

2. NOSOCOMIAL INFLUENZA REPORTING:

Nosocomial Influenza Reports⁴ Received by NYSDOH, by Week of Report, 2004-2005 Influenza Season

NYSDOH received reports of laboratory-confirmed nosocomial influenza activity as noted in the table below.

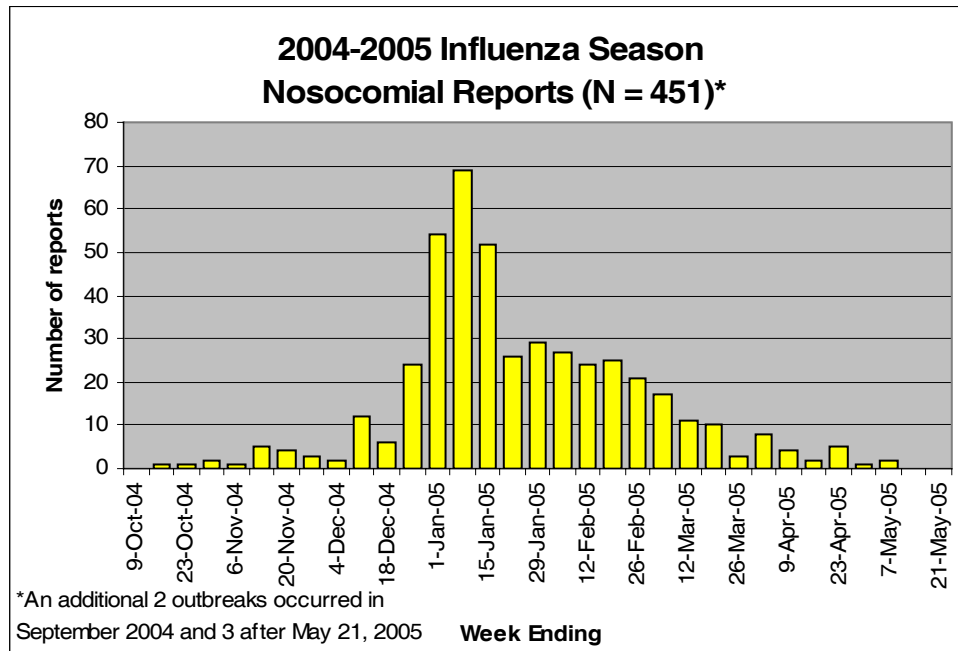
Week Ending, 2004-05	# of Nosocomial Reports Received	County of Location
May 21	none	
May 14	none	
May 7	2	Montgomery, Oneida
April 30	1	Dutchess
April 23	5	Chenango, Nassau (2), New York, Westchester
April 16	2	Rockland, Seneca
April 9	4	Erie, Queens, Suffolk (2)
April 2	8	Erie (2), Nassau, Oneida, Ontario, Rensselaer, Suffolk (2)
March 26	3	Onondaga, Queens, Seneca
March 19	10	Bronx, Broome, Dutchess, Essex, Kings, Nassau, New York (2), Richmond, Schenectady
March 12	11	Bronx, Chautauqua, Herkimer, New York (3), Ontario, Queens, Richmond, Warren (2)
March 5	17	Albany, Bronx (2), Broome (3), Chautauqua, Chemung, Erie, Kings, Livingston, Monroe (2), Queens, Steuben, Westchester (2)
February 26	21	Albany, Chenango, Columbia, Erie (6), Kings, Nassau (2), New York, Onondaga (2), Oswego (2), Tioga, Tompkins, Westchester, Wyoming
February 19	25	Albany, Chautauqua (2), Cortland, Erie, Fulton (2), Monroe (2), Oneida (2), Onondaga, Queens, Richmond (2), Saratoga, Schuyler, Suffolk, Tompkins (2), Ulster, Westchester (2), Wyoming, Yates
February 12	24	Cayuga, Chautauqua (3), Chemung, Dutchess, Erie (5), Franklin, Monroe, Nassau, New York, Niagara, Orleans, Otsego, Putnam, Suffolk (3), Sullivan, Ulster
February 5	27	Albany, Bronx, Cattaraugus, Delaware, Erie (4), Genesee, Herkimer, Kings, Monroe (2), Montgomery, Nassau, Niagara, Onondaga, Ontario (2), Queens, Seneca, Steuben, Suffolk, Ulster, Warren, Wayne, Westchester
January 29	29	Cattaraugus, Chemung (2), Erie (5), Genesee (2), Kings (2), Monroe, Nassau (4), New York, Niagara (2), Oneida, Oswego, Rensselaer, Steuben, Tompkins, Ulster, Wayne, Westchester (2)

⁴ facilities reporting one or more laboratory-confirmed nosocomial influenza cases

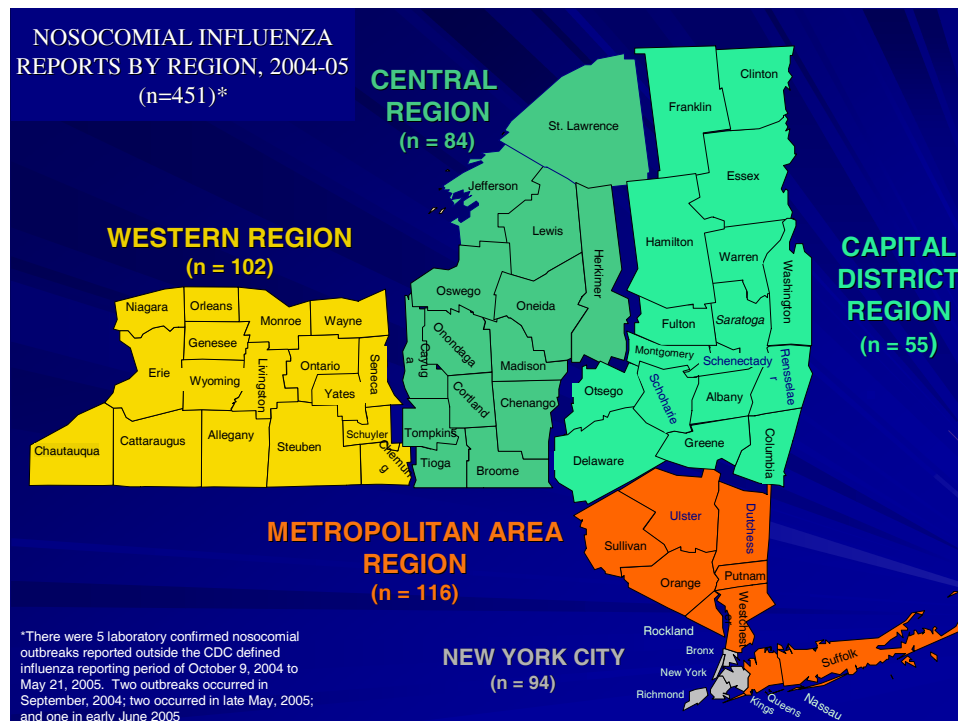
January 22	26	Allegany, Bronx, Broome, Essex, Jefferson, Kings (2), Lewis, Monroe, Oneida (4), Oswego, Otsego (2), Queens (3), Suffolk, Sullivan, Tioga, Westchester (2), Wyoming, Yates
January 15	52	Albany, Allegany (2), Bronx (2), Broome (2), Chemung, Chenango, Erie (3), Essex, Herkimer, Kings, Livingston, Monroe (3), Nassau (5), New York (3), Oneida (3), Onondaga, Oswego (2), Queens (3), Rensselaer (2), Rockland, St. Lawrence, Saratoga, Schenectady, Seneca, Suffolk (6), Ulster, Wayne (2)
January 8	69	Albany (3), Bronx (4), Broome (2), Cortland, Genesee, Greene, Herkimer (2), Jefferson, Kings, Montgomery, Nassau (8), New York (4), Niagara, Oneida (2), Onondaga (4), Orange (3), Queens (5), Rensselaer (3), Richmond, Rockland, St. Lawrence (2), Saratoga, Schenectady (2), Schoharie, Suffolk (7), Westchester (6), Yates
January 1	54	Albany, Bronx (3), Broome (4), Chenango (3), Clinton, Columbia, Dutchess (3), Erie (4), Jefferson, Kings, Madison, Monroe (2), Montgomery (2), Nassau (4), Oneida, Onondaga, Ontario, Orange, Queens (3), Richmond, St. Lawrence, Saratoga, Suffolk (7), Ulster (2), Westchester (4)
December 25, 2004	24	Bronx (2), Broome (3), Clinton, Franklin, Kings (2), New York (3), Oneida (4), Queens, Rockland, Schuyler, Suffolk (2), Westchester (3)
December 18	6	Bronx (2), Columbia, New York, Suffolk, Washington
December 11	12	Bronx (2), Columbia, Greene, Kings, New York, Queens, St. Lawrence, Suffolk (2), Sullivan (2)
December 4	2	Chautauqua, Ontario
November 27	3	Nassau, New York, Queens
November 20	4	Bronx, Broome, Queens, Richmond
November 13	5	Erie, New York, Onondaga, Queens, Saratoga
November 6	1	Onondaga
October 30	2	Nassau, Queens
October 23	1	Saratoga
October 16	1	New York
October 9	none	
Total	451⁵	

⁵ There were an additional 5 laboratory-confirmed nosocomial outbreaks reported outside the CDC-defined influenza reporting period of October 9, 2004 to May 21, 2005. Two outbreaks occurred in September 2004, two occurred in late May 2005, and one in early June 2005.

Number of Laboratory-Confirmed Nosocomial Influenza Reports, by Week of Report



Number of Laboratory-Confirmed Nosocomial Influenza Reports, by Region



**Nosocomial Influenza Reports⁶ Received by NYSDOH,
by County, 2004-2005 Influenza Season⁷**

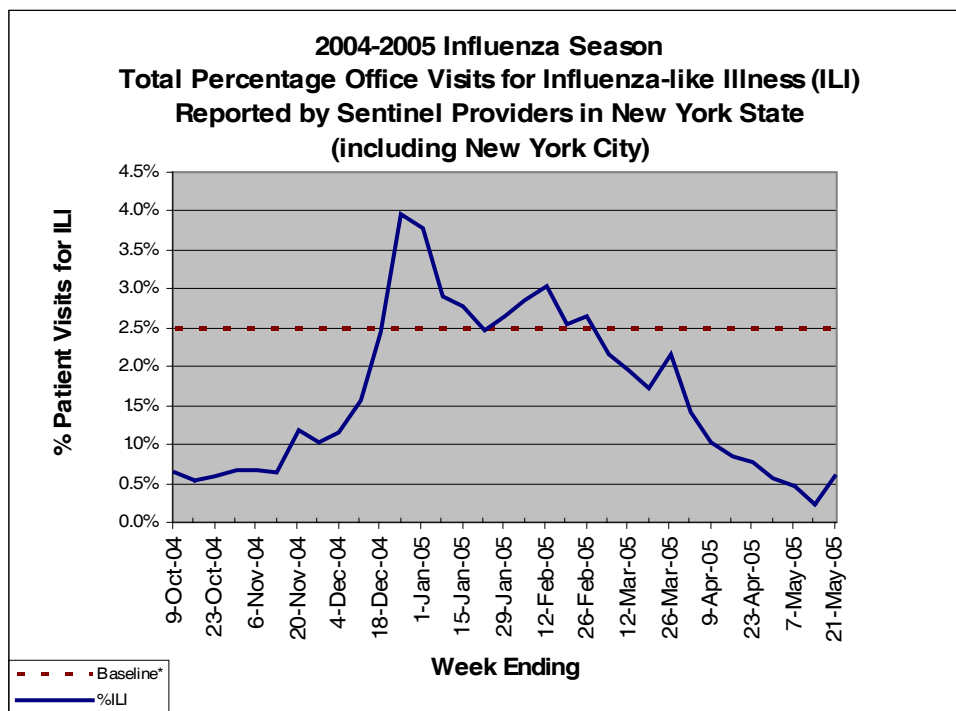
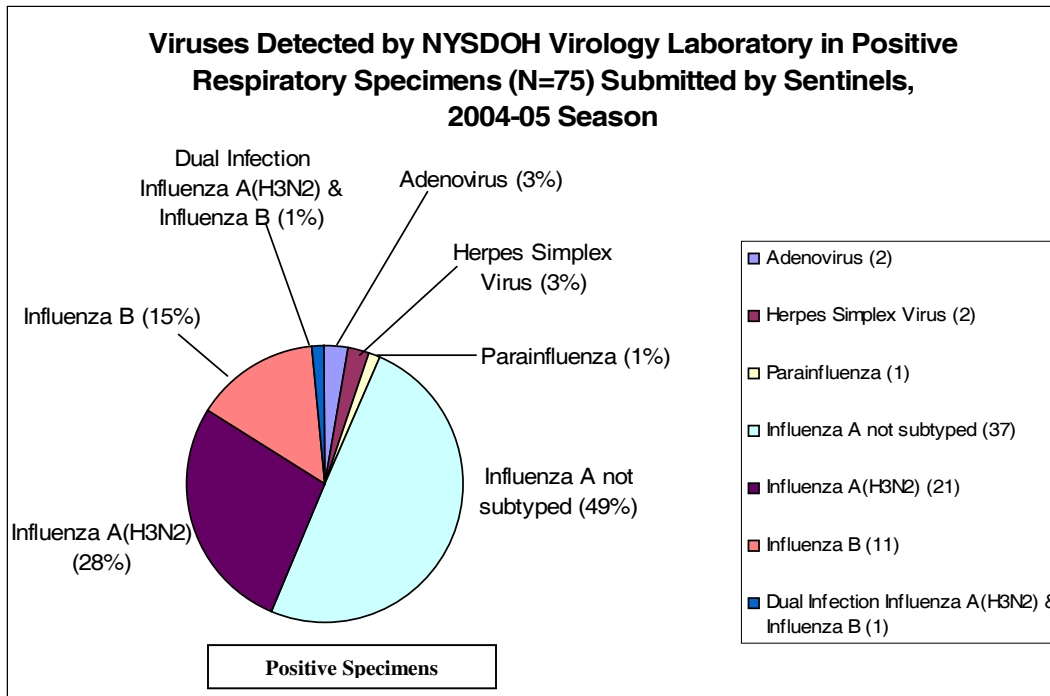
COUNTY/REGION	REPORTS RECEIVED	COUNTY/REGION	REPORTS RECEIVED
<u>Capital District Region</u>		<u>Western Region</u>	
Albany	9	Allegany	3
Clinton	2	Cattaraugus	1
Columbia	4	Chautauqua	8
Delaware	1	Chemung	5
Essex	3	Erie	33
Franklin	2	Genesee	4
Fulton	2	Livingston	2
Greene	2	Monroe	15
Hamilton	0	Niagara	5
Montgomery	5	Ontario	6
Otsego	3	Orleans	1
Rensselaer	7	Schuyler	2
Saratoga	6	Seneca	4
Schenectady	4	Steuben	3
Schoharie	1	Wayne	4
Warren	3	Wyoming	3
Washington	1	Yates	3
Region Total Nosocomial	55	Region Total Nosocomial	102
<u>Syracuse Region</u>		<u>MARO – New Rochelle</u>	
Broome	17	Dutchess	6
Cayuga	1	Nassau	31
Chenango	6	Orange	4
Cortland	2	Putnam	1
Herkimer	5	Rockland	4
Jefferson	3	Suffolk	35
Lewis	1	Sullivan	4
Madison	1	Ulster	7
Oneida	18	Westchester	24
Onondaga	13	Region Total Nosocomial	116
Oswego	6		
St. Lawrence	5	<u>MARO – New York City</u>	
Tioga	2	Bronx	22
Tompkins	4	Kings	14
Region Total Nosocomial	84	New York	24
		Queens	26
		Richmond	8
		Region Total Nosocomial	94

⁶ facilities reporting one or more laboratory-confirmed nosocomial influenza cases

⁷ There were an additional 5 laboratory-confirmed nosocomial outbreaks reported outside the CDC-defined influenza reporting period of October 9, 2004 to May 21, 2005. Two outbreaks occurred in September 2004, two occurred in late May 2005, and one in early June 2005

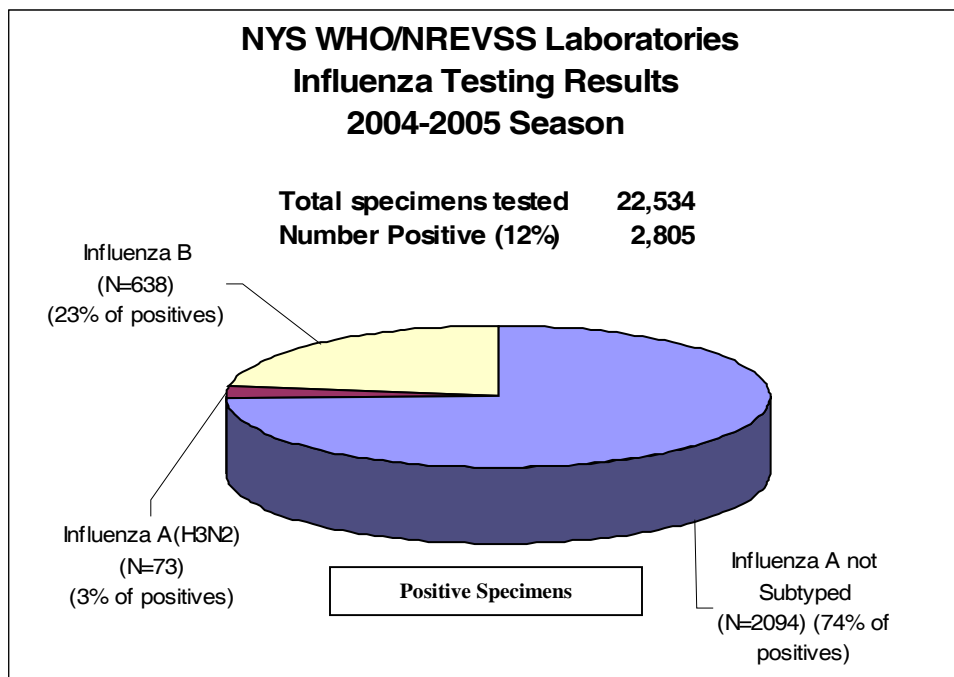
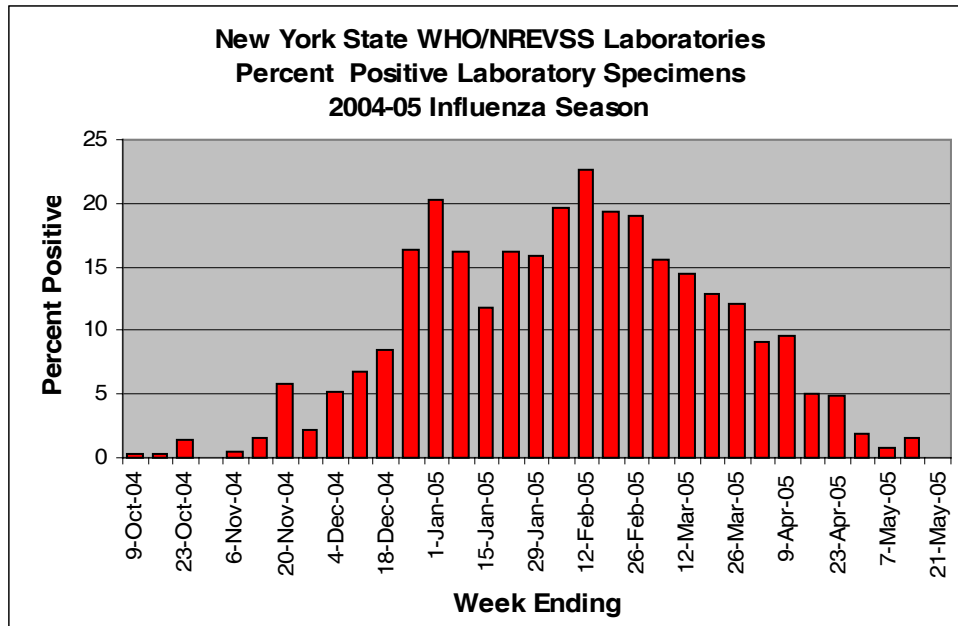
3. SENTINEL PHYSICIAN SURVEILLANCE:

Fifty-seven (46%) of 125 New York State and New York City sentinel physicians for influenza surveillance submitted 167 respiratory specimens to the NYSDOH Wadsworth Center for testing. Five specimens were positive for respiratory viruses other than influenza, as noted in the table below. Seventy specimens (42%) tested positive for influenza. Fifty-eight (83%) of the positive influenza specimens were influenza A and 21 of these were influenza A(H3N2). One specimen was positive for both influenza A(H3N2) and B. 11 (16%) were positive for influenza B. Ninety-one specimens were negative. One specimen was not able to be tested.



Additional information regarding the New York State Sentinel Physician Influenza Surveillance Program is available at: <http://www.health.state.ny.us/nysdoh/flu/recruit.htm>

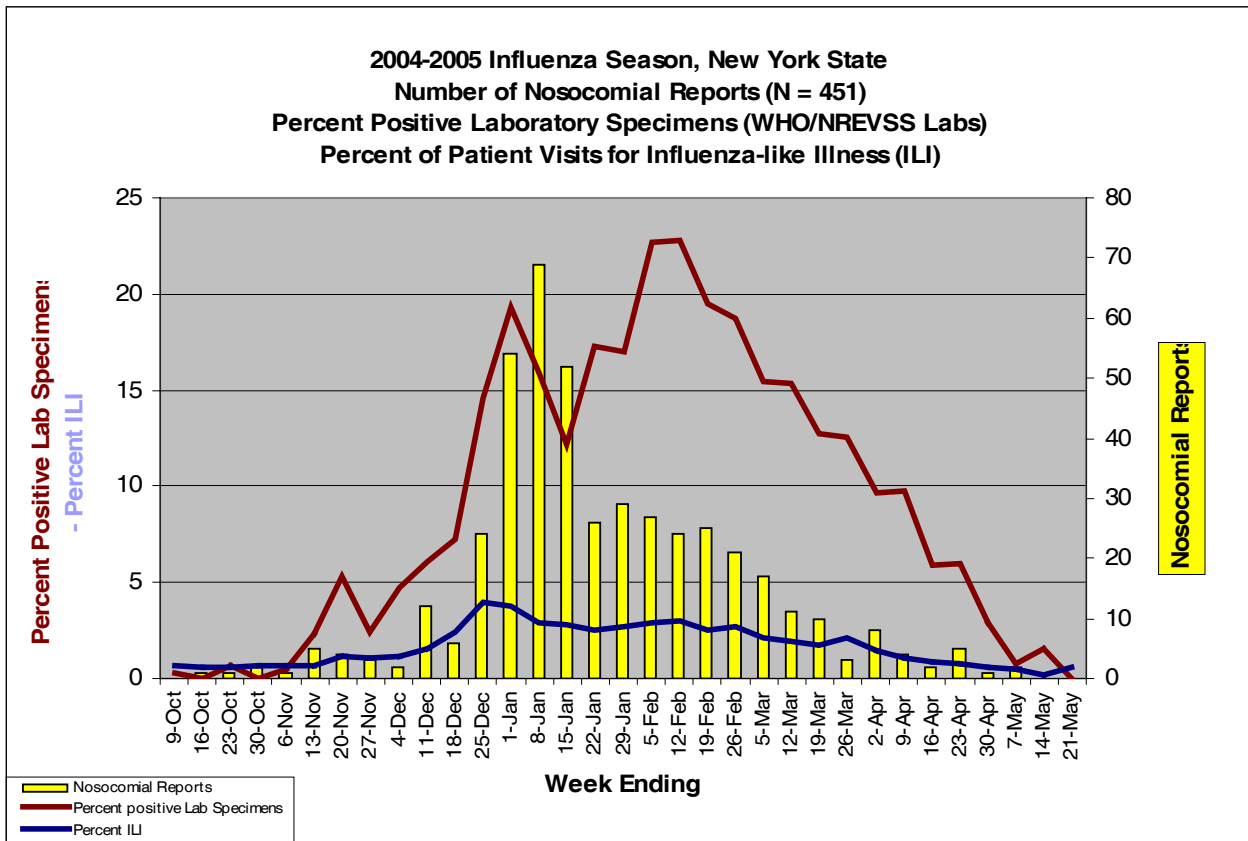
4. WHO⁸/NREVSS⁹ LABORATORY REPORTING:



⁸ World Health Organization collaborating laboratory for influenza virus surveillance

⁹ National Respiratory and Enteric Virus Surveillance System collaborating laboratory

5. COMPARISON CHART – THREE SOURCES OF INFLUENZA SURVEILLANCE:



NOTE: The influenza reporting season begins the first week in October and ends the third week in May. This report is available on NYSDOH's Influenza website at <http://www.health.state.ny.us/nysdoh/flu/index.htm>. CDC's nationwide influenza surveillance report is available at <http://www.cdc.gov/flu/weekly/weeklyarchives2004-2005/04-05summary.htm>

Influenza Vaccine Components

2004-2005	2005-2006
A(H3N2)Fujian/411/2002 (Wyoming/3/2003)*	A(H3N2)/California/7/2004-like (A/New York/55/2004)*
A(H1N1)New Caledonia/20/99	A(H1N1)New Caledonia/20/99-like
B/Shanghai/361/2002 (B/Jilin/20/2003)* (B/Jiangsu/10/2003)*	B/Shanghai/361/2002-like (B/Jiangsu/10/2003)*

*Antigenically-equivalent components used by U.S. vaccine manufacturers

An influenza A virus isolated in New York State has been chosen as a candidate virus for inclusion in the trivalent influenza vaccine for the upcoming 2005-06 influenza season. The virus, designated as Influenza A/New York/55/2004(H3N2), was first cultured in November 2004 by the

Virology Laboratory at the Westchester County Department of Laboratories and Research from a clinical respiratory specimen sent to them for testing. The laboratory is one of eleven clinical virology laboratories in New York State that collaborate either with the World Health Organization (WHO) for influenza virus surveillance or the Centers for Disease Control and Prevention's (CDC) National Respiratory and Enteric Virus Surveillance System (NREVSS). There are approximately 125 such laboratories nationwide.

Each influenza season, these laboratories in New York State report weekly to the state health department and to CDC the number of respiratory specimens tested and the number positive for influenza, by influenza type. Periodically during the season, they also send some of their influenza isolates to the influenza laboratory at CDC for strain characterization. These efforts help identify which virus strains are circulating and which strains should be included in the next season's vaccine.

Strain characterization at CDC for the 2004-05 season showed that influenza A/California/7/2004 (H3N2), a drifted variant of the 2004-05 vaccine strain A/Fujian/411/2002 (H3N2), started to circulate during the season and eventually accounted for approximately 78% of the A(H3N2) isolates characterized by CDC. The virus isolate submitted by the Westchester County lab, which CDC designated as A/New York/55/2004, is antigenically equivalent to virus designated as A/California/7/2004.

Before an influenza virus can be recommended for inclusion in the vaccine, much additional research needs to be done. Antigenic and genetic analyses must be conducted. The U.S. Food and Drug Administration (FDA) requires that influenza vaccine virus be grown in chicken eggs. Because WHO and NREVSS labs culture influenza virus in tissue cells rather than eggs, original clinical material for a potential vaccine virus must be obtained and grown in egg culture to see if the virus will grow in eggs, and if so, how well it grows. Such research, conducted on the A/New York/55/2004 virus, yielded a reassortant virus with a high growth rate in eggs.

Both the WHO, for the northern hemisphere, and the FDA, for the U.S., have recommended the following three influenza virus strains as components of the 2005-06 trivalent influenza vaccine:

- an A/California/7/2004(H3N2)-like virus
- an A/New Caledonia/20/99(H1N1)-like virus
- a B/Shanghai/361/2002-like virus

Both agencies evaluated research data on several candidates for the A/California/7/2004(H3N2)-like virus component. The WHO has recommended the A/New York/55/2004 virus as a suitable candidate H3N2 virus for the 2005-06 influenza vaccine for the northern hemisphere. The FDA has recommended the A/New York/55/2004 virus for the H3N2 component of the 2005-06 inactivated influenza virus (flu shot), and the A/California/7/2004 for the H3N2 component of the 2005-06 live attenuated influenza vaccine (nasal spray vaccine).

Congratulations to the Virology Laboratory of the Westchester County Department of Laboratories and Research for their significant contribution to national as well as international influenza surveillance and prevention, and many thanks to all our WHO and NREVSS laboratories who contribute, season after season, to this vital public health endeavor.

Appendix

**INFLUENZA TESTING RESULTS,
NEW YORK STATE W.H.O. AND NREVSS LABORATORIES,
INFLUENZA SEASON 2004-05
(# positive for influenza / # specimens tested) as of June 6, 2005**

Week Ending	Albany	Buffalo Lab A	Buffalo Lab B	Rochester Lab A	Rochester Lab B	New Rochelle	Bronx	Brooklyn Lab A	Brooklyn Lab B	Manhattan Lab A	Manhattan Lab B	L. I. Lab A	L. I. Lab B	Total	Percent positive
Oct. 9 2004	0/3	0/23	0/7	0/31	0/11	0/30	0/8	0/5	0/27	0/85	0/11	0/12	1/52	1/305	0.33
Oct. 16	0/6	0/24	0/6	0/43	0/5	0/24	0/4	0/5	0/22	0/106	0/21	0/22	0/70	0/358	0
Oct. 23	0/4	0/24	0/7	0/33	0/9	0/16	0/8	0/7	0/36	0/70	0/34	0/23	2/40	2/311	0.64
Oct.30	0/2	0/25	0/5	0/45	0/7	0/20	0/41	0/13	0/45	0/73	0/28	0/19	0/65	0/388	0
Nov. 6	0/4	0/38	0/4	0/43	0/3	0/24	0/36	1/27	1/37	0/106	0/27	0/19	0/70	2/438	0.46
Nov. 13	3/12	0/46	1/11	0/12	0/9	1/19	0/31	0/12	0/29	1/91	2/32	0/19	1/70	9/393	2.29
Nov. 20	0/6	0/43	3/14	1/59	0/9	14/43	5/41	0/7	0/35	1/98	0/19	0/13	0/62	24/449	5.35
Nov 27	1/10	0/30	0/8	2/59	0/14	0/47	1/57	1/15	0/43	3/107	2/32	0/22	2/73	12/517	2.32
Dec. 4	0/31	0/47	0/10	3/74	0/2	7/40	1/57	1/26	2/57	6/127	2/45	1/16	8/118	31/664	4.67
Dec.11	2/17	0/69	0/10	3/88	0/15	3/48	7/74	2/15	0/68	10/123	5/44	3/16	8/123	43/710	6.06
Dec. 18	1/16	3/52	0/9	5/81	0/22	4/59	2/78	2/15	1/50	19/207	6/54	0/26	14/115	57/784	7.27
Dec. 25	1/11	3/77	0/3	13/109	0/12	8/65	10/40	4/40	10/62	46/296	10/75	6/27	37/197	148/1014	14.60
Jan. 1, 2005	3/7	12/123	0/16	73/207	0/28	20/92	4/24	2/19	8/54	46/309	23/94	0/25	62/312	253/1310	19.31
Jan. 8	5/18	16/135	0/20	54/209	1/8	37/127	9/33	5/15	7/46	55/337	23/115	1/28	27/413	240/1504	15.96
Jan. 15	19/25	7/123	1/20	56/269	1/19	12/63	0/25	0/18	3/46	28/283	8/81	21/50	14/373	170/1395	12.19
Jan. 22	21/35	20/115	2/13	74/235	3/20	16/80	0/10	3/15	5/50	19/238	6/84	14/50	22/243	205/1188	17.26
Jan. 29	20/31	24/145	5/25	78/206	7/24	9/75	1/13	1/12	0/27	11/184	9/77	4/44	11/205	180/1068	16.85
Feb. 5	42/53	42/170	13/35	74/252	4/8	10/51	3/17	1/11	4/37	7/136	6/60	6/30	27/192	239/1052	22.72
Feb. 12	10/23	54/218	10/31	108/302	4/10	5/31	1/9	0/10	2/33	19/178	5/61	0/24	33/173	251/1103	22.76
Feb.19	2/7	59/220	6/21	77/217	2/7	2/30	0/4	0/8	2/29	12/172	1/45	0/23	24/175	187/958	19.52
Feb.26	1/7	47/213	6/23	69/182	3/14	2/46	1/16	4/18	2/25	11/169	8/57	2/29	22/152	178/951	18.72
Mar. 5	0/2	25/203	6/15	43/167	3/11	6/33	2/8	0/26	5/27	8/138	4/58	5/28	29/167	136/883	15.40
Mar. 12	10/16	24/167	2/16	32/129	3/10	5/29	3/10	0/17	6/37	8/132	4/50	1/21	20/134	118/768	15.36
Mar. 19	1/14	15/126	2/12	22/92	3/10	1/11	2/6	4/8	7/35	7/151	3/42	0/17	13/106	80/630	12.70
Mar. 26	4/7	13/157	0/7	8/105	2/8	1/20	1/2	1/12	4/28	15/127	5/30	1/21	27/133	82/657	12.48
Apr. 2	2/5	6/112	3/11	10/79	2/10	2/17	0/6	0/12	1/23	9/139	6/55	1/19	14/127	58/615	9.43
Apr. 9	6/11	1/62	0/13	12/68	2/14	0/11	1/3	0/3	2/22	3/95	8/60	3/22	7/82	45/466	9.66
Apr. 16	3/15	0/51	1/5	4/36	2/7	0/10	0/5	0/7	1/17	5/103	1/42	0/14	5/72	22/384	5.73
Apr. 23	3/4	1/65	0/6	4/38	0/12	2/15	0/7	0/9	0/20	2/80	0/26	2/19	6/44	20/345	5.80
Apr. 30	3/11	0/40	4/0	0/33	0/6	1/11	0/4	0/9	1/20	0/78	1/24	0/14	3/64	9/318	2.83
May 7	0/3	0/53	2/0	1/30	0/10	0/11	0/4	0/4	0/10	1/62	0/34	0/3	0/40	2/266	0.75
May 14	0/2	3/41	0/2	0/27	0/2	0/22	0/1	0/2	0/8	0/74	1/21	0/19	0/34	4/255	1.57
May 21	0/0	0/17	0/2	0/18	0/0	0/7	0/0	0/4	0/8	0/65	0/26	0/15	0/47	0/209	0