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Keeping Connecticut Healthy

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SARS Surveillance Advisory

Surveillance for SARS in the absence of global activity and availability of testing for SARS-associated coronavirus at the State Laboratory.

The purpose of this communication is to inform you of:

- the current strategy for surveillance for the re-emergence of severe acute respiratory syndrome (SARS) associated with SARS-associated coronavirus (SARS-CoV); and
- the availability, criteria for, and limitations of testing for SARS-CoV at the State Laboratory.

For the past 3 months, there has been no evidence of ongoing transmission of SARS-CoV anywhere in the world. However, there is considerable global and national concern that SARS could re-emerge from an animal reservoir, particularly during the upcoming respiratory disease season, when it emerged last year. Given that failure to promptly recognize and contain a re-emergence of SARS could have drastic consequences and that the State Laboratory is getting requests for testing, we have developed guidelines for surveillance in Connecticut and for testing at the State Laboratory.

Surveillance

The following persons should be reported to the Department of Public Health Epidemiology Program as suspect SARS cases and tested for SARS-CoV if an alternative diagnosis cannot readily be established (see "How to request testing" on next page):

Individuals admitted to the hospital with:

- pneumonia with radiographic changes; or
- acute respiratory distress syndrome of likely infectious origin; AND

  at least one of the following risk factors for SARS-CoV infection:

- health care provider with direct patient contact (e.g., physician, nurse); or

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- travel in the past 10 days within China, Hong Kong, or Taiwan; or
- close (e.g., household) contact with a seriously ill person with respiratory symptoms who has traveled in the past 10 days within China, Hong Kong or Taiwan; or
- worker in a research or clinical virology laboratory where cultures for virus are performed.

In addition, SARS-CoV should be considered as the cause of any outbreak of severe respiratory illness, particularly in an acute-care health care setting. Of note, if SARS re-emerges from an animal reservoir, it is most likely to re-emerge in southern China where it first appeared. Hong Kong and Taiwan are included as risk indicators because they have the most travel interaction with China. If SARS emerges in China and is not recognized early and spreads elsewhere, Hong Kong and Taiwan are the likely places to which it will first spread – as happened earlier this year.

Availability of Testing

The State Laboratory will provide free testing for SARS-CoV for any patient reported through the surveillance system who meets the above surveillance criteria. **In the absence of any global SARS-CoV activity, specimens from persons who do not meet these criteria will not be tested** and will be returned to the submitting laboratory.

Available tests for SARS-CoV at the State Laboratory include antibody testing by ELISA and PCR for stool or respiratory specimens. The following qualifications are important to note:

- ***PCR tests for detection of SARS-CoV.*** These tests are still very much in the developmental stage. Tests are most likely to be positive on stool specimens, but deep respiratory specimens are also fairly sensitive. Positive specimens have been obtained within several days after the onset of illness, appear to peak between 1-2 weeks after illness onset, and may persist for weeks. However, positive test results need confirmation since false positive PCR results have been obtained both in the US and in Canada. Positive PCR results should be followed by antibody testing.
- ***Antibodies to SARS-CoV.*** Antibodies may appear early, but have their greatest sensitivity when taken at least 28 days after symptom onset. ***Optimally, anyone tested for SARS-CoV would have serum for antibodies AND stool or respiratory specimens for PCR submitted as soon as SARS was suspected and serum for antibodies submitted again at least 28 days after the onset of symptoms.***
- ***Viral culture.*** Cultures should not be used at this time for diagnostic purposes. Although it is possible to isolate SARS-CoV, it should only be done in laboratories with BSL-3 capability for research purposes.

How to Request Testing

Specimens for SARS-CoV testing should not be sent to the State Laboratory without first consulting the DPH Epidemiology Program (860-509-7994 or 7995**,** Monday-Friday 8:30 am – 4:30 pm; 860-509-8000 after hours and weekends). If the patient meets the surveillance criteria for testing listed above, then authorization will be given to proceed with testing. If the patient does not meet the surveillance criteria, then it is most likely the specimen will be returned without being tested.

If you have questions about this communication or SARS-CoV testing, please feel free to contact the DPH Epidemiology Program or the State Laboratory (860-509-8615).

Reported by: *J Hadler MD MPH, Infectious Diseases Division; K Kelley, DrPH, State Public Health Laboratory, Connecticut Department of Public Health.*

SARS, Influenza, and Use of Influenza Vaccine

The Centers for Disease Control and Prevention (CDC) supports and emphasizes the use of influenza vaccination for reducing influenza infections and their associated complications. CDC does not recommend influenza vaccination for the primary purpose of reducing the number of persons who might be evaluated for severe acute respiratory syndrome (SARS).

On a population level, widespread use of the influenza vaccine will reduce the number of influenza cases and might decrease the number of persons with a febrile respiratory illness who are evaluated for SARS. However, such secondary benefits cannot be reliably anticipated. For example, the overall decrease in febrile respiratory illnesses would be minimal if circulating levels of influenza viruses are low or if other respiratory pathogens are actively circulating in a community.

Persons vaccinated against influenza can still have a febrile respiratory illness because influenza vaccine will not prevent infection by noninfluenza agents and the effectiveness of influenza vaccine is <100%. Therefore, receipt of influenza vaccination in a person who subsequently experiences a febrile respiratory illness does not eliminate influenza as a possible cause nor necessarily increase the likelihood that the illness is SARS. (1).

References:

1. CDC. Notice to Readers: SARS, Influenza, and Use of Influenza Vaccine. MMWR 2003;52(39);941-942.

Influenza and Pneumococcal Vaccination Coverage, Connecticut 2003-2004

Recommendations to provide annual influenza vaccination and one dose of pneumococcal vaccine to all persons aged ≥ 65 years are intended to reduce the morbidity and mortality associated with influenza and pneumococcal disease (1,2). This report presents data on influenza and pneumococcal vaccination levels for persons aged ≥ 65 years from 1993-2002.

The data are from the Behavioral Risk Factor Surveillance System (BRFSS), a nationwide survey that obtains health related information from randomly interviewed adults. Before 2002, influenza and pneumococcal questions were asked every other year. They are now asked every year.

The survey questions were: "Have you received a flu shot within the past 12 months?" (Figure 1) and "Have you ever had a pneumonia vaccination" (Figure 2).

Figure 1

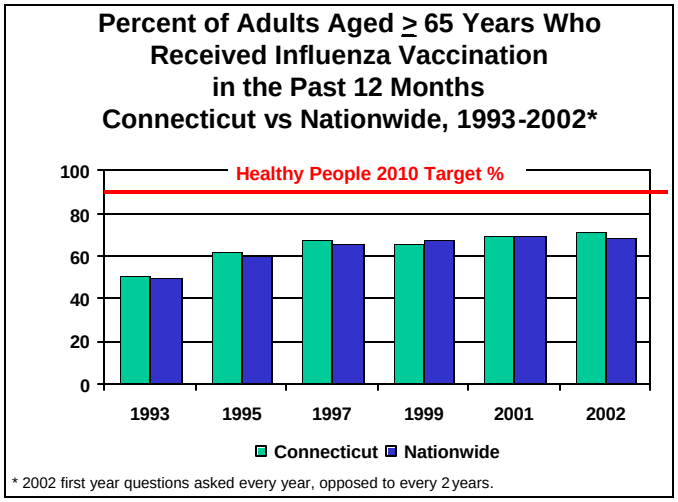
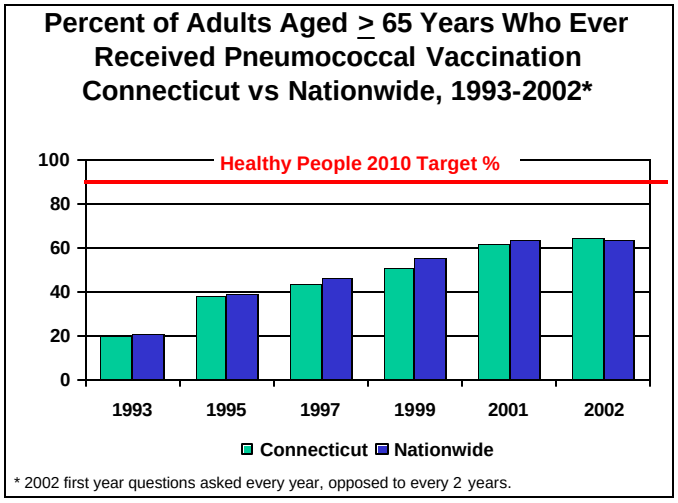


Figure 2



Reported by: *D Rosen, Immunization Program, Connecticut Department of Public Health.*

Editorial Note:

Connecticut and national data show an increase in vaccination rates. However, the Healthy People 2010 objective to increase influenza and pneumococcal vaccinations to 90% or greater among persons 65 and older has not yet been acheived.

The composition of the influenza vaccine for 2003-2004 is based on antigenic analysis of recently isolated influenza viruses, epidemiologic data, and post-vaccination serologic studies in humans. The 2003-2004 trivalent influenza vaccine contains: A/New Caledonia/20/99-like (H1N1), A/Moscow/10/99-like (H3N2), and B/ Hong Kong/330/01-like viruses (2).

Long term care facilities are reminded that they are required to assure that residents and new admissions to their facilities are offered immunization against influenza and pneumococcal disease. Annual re-vaccination against influenza is needed.

The Advisory Committee on Immunization Practices (ACIP) encourages that healthy children, 6-23 months of age and their household contacts aged 2-18 years, receive influenza vaccine. The DPH Immunization Program now has limited supplies of pediatric influenza vaccine available to immunize children in these groups who qualify as part of the Vaccines for Children (VFC) Program. VFC eligibility is defined as any of the following:

- Medicaid enrolled
- No health insurance
- American Indian or Alaskan Native
- Underinsured (insurance does not cover the cost of immunizations).

The DPH Immunization Program began supplying influenza vaccine for these groups on October 1, 2003. Two doses of influenza vaccine administered one month (4 weeks) apart are recommended for children less than 9 years of age who are receiving the vaccine for the first time. The Immunization Program supplies the Fluzone product manufactured by Aventis Pasteur in both preservative-free and thimerosal containing formulations. The preservative-free formulation should be given to patients under 3 years of age. For dosage recommendations, please refer to: http://www.cdc.gov/nip/flu/pubs_04/chart_fludose_pt.pdf

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For additional information, please contact the Immunization Program at 860-509-7929.

References:

1. ACIP. Prevention of Pneumococcal Disease. MMWR 1997; 46 (no. RR-8): 1,11,12.
2. CDC. Update: Influenza Activity – United States and Worldwide, 2002-03 Season, and Composition of the 2003-04 Influenza Vaccine. MMWR 2003; 52:516-521.

Free Influenza Testing

Isolation and identification of circulating influenza virus strains are an important part of the Connecticut Department of Public Health's (DPH) influenza surveillance system. The DPH encourages physicians to submit throat swabs from patients with a typical influenza syndrome (abrupt onset of fever, myalgia, and cough) to the DPH Laboratory for virus isolation. Specimens should be collected no later than 3 days after onset of symptoms and sent immediately to the DPH Laboratory, on wet ice if possible.

Throat swab collection kits (VRCs) may be obtained by calling the DPH Laboratory at 860-509-8501. Health care providers can submit specimens for influenza testing **at no charge** from **October 1, 2003 through March 31, 2004**. Please check "**181 V Influenza surveillance**" on the microbiology test requisition form and provide all other necessary information. If you have any questions on specimen collection, handling, or transport, please contact the Virus Laboratory at 860-509-8553.

For Public Health Emergencies after 4:30 P.M. and on weekends call the Department of Public Health emergency number (860) 509-8000

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