Influenza Surveillance in New York State 1998 - 2001

Marilyn A. Kacica MD, MPH
Vicki J. Randle RN, MPH

New York State Department of Health
Albany, New York
NYSDOH Influenza Surveillance
Four Surveillance Systems

1. Collaborating Laboratories Surveillance System
2. NYSDOH Infection Control Program
3. CDC Sentinel Physician Surveillance
4. State Epidemiologists’ Surveillance System
NYSDOH Influenza Surveillance
Collaborating Laboratories Surveillance System

World Health Organization Laboratories
National Respiratory and Enteric Virus Surveillance System

- Weekly reports to the CDC and NYSDOH
- Number of respiratory specimens tested
- Number positive for influenza
- By type and subtype
NYSDOH Influenza Surveillance Collaborating Laboratories Surveillance System

Geographic Distribution of WHO / NREVSS Laboratories
NYSDOH Influenza Surveillance
Infection Control Program

**Outbreak reports**

- Telephone consultation
- Laboratory support
- On-site assistance

**Outbreak surveillance**

- Interfacility outbreaks / geographic trends
- Potential risks / preventive actions
<table>
<thead>
<tr>
<th>Report Period</th>
<th>Influenza Outbreaks</th>
<th>Total Outbreaks</th>
<th>Percentage of Outbreaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 3, 1998 – May 22, 1999</td>
<td>178</td>
<td>648</td>
<td>27%</td>
</tr>
<tr>
<td>October 2, 1999 – May 20, 2000</td>
<td>206</td>
<td>527</td>
<td>39%</td>
</tr>
<tr>
<td>September 30, 2000 – May 19, 2001</td>
<td>31</td>
<td>386</td>
<td>8%</td>
</tr>
</tbody>
</table>
NYSDOH Influenza Surveillance
Sentinel Physician Influenza Surveillance

Influenza-like Illness

Cough OR sore throat AND fever $\geq 100 \, ^\circ \, F$
in the absence of a known cause

Reporting

1998: 7 sentinels > 200 patient visits weekly
1999: 25 sentinels > 1500 "
2000: 57 sentinels > 4500 "

Specimen submission

Initiated 2001
NYSDOH 2000 - 2001 Influenza Surveillance

Upstate Sentinel Surveillance Sites and Census 2000 Population by County

Sentinel sites upstate = 38
Sentinel sites in NYC = 19

Census 2000: Total persons per county

- 5379 - 152,976
- 152,976 - 339,932
- 339,932 - 733,523
- 733,523 - 1,535,466
- 1,535,466 - 2,465,326
NYSDOH Influenza Surveillance
State and Territorial Epidemiologists’ Influenza Surveillance System

- CDC national tracking
- Weekly estimates of influenza activity
- Categorical estimates of influenza activity
  - none
  - sporadic
  - regional
  - widespread
NYSDOH Influenza Surveillance 1998 - 1999

Percent of Respiratory Specimens Positive for Influenza
Increased Virus Isolation - 14 Weeks

Reported Outbreaks of Nosocomial Influenza
Increased Outbreaks Reported - 10 Weeks
NYSDOH Influenza Surveillance 1998 - 1999
Percent Positive Specimens, Nosocomial Outbreaks and Percent of Patient Visits for Influenza-like Illness
<table>
<thead>
<tr>
<th>Weeks 20 - 40</th>
<th>Percent of Tests Positive For</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RSV</td>
</tr>
<tr>
<td>1998 - 1999</td>
<td>13%</td>
</tr>
<tr>
<td>1999 - 2000</td>
<td>15%</td>
</tr>
<tr>
<td>2000 - 2001</td>
<td>18%</td>
</tr>
</tbody>
</table>
NYSDOH Influenza Surveillance
Prevention, Surveillance, Outbreak Control

Annual Prevention and Control Guidelines

• ACIP recommendations
• Vaccine supply, indications, prioritization
• Website addresses for biweekly updates

Biannual Influenza Alerts

• At season onset
• As season intensifies
• Reiterates pertinent recommendations
NYSDOH Influenza Surveillance
Prevention, Surveillance, Outbreak Control

**Outbreak Reporting**
- Identify viral agent
- Direct control measures
- Recommend appropriate prophylaxis

**Feedback and Information**
- Health Information Network
- Health Providers Network
- NYSDOH Public Website
Influenza Activity For Week Ending February 9, 2002
NYSDOH/BCDC. Based on lab confirmed outbreak(s) in a health care facility, school or institution.
Influenza Activity For Week Ending February 23, 2002
NYSDOH/BCDC. Based on lab confirmed outbreak(s) in a health care facility, school or institution.
NYSDOH Influenza Surveillance
1998-99, 1999-00, 2000-01 Summary

Onset of Increased Influenza Activity

- ≥ 10% of respiratory specimens positive
- ≥ 5 nosocomial outbreaks per week
- ≥ 3% of patient visits for ILI

Peak Influenza Activity

- ≥ 15% of respiratory specimens positive
- Doubling of nosocomial outbreaks
- 3% - 10% of patient visits for ILI
NYSDOH Influenza Surveillance
1998-99, 1999-00, 2000-01 Summary

Duration of Increased Influenza Activity

- Lab Surveillance 10 - 14 weeks
- Nosocomial Outbreaks 8 - 10 weeks
- Sentinel Physicians Less distinct

Complementary Surveillance Systems in use in NYS

Categorical Assessment of Influenza Activity provided to the CDC
New York State Department of Health
Bureau of Communicable Disease Control

Influenza Surveillance

Christine Waters
Stan Kondracki
Mary Ellen Hennessy
Shelley Zansky
Dr. Barbara Wallace
Dr. Perry Smith