Changes in the 2009 S.C. List of Reportable Conditions

Julie Schlegel, MSP, Foodborne Epidemiologist
Division of Acute Disease Epidemiology

As authorized by South Carolina Statute #44-20-10 and Regulation #61-20, 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 U.S. Centers for Disease Control and Prevention (CDC).

The following revisions have been made to the 2008 List of Reportable Conditions:

New for 2009:
- Influenza deaths (pediatric and adults.)

Revisions to the List of Reportable Conditions:
- *Haemophilus influenzae*, non-type b, has been changed to "*Haemophilus influenzae*, all types," and has been moved to Urgently Reportable within 24 hours by phone.
- Influenza, pediatric deaths-age ≤ 17 years has been changed to "influenza, deaths (pediatric and adults; lab confirmed only:

(Continued on page 2)

As recommended by the US Public Health Service Advisory Committee on Immunization Practices (ACIP) for all women who will be pregnant during the influenza season (October through mid-May). (1)

This recommendation is supported by other national organizations including the American College of Obstetricians and Gynecologists (ACOG). (2) Table 1 (see page 8) provides historical perspective on the evolution of national recommendations over the past two decades which has led to current broad guideline for use of TIV in pregnancy.

(Continued on page 8)
Changes in Varicella Reporting for 2009
Marya Barker, MPH, Epidemiologist
Division of Acute Disease Epidemiology

The 2009 S.C. reporting requirements for varicella will change slightly.

Rather than requiring that all cases of varicella be reportable by name, DHEC will require reporting of cases by name only in the event of outbreaks, hospitalizations and deaths. Sporadic cases of varicella will not be reportable to DHEC.

For the purposes of disease reporting, an outbreak of varicella is defined as five or more cases occurring within six weeks in a common setting such as school, childcare or other institutional setting.

As of November 14, 2008, 763 cases of varicella had been reported, year to date, to DHEC. Previous years’ case counts have been similar. The majority of these cases were expected and sporadic cases in previously immunized children and no public health intervention was necessary. Narrowing the criteria for varicella cases to be reported will allow public health officials to reserve efforts for unusual events that deserve further scrutiny and save time for busy providers.

Changes in Reporting for Haemophilus influenzae for 2009
Marya Barker, MPH, Epidemiologist
Division of Acute Disease Epidemiology

For 2009, DHEC has combined the reporting for all types of Haemophilus influenzae (H. flu), invasive disease into the “Urgently Reportable within 24 Hours” category.

In previous years, DHEC had required immediate reporting of H. flu, type b, while non-type b disease was reportable within seven days. The primary reason for this change is to reduce confusion about reporting requirements for private providers and laboratorians.

In addition, because most private labs in South Carolina do not perform serotyping of H. flu isolates, providers often waited seven days to report positive H. flu tests because the laboratory testing indicated only a positive H. flu result. This additional time interval between onset of disease and initiation of public health response made the timely prophylaxis of contacts difficult and delayed or prevented the isolate from being sent to the DHEC Bureau of Labs for serotyping.

We hope that moving all types of H. flu into one reporting category will make reporting of H. flu easier and faster. As in the past, all Haemophilus influenzae isolates are required to be sent to the DHEC Bureau of Labs for serotyping. These data are critical not only for the treatment of the patient but also for controlling the potential for spread of Hib and for chronicling the changing epidemiology of Haemophilus influenzae.

Changes in the 2009 SC List of Reportable Conditions
(Continued from page 1)

- e.g. culture, rapid test, PCR or autopsy results consistent with influenza.)”
- Lead poisoning has been clarified as “lead poisoning (elevated blood lead levels, all ages.)”
- Lead tests, all, has been changed to “lead tests, all (age < 6).”
- Legionellosis isolates are now requested; footnote (7) has been added to Legionellosis.
- Varicella death has been combined with varicella and is listed as “varicella (outbreaks and individual cases resulting in death or hospitalization.)”
- Footnote (5) has been updated to clarify elevated lead levels.
- One new footnote has been added: (6) defines an outbreak of varicella.

(Continued on page 3)
Changes in the 2009 SC List of Reportable Conditions

Revisions to the 2009 SC List of Reportable Conditions

Under “how to report”, 1. immediately reportable conditions, hours have been changed to 8:30 AM-5 PM.
Under “how to report”, 4. HIV and AIDS, “or submit electronically via DHEC’s electronic reporting system (call 1-800-917-2093 to learn more)” has been added.

Revisions to the Laboratory Reporting List:

- Haemophilus influenzae, non-type b, has been changed to “Haemophilus influenzae, all types, and has been moved to Urgently Reportable within 24 hours by phone.”
- Francisella tularensis has been moved to Urgently Reportable within 24 hours by phone.
- Lead tests, all other, has been changed to “lead tests, all results (ages <6).”
- Serum lead levels has been changed to lead poisoning.
- Footnote (5) has been updated to clarify elevated lead levels.

Revisions to the Disease Reporting Card:

- Several sections have been revised to include an option for “Unk.” These include ethnicity, pregnant, patient status, symptoms for Lyme or RMSF rash and STD reporting for treated patients.
- Specimen type has been changed to “specimen source (blood, stool, etc.).”

The above changes may be found:

- On the DHEC Web site at: http://www.scdhec.gov/
  http://www.scdhec.gov/health/
  http://www.scdhec.gov/health/disease/index.htm
- On the 2009 DHEC Disease Reporting Card (color is green for 2009.)
- On the 2009 List of Reportable Conditions poster.

Both the Disease Reporting Cards and the laminated Reportable Disease posters (sizes 8½ x 11 inches and 12 x 24 inches) are available from the DHEC regional public health departments or from the DHEC Division of Acute Disease Epidemiology in Columbia.
S.C. 2009 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, chemical or terrorist event (including exposures to toxins such as ricin)
  - Animal (mammal) bites
  - Anthrax (7)
  - Botulism
  - Foodborne outbreak – unusual cluster
  - Influenza A, Avian or Novel (Not H1 or H3)
  - Measles (rubella)
  - Meningococcid disease (7) (9)
  - Plague (7)
  - Poliomyelitis, Paralytic and Nonparalytic
  - 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 & Non-Neuroinvasive Disease (acute infection, acute fever, encephalitis, meningitis, West Nile Virus (7)

- Brucellosis (7)
- Diphtheria (7)
- Dengue
- E. coli, shiga toxin – producing (STEC) (7)
- E. coli O157:H7 (7)
- Giardia lamblia (7)
- Haemophilus influenzae, all types, invasive disease (4) (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 or intermediate (VISA/VRE) (7)
- Syphilis, primary or secondary (lesion or rash)
- Syphilis, congenital
- Tuberculosis
- Tularemia (7)
- Typhoid fever (Salmonella typhi) (7)
- Typhus, epidemic (Rickettsia prowazekii)
- Viral, all types, including Viral infections 01 and 0139 (7)
- Yellow Fever

Report within 7 Days

AIDS (2)
- Campylobacteriosis
- Chancroid
- Chlamydia trachomatis, genital lesions (L)
- Creutzfeld-Jakob Disease (Age < 55 years)
- Cryptosporidiosis
- Cyclosporiasis
- Ehrlichiosis / Anaplasmosis
- Giardiasis
- Gonorrhea
- Hepatitis B, chronic
- Hepatitis B Surface Antigen + (HBsAg +) with each pregnancy
- Hepatitis C, D, E
- HIV-1 or HIV-2 infection (2)
- HIV CD4 co receptor (L)
- HIV CD4 T lymphocyte count percentage – all results (L) (2)
- HIV viral load – all results (L) (2)
- HIV HLA-B5701 (L)
- HIV subtype, genotype, and phenotype (L)
- Influenza, positive rapid flu test (9)
- Influenza, positive virus culture isolates (L)
- Influenza, deaths (pediatric & adult; lab confirmed only: e.g. culture, rapid test, PCR or autopsy results consistent with influenza)
- Lead poisoning (elevated blood lead levels, all ages) (5)
- Lead tests, all (age < 6) (L)
- Legionellosis (7)
- Leprosy (Hansen’s Disease)
- Leptospirosis
- Listeriosis (7)
- Lyme disease
- Lymphogranuloma venereum
- Malaria
- Meningitis, aseptic (8)
- Peste des petits ruminants
- Pasternitis
- Rocky Mountain Spotted Fever
- Salmonellosis (7)
- Shigellosis (7)
- Staphylococcus aureus, methicillin resistant (MRSA) – (Bloodstream infections) (L)
- Streptococcus group A, invasive disease (4)
- Streptococcus group B, age < 90 days
- Streptococcus pneumoniae, invasive, (4), (include antibiotic resistance patterns) (9)
- Syphilis, latent or tertiary
- Syphilis, positive serologic test
- Tetanus
- Toxoplasmosis
- Varicella (outbreaks and individual cases resulting in death or hospitalization) (6)
- Yersiniosis

Potential agent of bioterrorism

(1) Only labs required to report.
(2) Report weekly only total number of positive results: individual case reporting is not necessary.
1. Outbreak: An acute number of cases or symptoms over the expected occurrence of disease over a geographic area or population group.
2. Report HIV or AIDS when serum, urine, or oral fluid specimen is positive by (confirmatory test e.g. Western Blot), or (b) an HIV detection test (e.g. PCR nuclear acid test, including viral load) or (c) clinical diagnosis of a case of HIV or AIDS. All positive rapid HIV test results must be reported to DHSS. All HIV viral load and CD4 test results must be reported by labs regardless of results.
3. Antibiotic resistant organisms: resistant pneumococci - MIC > 2ug/ml of penicillin G (or other drug in the same class) or resistant to any single drug selected 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. Influenza virus: isolated from normally sterile sites (blood, CSF, joint, sputum, cerebrospinal fluid, bronchial washing, tracheal aspirate, pleural fluid, etc.)
5. Report seasonal levels > 10 U/L for children under 14 years of age and > 25 U/L for persons 14 years of age or older.
6. An outbreak of diarrheal disease is defined as 5 or more cases within 5 weeks in a common setting such as school, church, restaurant, or institutional setting.
7. Labs must submit these isolates, lengths, and serum to the DHEC Bureau of Laboratories for confirmation/testing of enterotoxigenic, staphylococcal or streptococcal pathogens.
8. Additional signs and symptoms: fever, CSF pleocytosis, sterile culture - Consult DHEC in outbreaks to submit specimens to lab for virus identification.
9. Report Staph-negative diplococci in blood or CSF.
10. HUS: with or without hemorrhagic. Titers of acute renal failure, thrombocytopenia, and microangiopathic hemolytic anemia.
# S.C. 2009 Laboratory Reporting List

Adapted from the SC 2009 List of Reportable Conditions

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

South Carolina Law §44-55-1390 requires reporting of all blood lead values in children under 6 years of age by laboratories.

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)

<table>
<thead>
<tr>
<th>IMMEDIATELY REPORTABLE BY PHONE</th>
<th>URGENTLY REPORTABLE WITHIN 24 HOURS BY PHONE</th>
<th>REPORT WITHIN 7 DAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All suspected and confirmed cases, including preliminary laboratory results</td>
<td>All suspected and confirmed cases</td>
<td>PARASITIC</td>
</tr>
<tr>
<td>Any outbreak, unusual disease, or cluster of cases (1)</td>
<td>T. gondii</td>
<td>Cryptosporidium</td>
</tr>
<tr>
<td>Any potential biological, chemical, or terrorist event (Including exposures to toxins such as ricin)</td>
<td>Plasmodium</td>
<td>Cyclospora</td>
</tr>
<tr>
<td>Viral Hemorrhagic Fever agents (e.g. Ebola, Lassa, Marburg viruses)</td>
<td>Dengue (Flavivirus)</td>
<td>Giardia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VIRAL</th>
<th>BACTERIAL</th>
<th>BACTERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A, Avian or Novel (Not H1 or H3)</td>
<td>Bordetella pertussis</td>
<td>Anaerobica phagocytophila</td>
</tr>
<tr>
<td>Measles (Rubeola)</td>
<td>Brucella (7)</td>
<td>Boreeia burgdorferi</td>
</tr>
<tr>
<td>Poliovirus</td>
<td>Burkholderia mallei (7)</td>
<td>Campylobacter</td>
</tr>
<tr>
<td>SARS associated Coronavirus (7)</td>
<td>Burkholderia pseudomallei (7)</td>
<td>Chancroid (Haemophilus ducreyi)</td>
</tr>
<tr>
<td>Viral Hemorrhagic Fever agents (e.g. Ebola, Lassa, Marburg viruses)</td>
<td>Corynebacterium diphtheriae (7)</td>
<td>Chlamydia psittaci</td>
</tr>
<tr>
<td></td>
<td>C. burnetii</td>
<td>Chlamydia trachomatis, genital site</td>
</tr>
<tr>
<td></td>
<td>Esch. chiga 7</td>
<td>Clostridium tetani</td>
</tr>
<tr>
<td></td>
<td>Francisella tularensis (7)</td>
<td>Ehrlichia</td>
</tr>
<tr>
<td></td>
<td>Haemophilus influenzae, all types, invasive (4) (7)</td>
<td>Legionea (7)</td>
</tr>
<tr>
<td></td>
<td>M. tuberculosis (7)</td>
<td>Leptospira</td>
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<tr>
<td></td>
<td>Rickettsia prowazekii</td>
<td>Listeria (7)</td>
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<tr>
<td></td>
<td>S. typhimurium (7)</td>
<td>Mycobacterium leprae</td>
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<tr>
<td></td>
<td>S. aureus (7)</td>
<td>Neisseria gonorrhoeae</td>
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<tr>
<td></td>
<td>Streptococcus pneumoniae (7)</td>
<td>Rickettsia rickettsii (Rocky Mountain Spotted Fever)</td>
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<tr>
<td></td>
<td>Typhus (7)</td>
<td>Salmonella (7)</td>
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<tr>
<td></td>
<td>Vibrio cholerae (7)</td>
<td>Shigella (7)</td>
</tr>
<tr>
<td></td>
<td>Vibrio parahaemolyticus</td>
<td>Staphylococcus aureus, Methicillin resistant (MRSA) – (Bloodstream infections)</td>
</tr>
<tr>
<td></td>
<td>Vibrio vulnificus</td>
<td>Streptococcus group A, invasive disease (4)</td>
</tr>
<tr>
<td></td>
<td>Vibrio mimicus</td>
<td>Streptococcus group B, age &lt; 90 days</td>
</tr>
<tr>
<td></td>
<td>Vibrio cholerae</td>
<td>Streptococcus pneumoniae, invasive, (4), include antibiotic resistance patterns</td>
</tr>
<tr>
<td></td>
<td>Vibrio vulnificus</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>Vibrio species</td>
<td>Staphylococcus aureus, Methicillin resistant (MRSA) – (Bloodstream infections)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTHER</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Lead tests, all results (ages &lt; 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead poisoning (5)</td>
<td></td>
<td></td>
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<tr>
<td>Pesticide poisoning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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* Potential agent of bioterrorism

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(1) Report weekly only total number of positive results; individual case reporting is not necessary.

1. Outbreak: An acute illness among a population or a community of an unusual incidence of disease within a geographic area or population group.
2. Reporting HIV or AIDS, when serum, urine, or oral fluid specimen is positive by the confirmatory test (e.g., Western Blot) or (2) an HIV detection test (e.g., PCR nucleic acid test, including viral load). HIV or AIDS, all reactive rapid HIV test results must be reported to the DHEC. All HIV viral load and CD4 test results must be reported by labs regardless of results.
3. Antibiotic-resistant organism: resistant pneumococcus – MRC 2ug/ml of penicillin G (or oxacillin disc zone < 19mm) or resistance to any single drug as defined by the National Committee for Clinical Laboratory Standards (NCCLS) or Clinical Laboratory Standards Institute (CLSI) or the National Committee for Clinical Laboratory Standards (NCCLS) or Clinical Laboratory Standards Institute (CLSI) or the National Committee for Clinical Laboratory Standards (NCCLS) or Clinical Laboratory Standards Institute (CLSI) or the National Committee for Clinical Laboratory Standards (NCCLS) or Clinical Laboratory Standards Institute (CLSI) or the National Committee for Clinical Laboratory Standards (NCCLS) or Clinical Laboratory Standards Institute (CLSI).
4. Invasive disease: isolated from normally sterile site: blood, bone, CSF, joint, extracutaneous fluid or tissue. Culture isolate for causative, and cellulitis: only if isolate is from a tissue biopsy. Always specify site of infection.
5. Report serum lead level > 10 pg/ml, for children under 15 years of age and > 25 pg/ml, for persons 15 years of age or older.
6. An outbreak of varicella is defined as 5 or more cases within 2 weeks in a common setting, such as school, child care or institutional setting.
7. Labs should submit these isolates and positive serologies to the DHEC Bureau of Laboratories for confirmatory testing, serotyping, serogrouping, or genotyping.
8. An acute meningococcal infections, 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.

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* Preliminary results are defined as gram stain results that may be indicative of an immediately reportable condition.
# S.C. 2009 List of Reportable Conditions

**South Carolina Department of Health and Environmental Control**

## How to Report

Submit reports by one of the following methods:

1. **Immediately Reportable Conditions**
   - **In Person:** Call the local public health office. See list below.
   - **By Phone:** Call the local public health office 24 hours, 7 days a week. See list below.
   - **By Fax:** Call the local public health office 24 hours, 7 days a week. See list below.

2. **Urgently Reportable Conditions**
   - **In Person:** Call the local public health office within 24 hours. See list below.
   - **By Phone:** Call the local public health office 24 hours, 7 days a week. See list below.
   - **By Fax:** Call the local public health office 24 hours, 7 days a week. See list below.

3. **Routine Reportable Conditions**
   - **In Person:** Call the local public health office, or
   - **By Phone:** Call the local public health office 24 hours, 7 days a week. See list below.
   - **Submit electronically:** Call the local public health office, or submit electronically via DHEC’s web-based reporting system. To learn more, call 1-800-917-2093.

4. **HPV and AIDS** to report these conditions: call 1-800-277-0973 or (803) 887-0958, or submit electronically via DHEC’s web-based reporting system. To learn more, or submit a DHEC-129 Disease Reporting Card or appropriate CDC Case Report Form in a confidential envelope to STD/HIV Surveillance Division, Mills-Jarrett Complex Box 101166, 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 number**
- **Name, institution, and phone number of person reporting**
- **Disease or condition**
- **Date of diagnosis**
- **Symptoms**
- **Date of onset of symptom**
- **Date of report**
- **Lab results, specimen site, collection date**
- **If female, pregnancy status**
- **Status: In daycare or a food-handler**

## Regional Public Health Offices

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

### Region 1
**(Anderson, Oconee)**
- **Address:** 220 McGee Road, Anderson, SC 29625
- **Phone:** (864) 260-4360
- **Fax:** (864) 260-5623
- **Nights / Weekends:** 1-866-298-4442

**Telephone:** (803) 286-0548

**Fax:** (864) 494-3573

**Nights / Weekends:** 1-800-420-1915

### Region 2
**(Greenville, Pickens)**
- **Address:** PO Box 2607
- **Phone:** (864) 282-1139
- **Fax:** (864) 282-4373
- **Nights / Weekends:** 1-800-603-1188

**Telephone:** (864) 369-3443

**Fax:** (864) 596-3443

**Nights / Weekends:** 1-800-603-1188

### Region 3
**(Fairfield, Lexington, Newberry, Richland)**
- **Address:** PO Box 4217
- **Phone:** (864) 596-2227, 1-210
- **Fax:** (864) 596-3443
- **Nights / Weekends:** 1-800-603-1188

**Telephone:** (803) 785-8501

**Fax:** (803) 785-8513

**Nights / Weekends:** (803) 827-0668 or 1-800-614-1519

### Region 4
**(Chesterfield, Darlington, Dillon, Florence, Marion, Marlboro, Sumter)**
- **Address:** PO Box 1902
- **Phone:** (803) 775-9941
- **Fax:** (803) 775-9941
- **Nights / Weekends:** 1-877-531-3047

### Region 5
**(Berkeley, Calhoun, Orangeburg)**
- **Address:** PO Box 1126
- **Phone:** (803) 942-1618
- **Fax:** (803) 942-1618
- **Nights / Weekends:** (803) 848-0300

### Region 6
**(Georgetown, Horry, Williamsburg)**
- **Address:** 1931 Industrial Park Road
- **Phone:** (843) 945-8840
- **Fax:** (843) 945-8840
- **Nights / Weekends:** (843) 381-6710

### Region 7
**(Berkeley, Charleston, Dorchester)**
- **Address:** 4050 Bridgeview Drive, Suite 800
- **Phone:** (803) 953-5551
- **Fax:** (803) 953-5551
- **Nights / Weekends:** (843) 219-8470

### Region 8
**(Beaufort, Colleton, Hampton, Jasper)**
- **Address:** 219 S. Lamacks Street
- **Phone:** (843) 625-7603
- **Fax:** (843) 549-6845
- **Nights / Weekends:** 1-800-614-4409

### DHEC Bureau of Disease Control
**Division of Acute Disease Epidemiology**
- **Address:** 1751 Calhoun Street
- **Phone:** (803) 782-0661
- **Fax:** (803) 782-0661
- **Nights / Weekends:** 1-800-687-6002

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[Logo and website link]

**www.scdhec.gov**
**Vibrio Spotlight**

Julie Schlegel, MSP, Foodborne Epidemiologist  
Division of Acute Disease Epidemiology

*Vibrio vulnificus* is a naturally occurring estuarine organism. Shellfish, such as oysters, may become contaminated with *Vibrio vulnificus* as they feed by filtering contaminated seawater. This is especially true of shellfish harvested from the Gulf Coast states, which is where the majority of cases in the United States occur. Shellfish sold in South Carolina may have been harvested here, but a significant percentage will have been imported from Gulf Coast states, making *Vibrio vulnificus* a significant concern to our S.C. residents and tourists.

*Vibrio vulnificus* may cause vomiting, diarrhea, and abdominal pain among healthy people who eat contaminated seafood. In the immunocompromised, and in those with existing chronic illness, *Vibrio vulnificus* can lead to septicemia, causing a severe and life-threatening illness. *Vibrio* vulnificus bloodstream infections are fatal about 50 percent of the time.

Persons at higher risk for *Vibrio* vulnificus infection include those with liver disorders (e.g., cirrhosis, hemochromatosis, chronic hepatitis), diabetes, stomach disorders, cancer, HIV/AIDS, alcohol abuse and those with weakened immune systems due to a variety of medical treatments, such as chemotherapy. **Physicians are encouraged to warn patients with these risk factors to avoid eating raw or undercooked shellfish.**

DHEC staff monitor reports of *Vibrio vulnificus*. When providers report a case of *Vibrio vulnificus* to DHEC a number of processes are set into action:

- An epidemiological interview will be conducted to help identify potential sources of illness. If the case reports eating shellfish, DHEC staff will conduct a traceback of that shellfish to determine the harvest site.
- If any suspect shellfish is available, it will be tested.
- In the case of shellfish contamination, DHEC will coordinate with the CDC, the FDA and other states to assure that the suspect shellfish is no longer available for sale and that the harvest site is evaluated.

Local healthcare providers and laboratories are the link between individual presenting patients and public health responses. Without reports of illness from local partners, DHEC cannot identify and investigate outbreaks of public health significance. South Carolina local disease reporters have provided key information in numerous outbreak investigations and in turn, critical product recalls.

**REPORTING:** Vibrio is reportable within 24 hours in South Carolina. Please see the 2009 S.C. List of Reportable Conditions for more information: [http://www.scdhec.gov/health/disease/docs/reportable_conditions.pdf](http://www.scdhec.gov/health/disease/docs/reportable_conditions.pdf).
Ask an Epi: Prevention and Treatment of Influenza during Pregnancy

(Continued from page 1)

Table 1: Evolution of ACIP guidelines regarding influenza immunization in pregnancy: 2008 and selected illustrative past years

<table>
<thead>
<tr>
<th>Year</th>
<th>Recommendation for use of TIV in pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993 (3)</td>
<td>• Vaccinate only pregnant women with medical conditions known to increase risk for complications from influenza.</td>
</tr>
</tbody>
</table>
| 1998 (4) | • Vaccinate women who will be in the second or third trimester of pregnancy during the influenza season.  
• Vaccinate pregnant women who have medical conditions that increase their risk of complications from influenza regardless of the stage of pregnancy |
| 2008 (1) | • Vaccinate all women who will be pregnant during the influenza season. |

It should be noted, however, that unlike TIV, live attenuated (intranasal) influenza vaccine (LAIV) is NOT recommended in pregnancy.

2. Why has national vaccine policy gradually moved to universal influenza vaccination in pregnancy?

The ACIP (1) has cited a number of studies conducted in different settings which have accumulated evidence that pregnancy increases influenza complications. (5-9) Some examples are informally presented in Table 2.

Table 2: Representative studies documenting increased complications of influenza during pregnancy

<table>
<thead>
<tr>
<th>Reference</th>
<th>Study population</th>
<th>Conclusion</th>
</tr>
</thead>
</table>
| 5         | 3975 women consecutively delivered at two Nottingham hospitals. (British study)  | There was no evidence for transplacental transmission of influenza virus.  
There was an increase in complications of pregnancy in the influenza cohort |
| 6         | ~25,000 women enrolled in Tennessee Medicaid program. (Vanderbilt School of Medicine study) | Out of every 10,000 women in their 3rd trimester without other identified risk factors who experience an average influenza season of 2.5 months, 25 will be hospitalized with influenza related morbidity. |
| 7         | Population-based cohort study of pregnant women in Nova Scotia (Canadian study)   | Hospitalization rates for respiratory illness among pregnant women were ~doubled during influenza season even for women without comorbidities. “All pregnant women are likely to benefit from influenza vaccination.” |
| 8         | Review of influenza and pregnant women: hospitalization burden, USA 1998-2002 (US CDC review) | Universal vaccination of pregnant women to decrease influenza-related morbidity should be encouraged. |
| 9         | National data from the Healthcare Cost and Utilization Project National Inpatient Sample (NIS). (US CDC study) | During influenza season, hospitalized pregnant women with respiratory illnesses had longer lengths of stay and higher likelihood of delivery complications. Interventions to decrease influenza-related respiratory morbidity among pregnant women ought to be encouraged. |
3. Are antiviral agents for influenza recommended in pregnancy?

For the general population, annual vaccination remains the primary strategy for preventing morbidity and mortality due to influenza. Antiviral medications may be considered useful adjuncts for prevention of influenza and may be effective as treatment when used early in the course of illness. (1) However, neither of the licensed amantadines (amantadine and rimantadine) is recommended for use in the United States because of documented high levels of resistance. Thus, the neuraminidase inhibitors (oseltamivir and zanamivir) are preferred. Some low-level resistance (~10 percent) of Influenza A H1N1 to oseltamivir was documented in the 2007-2008 influenza season, but no cross-resistance to zanamivir was observed.

Both oseltamivir and zanamivir are "Pregnancy Category C" medications, reflecting the fact that formal clinical studies have not been conducted to evaluate their safety in pregnancy. The ACIP therefore recommends that ".... these two drugs should be used during pregnancy only if the potential benefit justifies the potential risk to the embryo or fetus..." Fortunately, no adverse reactions to these drugs have been reported among women who have received them during pregnancy, or among infants born to these women. (1) It appears therefore that these drugs might be used in special situations during pregnancy when indicated by informed clinical judgment.

Published References:


Selected Web resources concerning influenza:

- [www.cdc.gov/flu/](http://www.cdc.gov/flu/) CDC’s primary “flu portal” with links to numerous general and specialized resources
- [www.cdc.gov/flu/about/season/index.htm](http://www.cdc.gov/flu/about/season/index.htm) Useful site to keep up with flu surveillance trends from around the country
- [www.who.int/topics/influenza/en/](http://www.who.int/topics/influenza/en/) Provides an entrée to the World Health Organization’s influenza links
- [www.dhec.sc.gov/flu](http://www.dhec.sc.gov/flu) General information from DHEC about influenza as well as links to more specialized information
1. Changes in the 2009 SC List of Reportable Conditions

The SC 2009 List of Reportable Conditions has been updated to make all influenza-related deaths reportable. Previously, influenza-related deaths in children < 17 years of age were reportable to the local public health department within seven days. Beginning in 2009, all (pediatric and adult) lab confirmed (culture, rapid test, PCR or autopsy results consistent with influenza) influenza deaths will be reportable to the local public health department within seven days.

2. SC 2008-2009 Influenza Surveillance Update (as of 11/26/2008)

Influenza surveillance in South Carolina currently consists of the following five methodologies:

a. **Rapid Flu Tests** Positive rapid antigen influenza tests (total numbers, are reportable to regional public health departments within seven days)

b. **Viral isolates**

Participation in the viral isolate network is FREE. Providers receive collection kits, lab forms, instructions and postage-paid mailers.

c. **Influenza like illness (ILI)**

ILI, or influenza-like illness, is defined as fever >100°F AND cough or sore throat where no other explanation exists for these symptoms. Providers voluntarily submit the number of ILIs and the total number of patients seen weekly to the CDC via fax or the internet.

(Continued on page 11)
d. **Enhanced human avian influenza surveillance**, and

e. **Influenza-associated pediatric deaths**, which will change in January 2009 to **all influenza-associated deaths**.

The 2008-2009 influenza season began September 28, 2008 (MMWR week 40). MMWR weeks begin on Sunday and end on Saturday.

Thus far, South Carolina has had 64 positive rapid flu tests. There were 0 positive cultures as of MMWR week 47. Since the beginning of the 2008-2009 season, the percentage of visits to enrolled healthcare providers for influenza-like illness has been higher than during the same period in the 2007-2008 season, with the exception of week 44 (October 26-November 1, 2008).

Please visit the DHEC Flu Monitoring Web site for weekly updated information: [www.scdhec.gov/health/disease/acute/flu.htm](http://www.scdhec.gov/health/disease/acute/flu.htm)

### 3. Participation in Flu Surveillance

We reply on our sentinel providers for our flu isolate and influenza-like illness data.

**If you wish to participate in the ILI sentinel provider network or in the Viral Isolate network**, contact Chasity Springs at (803) 898-0870.
We are writing to let providers know about using the CHESS (Carolina’s Health Electronic Surveillance System) for disease reporting. The CHESS system gives you and your practice the opportunity to submit required state disease reporting electronically. This option makes reporting much faster and easier for your staff.

As you are aware, healthcare providers are required by S.C. law to report specific communicable diseases. Routine disease reporting serves several purposes, including but not limited to:

- Identification of clusters, outbreaks and/or pandemics,
- Enabling preventive or mitigative treatments, and
- Assisting in national and international surveillance efforts to control the spread of diseases.

Web-based electronic surveillance is a key component of S.C. DHEC’s efforts to assure timeliness and accuracy in disease reporting. We are excited about finally having in place an easy-to-use system that has the capacity to receive information electronically from private providers about a patient’s health status.

**As we know, and as we have heard from you, the manual card-based process of disease reporting has become outdated.** In the past two years, DHEC has developed systems to accept electronic laboratory reports (ELRs) from several commercial and reference laboratories. ELRs have greatly enhanced DHEC’s ability to identify disease burden, to address healthcare- and community-associated infections and to provide timely response to single cases of illness that may have consequences for a community (e.g., acute Hepatitis A or Acute Hepatitis B cases.)

For healthcare providers, CHESS integrates disease reporting to DHEC with data collection by DHEC. **CHESS allows participating healthcare providers to input a patient’s demographics, lab results, and disease history in a timely and efficient manner using a web browser. Reporting can be done by trained, authorized office personnel.** Data provided to CHESS can be used to develop customized reports addressing trends gathered from disease reporting — one of the biggest benefits for providers reporting via CHESS.

CHESS offers providers:

- Faster and more complete disease reporting
- Use of industry standards for data management
- A common location in which data are stored
- Secure handling of confidential data
- A web-based interface with no need to purchase or install specialized software

Currently, CHESS is used for routine disease reporting by a diverse group of providers, including hospitals, independent labs, educational institutions, private practices and military bases. We hope you will consider joining this group.

**Want to know more?** If you are a healthcare provider or someone who would like to know more about the Carolina’s Health Electronic Surveillance System, contact your Regional Disease Response and Surveillance Coordinator at the local public health department (see list of numbers on Page 6.) You may also call 1-800-917-2093 to schedule a demonstration.
Is your practice prepared for an influenza pandemic or for a bad flu season?

DHEC’s Public Health Clinical Liaisons can help!

Did You Know…

- **PAN FLU HITS COMMUNITIES IN WAVES**
- Each wave lasts at least 6 weeks...
- **MEDICAL OFFICES MAY SEE AN EXTR 25 PATIENTS A DAY**
- 15% to 30% of the healthcare workforce may be sick during pandemic waves?

Public Health Clinical Liaisons can provide **FREE** Pan Flu Informational & Planning Sessions for Medical Practices concerning:

- **CONTINUITY OF OPERATIONS**
  - How will YOU keep your office practice going?
- **INFECTION CONTROL STRATEGIES**
  - In Medical Offices and for Patients
  - In the Community
- **INFLUENZA MONITORING SYSTEM ENROLLMENT**
  - Flu-like Syndromes
  - Flu Cultures

Would you like to have a DHEC Public Health Clinical Liaison visit your practice or facility?
Please provide facility name, county and phone number to:
Roscia Hardee RN, MPH at 803-898-1490.
### Summary of Conditions reported to SC DHEC January 1 through November 1, 2008.

Compiled by Claire Youngblood, MA, Data Manager  
Division of Acute Disease Epidemiology

<table>
<thead>
<tr>
<th>Condition</th>
<th>Confirmed</th>
<th>Probable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Bite, PEP Recommended</td>
<td>309</td>
<td>0</td>
<td>309</td>
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<tr>
<td>Aseptic meningitis</td>
<td>103</td>
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<td>104</td>
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<tr>
<td>Botulism, infant</td>
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<tr>
<td>Brucellosis</td>
<td>2</td>
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<td>3</td>
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<tr>
<td>Campylobacteriosis</td>
<td>216</td>
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<td>216</td>
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<tr>
<td>Ciguatera fish poisoning</td>
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<tr>
<td>Cholera</td>
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<tr>
<td>Cryptosporidiosis</td>
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<td>Cyclosporiasis</td>
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<tr>
<td>Dengue Fever</td>
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<tr>
<td>Ehrlichiosis, chaffeensis</td>
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<tr>
<td>Encephalitis, West Nile</td>
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<td>Enterohem. E. coli O157:H7</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Enterohem. E. coli shigatox+- ?serogrp</td>
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<td>0</td>
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<tr>
<td>Enterohem. E. coli- shigatox+- non-O157</td>
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<td>Giardiasis</td>
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<td>111</td>
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<tr>
<td>Group A Streptococcus, invasive</td>
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<tr>
<td>Group B Streptococcus, invasive</td>
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<tr>
<td>Haemophilus influenzae, invasive</td>
<td>44</td>
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<tr>
<td>Hansen disease (Leprosy)</td>
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<tr>
<td>Hemolytic uremic syndrome, postdiarrheal</td>
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<tr>
<td>Hepatitis A, acute</td>
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<td>Hepatitis B, acute</td>
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<tr>
<td>Hepatitis B virus infection, Chronic</td>
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<td>415</td>
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<tr>
<td>Hepatitis B virus infection, Perinatal</td>
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<tr>
<td>Hepatitis C, acute</td>
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<td>3</td>
</tr>
<tr>
<td>Hepatitis C Virus Infection, past or present</td>
<td>3,555</td>
<td>105</td>
<td>3,660</td>
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<tr>
<td>Hepatitis Delta co- or super-infection, acute</td>
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<tr>
<td>Hepatitis E, acute</td>
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<tr>
<td>Influenza, human isolates</td>
<td>254</td>
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<tr>
<td>Legionellosis</td>
<td>13</td>
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<tr>
<td>Listeriosis</td>
<td>4</td>
<td>0</td>
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</tr>
<tr>
<td>Lyme disease</td>
<td>10</td>
<td>12</td>
<td>22</td>
</tr>
</tbody>
</table>
### Summary of Conditions reported to SC DHEC January 1 through November 1, 2008

<table>
<thead>
<tr>
<th>Condition</th>
<th>Confirmed</th>
<th>Probable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Mumps</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Neisseria meningitidis, invasive (Mening. disease)</td>
<td>18</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Pertussis</td>
<td>90</td>
<td>14</td>
<td>104</td>
</tr>
<tr>
<td>Rocky Mountain spotted fever</td>
<td>6</td>
<td>48</td>
<td>54</td>
</tr>
<tr>
<td>S. aureus, vancomycin intermediate susc (VISA)</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Salmonellosis</td>
<td>1,019</td>
<td>3</td>
<td>1,022</td>
</tr>
<tr>
<td>Shiga toxin-producing Escherichia coli (STEC)</td>
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<td>3</td>
<td>38</td>
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<tr>
<td>Shigellosis</td>
<td>495</td>
<td>11</td>
<td>506</td>
</tr>
<tr>
<td>Strep pneumoniae, invasive</td>
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<td>451</td>
</tr>
<tr>
<td>Streptococcal disease, invasive, other</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Tetanus</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Toxic-shock syndrome, staphylococcal</td>
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</tr>
<tr>
<td>Typhoid fever (Salmonella typhi)</td>
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<td>2</td>
</tr>
<tr>
<td>Varicella (Chickenpox)</td>
<td>413</td>
<td>335</td>
<td>748</td>
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<tr>
<td>Vibrio parahaemolyticicus</td>
<td>3</td>
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</tr>
<tr>
<td>Vibrio spp., non-toxigenic, other or unspecified</td>
<td>5</td>
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<tr>
<td>Vibrio vulnificus infection</td>
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</tr>
<tr>
<td>West Nile Fever</td>
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<tr>
<td>Yersiniosis</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

### List of Reportable Conditions for Laboratories

Marya Barker, MPH, Epidemiologist  
Division of Acute Disease Epidemiology

Julie Schlegel, MSP, Foodborne Epidemiologist  
Division of Acute Disease Epidemiology

The information below appeared in the Winter 2008 edition of the Epi Notes. It is re-printed here for the benefit of our new reporting partners.

In 2008, S.C. DHEC introduced a separate List of Reportable Conditions for Laboratories. The purpose of this list is to reduce confusion regarding disease reporting responsibilities.

The List of Reportable Conditions for Laboratories includes the reportable conditions for which there is a laboratory test. The list is conveniently divided into categories of Bacterial, Viral, Parasitic, and Other. The few reportable conditions omitted from the laboratory list are those in which diagnosis is made based on clinical data, e.g., hemolytic uremic syndrome (HUS) or conditions that result in death, e.g. varicella or influenza deaths.

Outbreaks, unusual disease and clusters of cases remain as reportable situations on the laboratory list; however, the terminology “foodborne outbreaks” was omitted since the laboratorian is not likely to know the source of infection.

Many other states have already developed separate lists for clinicians and labs. The hope is that by targeting different audiences with information based on their focus area, reporting will be easier and faster than ever.
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.


Bureau of Disease Control
J. Gibson, MD, MPH, Director
803-898-0861

Bureau of Disease Control Divisions
Division of Acute Disease Epidemiology
803-898-0861
Division of Immunization
1-800-277-4687
Division of STD/HIV
803-898-0749
Division of Surveillance and Technical Support
803-898-0749
Division of Tuberculosis Control
803-898-0558

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