EpiNotes
Disease Prevention and Epidemiology Newsletter
South Carolina Department of Health and Environmental Control

Vol. XXV Issue No. 9 Winter 2007

Changes in the SC 2007 List of Reportable Conditions

Libby Greene, MSN, APRN, BC
Director – Surveillance Section/Nurse Consultant
Division of Acute Disease Epidemiology

As authorized by South Carolina Statute #44-20-10 and Regulation #61-20, the S.C. Department of Health and Environmental Control (DHEC) updates the list of Reportable Conditions in January of each year. Revisions to the list of reportable conditions are based on many factors, including: 1) the need for DHEC to conduct surveillance on new conditions or to increase surveillance on certain existing conditions in order to protect the health of the public and 2) changes in reporting requirements from the Centers for Disease Control and Prevention (CDC).

The following revisions have been made to the 2007 List of Reportable Conditions:

Deletions from the list:

- Kawasaki disease

Revisions:

- For Immediately and Urgently Reportable Conditions, the following statement has been added: "All suspected and confirmed cases, including preliminary clinical and laboratory results."
- Toxins has been moved from a separate condition under Urgently Reportable Conditions and is now included in "Any Potential Biological, Chemical, or Terrorist Event" under the Immediately Reportable Conditions.
- The specific names of the organisms have been added to Glanders, Q fever, and Typhus.
- Enterohemorrhagic *E. coli* is now listed as "*E. coli*, shiga toxin-producing (STEC), including O157:H7".
- The following statement in footnote #2 regarding HIV reporting has been deleted: "However, if a confirmation test

(Continued on Page 2)

Important Dates When Reporting Diseases

Amy E. Belflower, MSPH
Surveillance and Quality Assurance Epidemiologist
Division of Acute Disease Epidemiology

The South Carolina Department of Health and Environmental Control (SC DHEC) asks for many types of information on notifiable disease reports, such as name, address, disease/condition, and county - just to name a few. This demographic information is important for public health disease surveillance, investigation, response, and prevention. However, an important component of these reports is often missing. Under "What to Report" on the S.C. List of Reportable Conditions, "date of onset of disease and date of report" are listed as required reporting components. Not only is this information required on disease reports, it is very important for public health investigations and disease tracking. For example, without information on disease onset or diagnosis date, it is difficult to determine if a case may be part of a temporal cluster of a specific disease. Additionally, onset dates are often used as a time indicator on "epi curves", which are used to show the relationship that cases have to one another during an outbreak investigation. Knowing disease onset dates and the incubation period of the disease can help public health investigators determine possible exposure times.

An analysis of all reportable disease cases reported to DHEC in 2005 shows that only 18.8 percent of reports submitted contained onset date and only 41.0 percent of reports contained a diagnosis date. These numbers probably overestimate the percentage of actual disease reports that included

(Continued on Page 2)

INSIDE THIS ISSUE

(CHANGES IN THE SC 2007 LIST OF REPORTABLE CONDITIONS cont'd from Page 1)

is performed within 14 days and is negative, reactive EIAs alone should not be reported." For 2007, HIV or AIDS should be reported when serum, urine, or oral fluid specimen is positive by: (a) screening test (e.g., EIA antibody), or (b) confirmatory test (e.g., Western Blot), or (c) an HIV detection test (e.g., PCR nucleic acid test, including viral load), or (d) clinical diagnosis of a case of HIV or AIDS. In addition, all HIV viral load and CD4 test results must be reported by laboratories regardless of results.

Also, on the Web site and on the poster, please note the addresses and phone numbers of the regional public health departments - several of the addresses and phone numbers have changed.

The above changes may be found:

- In this edition of the Epi Notes
- On the DHEC Web site at: http://www.scdhec.gov/health/disease/index.htm or http://www.scdhec.gov/health/disease/docs/reportable_conditions.pdf
- On the 2007 DHEC Disease Reporting Card (color is blue for 2007)
- On the 2007 List of Reportable Conditions poster. Both the Disease Reporting Cards and the laminated posters (sizes 8 by 11 inches and 12 by 24 inches) are available from the DHEC regional public health departments or from the DHEC Division of Acute Disease Epidemiology in Columbia.

(IMPORTANT DATES WHEN REPORTING DISEASES cont'd from Page 1)

these two dates. For many diseases, investigations are conducted whereby diagnosis and onset dates are obtained, not only through disease report information, but also through interviewing patients or from chart reviews. However, in other cases, diseases are not thoroughly investigated by public health staff even though tracking and monitoring of disease trends remains important. Public health professionals monitor changes in disease prevalence and demographic characteristics over time to access prevention/educational efforts for many diseases. Reporting of onset or diagnosis date by the provider is sometimes the only means by which this information is captured and therefore analyzed. If a disease onset date is not known, reporting of a diagnosis date may still be a good proxy indicator of onset date and should be reported on all disease reports.

Consistent and complete reporting of onset and diagnosis dates for all disease reports is always pertinent for public health disease monitoring and investigations. South Carolina Law requires reporting of diseases and conditions listed on the S.C. List of Reportable Conditions to local public health departments (State Law #44-29-10, Regulation #61-20, State Laws #44-1-110 and 44-1-140). Furthermore, cases are to be reported in the manner designated by DHEC. DHEC asks that providers report diagnosis and disease onset dates, if known, on all reportable condition disease reports. Your cooperation on including these dates on reports will greatly benefit our ability to continue to effectively monitor, investigate, and prevent acute disease in South Carolina.

Changes in HIV Test Reporting

Lynda Kettinger, MPH
Directior, Division of STD/HIV

All reactive rapid HIV test results must be reported to the S.C. DHEC HIV Surveillance Program. Previously, if a confirmation test was performed within 14 days of a reactive rapid test and was negative, reactive rapid HIV tests were not reportable. With the expected increased use of rapid tests to screen for HIV, reporting of all reactive rapid tests, regardless of whether a confirmation test is done, will help to ensure the completeness of reporting. This will assist in public health efforts to prevent HIV infection and in obtaining essential federal HIV care funding. Beginning in 2007, Ryan White CARE Act funding allocations to states will be based on HIV infection cases in addition to AIDS cases.

Physicians, clinics, laboratories, community organizations, or any facility that conducts rapid HIV tests may report reactive results to DHEC using the 1129 Disease Report Card (indicate 'Reactive Rapid Test' in the Specific Laboratory Results block of the card). Reporters may also use the toll-free HIV/AIDS Surveillance Report Line at 1-800-277-0873, or call (803) 898-0758 in Columbia.

Update for Reporting Meningococcal Disease

Dixie F. Roberts, MPH, APRN
Division Director
Division of Acute Disease Epidemiology

Meningococcal disease most commonly occurs as meningitis and/or meningococcemia that may progress rapidly to purpura fulminans, shock, and death. Other clinical manifestations may occur. Cases are immediately reportable by phone to the Health Department, as described on the 2007 List of Reportable Conditions. To assure an appropriate and rapid public health response and contact investigation, confirmed, probable, and suspect cases of meningococcal disease should be immediately reported by phone to DHEC. Do not wait for culture results to report suspect or probable cases. In the S.C. 2007 List of Reportable Conditions, a new footnote number nine (9) has been added to remind laboratories that gram stains positive for gram-negative diplococci are reportable to DHEC as suspects for Meningococcal disease. The List of Reportable Conditions does not define all possible clinical and laboratory information needed to

(Continued on Page 3)

(MENINGOCOCCAL DISEASE cont'd from Page 2)

define confirmed or suspect cases. The CDC Case Definitions for Surveillance can be found at the following web site:
http://www.cdc.gov/epo/dphsi/casedef meningococcalcurrent.htm

One source for more information on case definitions may be found in the ***American Academy of Pediatrics, 2006 Red Book, 27th Edition, Report of the Committee on Infectious Diseases.***

The CDC case definitions for Meningococcal disease are listed below, all of which should be reported to DHEC.

Suspect:

- Clinical purpura fulminans in the absence of a positive blood culture
- A clinically compatible case with gram negative diplococci from a normally sterile site (e.g., blood or CSF)

Probable*:* A clinically compatible case that has either:

- Evidence of *N. meningitidis* DNA using a validated polymerase chain reaction (PCR), obtained from a normally sterile site (e.g,. blood or CSF) , **OR**
- Evidence of *N. meningitidis* antigen by immunohistochemistry (IHC) on formalin-fixed tissue or latex agglutination of CSF

Confirmed*:*

- A clinically compatible case **AND** isolation of *Neisseria meningitidis* from a normally sterile site (e.g., blood or cerebrospinal fluid {CSF} or, less commonly, synovial, pleural, or pericardial fluid) or skin scrapings of purpuric lesions.

A sputum culture, positive for *N. meningitidis,* is not from a sterile site and may simply be an indication of nasopharyngeal colonization. Clinical information is needed to determine if the patient has pneumonia. Also, the presence of heavy growth on the culture and numerous colonies visible on the gram stain are useful lab results when reporting suspected meningococcal pneumonia.

Revised E. coli Reporting Requirement

Julie Schlegel, MSP
Foodborne Epidemiologist
Division of Acute Disease Epidemiology

Beginning in 2007, the nomenclature for reportable *Escherichia coli* will change to reflect the wording used in the Nationally Notifiable Infectious Diseases List and specify Shiga toxin-producing E. coli (STEC). All Shiga toxin-producing E. coli, including O157:H7, must be reported to the regional public health office by phone within 24 hours.

A clinical case of Shiga toxin-producing E. coli can be described as an infection of variable severity characterized by diarrhea (often bloody) and abdominal cramps. Illness may be complicated by hemolytic uremic syndrome (HUS) or thrombotic thrombocytopenic purpura (TTP); asymptomatic infections also may occur and the organism may cause extraintestinal infections. Laboratory criteria for a Shiga toxin- producing E. coli case include isolation of Shiga toxin-producing *Escherichia coli* from a clinical specimen. *Escherichia coli* O157:H7 isolates may be assumed to be Shiga toxin-producing. For all other *E. coli* isolates, Shiga toxin production or the presence of Shiga toxin genes must be determined in order for STEC to be considered.

Hemolytic Uremic Syndrome

Shirley Jankelevich, MD, MPH
Medical Epidemiologist
Division of Acute Disease Epidemiology

Hemolytic–uremic syndrome (HUS) is a disease characterized by acute renal failure, microangiopathic hemolytic anemia, and thrombocytopenia. HUS occurs most frequently in young children (under the age of five years) but may be seen in adolescents and adults. HUS is the most common cause of acute renal failure in children. Cases of HUS may be sporadic or may be associated with large outbreaks. Approximately 73,000 cases of HUS occur annually in the United States; death occurs in 3-5 percent of those affected.

HUS most often follows a prodromal infectious disease, usually diarrhea caused by a Shiga toxin-producing bacteria, such as the enterohemorrhagic *Escherichia coli* (EHEC) and some strains of *Shigella dysenteriae*. However, HUS has also been associated with infections with other bacteria such as *Streptococcus pneumoniae* and *Clostridium difficile* as well as viruses such as varicella, echovirus, and coxsackie A and B. It has also been associated with AIDS, cancer, and the administration of specific chemotherapeutic agents.

The most common EHEC strain that causes HUS is serotype O157:H7. However, HUS has also occurred following infections caused by strains belonging to serogroups other than O157, such as O26, O45, O91, O103, O111, O128, and O145. All EHEC strains are of zoonotic origin, with cattle and other ruminants being recognized as the major reservoir for human infections. Transmission of EHEC strains occurs by ingestion of food or water contaminated with these organisms, contamination of hands with these strains after contact with colonized animals or their feces, or direct person-to-person contact.

HUS, with or without gastroenteritis (triad of acute renal failure, thrombocytopenia, and microangiopathic hemolytic anemia) is a condition that is urgently reportable by phone within 24 hours to S.C. DHEC.

(Continued on Page 4)

(HEMOLYTIC UREMIC SYNDROME cont'd from Page 3)

Proper testing for the EHEC bacteria is of great importance. New recommendations for appropriate laboratory testing for EHEC have recently been published (Importance of Culture Confirmation of Shiga Toxin-producing Escherichia coli Infection as Illustrated by Outbreaks of Gastroenteritis, New York and North Carolina, 2005) and can be found at the CDC Web site: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5538a3.htm.

New Reporting Guidelines for Toxins

Amy E. Belflower, MSPH
Surveillance and Quality Assurance Epidemiologist
Division of Acute Disease Epidemiology

Toxins are reportable in South Carolina due to the potential for toxins to cause outbreaks of disease or possibly be used as an agent of bioterrorism. Epsilon toxin of *Clostridium perfringens*, ricin toxin, and staphylococcal enterotoxin B specifically are classified as Category B agents. According to the Centers for Disease Control (CDC), Category B agents are, "moderately easy to disseminate, result in moderate morbidity rates and low mortality rates, and require specific enhancements of CDC's diagnostic capacity and enhanced disease surveillance."

Until 2007, all cases of toxins were urgently reportable within 24 hours by phone to DHEC. In 2007, the Toxin category has been removed from the Urgently Reportable list and is now included in list of Immediately Reportable Conditions in the category of "Any potential biological (to include toxins such as ricin), chemical, or terrorist event". Therefore, all suspected cases of biological toxins should now be reported immediately by phone to local public health departments.

The decision to move toxins on the List of Reportable Conditions was made in order to make reporting easier and clearer regarding the reporting of toxins and possible clusters of toxin cases. Any case associated with an event that is possibly due to toxins should be reported immediately by phone to the local public health office. Due to the possible implications and public health consequences of a marine toxin or ricin exposure, even one suspected case should be reported immediately. Single foodborne toxin cases are less threatening to public health, but should be reported immediately if suspected to be part of a cluster of cases. Patients with these toxin illnesses are not contagious; however, reporting of these cases is very important. Through a report, public health departments can investigate to determine if a restaurant or a common public food source is implicated or if an oyster bed or fishing area has a problem, which is imperative for preventing further illness in the community.

Marine Toxins

Marine toxins are naturally occurring chemicals that can contaminate certain seafood. The seafood contaminated with these chemicals frequently looks, smells, and tastes normal. When humans eat such seafood, disease can result. The most common diseases caused by marine toxins in United States in order of incidence are scombrotoxic fish poisoning, ciguatera poisoning, paralytic shellfish poisoning, neurotoxic shellfish poisoning, and amnesic shellfish poisoning. Due to the geographical location of South Carolina along the Atlantic coast, cases of illness with marine toxins occur frequently in South Carolina and are an important public health issue.

Diagnosis of marine toxin poisoning is generally based on symptoms and a history of recently eating a particular kind of seafood. Laboratory testing for the specific toxin in patient samples is generally not necessary because this requires special techniques and equipment available in only specialized laboratories. If suspect leftover fish or shellfish are available, they can be tested for the presence of the toxin more easily. Identification of the specific toxin is not usually necessary for treating patients because there is no specific treatment. Every year, approximately 30 cases of poisoning by marine toxins are reported in the United States; almost 20 outbreaks related to scrombrotoxic fish poisoning were documented nationally. Because healthcare providers are not required to report these illnesses and because many milder cases are not diagnosed or reported, the actual number of poisonings may be much greater. Toxic seafood poisonings are more common in the summer than winter because dinoflagelates grow well in warmer seasons. It is estimated from cases with available data that one person dies every four years from toxic seafood poisonings.

Two cases of ciguatera fish poisoning, in a husband and wife, were reported to the DHEC in August 2004; the cases were associated with a barracuda caught approximately 60 miles southeast of Charleston, South Carolina. These are the first known cases of ciguatera fish poisoning caused by fish caught off South Carolina. This report has been documented in the September 1, 2006 issue of the *MMWR* as well as the Spring 2006 issue of *Epi-Notes*.

Foodborne Toxins

Staphylococcus aureus, *Clostridium perfringens*, and *Bacillus cereus* are three bacteria that can produce enterotoxins that cause human gastrointestinal illness. Illness is caused by eating foods contaminated with toxins produced by these bacteria. As the germs multiply in food, they produce toxins that can cause illness. These toxins are resistant to heat and cannot be destroyed by cooking. The most common way for food to be contaminated with *Staphylococcus* is through contact with food workers who carry the bacteria or through contaminated milk and cheeses. Common vehicles for *Clostridium perfringens* are beef, poultry, gravies, and dried or precooked foods. *Bacillus cereus* is often found in rice, meat, and vegetables. Staphylococcal toxins and emetic *Bacillus cereus* are fast acting, sometimes causing illness in as little as 30 minutes with symptoms usually developing within 1-6 hours after eating contaminated food, while *Clostridium*

(Continued on Page 5)

(TOXINS cont'd from Page 4)

perfringens and diarrheal *Bacillus cereus* have a longer incubation period of 6-24 hours. Symptoms include nausea and vomiting (staphylococcal and emetic *Bacillus cereus* only), stomach cramps, and diarrhea; the illness is usually mild and most patients recover after one to three days. In a small minority of patients the illness may be more severe. Toxin-producing organisms can be identified in stool or vomit, and toxin can be detected in food items. Diagnosis of toxin-related food poisoning in an individual is generally based only on the signs and symptoms of the patient. Testing for the toxin-producing bacteria or the toxin is not usually done in individual patients. Testing is usually reserved for outbreaks involving several persons. Because healthcare providers are not required to report these illnesses in all states and because many milder cases are not diagnosed or reported, the actual number of poisonings is not known. However, over 20 outbreaks related to *Clostridium perfringens* were documented nationally in 2005.

Ricin

Characteristics: Ricin is a poison that can be made from the waste left over from processing castor beans. It can be in the form of a powder, a mist, or a pellet, or it can be dissolved in water or weak acid. It would take a deliberate act to make ricin and use it to poison people. Accidental exposure to ricin is highly unlikely. People can breathe in ricin mist or powder and be poisoned. Ricin can also get into water or food and then be swallowed. Pellets of ricin, or ricin dissolved in a liquid, can be injected into people's bodies. The major symptoms of ricin poisoning depend on the route of exposure and the dose received, though many organs may be affected in severe cases. Initial symptoms of ricin poisoning by inhalation may occur within eight hours of exposure. Following ingestion of ricin, initial symptoms typically occur in less than six hours. If it is suspected that people have inhaled ricin, a potential clue would be that a large number of people who had been close to each other suddenly developed fever, cough, and excess fluid in their lungs. These symptoms could be followed by severe breathing problems and possibly death. No widely available, reliable test exists to confirm that a person has been exposed to ricin.

How to Report Potential Cases of Botulism

Julie Schlegel, MSP
Foodborne Epidemiologist
Division of Acute Disease Epidemiology

Botulism is a reportable disease that can result from the improper storage or packaging of food. However, botulinum toxin is also a potential agent of bioterrorism. The ingestion of botulinum toxin results in an illness of variable severity. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly. Outbreaks of foodborne botulism have the potential to be a public health emergency because the contaminated food may be consumed by many people.

A suspected case of botulism must be reported to the regional public health office immediately by phone. When S.C. DHEC is notified of a potential case of botulism that meets the case definition, DHEC will contact the Centers for Disease Control and Prevention (CDC) for consultation. The CDC can only provide testing of clinical specimens and food samples if cases are referred from DHEC.

Revised Cholera and Other Vibrio Illness Reporting Requirement

Julie Schlegel, MSP
Foodborne Epidemiologist
Division of Acute Disease Epidemiology

Beginning in 2007, the nomenclature for cholera and other Vibrio illness will be clarified to better differentiate between the toxigenic (i.e., cholera toxin-producing) strains of *Vibrio cholerae* and other strains of *Vibrio cholerae*, which do not cause cholera-like illness.

Only *Vibrio cholerae* serogroups O1 and O139 are associated with the epidemiological characteristics and clinical picture of cholera. Illnesses caused by strains of *V. cholerae* other than toxigenic *V. cholerae* O1 or O139 should not be reported as cases of cholera.

Cases with suspected cholera-like illness must be reported to the regional public health office by phone within 24 hours. Cases with other serogroups of *V. cholerae* as well as other species of Vibrio illness should be reported within seven days to DHEC.

Seasonal Influenza Surveillance and Reporting 2006-07

Lena M. Bretous MD, MPH
SC Influenza Surveillance Coordinator
Division of Acute Disease Epidemiology

This article provides the healthcare professional with the latest information on:

- Enhanced avian influenza surveillance
- Recommended laboratory testing
- Voluntary influenza monitoring system networks with incentives
- Personal behavioral risk reduction methods.

Enhanced Avian Influenza A (H5N1) Surveillance
Effective surveillance for avian influenza in humans will continue to depend on health care providers consistently obtaining information regarding international travel and other exposure risks from persons with specified

(Continued on Page 6)

(INFLUENZA SURVEILLANCE cont'd from Page 5)

respiratory symptoms as detailed in the recommendations below. This guidance will be updated as the epidemiology of H5N1 virus changes. There have been no significant changes in the epidemiology of H5N1 since February 2004. Please visit the World Health Organization (WHO) Web site for updated information on confirmed human cases of H5N1 worldwide. The reference is listed below.

Laboratory testing for avian influenza A (H5N1) virus infection is recommended for:

A. A patient who has an illness that:
   1. Requires hospitalization or is fatal; AND
   2. Has or had a documented temperature of e”38°C (e”100.4 degrees Fahrenheit); AND
   3. Has radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been establis

B. AND has at least one of the following potential exposure criteria within 10 days of symptom onset:
   1. History of travel to a country with influenza H5N1 documented in poultry, wild birds, and or humans, AND had at least one of the following potential exposures during travel:
      - Direct contact with poultry;
      - Direct contact with surfaces contaminated with poultry feces;
      - Consumption of raw or incompletely cooked poultry or poultry products;
      - Close contact (approach within 1 meter [approximately 3 feet]) of a person who was hospitalized or died due to a severe unexplained respiratory illness;
   2. Close contact (approach within 1 meter [approximately 3 feet]) of an ill patient who was confirmed or suspected to have H5N1;
   3. Worked with live influenza H5N1 virus in a laboratory.

Laboratory Testing for H5N1 virus infection can be considered on a case-by-case basis, in consultation with local and state public health departments, for:

- A patient with mild or atypical disease (hospitalized or ambulatory) who has one of the exposures listed above (criteria 1, 2, or 3); OR
- A patient with severe or fatal respiratory disease whose epidemiological information is uncertain, unavailable, or otherwise suspicious but does not meet the criteria above (examples include: a returned traveler from an influenza H5N1-affected country whose exposures are unclear or suspicious, a person who had contact with poultry, etc.)

Clinicians should contact their local or state public health department as soon as possible to report any suspected human case of influenza H5N1 in the United States. The CDC and DHEC will provide the most updated specimen collection guidelines for suspected H5N1 in humans.

DHEC Preferred Influenza Laboratory Testing Practices for Seasonal Influenza

Serological Influenza Testing is NOT Recommended for Surveillance Purposes
Routine serological testing for influenza requires paired acute and convalescent sera, does not provide results to help with clinical decision-making, and is not generally recommended. Serological testing results for human influenza on a single serum specimen is not interpretable and is not recommended.

Positive Rapid Antigen Testing and Reporting to DHEC
Commercial rapid diagnostic test kits most commonly use a nasopharyngeal (NP) swab specimen. Results are completed in the office in approximately 30 minutes and indicate the presence of influenza virus as well as serological typing of A, B, or A and B, depending on the brand of rapid antigen testing kit used. Some of these kits are approved for use in any outpatient setting. DHEC requires weekly submission summary numbers of positive rapid influenza test worksheets by fax or email at the end of every week (Monday by noon) to the local public health department. Those wishing to email this information weekly should call their local public health department to make arrangements.

Positive Influenza Culture Testing and Reporting to DHEC
The collection of some respiratory samples for viral culture is essential for determining the influenza A subtypes and influenza A and B strains causing illness and for surveillance of new strains that may need to be included in the next year’s influenza vaccine. During outbreaks of influenza-like illness, viral cultures also can help identify other causes of illness.

Volunteer Influenza Monitoring Networks to Identify ‘Where, How Much and What Strain’

DHEC Laboratory Influenza Culture Network
As always, DHEC will continue to provide FREE influenza culture media and pre-paid packaging to practices wishing to participate in the DHEC Laboratory Influenza Culture Network. Providers are asked to submit samples (three to four) of cultures to DHEC in pre-paid packaging in the beginning, middle, and end of the season for confirmation of influenza strains circulating in the state. Those wishing to enroll in the Laboratory Culture Network should contact Nena Turner in the DHEC Bureau of Laboratories at (803)896-0819 or the epidemiology section at the local public health department.

CDC Volunteer Influenza-Like Illness (ILI) Sentinel Providers Network

Volunteer health care providers in South Carolina submit weekly reports to the CDC of the total number of patients seen and the subset number of those patients with influenza-like illness (ILI) by age group. ILI is defined as fever (temperature of >100degrees Fahrenheit) plus either a cough and/or a sore throat in the absence of another known cause other than influenza. ILI syndromes do not require the support of a laboratory test. As a bonus, volunteer providers will receive FREE personalized weekly email updates of S.C. flu activity, as well as subscriptions to the CDC MMWR and Emerging Infectious Disease Journals. Those wishing to volunteer in this system should contact Dr. Lena Bretous at (803) 898-0862, or the epidemiology section at the local public health department as listed at the end of this health update.

How To Protect Yourself and Your Patients Against the Flu

Steps health care providers can take to keep themselves and others healthy this flu season include:

- Getting their flu shot for the regular flu season;
- Covering coughs with their arm or tissue and throwing tissue away,
- Staying home from work or school when sick with cough illness; and
- Washing hands after coughing or touching respiratory secretions.

Resource Links

WHO Confirmed Human Cases of H5N1

- http://www.who.int/csr/disease/avian_influenza/en/index.html

CDC Respiratory Hygiene/Cough Etiquette in Healthcare Settings:

- www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm

CDC Guideline for Isolation Precautions in Hospitals:

- www.cdc.gov/ncidod/hip/ISOLAT/Isolat.htm

DHEC Influenza Surveillance Web site:

- http://www.scdhec.gov/health/disease/acute/flu.htm

S.C. 2007 List of Reportable Conditions

Attention: Health Care Facilities, Physicians, and Laboratories

South Carolina Law §44-29-10 and Regulation §61-20 require reporting of conditions on this list to the local public health department.

HIPAA: Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512)

IMMEDIATELY REPORTABLE BY PHONE

All suspected and confirmed cases, including preliminary clinical and laboratory results.

- **Any outbreak, unusual disease, or cluster of cases (1)**
- **Any potential biological (to include toxins such as ricin), chemical, or terrorist event.**
- Animal (mammal) bites
- Anthrax (7)
- Botulism
- Foodborne outbreak – unusual cluster
- *Haemophilus influenzae,* type b, invasive disease (4) (7)
- Measles (rubeola)
- Meningococcal disease (7) (9)
- Plague (7)
- Poliomyelitis
- SARS – Severe Acute Respiratory Syndrome (7)
- Smallpox
- Viral Hemorrhagic Fever

URGENTLY REPORTABLE
Within 24 hours by phone

All suspected and confirmed cases, including preliminary clinical and laboratory results.

- Arboviral Neuroinvasive Disease (acute infection, including acute flaccid paralysis, atypical Guillain-Barré Syndrome): Eastern Equine Encephalitis (EEE), LaCrosse (LAC), St. Louis Encephalitis (SLE), West Nile Virus (WNV) (7)
- Brucellosis (7)
- Cholera (*Vibrio cholerae* type O1 and O139) (7)
- Diphtheria (7)
- *E. coli*, shiga toxin – producing (STEC), including O157:H7 (7)
- Glanders *(Burkholderia mallei)* (7)
- Hantavirus
- Hemolytic uremic syndrome (HUS) (10)
- Hepatitis A, acute (IgM Ab + only)
- Hepatitis B, acute (IgM core Ab + only)
- Melioidosis *(Burkholderia pseudomallei)* (7)
- Mumps
- Pertussis
- Q fever *(Coxiella burnetii)*
- Rabies (human)
- Rubella (includes congenital)
- *Staphylococcus aureus*, vancomycin-resistant (VRSA/VISA)
- Syphilis, primary or secondary (lesion or rash)
- Syphilis, congenital
- Trichinosis
- Tuberculosis (7)
- Tularemia
- Typhoid fever *(Salmonella typhi)* (7)
- Typhus, epidemic *(Rickettsia prowazekii)*

REPORT WITHIN 7 DAYS

- AIDS (2)
- Campylobacter enteritis
- CD4 T-lymphocyte count – all results (L) (2)
- Chancroid
- Chlamydia trachomatis, genital site (L)
- Creutzfeldt-Jakob Disease (Age < 55 years)
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- Ehrlichiosis
- Giardiasis
- Gonorrhea
- *Haemophilus influenzae*, non-type b, invasive disease (4) (7)
- Hepatitis B, chronic
- Hepatitis B Surface Antigen + (HBsAg +) with each pregnancy
- Hepatitis C, D, E
- HIV-1 or HIV-2 infection (2)
- HIV quantification / viral load – all results (L) (2)
- Influenza, positive rapid flu test (#)
- Influenza, positive virus culture isolates (L)
- Influenza, pediatric deaths – age ? 17 years
- Lead poisoning (5)
- Lead tests, all (6) (L, includes office tests)
- Legionellosis
- Leprosy (Hansen's Disease)
- Leptospirosis
- Listeriosis (7)
- Lyme disease
- Lymphogranuloma venereum
- Malaria
- Meningitis, aseptic (8)
- Pesticide poisoning
- Psittacosis
- Rocky Mountain Spotted Fever
- Salmonellosis (7)
- Shigellosis (7)
- Streptococcus group A, invasive disease (4)
- Streptococcus group B, age < 90 days
- *Streptococcus pneumoniae*, invasive, (4), (include antibiotic resistance patterns) (3)
- Syphilis, latent or tertiary
- Syphilis, positive serologic test
- Tetanus
- Toxic Shock (specify staphylococcal or streptococcal)
- Varicella
- Varicella death
- Vibrio infections (other than *Vibrio cholerae* O1 or O139)
- Yellow Fever
- Yersiniosis

- **Potential agent of bioterrorism**

(L) Only Labs required to report.
(#) Report only total number of positive results; individual case reporting is not necessary.

1. Outbreak: An excess number of cases or syndromes over the expected occurrence of disease within a geographic area or population group.
2. Report HIV or AIDS when serum, urine, or oral fluid specimen is positive by: (a) screening test (e.g. EIA antibody), or (b) confirmatory test (e.g. Western Blot), or (c) an HIV detection test (e.g., PCR nucleic acid test, including viral load) or (d) clinical diagnosis of a case of HIV or AIDS. All reactive rapid HIV test results must be reported to DHEC. All HIV viral load and CD4 test results must be reported by laboratories regardless of results.
3. Antibiotic resistant organisms: resistant pneumococcus - MIC > 2µg/ml of penicillin G (or Oxacillin disc zone < 19mm) or resistance to any single drug accepted as effective treatment. The definition of resistance may differ between laboratories by test methods used to determine susceptibility. Reports should specify the site from which the isolate was obtained and the drug susceptibility profile.
4. Invasive disease = isolated from normally sterile site: blood, bone, CSF, joint, pericardial, peritoneal or pleural fluid, necrotizing fasciitis, and cellulitis only if isolate is from a tissue biopsy. Always specify site of isolate.
5. Physicians should report serum lead level >10 µg/dL for children under 6 years of age and > 25 µg/dL for persons 6 years or older.
6. Labs must report results of all lead tests performed. This includes lab tests performed in physician offices.
7. Labs should submit these isolates and positive serologies to the DHEC Bureau of Laboratories for confirmatory testing, serotyping, serogrouping, or genotyping.
8. Acute meningeal symptoms, fever, CSF pleocytosis, sterile culture. Consult DHEC in outbreaks to submit specimens to lab for virus identification.
9. Report Gram-negative diplococci in blood or CSF.
10. HUS, with or without gastroenteritis: Triad of acute renal failure, thrombocytopenia, and microangiopathic hemolytic anemia.

S.C. 2007 List of Reportable Conditions

How To Report

Submit reports by **one** of the following methods:

1. For i**mmediately** and **urgently** reportable conditions (M-F, 9-5): call your regional public health office. See list below.
2. For **immediately** reportable conditions (nights, weekends, and holidays): call your regional public health office nights/weekend phone number (see list below), or the statewide DHEC emergency phone number (1-888-847-0902).
3. For routine reports: call your regional public health office or complete the DHEC 1129 Disease Reporting Card and mail in an envelope marked confidential to your regional public health office. (See list below.)
4. **For HIV and AIDS:** report these conditions by calling 1-800-277-0873 or (803) 898-0758, or by submitting a DHEC 1129 Disease Reporting Card or appropriate CDC Case Report Form to:
   STD/HIV Surveillance Division, Mills/Jarrett Complex,
   Box 101106, Columbia, SC 29211.

What To Report

- Patient's name
- Patient's complete address, phone, date of birth, race, sex, county, Social Security Number
- Physician's name and phone
- Name, institution, and phone number of person reporting
- Disease or condition
- Date of onset of disease and date of report
- Lab results, specimen site, collection date
- Status: if pregnant, in daycare, or a food-handler

DHEC may request additional clinical information on a Case Report Form.

Regional Public Health Offices

Mail or call reports to the Epidemiology Office in each Public Health Region.

Region I
Anderson, Oconee
220 McGee Road
Anderson, SC 29625
Phone: (864) 260-4358
Fax: (864) 260-5623
Nights / Weekends: 1-866-298-4442

Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda
1736 S. Main Street
Greenwood, SC 29646
Phone: 1-888-218-5475
Fax: (864) 942-3690
Nights / Weekends: 1-800-420-1915

Region 2
Greenville, Pickens
PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 282-4139
Fax: (864) 282-4373
Nights / Weekends: 1-800-993-1186

Cherokee, Spartanburg, Union
PO Box 4217
151 E. Wood Street
Spartanburg, SC 29305-4217
Phone: (864) 596-2227, x- 210
Fax: (864) 596-3443
Nights / Weekends: 1-800-993-1186

Region 3
Chester, Lancaster, York
PO Box 817
1833 Pageland Highway
Lancaster, SC 29721
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: 1-866-867-3886

Region 3 (continued)
Fairfield, Lexington, Newberry, Richland
2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: 1-888-554-9915

Region 4
Clarendon, Kershaw, Lee, Sumter
PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 775-9941
Nights/Weekends: 1-877-831-4647

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion
145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 660-8145

Region 5
Bamberg, Calhoun, Orangeburg
PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 533-7199
Fax: (803) 533-7134
Nights / Weekends: (803) 954-8513

Aiken, Allendale, Barnwell
1680 Richland Avenue, W. Suite 40
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: (803) 827-8668 or
1-800-614-1519

Region 6
Georgetown, Horry, Williamsburg
2830 Oak Street
Conway, SC 29526-4560
Phone: (843) 365-3126, x-138 or x-174
Fax: (843) 365-3153
Nights / Weekends: (843) 381-6710

Region 7
Berkeley, Charleston, Dorchester
4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 746-3806
Fax: (843) 746-3851
Nights / Weekends: (843) 219-8470

Region 8
Beaufort, Colleton, Hampton, Jasper
219 S. Lemacks Street
Walterboro, SC 29488
Phone: (843) 549-1516, x-214
Fax: (843) 549-6845
Nights / Weekends: 1-800-614-4698

DHEC Bureau of Disease Control
Division of Acute Disease Epidemiology
1751 Calhoun Street
Box 101106
Columbia, SC 29211
Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902

2007 SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL DISEASE REPORTING CARD

Disease reporting is required by SC Code of Laws Section 44-29-10, Regulation 61-20, 44-1-110, and 44-1-140. **See other side for list of reportable diseases.**

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities for the purpose of preventing or controlling disease. (45 CFR §164.512)

Patient Name (Last) (First) (Middle)

Date of Birth Month / Day / Year

Race Am. Ind. Asian Black White Unk

Ethnicity Hispanic Non-Hispanic Unk

Sex Male Female Not Stated

Patient Status In Childcare Food Handler Pregnant

Patient Address / City and Zip Code

County

Patient ID or SSN

Telephone Numbers

Disease (Include stage, if appropriate)

Criteria for Diagnosis Clinical Laboratory Both

Date of Onset Symptoms _____ Diagnosis _____

Specific Laboratory Results

Specimen Site

Collection Date

Hepatitis A Serology Results

Hepatitis A antibody (Acute IgM anti-HAV) Pos Neg Unk

Hepatitis C Serology Results

Hepatitis C – EIA..... Pos Neg Unk s/co ratio:
Hepatitis C – RIBA..... Pos Neg Unk
Hepatitis C – NAT ..... Pos Neg Unk
Hepatitis C – PCR..... Pos Neg Unk
Hepatitis C – Viral Load

Hepatitis B Serology Results

	Pos	Neg	Unk
Hepatitis B surface Antigen (HBsAg).....			
Hepatitis B core Antibody IgM (HBcAb-IgM) ..			
Hepatitis B core Antibody Total (HBcAb).....			
Hepatitis B surface Antibody (HBsAb).....			
Hepatitis B e Antigen (HBeAg)			

Hepatitis Diagnosis

Hepatitis A..... Acute
Hepatitis B..... Acute Chronic
Hepatitis C ..... Acute Chronic
Hepatitis Other _____

Hepatitis Clinical Information

Pregnant: Yes No Jaundice: Yes No
ALT: Date: AST: Date:

For STD Reporting

Pregnant: ..... Yes No
Treated: ..... Yes No
Rx:
Treatment planned: Yes No
Treatment unknown: Yes No

Responsible Physician & Phone #

Reporting Lab/Facility, Person, & Phone #

Date Reported to Health Dept.

Mail or Call Reports To:

For daytime & after-hours phone numbers: www.scdhec.gov/health/disease/docs/reportable_conditions.pdf
For after-hours reporting of immediately reportable conditions, call state answering service: 1-888-847-0902
For more information, call DHEC Bureau of Disease Control, Columbia: 803-898-0861 (M-F 9-5)

Send More Cards To:
(Address)

For DHEC Use Only (Initial & Date) County Review Date State Review Date **C P S N**

DHEC 1129 (01/2007)

Reporting required by attending physician/designee and laboratory except where lab only (L) reporting is indicated.

Report IMMEDIATELY By Phone

- **Any outbreak or unusual disease or cluster of cases.**
- **Any potential biological (to include toxins such as ricin), chemical, or terrorist event (1)**
- Animal (mammal) bites
- Anthrax (7)
- Botulism
- Foodborne outbreak - unusual cluster
- *Haemophilus influenzae* type b, invasive disease (4) (7)
- Measles (Rubeola)
- Meningococcal disease (7) (9)
- Plague (7)
- Poliomyelitis
- SARS, Severe Acute Respiratory Syndrome
- Smallpox
- Viral Hemorrhagic Fever

Urgently Reportable Within 24 Hours By Phone

Arboviral Neuroinvasive Disease (acute infection, including acute flaccid paralysis, atypical Guillain-Barré Syndrome): Eastern Equine Encephalitis (EEE), LaCrosse (LAC), St. Louis Encephalitis (SLE), West Nile Virus (WNV) (7)
Brucellosis (7)
Cholera (*Vibrio cholerae)* type O1 and O139 (7)
Diphtheria (7)
E-coli, shiga toxin-producing (STEC), including O157:H7 (7)
Glanders *(Burkholderia mallei)* (7)
Hantavirus
Hemolytic uremic syndrome (HUS)
Hepatitis A, acute (IgM Ab+ only)
Hepatitis B, acute (IgM core+)
Melioidosis *(Burkholderia pseudomallei)* (7)
Mumps
Pertussis
Q fever *(Coxiella burnetti)*
Rabies (human)
Rubella (includes congenital)
Staphylococcus aureus, vancomycin-resistant (VRSA/VISA)
Syphilis, primary or secondary (lesion or rash)
Syphilis, congenital
Trichinosis
Tuberculosis (7)
Tularemia
Typhoid fever *(Salmonella typhi)* (7)
Typhus fever, epidemic *(Richettsia prowazekii)*

Report Within 7 Days

AIDS (2)
Campylobacter enteritis
CD4 T-lymphocyte count - all results (L) (2)
Chancroid
Chlamydia trachomatis, genital site (L)
Creutzfeldt-Jakob Disease (Age < 55 years)
Cryptosporidiosis
Cyclosporiasis
Dengue
Ehrlichiosis
Giardiasis
Gonorrhea
Haemophilus influenzae, non-type b invasive disease (4)(7)
Hepatitis B, chronic
Hepatitis B Surface Antigen+ (HBsAg+) with each pregnancy
Hepatitis C, D, E
HIV-1 or HIV-2 infection (2)
HIV quantification / viral load - all results (L) (2)
Influenza, positive rapid flu test (report # of positive results)
Influenza, positive virus culture isolates (L)
Influenza, pediatric deaths - age ? 17 years
Lead poisoning (5)
Lead tests, all (6) (L, includes office tests)
Legionellosis
Leprosy (Hansen's Disease)
Leptospirosis
Listeriosis (7)
Lyme disease
Lymphogranuloma venereum
Malaria
Meningitis, aseptic (8)
Pesticide poisoning
Psittacosis
Rocky Mountain Spotted Fever
Salmonellosis (7)
Shigellosis (7)
Streptococcus group A, invasive disease (4)
Streptococcus group B, age < 90 days
Streptococcus pneumoniae, invasive, (4) (include antibiotic resistance patterns) (3)
Syphilis, latent or tertiary
Syphilis, positive serologic test
Tetanus
Toxic Shock (specify staphylococcal or streptococcal)
Varicella
Varicella death
Vibrio infections (other than *Vibrio cholerae* O1 or O139)
Yellow Fever
Yersiniosis

Potential agent of Bioterrorism (L) Only labs required to report. For notes 1-10, see complete list of reportable diseases at: www.scdhec.gov/health/disease/docs/reportable_conditions.pdf.

Year-to-Date Summary of Selected Reportable Conditions - January 1, 2006 - August 14, 2006 *

Condition	Confirmed	Probable	Total
Anthrax	0	*	0
Arboviral Neuroinvasive Disease	0	0	0
Botulism	0	0	0
Brucellosis	2	0	2
Campylobacter enteriditis	183	0	183
Cholera	0	*	0
Creutzfeldt-Jakob disease (age <55 years)	0	0	0
Cryptosporidiosis	121	*	121
Cyclosporiasis	4	*	4
Dengue	0	1	1
Diphtheria	0	0	0
Ehrlichiosis	2	5	7
Enterohemorrhagic E. Coli (includes O157:H7)	6	0	6
Giardiasis	89	1	89
Glanders	0	0	0
Haemophilius influenzae, non-type b invasive disease	26	0	26
Haemophilus influenzae type b, invasive disease	2	0	2
Hantavirus	0	*	0
Hemolytic uremic syndrome	2	0	2
Hepatitis A, acute	24	*	24
Hepatitis B, acute	81	*	81
Hepatitis B, chronic	532	*	532
Hepatitis C, acute	0	*	0
Hepatitis C, chronic or past	2,518	1,464	3,982
Hepatitis D	1	*	1
Hepatitis E	1	*	1
Influenza, positive virus culture isolates	30	*	30
Kawasaki disease	3	*	3
Legionellosis	5	*	5
Leprosy	0	*	0
Leptospirosis	0	0	0
Listeriosis	9	*	9
Lyme disease	18	*	18
Malaria	9	*	9
Measles (rubeola)	0	0	0
Meningitis, aseptic	92	*	92
Meningococcal disease	19	0	19
Mumps	4	0	4
Pertussis	146	21	167
Plague	0	0	0
Poliomyelitis	0	0	0
Psittacosis	0	0	0
Q fever	0	0	0
Rabies (human)	0	*	0
Rocky Mountain Spotted Fever	2	40	42
Rubella (includes congenital)	0	0	0
Salmonellosis	890	6	896
SARS	0	0	0
Shigellosis	77	0	77
Smallpox	0	0	0
Staphylococcus aureus, vancomycin-resistant (VRSA/VISA)	0	*	0
Streptococcus group A, invasive disease	57	*	57
Streptococcus group B, age < 90 days	30	*	30
Streptococcus pneumoniae, invasive	186	*	186
Tetanus	1	*	1
Toxic Shock (Staphylococcal or Streptococcal)	0	0	0
Toxins	1	0	1
Trichinosis	0	*	0
Tularemia	0	0	0
Typhoid Fever	0	0	0
Typhus (scrub) fever	0	0	0
Varicella	553	416	969
Vibrio infections (non-cholera)	6	*	6
Viral Hemorrhagic Fever	0	0	0
Yellow Fever	0	0	0
Yersiniosis	5	0	5

* Probable case status is not allowed for this condition.

Epi-Notes
Division of Acute Disease Epidemiology
SC DHEC
2600 Bull Street
Columbia, SC 29201

Epi-Notes is published by the South Carolina Department of Health and Environmental Control Division of Acute Disease Epidemiology

FOR DISEASE REPORTING

For immediately reportable conditions, call your local county health department or, for after-hours, call 1-888-847-0902. Routine reports may be phoned in to your local health department or mailed on a completed DHEC DISEASE REPORTING CARD (DHEC 1129). Local county health department numbers are listed on the Official List of Reportable Conditions. For a copy of the current Official List of Reportable Conditions, call 803-898-0861 or visit
www.scdhec.gov/health/disease/index.htm

THE EPI NOTES NEWSLETTER IS NOW AVAILABLE ON LINE AT
www.scdhec.gov/health/disease/index.htm