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Changes to the List of Reportable Diseases

In anticipation of the second wave of the 2009 influenza pandemic and pursuant to the requirements of Connecticut General Statute 19a-2a and Section 19a-36-A7 of the Public Health Code, J. Robert Galvin, MD, MPH, Commissioner of the State of Connecticut Department of Public Health (DPH) has considered additions to the list of mandated reportable diseases and findings. The Commissioner hereby amends the list of reportable diseases and findings in accordance with Connecticut General statutes 19a-2a by adding the following effective October 1, 2009:

1. Hospitalizations and deaths due to the 2009 pandemic influenza A (H1N1) influenza virus or to another influenza virus of any type or subtype including seasonal and other novel influenza viruses shall be reported immediately to the DPH and to the local department of health in the town of residence of the case-patient by telephone on the day of recognition or strong suspicion of disease. A report form provided by the DPH shall be used to collect information on hospitalized and fatal case-patients. DPH will share these reports with the local health department in the town of residence of the case-patients.
2. Cases of Guillain-Barré syndrome (GBS) shall be reported to the DPH by telephone on the day of recognition or strong suspicion of disease. A report form provided by the DPH shall be used to collect information on case-patients. DPH will share these reports with the local health department in the town of residence of the case-patients.

Surveillance for Guillain-Barré Syndrome (GBS)

The Connecticut Department of Public Health (DPH) will conduct active surveillance for all cases of Guillain-Barré syndrome (GBS) beginning October 1, 2009.

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In 1976, about 40 million Americans were vaccinated against an influenza virus of swine origin, and subsequently, an increased risk of GBS associated with vaccination was found. It remains unclear what caused the increased risk of GBS associated with the swine-origin influenza vaccine in 1976. Since then, numerous studies have been conducted to evaluate the association between seasonal flu vaccine and GBS. Most studies showed no association, while two studies suggested that approximately 1 additional person out of 1 million vaccinated people may be at risk for GBS (http://www.cdc.gov/h1n1flu/vaccination/gbs_ga.htm). There is no indication that the 2009 pandemic H1N1 vaccine will be associated with an increased risk of GBS. However, there is a need to be vigilant given the magnitude of the anticipated vaccination campaign.

GBS surveillance will be a collaborative effort conducted by the DPH, the Centers for Disease Control and Prevention, and the Yale Emerging Infections Program. To ensure complete reporting of cases, investigators will work with a network of neurologists, pharmacists, and hospital billing departments to identify and conduct follow-up investigation of potential cases of GBS.

**For Public Health Emergencies
After 4:30 P.M. or on Weekends
Call the Department of Public
Health at (860) 509-8000.**

Outbreak of Gastrointestinal Illness Associated with Consumption of Water at a Housing Complex, Tolland County 2008

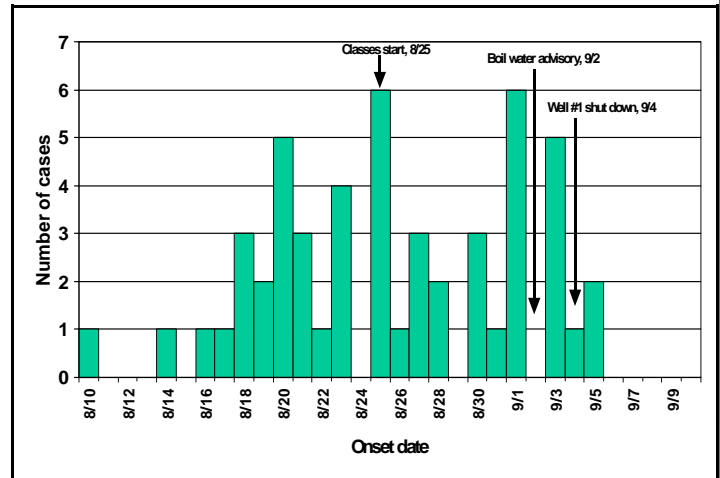
On September 4, 2008, the Connecticut Department of Public Health (DPH) was notified of 9 students who presented to a school clinic with gastrointestinal (GI) illness; all were residents of the same off-campus apartment complex, which consisted of 12 buildings. On August 29, two monthly routine tap water samples from the complex tested positive for total coliform bacteria and *Escherichia coli* (*E. coli*). Subsequent raw water samples from 1 of 2 wells on the property and repeat tap water samples collected on September 2, also tested positive. A Public Notice with a boil-water advisory was issued to all residents of the complex on September 2. Because of the possibility of a waterborne outbreak, staff from the local health department and the DPH Drinking Water Section conducted on-site sanitary inspections on September 4 at the apartment complex. The DPH Epidemiology and Emerging Infections Program (EEIP) conducted an epidemiologic investigation to determine the extent and source of the illnesses.

Epidemiological Investigation. Staff of the EEIP administered questionnaires via email and phone to 219 of 234 residents with known contact information; 118 (54%) responded. Questions included information about demographics, illness history, and tap water consumption. A case was defined as a resident of the apartment complex who developed illness characterized by vomiting and/or diarrhea (2 or more stools within 24 hours) since August 10.

Of the 118 residents who completed a questionnaire, 55 (47%) had illnesses consistent with the case definition (Figure 1): 54 (98%) had diarrhea, 12 (22%) bloody stools, and 8 (15%) vomiting. The median age was 21 years (range 19-24 years); 37 (67%) were male. The median duration of illness was 5.5 days (range 1-21 days). Of those ill, 12 (22%) sought medical care.

Statistical analysis indicated that drinking any tap water (odds ratio=3.26; 95% confidence interval 1.2 – 8.7; $p=0.0150$) and living in Building A (OR=5.56; 95% CI 1.2 – 26.7; $p=0.0190$) were associated with illness. Persons who consumed

Figure 1: Number of cases of GI illness from residents of an apartment complex, August 10 – September 5, 2008.



water more often (defined by the number of 8 ounce glasses consumed per day) and persons who consumed ice more often (defined by the number of cubes consumed per day) were more likely to develop illness (p -values for trend=0.0024 and 0.0130, respectively) regardless of the building of residence.

Environmental Investigation. The water system for the apartment complex was fed by two public, community wells (Well #1 and Well #2) located on the complex property. Both wells feed into one large water storage tank that supplied water to all 12 buildings. The water system was not chlorinated at the time of the suspect outbreak. Both wells and the water distribution system were shock disinfected after the repeat samples were collected on September 2. A tanker truck was brought on-site to provide an alternative source of drinking water to residents on September 3. A sanitary survey inspection, conducted by DPH and local health department (LHD) staff on September 4, determined that a septic pump located about 750 feet up gradient from Well #1 failed causing a septic tank to overflow. Raw sewage was visible on the ground. Well # 1 was proactively taken off-line on September 4 because the laboratory test results indicated this was the only well with elevated colony counts. A temporary chlorination system was installed on September 16. An internal camera inspection of Well #1 on September 24 identified well casing construction deficiencies and water leaking into the well casing.

Laboratory Investigation. Stool samples were collected from 9 ill residents. All samples were tested at a hospital clinical laboratory; 9 of 9 were negative for *Salmonella*, *Shigella*, *Campylobacter*, *E. coli* O157, and 7 of 7 were negative for ova and parasites. Additional testing was conducted on 4 of the 9 samples at the DPH laboratory; 4 of 4 were negative for norovirus and 3 of 3 were negative for *Salmonella*, *Shigella*, *Campylobacter*, and shiga-toxin producing *E. coli* including *E. coli* O157.

In addition, the DPH forwarded 14 stool specimens from 6 patients to the Centers for Disease Control and Prevention (CDC) for additional testing. These were found to be negative for enterotoxigenic *E. coli* (ETEC), enteropathogenic *E. coli* (EPEC), and Shiga toxin-producing *E. coli* (STEC).

Seven water samples were also submitted to the CDC for testing: 3 filtered water samples collected using CDC protocols on September 17 and 4 archived routine water samples (2 tap water samples collected on August 29, and 2 well water samples collected on September 5). Of the 7 samples, 6 were positive for *E. coli* but negative for ETEC, EPEC, and STEC. Well #2 was negative for enteric bacteria.

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Editorial Note:

While no etiological agent was identified in this outbreak, the epidemiologic evidence points to water as the source of GI illness among students living at this apartment complex. Additionally, the finding of fecal contamination in the water samples provides further evidence of water contamination. Illness in residents ceased after Well #1 was taken off-line.

Multiple tests of the water distribution system found coliform bacteria and specifically *E. coli*. Fecal coliforms (including *E. coli*) are bacteria associated with human and animal wastes. Although the finding of fecal coliforms in drinking water does not represent a health threat, their presence is used to indicate whether other potentially harmful bacteria may be present (1). As part of the environmental investigation, tap, well, and ground water samples collected from the complex were tested at the CDC

and were positive for coliforms and *E. coli* but negative for other pathogenic bacteria. It is possible that human pathogenic bacteria may have been present in the water at one time, given the indications of fecal contamination that were found in all samples. Alternatively, some unrecognized pathogen(s) might/may have been responsible for illness.

Clinical samples retrieved from a private laboratory were tested at the state laboratory and forwarded to the CDC for additional testing. Despite these efforts, no enteric pathogens, viruses, or parasites were found. Reports from waterborne outbreaks reported to the CDC during 2005-2006 suggest that 20% of all GI outbreaks are due to unidentified etiologic agents (2). In addition, some of the best prospective epidemiologic investigations have failed to detect enteropathogens in 40-85% or more of well defined cases of gastroenteritis, even when such studies have looked at a broad array of bacterial, parasitic, and viral agents, and employed a combination of conventional and molecular assays (3).

This report describes an outbreak of gastrointestinal illness among students living in an off-campus apartment complex. One of two wells that provided water to the facility was likely providing contaminated water to the water system. There was no subsequent treatment (i.e., chlorination) of the water before it was distributed throughout the complex. Recommendations included chlorine disinfection of the water system, improvements to the casing of Well #1, and increased routine testing for fecal coliforms to assess water quality.

References:

1. Environmental Protection Agency: <http://www.epa.gov/safewater/contaminants/ecoli.html>
2. CDC. Surveillance for Waterborne Disease and Outbreaks Associated with drinking Water and Water not Intended for Drinking – United States, 2005-2006. MMWR SS-9; (57):39-69.
3. JM Janda and SL Abbott. New Gram-negative enteropathogens: fact or fancy? Rev Med Microb 2006, 17:27-37.

Early Syphilis Cases Remain High in Connecticut

During 2004-2008, an average of 29 syphilis cases were reported during the first six months of each year in Connecticut. In 2009, early syphilis cases climbed to a total of 52 during the first six months, a 79% increase over the half-year average. Of these

cases, 50 (96%) were male. Females were represented by one primary and one early latent syphilis case. There were no new cases of congenital syphilis during the second quarter, leaving the total for 2009 at two cases.

Of the 52 case-patients, 39 (75%) identified as men who have sex with men (MSM), 9 (17%) as heterosexual, and 4 (8%) as bisexual. Of the males, 14 (28%) were co-infected with HIV. The race and Hispanic origin of case-patients was as follows: 19 (36.5%) white; 19 (36.5%); Hispanic/Latino; 12 (23%) black/African American and 2 (4%) Asian with a median age of 34 years (range: 15-54 years).

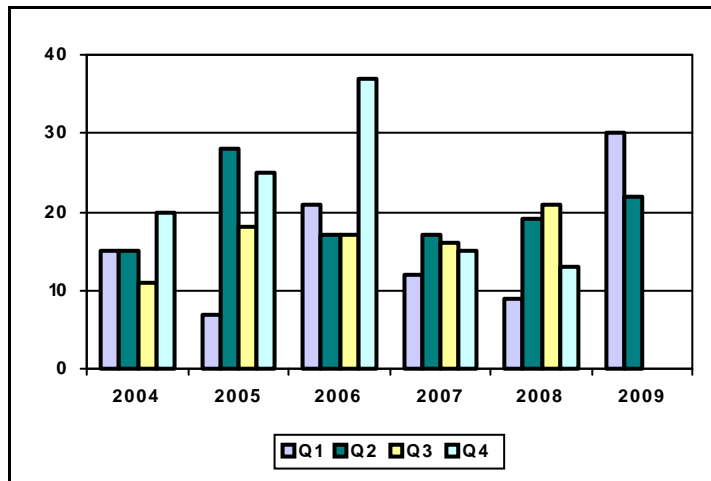
In the United States, national reporting of syphilis cases began in 1941. During the 1900's, the rate of reported infectious syphilis in the U.S. decreased reaching its lowest point in 2000. In 2001, the incidence of syphilis began to increase steadily through 2007. Despite overall syphilis numbers being at low levels, the epidemiology of syphilis in Connecticut reflects national trends, especially among MSM.

Reported by: H. Jenkins BS, P. Lane MS, L. Mitchell MPH, L. Sosa MD, Sexually Transmitted Diseases Program, Connecticut Department of Public Health.

Editorial Note:

The increase in early syphilis underscores the importance of DPH Partner Notification Services in interrupting the spread of disease. The STD Control program field staff attempt to interview all patients with syphilis. Patients are educated about their infection, counseled on how to avoid re-infection, and asked to confidentially provide the names and locating information of their sexual partners. Partners are located by field staff without divulging the identity of the infected patient. Medical Providers can also request partner notification on behalf of their patient. Please contact the DPH STD Program at (860) 509-7920, or visit our website at : www.ct.gov/dph/std (see also Syphilis Update I; [Connecticut Epidemiologist Vol. 29, No. 4](#)).

Figure 1: Reported primary, secondary and early latent syphilis cases by quarter, Connecticut, 2004-2009



The Swine Flu Affair: Decision-Making on a Slippery Disease (1976)

In 1976, a small group of soldiers at Fort Dix were infected with a swine flu virus that was deemed similar to the virus responsible for the great 1918-19 world-wide flu pandemic (<http://www.iom.edu/?id=65926>). The U.S. government initiated an unprecedented effort to immunize every American against the disease. While a qualified success in terms of numbers reached-more than 40 million Americans received the vaccine-the disease never reappeared. In the waning days of the flu season, the incoming Secretary of what was then the Department of Health, Education and Welfare, Joseph Califano, asked Richard Neustadt and Harvey Fineberg to examine what happened and to extract lessons to help cope with similar situations in the future. The result was their report, *The Swine Flu Affair: Decision-Making on a Slippery Disease*.

The new electronic edition of this report, *The Swine Flu Affair* is available for [download](#) by the public from the Institute of Medicine.

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