



2007-2008

South Carolina Annual Report




On









Reportable Conditions

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

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Introduction

The South Carolina Department of Health and Environmental Control (DHEC), Bureau of Disease Control, is pleased to present this 2007-2008 Annual Report of Notifiable Diseases. A brief narrative and accompanying graphs displaying summary data for the diseases or conditions are included in this report, which were reportable by law in South Carolina in 2007 and 2008. Useful web links and bibliographic references have been provided for readers interested in additional information.

Legal Basis for Disease Reporting and Surveillance:

In South Carolina, as in all other states and indeed in most countries around the world, reporting of diseases of public health importance has a legal basis (State Law # 44-29-10, Regulation # 61-20, State Laws #44-1-110 and 44-1-140). Federal HIPAA legislation allows disclosure of otherwise protected health information to public health authorities that collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512). State law also directs DHEC to update the list of reportable diseases on an annual basis, though few changes are made from one year to the next. A PDF version of the latest South Carolina reportable disease list may be found on the DHEC web site (www.scdhec.gov/administration/library/CR-009025.pdf). In 2008, DHEC introduced a modified list of these conditions specifically for laboratory personnel. The PDF document is found at www.scdhec.gov/administration/library/CR-009025.pdf.

Uses of Surveillance Data:

Reporting is the foundation of what is termed "disease surveillance", an activity which permits society to know what diseases are afflicting it, in what numbers, and when, where, and in whom cases are occurring. Surveillance for cases of infectious disease is useful for several purposes:

(a) Prevention of disease in contacts: For example, household or daycare contacts of persons with meningococcal meningitis are at increased risk of developing meningitis themselves, and prompt administration of an appropriate antibiotic greatly reduces this risk. Similar preventive measures are needed following exposure of contacts to cases of pertussis, hepatitis A, sexually transmitted diseases, tuberculosis, and certain other conditions.

(b) Detection of outbreaks: Some infectious diseases occur at a more or less constant background rate - sporadic cases, therefore, regularly occur in the community. Many of these may not be preventable given currently available tools. Periodically, a number of cases occur clustered in time and/or in space, and the community rate then greatly exceeds what is

normally expected. Such an event is called an "outbreak" and often requires a focused public health response to identify the cause of the outbreak, to control it, and to prevent it from recurring.

(c) Program evaluation: Some infectious diseases are targeted by government-funded programs. For example, Immunization Programs are funded with state and federal funds. Surveillance of vaccine preventable diseases is thus essential to monitor program efforts so that the program can be constantly evaluated, populations at risk (e.g., under-vaccinated subgroups in society) identified, and corrective actions taken.

(d) Contribution to knowledge about new diseases: The last 30 years have seen the emergence both of "new diseases" such as Hantavirus, H5N1 Avian Influenza, Hepatitis C, SARS, Ebola virus, E. coli O157:H7 and many others (www.cdc.gov/eid), and of "old diseases up to "new tricks", such as West Nile Virus' spread in North America, emergence of Methicillin-resistant staph aureus (MRSA), or emergence of multi-drug resistant tuberculosis (MDRTB). In many cases, these diseases have been detected by surveillance systems and their natural history, mode of transmission, and risk factors have been clarified through careful review of surveillance data - sometimes even before the causative agent was identified (e.g., HIV in the early 1980s). Similarly, cases identified by surveillance systems are often needed to serve as the basis for case-control studies, a formal study design commonly used in infectious disease epidemiology (http://en.wikipedia.org/wiki/Case-control_study) to identify risk factors or even causes for infectious diseases.

Sources of Reports:

Disease reports are submitted to DHEC from a variety of sources. Many reports are submitted by practicing physicians who may diagnose, or just suspect, a case of measles or tetanus. Similarly, clinical laboratories, either freestanding or hospital-based, are required to submit reports of positive diagnostic tests for reportable diseases. Examples might be positive IgM antibody tests for hepatitis A virus, EIA or Western Blot tests for HIV, and cerebrospinal fluid cultures for *Neisseria meningitidis* that confirms the diagnosis of meningococcal meningitis. Additional reports come from the designated Infection Control Practitioners who work in all accredited hospitals in South Carolina. Also, DHEC's local health departments report cases identified in their own clinics (e.g. tuberculosis and STDs). The DHEC Bureau of Laboratories also makes the diagnosis for numerous cases of reportable diseases based on tests performed on clinical specimens submitted by DHEC's own clinics or disease investigation teams, by hospital laboratories, or by providers who participate in special "sentinel surveillance" networks. An example of the later is the collaborative network of providers who submit specimens for detection and characterization of circulating influenza viruses that are seen in the state every winter flu season. Reports may also come from other disease control partners, such as from the Infection Control Practitioners (ICPs) or Infection Control Nurses (ICNs) who work in major hospitals throughout the state.

Mechanism for Reporting:

For years, disease reports in SC were made using DHEC's 1129 Disease Reporting Cards. However, since 2003, the DHEC Division of Acute Disease Epidemiology has also been using an adaptation of the NEDSS Base System (NBS) provided by the US Centers for Disease Control and Prevention (CDC) (www.cdc.gov/nedss, www.cdc.gov/phn). The NBS is a web-based tool allowing for decentralized intranet or Internet data entry, secure storage, and improved access to data for analysis. In South Carolina, DHEC's implementation of the NBS is called Carolina's Health Electronic Surveillance System, or CHESS. CHESS was initially deployed to DHEC sites throughout the state, but in the last year a number of regional hospitals have also come on-line and are becoming partners in the system. It is therefore anticipated that over the next few years, use of CHESS will gradually replace the use of the 1129 paper reporting cards.

Disease Occurrence vs. Disease Counts:

Conceptually it is important to distinguish *disease reporting* from *disease occurrence*. Thus, for many conditions, *reported cases* represent only the *tip-of-the-iceberg* of a much larger number of cases that have actually *occurred* in the community. This is illustrated in Figure 1 and explained more fully in Table 1.

Figure 1

Disease Occurrence vs. Disease Counts Schematic Sequence of Six Events

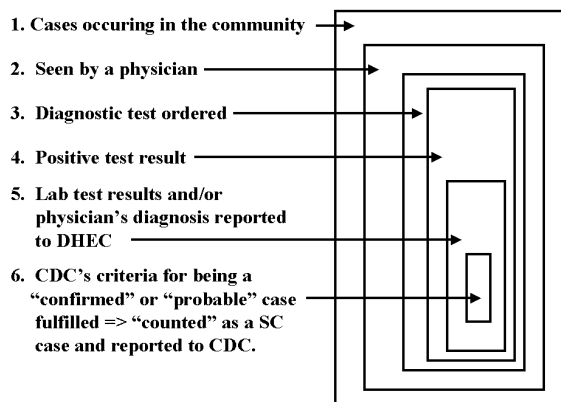


Table 1

Why even "true cases" might not follow the Sequence of Events from Step 1 to Step 6

- 1 ⇒ 2 Not all patients will consult a physician. May depend on severity of symptoms; availability of health insurance; or ability to pay.
- 2 ⇒ 3 Specific diagnostic tests not always ordered: e.g. specific diagnosis may not be considered; or test may be considered moot as condition will resolve in any case.
- 3 ⇒ 4 No laboratory test is 100% sensitive, hence false negative can and do occur for a multitude of reasons ([http://en.wikipedia.org/wiki/Sensitivity_\(tests\)](http://en.wikipedia.org/wiki/Sensitivity_(tests)))
- 4 ⇒ 5 Compliance with SC Statutory Reporting Laws is not 100%. Hence some diagnosed cases are never reported.
- 5 ⇒ 6 Only those cases which meet strict CDC criteria as being "confirmed", or at least "probable" are officially counted as SC cases, are reported to CDC, and thus become part of the national totals (www.cdc.gov/EPO/dphsi/casedef/).

Note: The proportion of reported cases which can be confirmed depends on many factors such as: (a) patterns of testing done by SC physicians, and (b) levels of federal or state funding available to DHEC disease-specific activities. For example, specific funding is available for tuberculosis, HIV-AIDS, and syphilis, and for conditions such as anthrax or smallpox which might be intentionally disseminated in a bioterror attack.

These points illustrate why a statement such as: "There were 1250 cases of salmonella last year in SC" is, strictly speaking, not correct for most diseases. A better formulation might state: "Last year DHEC received 1250 disease reports which were confirmed as cases of Salmonella".

Availability and Consistency of Data from Different Sources:

Case counts for reportable diseases are available from several sources. During the year, the Division of Acute Disease Epidemiology publishes counts of "cases reported to date" in its Epi Notes which is published several times a year and which can be found on the web at: www.scdhec.gov/health/disease. Likewise, CDC, based on reports submitted by the 50 states, publishes its own weekly figures in the Morbidity and Mortality Weekly Report (MMWR, see: www.cdc.gov/mmwr). The CDC also later publishes a final annual disease summary for the nation in a special MMWR supplement (http://www.cdc.gov/mmwr/mmwr_nd/) though this may not appear for 15 to 18 months after the end of a "reporting year". For a number of reasons, data from these different sources are not always consistent. For example, yearly totals may differ depending on whether they have been compiled by "year of disease onset" or "year of report". Also, laboratory data confirming that a "suspect case" should be reclassified as a "confirmed" case may arrive late and thus lead to retroactive "change in the numbers" which cannot be updated in tables which have already been published. Finally, available laboratory data are not always sufficient to make fine distinctions necessary to unambiguously categorize a case. For example, even if a patient with clinical manifestations of hepatitis has a positive test for HBsAg, it may not be possible to ascertain whether the patient has acute or chronic hepatitis B unless results from the more specialized test for presence of IgM-anti-HBcAb has been ordered.

Interpreting disease trends over time: One of the reasons for maintaining surveillance over infectious diseases of public health importance is to monitor trends over time so as to be able to answer questions about whether disease incidence is rising, remaining relatively constant, or falling. However, caution conditioned by detailed knowledge of the subject is often needed to interpret an apparent increase or decrease in reported cases. Questions to consider include:

- (a) Has the definition of what constitutes a "confirmed" or "probable" case changed over time? (Example: The US AIDS case definition change of 1993.)
- (b) Have new (perhaps more sensitive) diagnostic tests just recently become available?
- (c) Has there been a sudden influx of funds? (Example: Increased federal grant monies to states enabling them to do more screening for the disease or, conversely, decrease in funds and hence decreased screening efforts and then and a consequent decline in number of cases identified.)

- (d) Is the disease just newly recognized or has it just recently been introduced into the United States? (Example: Emergence and dramatic East Coast to West Coast spread of West Nile Virus in the United States since 1999.)
- (e) Are there data derived from other sources (e.g. hospital discharge summaries, death certificates, community surveys, serological studies, etc.) that can shed complementary light on the evolution of a disease in the population?
- (f) Might a sudden recent increase be attributable to a one-time anomaly (e.g., a large outbreak in one school or among patrons of a single restaurant) but not otherwise really signal an overall increase in the "general population"?

Thus, disease surveillance trends, though important, should be understood as being only part of a more complex reality, and consultation is often advisable before conclusions are drawn solely on the basis of trends in disease reports.

Conclusion:

Despite hopes some decades ago that communicable diseases were a problem of the past, infectious diseases continue to pose public health problems whose solutions call for biological understanding, technical tools, political will, and societal resources. The DHEC Bureau of Disease Control hopes this report will contribute to knowledge and understanding of the challenges posed by infectious diseases of public health importance in South Carolina.

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	REPORT WITHIN 7 DAYS
<p>All suspected and confirmed cases, including preliminary clinical and laboratory results.</p> <ul style="list-style-type: none"> 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 <i>Haemophilus influenzae</i>, 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 	<ul style="list-style-type: none"> 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 <i>Haemophilus influenzae</i>, 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 <i>Streptococcus pneumoniae</i>, 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 <i>Vibrio cholerae</i> O1 or O139) Yellow Fever Yersiniosis Potential agent of bioterrorism
URGENTLY REPORTABLE Within 24 hours by phone	
<p>All suspected and confirmed cases, including preliminary clinical and laboratory results.</p> <ul style="list-style-type: none"> 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 (<i>Vibrio cholerae</i> type O1 and O139) (7) Diphtheria (7) <i>E. coli</i>, shiga toxin - producing (STEC), including O157:H7 (7) Glanders (<i>Burkholderia mallei</i>) (7) Hantavirus Hemolytic uremic syndrome (HUS) (10) Hepatitis A, acute (IgM Ab + only) Hepatitis B, acute (IgM core Ab + only) Melioidosis (<i>Burkholderia pseudomallei</i>) (7) Mumps Pertussis Q fever (<i>Coxiella burnetii</i>) Rabies (human) Rubella (includes congenital) <i>Staphylococcus aureus</i>, vancomycin-resistant (VRSA/VISA) Syphilis, primary or secondary (lesion or rash) Syphilis, congenital Trichinosis Tuberculosis (7) Tularemia Typhoid fever (<i>Salmonella typhi</i>) (7) Typhus, epidemic (<i>Rickettsia prowazekii</i>) 	

(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 meningitis 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. 2008 List of Reportable Conditions

Attention: Health Care Facilities, Physicians, and Laboratories

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IMMEDIATELY REPORTABLE BY PHONE All suspected and confirmed cases, including preliminary clinical and laboratory results	Report within 7 Days
<ul style="list-style-type: none">  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  Food borne outbreak – unusual cluster <i>Haemophilus influenzae</i> type b, invasive disease (4) (7) Influenza A, Avian or Novel (Not H1 or H3) Measles (rubeola) Meningococcal disease (7) (9)  Plague (7) Poliomyelitis, Paralytic and Nonparalytic SARS – Severe Acute Respiratory Syndrome (7)  Smallpox  Viral Hemorrhagic Fever 	<ul style="list-style-type: none"> AIDS (2) Campylobacteriosis Chancroid Chlamydia trachomatis, genital site (L) Creutzfeldt-Jakob Disease (Age < 55 years) Cryptosporidiosis Cyclosporiasis Ehrlichiosis Giardiasis Gonorrhea <i>Haemophilus influenzae</i>, 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 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 (#) 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) <i>Staphylococcus aureus</i>, Methicillin resistant (MRSA) – (Bloodstream infections) (L) <i>Streptococcus</i> group A, invasive disease (4) <i>Streptococcus</i> group B, age < 90 days <i>Streptococcus pneumoniae</i>, 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 Yersiniosis  Potential agent of bioterrorism
Urgently Reportable within 24 Hours by Phone All suspected and confirmed cases, including preliminary clinical and laboratory results	
<ul style="list-style-type: none"> 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) Diphtheria (7) Dengue E. coli, shiga toxin – producing (STEC), including O157:H7 (7)  Glanders (<i>Burkholderia mallei</i>) (7) Hantavirus Hemolytic uremic syndrome (HUS) (10) Hepatitis A, acute (IgM Ab + only) Hepatitis B, acute (IgM core Ab + only)  Melioidosis (<i>Burkholderia pseudomallei</i>) (7) Mumps Pertussis  Q fever (<i>Coxiella burnetii</i>) Rabies (human) Rubella (includes congenital) <i>Staphylococcus aureus</i>, vancomycin-resistant (VRSA/VISA) (7) Syphilis, primary or secondary (lesion or rash) Syphilis, congenital Trichinosis Tuberculosis (7)  Tularemia Typhoid fever (<i>Salmonella typhi</i>) (7)  Typhus, epidemic (<i>Rickettsia prowazekii</i>) Vibrio infections - all types, including <i>Vibrio cholerae</i> O1 and O139) (7) Yellow Fever 	

(L) Only Labs required to report.

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















- Outbreak: An excess number of cases or syndromes over the expected occurrence of disease within a geographic area or population group.
- Report HIV or AIDS when serum, urine, or oral fluid specimen is positive by: (a) confirmatory test (e.g. Western Blot), or (b) an HIV detection test (e.g., PCR nucleic acid test, including viral load) or (c) 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.
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- Invasive disease = isolated from normally sterile site: blood, bone, CSF, joint, pericardial, peritoneal or pleural fluid, protected bronchial sampling, lung aspirate/biopsy, necrotizing fasciitis, and cellulitis only if isolate is from a tissue biopsy. Always specify site of isolate.
- 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.
- Labs must report results of all lead tests performed. This includes lab tests performed in physician offices.
- Labs must submit these isolates, broths, and serum to the DHEC Bureau of Laboratories for confirmatory testing, serotyping, serogrouping, or genotyping.
- Acute meningeal symptoms, fever, CSF pleocytosis, sterile culture. Consult DHEC in outbreaks to submit specimens to lab for virus identification.
- Report Gram-negative diplococci in blood or CSF.
- HUS, with or without gastroenteritis: Triad of acute renal failure, thrombocytopenia, and microangiopathic hemolytic anemia.

S.C. 2008 Laboratory Reporting List

Adapted from the SC 2008 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.

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* laboratory results	URGENTLY REPORTABLE WITHIN 24 HOURS BY PHONE All suspected and confirmed cases	REPORT WITHIN 7 DAYS
 Any outbreak, unusual disease, or cluster of cases (1)  Any potential biological (includes toxins such as ricin), chemical, or terrorist event	PARASITIC <i>Trichinella</i> <i>Plasmodium</i>	PARASITIC <i>Cryptosporidium</i> <i>Cyclospora</i> <i>Giardia</i>
VIRAL Influenza A, Avian or Novel (Not H1 or H3) Measles (Rubeola) Poliovirus SARS associated Coronavirus (7)  Variola major (Smallpox)  Viral Hemorrhagic Fever agents (e.g. Ebola, Lassa, Marburg viruses)	VIRAL Arboviral Agents (e.g., Eastern Equine Encephalitis (EEE), LaCrosse (LAC), St. Louis Encephalitis (SLE), West Nile Virus (WNV) (7) Dengue (<i>Flavivirus</i>) Hantavirus Hepatitis A, acute (IgM Ab + only) Hepatitis B, acute (IgM core Ab + only) Mumps virus Rabies virus (human) Rubella Yellow Fever (<i>Flavivirus</i>)	VIRAL Hepatitis B, all positive tests Hepatitis C, D, E, all positive tests HIV-1 or HIV-2 infection (2) HIV CD4 co receptor HIV CD4 T-lymphocyte count/percentage – all results (2) HIV viral loads – all results (2) HIV HLA-B5701 HIV subtype, genotype, and phenotype Influenza, positive rapid flu test (#) Influenza, positive virus culture isolates Varicella
BACTERIAL  <i>Bacillus anthracis</i> (7)  <i>Clostridium botulinum</i> or <i>Botulinum toxin</i> <i>Haemophilus influenzae</i> , invasive (4) (7) <i>Neisseria meningitidis</i> , invasive (4) (7) (9)  <i>Francisella tularensis</i> (7)  <i>Yersinia pestis</i> (7)	BACTERIAL <i>Bordetella pertussis</i>  <i>Brucella</i> (7)  <i>Burkholderia mallei</i> (7)  <i>Burkholderia pseudomallei</i> (7) <i>Corynebacterium diphtheriae</i> (7)  <i>Coxiella burnetii</i> <i>Escherichia coli</i> , shiga toxin – producing (STEC), including O157:H7 (7) <i>Mycobacterium tuberculosis</i> (7)  <i>Rickettsia prowazekii</i> <i>Salmonella typhi</i> (7) <i>Staphylococcus aureus</i> , vancomycin intermediate/resistant (VISA/VRSA) (7) <i>Treponema pallidum</i> (Darkfield exam positive) <i>Vibrio</i> -all species, including <i>V. cholerae</i> O1 and O139 (7)	BACTERIAL <i>Anaplasma phagocytophilum</i> <i>Borrelia burgdorferi</i> <i>Campylobacter</i> <i>Chancroid</i> (<i>Haemophilus ducreyi</i>)  <i>Chlamydia psittaci</i> <i>Chlamydia trachomatis</i> , genital site <i>Clostridium tetani</i> <i>Ehrlichia</i> <i>Legionella</i> <i>Leptospira</i> <i>Listeria</i> (7) <i>Mycobacterium leprae</i> <i>Neisseria gonorrhoeae</i> <i>Rickettsia rickettsii</i> (Rocky Mountain Spotted Fever) <i>Salmonella</i> (7) <i>Shigella</i> (7) <i>Staphylococcus aureus</i> , Methicillin resistant (MRSA) – (Bloodstream infections) <i>Streptococcus</i> group A, invasive disease (4) <i>Streptococcus</i> group B, age < 90 days <i>Streptococcus pneumoniae</i> , invasive, (4), include antibiotic resistance patterns (3) Syphilis, positive serologic test <i>Yersinia</i> , not <i>pestis</i>
<p>(L) Only Labs required to report. (##) Report only total number of positive results; individual case reporting is not necessary.</p> <ol style="list-style-type: none"> 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) confirmatory test (e.g. Western Blot), or (b) an HIV detection test (e.g., PCR nucleic acid test, including viral load) or (c) 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, protected bronchial sampling, lung aspirate/biopsy, 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 must submit these isolates, broths, and serum to the DHEC Bureau of Laboratories for confirmatory testing, serotyping, serogrouping, or genotyping. 8. Acute meningial 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. <p>* Preliminary results are defined as gram stain results that may be indicative of an immediately reportable condition.</p>		Potential agent of bioterrorism OTHER Serum lead levels (5) Lead tests, all other (6) Pesticide poisoning

Disease Reports

Animal Bites

Cause: Injury and potential zoonotic disease transmission due to bites from animals

Illness and Treatment: Animal bites to humans may result in injury, as well as provide a route for zoonotic disease transmission. Bites from animals infected with the Rabies virus may cause Rabies infection in the victim. Humans bitten by an animal either known or suspected to be infected with the Rabies virus must be treated with Rabies Post-exposure Prophylaxis treatment (vaccine and immunoglobulin) in order to not become infected with Rabies.

Investigations, Quarantines, and Testing: When an animal bite report is received by SC-DHEC, an environmentalist does an investigation of the bite incident and issues a quarantine notice, if warranted and possible, to the owners of the offending animal. The animal is then observed for a certain number of days while in quarantine, based upon the provisions set forth in the *South Carolina Rabies Control Act* and the *Compendium of Animal Rabies Prevention and Control* (produced annually by the National Association of State Public Health Veterinarians). The quarantine observation period is implemented in order to attempt to determine if the offending animal shows clinical signs of Rabies virus infection. Additionally, some biting animals will be tested for the Rabies virus by the SC-DHEC Bureau of Laboratories, in order to determine if the humans they bit will require Rabies Post-exposure Prophylaxis treatment.

Epidemiology of 2007 and 2008 Animal Bite Investigations:

	2007	2008
Total Animal Bite Investigations	11,747	12, 473
Pet	10,823	11,443
Non-pet	1,030	1,030
Total Animals Quarantined	7,247	7,576
10 day	6,952	7,256
45 day	103	215
6 month	192	105
Total Animals Tested for Rabies	2,379	2,346
Total Positive for Rabies	162	166
Dogs	3	1
Cats	7	3
Other Domestic	2	2
Raccoons	92	81
Skunks	14	34
Foxes	32	34
Bats	10	10
Other Wild	2	1

Anthrax

Cause: The spore forming, exotoxin producing bacterium *Bacillus anthracis*

Illness and treatment: Anthrax in humans takes one of three forms: cutaneous, which is most common; and gastrointestinal or inhalation, which are the most serious forms. Symptoms will depend on the form. A high index of clinical suspicion and rapid administration of appropriate antibiotics, with access to critical care support, are essential for effective treatment. Anthrax is not known to spread from person to person.

Sources: Naturally occurring anthrax is primarily a zoonotic disease of herbivores, the usual domesticated hosts being cattle, sheep, goats, and horses but wildlife can be infected (e.g. deer). Humans can become infected with anthrax via three different mechanisms: by inhaling the bacteria's spores, by eating contaminated meat from an infected animal, and by contracting spores or bacteria through the skin. Common sources of exposure are contaminated hair, wool, hides, flesh, blood, and excreta of infected animals. The spores may remain viable in contaminated soil for years.

Additional risks: Anthrax can be used as a weapon of bioterrorism.

Prevention: A vaccine is effective in preventing cutaneous and inhalational anthrax. The best means for prevention of inhalation anthrax after exposure to *B. anthracis* spores (post exposure prophylaxis) is prolonged antibiotic therapy in conjunction with anthrax immunization.

Recent South Carolina trends: There have been no reported cases of anthrax in humans or animals in South Carolina in recent history.

2007 SC Incidence: No cases were reported

2008 SC Incidence: No cases were reported



Classified as a "Category A" biological threat by the CDC.

Aseptic Meningitis

Cause: Aseptic meningitis is the term used for an infection of the brain and/or spinal cord that is not associated with a bacterial infection. Most cases of aseptic meningitis in the US are caused by viruses, including coxsackie viruses, echoviruses, Enteroviruses or Herpesvirus, and other viral, fungal, or parasitic infections. Aseptic meningitis is a diagnosis of exclusion; diagnostic criteria include a sterile cerebrospinal fluid culture.

Illness and treatment: Common meningeal signs include fever, severe headache, stiff neck, photophobia, lethargy or coma, confusion, and nausea and vomiting. Symptoms of meningitis are often more difficult to identify in infants, who may demonstrate fever, fretfulness or irritability, difficulty in awakening, or refusing to eat. Incubation periods for Enteroviruses may be 3 to 7 days; infected persons may be able to spread these viruses from three days before until 10 days after symptoms appear. Symptoms of acute aseptic meningitis may last 7-10 days, with treatment being primarily supportive.

Sources: A number of viruses have been associated with aseptic meningitis. Enteroviruses are typically spread by person-to-person fecal-oral contact, or, uncommonly, by water. Other viruses may also be spread via person-to-person contact or contact with contaminated recreational water sources.

Additional risks: Aseptic meningitis from mumps infection may be prevented with immunization.

Prevention: Because most persons who are infected with Enteroviruses are asymptomatic, it can be difficult to prevent the spread of these viruses, especially those exposures linked to recreational water sources. Chances of becoming infected are reduced through avoiding drinking recreational water, and through good personal hygiene, especially if in contact with someone known to have an Enterovirus infection. Almost all cases of aseptic meningitis occur sporadically. Rare clusters of infection have been associated with contaminated water.

Recent South Carolina trends: Each year there are just over 100 reported cases of aseptic meningitis in South Carolina.

2007 SC Incidence: 109 cases were reported (2.57 cases/100,000 population).

2008 SC Incidence: 124 cases were reported (2.90 cases/100,000 population).

Botulism (*Clostridium botulinum*)

Cause: Bacterial toxin from *Clostridium botulinum*, mainly Types A, B, and E.

Illness and treatment: Botulism typically occurs in three (3) forms:

- Foodborne botulism occurs when a person ingests pre-formed toxin that leads to illness within a few hours to days. Every case of foodborne botulism is treated as a public health emergency, due to the potential that the responsible food, whether homemade or commercial, may be still available for consumption.
- Infant botulism occurs in a small number of susceptible infants each year who harbor *C. botulinum* in their intestinal tract.
- Wound botulism occurs when wounds are infected with *C. botulinum* that secrete toxin.

Regarding foodborne botulism, symptoms begin within 6 hours to 2 weeks (most commonly between 12 and 36 hours) after eating toxin-containing food. Foodborne botulism can occur in all age groups, with the following clinical and laboratory presentations:

Clinical description:

- Common symptoms are diplopia, blurred vision, and bulbar weakness. Ingestion of *botulinum* toxin results in an illness of variable severity.
- Symmetric paralysis may progress rapidly.

Laboratory criteria for diagnosis:

- Detection of *botulinum* toxin in serum, stool, or patient's food, or
- Isolation of *Clostridium botulinum* from stool

Treatment is supportive care plus either human-derived botulism hyper-immune globulin (BIG-IV) for infants or botulism antitoxin for older children and adults. Antibiotics are given for wound botulism. *Botulinum* antitoxin can prevent progression of illness and shorten symptoms in severe botulism cases if administered early. DHEC and the CDC will consult with the physician treating the patient on requests for antitoxin. If indicated, antitoxin can be delivered from the CDC to the physician.

Sources: *C. botulinum* spores are common in soil. No consistent exposure is known for infants.

Inadequately processed home-canned foods are implicated in food botulism. Wound botulism has been associated with subcutaneous black-tar heroin injection ("skin popping").

Additional risks: Infant botulism cases usually occur in babies under 3 months old (almost always under 6 months), both breast fed and formula fed.

Prevention: Follow safe home canning procedures. Boil risky home-canned foods (i.e., low acidic, non-pickled foods) before consumption.

Recent South Carolina trends: Reports of botulism are exceedingly rare (less than one per year).

2007 SC Incidence: One case of infant botulism (Type A) was reported.

2008 SC Incidence: One case of infant botulism (Type A) was reported.



Potential Agent of Bioterrorism: Classified as a "Category A" biological threat by the CDC; aerosolized botulinum toxin is a possible mechanism for a bioterrorism attack. Inhalation botulism does not occur naturally and cannot be clinically differentiated from the four naturally occurring forms.

Brucellosis

Cause: Brucellosis is disease caused by bacteria of the genus *Brucella*, to include: *Brucella melitensis*, *abortus*, *suis*, and *canis*.

Illness and Treatment: Human symptoms are usually non-specific and include fever, malaise, sweats, myalgias, arthralgias, fatigue, chills, and backache. Fever can have an undulant pattern in patients who are not treated for long periods ("undulant fever.") Antibiotic therapy is the indicated treatment. Mortality is low (<2%), and is usually associated with endocarditis.

Sources: Brucellosis is usually transmitted to humans from domestic and wild animals (e.g., sheep, goats, cattle, deer, elk, pigs and dogs.) Veterinarians, slaughterhouse workers, ranchers and other livestock workers, and hunters have been infected in occupational and recreational settings. Transmission to humans can also occur by ingesting raw milk and other dairy products from infected animals. Transmission by inhalation is also possible, hence brucellosis being considered a potential agent of bioterrorism.

Additional risks: Brucellosis is the most commonly reported laboratory-associated bacterial infection. A number of factors contribute to the risk of an accidental *Brucella* exposure. Certain characteristics of the bacterium, such as its low infectious dose and the fact that it is easily aerosolized, also contribute to the risk of acquisition of the organisms in a laboratory setting.

Prevention: Do not consume unpasteurized milk, cheese, or ice cream. Hunters and animal herdsman should use rubber gloves when handling viscera of animals. There is no vaccine available for humans.

Recent South Carolina Trends: In 2006, three (3) unrelated human cases were reported to DHEC. This was the first year since 1987 where more than one case of Brucellosis was reported during the year.

2007 SC Incidence: 2 cases reported.

2008 SC Incidence: 2 cases reported.



Potential Agent of Bioterrorism: Pathogenic *Brucella* species are considered category B biologic threat agents because of a high potential for aerosol transmission.

Campylobacteriosis

Cause: Bacteria in the genus *Campylobacter*, most commonly *C. jejuni*.

Illness and treatment: Symptoms include diarrhea, abdominal pain, malaise and fever. Bloody diarrhea and vomiting may occur. Most persons will recover without treatment within 1 week; however serious complications can occur. Additionally, as many as 40% of Guillain-Barré syndrome cases in this country may be triggered by campylobacteriosis.

Sources: Domestic and wild birds and animals are the reservoir. Specifically chickens, turkeys and water fowl are known to carry disease in their gastrointestinal tract. Contamination of raw poultry is very common. Farm animals and pets (kittens, puppies, hamsters, etc.) also play a lesser role in disease transmission.

Additional risks: Children under 5 years of age and those with weakened immune systems are at increased risk for infection.

Prevention: Avoid eating undercooked poultry and unpasteurized dairy products. Avoid cross-contamination by thoroughly cleaning cutting boards and counters used for raw meat or poultry. Wash hands after handling animals or raw meat. Minimize contact with poultry and their feces.

Recent South Carolina trends: Each year there are around 250 reported cases of campylobacteriosis in South Carolina. Outbreaks involving multiple persons and person-to-person spread are relatively uncommon. Infections are reported most commonly during the summer months.

2007 SC Incidence: 267 cases were reported (5.7 cases/100,000 population).

2008 SC Incidence: 249 cases were reported (5.3 cases/100,000 population).

Chancroid

Cause: The bacterium *Haemophilus ducreyi*.

Illness/Treatment: Chancoid is an acute bacterial infection localized in the genital area and characterized by painful necrotizing ulcers at the site of infection. Antibiotic therapy is indicated.

Source: Person to person transmission through direct contact with infected lesion, ulcers, or other areas where bacteria are present.

Prevention: Refrain from sexual activity with persons known to be infected. Use of condoms may reduce transmission.

Recent SC Trends: Prior to one probable case reported in 2008, South Carolina has had no reported cases since 2005. SC trend data is not appropriate for this disease since the numbers have been small for the last several years and unreliable reporting is suspected prior to 2005.

2007 SC Incidence: 0 cases.

2008 SC Incidence: 1 cases, not laboratory confirmed.

Chlamydia

Cause: Bacterium *Chlamydia trachomatis*.

Illness and treatment: Asymptomatic infection is common. There may be pain during urination or abnormal genital discharge. Females can have abdominal pain due to pelvic inflammatory disease, which can cause infertility or ectopic pregnancy. The case and sexual partners should take appropriate antibiotics. Treated cases should be retested in 3 to 4 months.

Sources: Chlamydial infection is sexually transmitted or acquired at birth.

Additional risks: Disease rates are highest among sexually active adolescents and young adults. Female adolescents are physiologically more susceptible to infection than older women. Perinatal infection can result in neonatal conjunctivitis or pneumonia.

Prevention: Use safe sexual practices to reduce transmission. Screen sexually active women at risk to detect asymptomatic cases. If Chlamydia is found, also screen or treat for gonorrhea.

Recent South Carolina trends: Since 2004, approximately 22,000 cases have been reported each year.

2007 SC Incidence: 26,055 (612.3 cases/100,000 population).

2008 SC Incidence: 26,424 cases were reported (621.0 cases/100,000 population).

Cholera

Cause: Bacterial toxin from *Vibrio cholerae* serogroup O1 or O139. Other *V. cholerae* do not cause epidemic clinical cholera associated with enterotoxin and are notifiable as *Vibrio* infection.

Illness and treatment: Usually characterized by painless voluminous watery diarrhea without abdominal cramps or fever. The infection is often mild or without symptoms, but sometimes it can be severe and lead to dehydration and shock. In severe cases, rapid treatment is necessary as death can occur within hours.

Sources: Humans are the only documented host but *V. cholerae* organisms can also inhabit ocean water. Usually infection results from ingestion of contaminate food or water. In recent years raw or undercooked Gulf Coast shellfish (particularly oysters) have been a source of infection.

Additional risks: Travel to areas with endemic disease (parts of Africa, Asia, or Latin America) is by far the greatest source of infection.

Prevention: If traveling to risk areas, observe food and water safety rule of "*Boil it, cook it, peel it, or forget it.*" Additionally, avoid raw and undercooked shellfish, including Gulf Coast product.

Recent South Carolina trends: Only 1 case has been reported in South Carolina in the past 10 years. This case reported consumption of raw oysters.

2007 SC Incidence: No cases were reported.

2008 SC Incidence: No cases were reported.

Creutzfeldt-Jakob Disease (CJD)

Cause: Prions, or "proteinaceous infectious particles" in which normal cellular prion proteins in the brain fold into abnormal, pathologic forms. The exact mechanism leading to the conversion of the normal prion protein to its pathogenic form and subsequent neuronal cell death continues to be investigated.

Illness and treatment: CJD is a rare, fatal neurodegenerative disease characterized by rapidly progressing dementia, poor balance, visual changes and/or muscle jerks. Treatment is supportive.

Sources: CJD can be sporadic (sCJD)(approximately 85% of cases), familial (approximately 15% of cases), or iatrogenic (less than 1% of cases). Iatrogenic spread can occur following transplantation, e.g. cornea, dural graft, and liver. In 1996, a new variant of CJD (vCJD) recognized in the United Kingdom was associated with cattle infected with a related infection ("mad cow disease"). To date, no cases of vCJD have been acquired in the United States.

Prevention: There are no specific precautions.

Recent South Carolina trends: CJD was not listed on the required reportable disease list in South Carolina until 2006.

2007 SC Incidence: No cases were reported.

2008 SC Incidence: No cases were reported.

Cryptosporidiosis

Cause: Various species of the protozoan *Cryptosporidium*, which form resistant oocysts.

Illness and treatment: Symptoms may be prolonged, and include watery diarrhea, abdominal pain, nausea, vomiting, weight loss and fever. An anti-protozoal drug is available to treat persistent symptoms.

Sources: Cryptosporidia are common in animals. In this country, oocysts are found in most surface waters tested. Transmission is by ingesting fecally contaminated water, milk or food, or by direct contact with infected animals or humans. Those with asymptomatic infections may infect others. Outbreaks have occurred in water parks, swimming pools and child care facilities.

Additional risks: For persons with weakened immune systems, especially those with advanced HIV infection, the disease can be severe and persistent. Cryptosporidia resist standard chemical disinfectants and may occur in municipal water systems, home filtered water, or bottled water.

Prevention: Wash hands thoroughly after contact with animals, particularly calves or animals with diarrhea. Avoid swallowing water during water recreation. Do not drink untreated surface water. Boil untreated drinking water for one minute or use other appropriate water treatment.

Recent South Carolina trends: A large outbreak related to water parks occurred in 2006 in the Charleston area.

2007 SC Incidence: 84 cases reported.

2008 SC Incidence: 61 cases reported.

Cyclosporiasis

Cause: Protozoan *Cyclospora cayetanensis*.

Illness and treatment: Symptoms include persistent watery diarrhea, nausea, loss of appetite, abdominal pain, fatigue and weight loss. Antibiotics are available to treat persistent symptoms.

Sources: Cyclospora are common in many developing countries. Transmission occurs through ingestion of contaminated food or water, often fresh fruit or vegetables. Outbreaks in the United States have been attributed to imported produce such as raspberries, basil and lettuce. Tests for cyclospora must be specifically requested.

Additional risks: Diarrhea may persist with immunosuppression.

Prevention: Wash produce thoroughly before it is eaten. If traveling to risk areas, consult with a travel clinic or the CDC Travelers' Health website.

Recent South Carolina trends: 0 to 11 cases are reported yearly, mainly after international travel.

2007 SC Incidence: 1 case reported.

2008 SC Incidence: 1 case reported.

Dengue

Cause: Flavivirus with 4 distinct serotypes, transmitted by the bite of the *Aedes* mosquito.

Illness and treatment: Dengue presents with: high fever, severe headache, retro-ocular pain, joint pain, muscle and/or bone pain, rash, mild bleeding (e.g., nose or gum bleed, petechiae, or easy bruising). Dengue hemorrhagic fever, also known as dengue shock syndrome, is a group of severe hemorrhagic symptoms that occur principally in children but may also occur in adults. After infection, the host develops lifelong immunity for the causative serotype and short-term protection for other serotypes. The primary treatment is supportive.

Sources: Bite of *Aedes aegypti* mosquitoes, mainly. No direct person-to-person transmission. Patients are infective for mosquitoes during high viremia.

Additional risks: Second infection with another serotype appears to increase the risk for shock.

Prevention: There is no vaccine for dengue fever. Public education to avoid exposure to mosquitoes by using insect repellents with EPA approved ingredients, long sleeve shirts and pants; and elimination of mosquito breeding grounds (primarily artificial water containers-tires, trash dumps, urban ponds).

Recent South Carolina trends: Rare cases of travel associated dengue are reported. All cases in 2007 and 2008 were in persons returning from travel in dengue-endemic areas.

2007 SC Incidence: 3 cases reported.

2008 SC Incidence: 1 case reported.

Diphtheria

Cause: Toxin producing strains of the bacterium *Corynebacterium diphtheriae*.

Illness and treatment: Classic diphtheria is an upper-respiratory infection characterized by sore throat, low-grade fever, and an adherent membrane of the tonsils, pharynx, and/or nose, sometimes with neck swelling. Disease can involve other mucous membranes or the skin. Treatment is with antitoxin, antibiotics, and supportive care. Since natural disease does not necessarily provide good immunity, vaccination against diphtheria should be given after recovery.

Sources: Humans are the sole reservoir. Transmission is through respiratory droplets, direct contact or less commonly contaminated items such as milk products.

Additional risks: Susceptible travelers may be at risk, particularly in areas with endemic diphtheria.

Prevention: Immunize all persons with primary series and adult booster doses to prevent infection.

Recent South Carolina trends: During the 10-year period in S.C. from 1996-2006, no cases of diphtheria were reported.

2007 SC Incidence: No cases were reported.

2008 SC Incidence: No cases were reported.

E. coli (STEC)

Cause: Shiga toxin-producing *Escherichia coli* (STEC), including the most virulent: *E. coli* O157:H7.

Illness and treatment: Illness often begins with non-bloody diarrhea but progresses to bloody diarrhea. Symptoms also include severe abdominal cramping, vomiting and fever in approximately one-third of cases. In 5-10% of those with STEC, hemolytic uremic syndrome (HUS) develops following STEC infection. This risk is highest among children under 5 years of age. HUS is a life-threatening condition and the treatment of STEC with antibiotics may increase the risk of developing HUS.

Sources: STEC is shed in the feces of cattle and other ruminants. However, most infections result from ingestion of contaminated food or water. Unpasteurized dairy products are also a source of illness. Contaminated recreational water and person-to-person spread also contribute to disease. While undercooked ground beef often contributes to STEC infection, in recent years increasing numbers of cases are related to produce that has been cross-contaminated somewhere on the farm-to-table continuum. Petting zoos have also been implicated as a source of illness.

Additional risks: Fifty percent of HUS patients require dialysis. Children under 5 years of age are at the greatest risk of developing HUS.

Prevention: Avoid eating undercooked meat and unpasteurized dairy products. Avoid cross-contamination by thoroughly cleaning cutting boards and counters used for raw meats. Wash hands after handling animals or raw meat. Avoid swallowing water during recreational water use. Thoroughly wash produce prior to ingestion.

Recent South Carolina trends: Each year there are around 30 reports. Most reports occur in children under 10 years of age.

2007 SC Incidence: 27 cases were reported (<1.0 case/100,000 population).

2008 SC incidence: 38 cases were reported (<1.0 case/100,000 population).

Eastern Equine Encephalitis

Cause: Eastern Equine Encephalitis virus, an alphavirus transmitted by mosquitoes.

Illness and treatment: Human infections can be asymptomatic, non-specific flu-like syndromes, or severe nervous system infection. Incubation is 3-10 days. Among survivors of severe infections, about half will have neurologic sequela. Infection is thought to confer life-long immunity. The primary treatment is supportive.

The virus causes severe disease in horses.

Sources: Eastern Equine Encephalitis virus is sustained in freshwater swamps in a cycle involving birds and *Culiseta melanura* mosquitoes that rarely bite humans or horses.

Additional risks: Epidemics in horses and humans occur when mosquitoes species such as *Coquillettidia* and *Aedes* become infected and create bridges between infected birds and mammals.

Prevention: There is no vaccine for humans for this virus. Prevention of mosquito bites is the best protection: use insect repellants on skin (containing DEET, picaridin, oil of eucalyptus) and/or on clothes (containing DEET, picaridin). Avoid being outdoors during the times when mosquitoes are seeking a blood meal (usually dusk to dawn). Dress in long sleeves and long pants. Inspect screens on doors and windows for holes in order to stop mosquitoes. There is a vaccine available to protect horses.

Recent South Carolina trends: 6 cases have been reported since 1999.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.

Ehrlichiosis

Cause: Bacteria of the family *Anaplasmataceae*. The agent persists in animal reservoirs and is transmitted to humans by ticks. *Ehrlichia chaffeensis* causes human monocytotropic ehrlichiosis in North and South America, *Ehrlichia ewingii* cause ehrlichiosis *ewingii* exclusively in North America. *Anaplasma phagocytophilum* causes human granulocytotropic anaplasmosis, in Asia, Europe, and North America.

Illness and treatment: Ehrlichiosis usually presents with fever, headache, anorexia, nausea, muscle aches, vomiting, diarrhea, and joint pains; symptoms occur 7-10 days after the tick bite. Rash may be present. The illness ranges from mild to severe. Treatment is with antibiotics.

Sources: Ehrlichiae are transmitted by the bite of an infected tick. The lone star tick (*Amblyomma americanum*) is the primary vector of both *Ehrlichia chaffeensis* and *Ehrlichia ewingii* in the United States.

Prevention: Prevention of tick bites is the best way to avoid disease: wear light-colored clothing to better visualize ticks, tuck pants into socks so that ticks cannot crawl inside clothing, apply repellents (those containing permethrin can be sprayed on boots and clothing and last for days, those containing DEET can be applied to the skin and last only a few hours), search the body for ticks, remove ticks immediately and control the tick population on pets and in the yard.

Recent South Carolina trends: 38 cases have been reported since 1999.

2007 SC Incidence: 6 cases reported.

2008 SC Incidence: 1 case reported.

Giardiasis

Cause: Protozoan *Giardia lamblia*, also known as *G. intestinalis* or *G. duodenalis*.

Illness and treatment: Infection may be asymptomatic or may cause diarrhea, abdominal pain, nausea, fatigue, and weight loss. Illness may be self-limited or be prolonged with persistent pale and greasy stools due to fat malabsorption. Anti-protozoal drugs are available.

Sources: Humans and both wild and domestic animals are reservoirs. Exposures include untreated surface water, shallow well water, recreational water, or less commonly food contaminated by feces. Person-to-person transmission occurs, such as in child care facilities, or through oral-anal sexual contact.

Additional risks: Children under 5 years of age are infected more frequently than adults.

Concentrations of chlorine used in routine water treatment do not kill *Giardia* cysts, especially if the water is cold. Giardiasis is one of the most common waterborne diseases in the country.

Prevention: Wash hands thoroughly after contact with animals, particularly animals with diarrhea. Avoid swallowing water during water recreation. Do not drink untreated surface water. Boil untreated drinking water for one minute or use other appropriate water treatment.

Recent South Carolina trends: Since 2002, cases have averaged 134 per year. Incidence is highest in the summer and fall months. Outbreaks are uncommon.

2007 SC Incidence: 122 cases reported.

2008 SC Incidence: 142 cases reported.

Glanders

Cause: Bacterium *Burkholderia mallei*

Illness and Treatment: Organism enters via breaks in the skin or mucous membranes. Symptoms include fever, muscle aches, chest pain, muscle tightness, localized ulceration at the site of organism entry to the body, headache, pneumonia, excessive tearing of the eyes, light sensitivity, and diarrhea. Treatment involves antibiotic therapy and supportive care.

Source: Infected horses, donkeys and mules from endemic countries in Asia and the eastern Mediterranean region; disease does not exist naturally in the Western Hemisphere. Organism considered a potential agent of bioterrorism, as it has been utilized historically.

Prevention: Control of disease in equidae. Biosafety practices in laboratories handling isolates.

2007 SC Incidence: 0 cases

2008 SC Incidence: 0 cases



Potential Agent of Bioterrorism: Classified as a "Category B" biological threat by the CDC.

Gonorrhea

Cause: Bacterium *Neisseria gonorrhoeae*.

Illness and treatment: About half of women and some men have no symptoms. When symptoms occur, urethral discharge and painful urination are typical of genital infections. Complications include pelvic inflammatory disease in women with a risk of infertility or epididymitis in men. There can be conjunctivitis, pharyngitis, proctitis, or rare bloodstream infection. Treatment is with antibiotics.

Sources: Gonorrhea is sexually transmitted or acquired at birth.

Additional risks: Rates are highest among sexually active adolescents and young adults.

Prevention: Use safe sexual practices to reduce transmission. Screen sexually active women at risk to detect asymptomatic cases. If gonorrhea is found, also screen or treat for Chlamydia.

Recent South Carolina trends: Since 2004, approximately 9,300 cases have been reported each year.

2007 SC Incidence: 9,963 cases were reported (234.1 cases/100,000 population).

2008 SC incidence: 8,847 cases were reported (207.9 cases/100,000 population).

Haemophilus influenzae
(Type b and non-type b Invasive Disease)

Cause: Bacterium *Haemophilus influenzae*. Invasive disease with any of the 6 capsular types (a, b, c, d, e and f) is reportable.

Illness and treatment: Invasive disease may cause meningitis, bacteremia, epiglottitis, pneumonia, or bone and joint infections. Treatment is with antibiotics.

Sources: Humans, including asymptomatic carriers, are the reservoir and transmit through respiratory droplets or direct contact with respiratory secretions.

Additional risks: Unimmunized or underimmunized infants and children are at risk, particularly those in crowded settings.

Prevention: Immunize all infants to prevent *H. influenzae* type b infection. There is no vaccine to prevent disease caused by other types.

Recent South Carolina trends: During 2006, 39 cases were reported (<1 case per 100,000 population).

2007 SC Incidence: 59 cases were reported.

2008 SC Incidence: 60 cases were reported.

Hantavirus

Cause: A member of the family *Bunyaviridae*, hantaviruses are the only genus without an arthropod vector.

Illness and treatment: The clinical manifestations include a renal and a pulmonary syndrome.

Sources: Rodents are natural carriers of hantavirus. Aerosol transmission can occur when humans come in contact with rodent saliva, feces, or urine. Treatment is supportive.

Prevention: The primary mode of prevention is control of rodent populations in and around homes, farms, camps, or other sites of human contact.

Recent SC Trends: No cases reported in the past 10 years.

2007 SC Incidence: 0 cases.

2008 SC Incidence: 0 cases.

Hemolytic Uremic Syndrome (HUS)

Cause: Complication of infection with Shiga toxin-producing bacteria, most commonly *E. coli* O157:H7.

Illness and treatment: HUS includes hemolytic anemia (identified microscopically) and kidney damage. Most persons recover with supportive treatment, but some have permanent kidney damage or die from complications.

Sources: For enterohemorrhagic *E. coli* (EHEC) sources include cattle and other animals including deer and horses; known sources are unpasteurized milk, undercooked ground beef and contaminated raw produce. There can be person-to-person transmission of EHEC.

Additional risks: Children are at particular risk for developing HUS as a complication of diarrheal illness caused by a Shiga toxin-producing organism. Using antibiotics to treat EHEC diarrhea may increase the risk of developing HUS.

Prevention: Wash hands thoroughly after contact with farm animals, visiting farm environments, and handling raw meat. Thoroughly cook ground beef and venison and wash preparation areas to avoid contaminating other foods. Wash produce thoroughly before eating.

Recent South Carolina trends: SC sees an average of 1 case per year.

2007 SC Incidence: One case reported.

2008 SC Incidence: Two cases reported.

Hepatitis A

Cause: Hepatitis A virus (HAV)

Illness and treatment: Hepatitis A is a viral infection characterized by an abrupt onset of fever, malaise, anorexia, nausea, dark urine, and abdominal discomfort followed by jaundice. HAV infection is a self-limiting disease that does not result in chronic infection or chronic liver disease. Treatment is supportive. Almost all HAV infected cases recover but rare infections are fatal or require liver transplantation. Persons with chronic liver disease are at increased risk for acute liver failure.

Sources: Hepatitis A infection is transmitted by the fecal-oral route by either person-to-person contact or through consumption of contaminated food or water. The majority of children have asymptomatic or unrecognized infections, and hence they play a key role in HAV transmission, serving as an unsuspected source of infection for others.

Additional risks: Person to person transmission can occur when a person engages in sexual activities involving oral-anal contact with an infected person.

Prevention: Hepatitis A vaccination is the most effective method to prevent HAV infection. The vaccine is recommended for all children between the ages of 12 and 23 months, for international travelers going to endemic areas, and for others at risk for HAV.

Recent South Carolina trends: The incidence of HAV has decreased in recent years as a result of increased vaccination.

2007 SC Incidence: 16 acute HAV cases reported (0.30 cases per 100,000 population)

2008 SC Incidence: 19 acute HAV cases reported (0.42 cases per 100,000 population)

Hepatitis B

Cause: Hepatitis B virus (HBV)

Illness and treatment: Hepatitis B is a contagious liver disease that results from infection with the hepatitis B virus (HBV). It can range in severity from a mild illness lasting a few weeks (acute) to a serious lifelong illness (chronic).

Acute HBV infection is a short-term illness that occurs within the first 6 months after someone is exposed to the hepatitis B virus. Acute infection can - but does not always - lead to chronic infection. Chronic HBV infection is a long-term illness that occurs when the hepatitis B virus remains in a person's body permanently. Chronic HBV is a serious disease that can result in long-term health complications, and even death.

Sources: HBV is usually spread when blood, semen, or another body fluid from a person infected with the hepatitis B virus enters the body of an uninfected person. This can occur through sexual contact or by sharing needles, syringes, or other drug-injection equipment. HBV can also be passed from an infected mother to her baby.

Additional risks: HBV is transmitted efficiently by sexual contact among heterosexuals and among men who have sex with men. Risk factors associated with sexual transmission include having unprotected sex with an infected partner, having unprotected sex with multiple partners, and a history of a Sexually Transmitted Disease.

Prevention: Hepatitis B vaccine is the most effective measure to prevent HBV infection.

Hepatitis B vaccine is recommended for all infants, children, and certain adults at risk for HBV.

Recent South Carolina trends: The use of childhood and adolescent vaccination has resulted in a reduction in the incidence of acute HBV in recent years. Vaccination coverage levels among adults with behavioral risk factors for HBV, however, remain low.

Approximately 90 hepatitis B surface antigen positive pregnant women are reported each year in South Carolina. DHEC provides Perinatal Hepatitis B Case Management to these women and their infants to prevent transmission. No perinatal hepatitis B infections were reported in 2007 or 2008.

2007 SC Incidence: 71 acute HBV cases reported (1.6 cases per 100,000 population); 584 chronic HBV cases reported (13.3 cases per 100,000 population)

2008 SC Incidence: 68 acute HBV cases reported (1.5 cases per 100,000 population); 580 chronic HBV cases reported (12.9 cases per 100,000 population)

Hepatitis C

Cause: Hepatitis C virus (HCV)

Illness and treatment: Hepatitis C virus infection is the most common chronic bloodborne infection in the United States. Sixty to seventy percent of persons newly infected with HCV are asymptomatic or have a mild clinical illness. Chronic HCV infection develops in 70% to 85% of infected persons. The majority of chronically infected persons might be unaware of their infection because they are not clinically ill.

Sources: HCV-infected persons serve as a source of transmission to others. Persons with history of injection drug use are at highest risk for HCV infection. Sexual transmission of HCV is possible but not efficient.

Additional risks: Persons with chronic HCV are at risk of chronic liver disease or other HCV-related chronic diseases decades after infection.

Prevention: No vaccine is available to prevent hepatitis C infection. The most effective means to prevent HCV infection and its consequences is to integrate hepatitis C prevention activities (counseling, testing, and referral services) into existing clinical services.

Recent South Carolina trends: Based on national estimates, approximately 58,000 to 85,000 persons in South Carolina have been infected with HCV. During the five-year period from 2004 to 2008, more than 19,000 persons were reported to DHEC with chronic hepatitis C. Many people who are at risk for HCV have not been tested and are unaware of their risk.

2007 SC Incidence: 1 acute HCV case reported (0.02 cases per 100,000 population); 4007 HCV infections, past or present, reported (91.0 cases per 100,000 population)

2008 SC Incidence: 4 acute HCV cases reported (0.09 cases per 100,000 population); 3925 HCV infections, past or present, reported (87.6 cases per 100,000 population)

HIV/AIDS

Cause: Human immunodeficiency virus (HIV) causes acquired immunodeficiency syndrome (AIDS) due to depletion of CD4+ T-lymphocytes.

Illness and treatment: Susceptibility is increased for various opportunistic infections and malignancies. Antiretroviral treatment has considerably improved the prognosis for cases with HIV infection.

Sources and spread: HIV is usually transmitted by contact with the blood, semen or vaginal secretions of an infected person.

Additional risks: Groups at increased risk include injection drug users and persons with multiple sexual partners or with another sexually transmitted disease causing genital ulcers.

Prevention: Use safe sexual practices, avoid sharing drug paraphernalia, and screen blood and tissue products to prevent transmission.

Recent South Carolina trends: Since 2004, approximately 775 cases were reported each year. Rates are higher among males and racial/ethnic minorities.

2007 SC Incidence: 763 cases were reported (17.9/100,000 population).

2008 SC Incidence: 735 cases were reported (17.3 cases/100,000 population).

Influenza

Cause: Influenza, or flu, is an acute viral disease of the respiratory tract. The primary types of seasonal influenza virus recognized are influenza A and B.

Illness and treatment: Symptoms include fever, cough, sore throat, headache, and body aches. In children, nausea, vomiting, and diarrhea may accompany respiratory symptoms. Complications may include bacterial pneumonia, ear infections, sinus infections, dehydration, and worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes. The use of antivirals should be considered in persons at high risk for complications due to influenza, persons hospitalized with influenza, and during facility outbreaks. Treatment with antivirals within 48 hours of symptom onset reduces the duration and severity of symptoms and may reduce complications and influenza associated deaths.

Sources: The primary mode of transmission is large droplet spread through coughing and sneezing by infected persons. Human influenza viruses can persist for hours on solid surfaces, particularly in lower temperatures and humidity.

Additional risks: The highest illness rates generally occur in children. The highest risk of complications occur among children less than 2 years, adults older than 64 years, and persons of any age with certain medical conditions.

Prevention: Practicing proper hand hygiene and cough etiquette are important for reducing transmission. Immunization with inactivated influenza vaccine provides 70%-90% protection against infection in healthy adults when the vaccine strains closely match the circulating strains. In the elderly, immunization may be less effective in preventing illness, but may reduce disease severity and incidence of complications by 50%-60% and deaths by 80%.

Reporting: In 2007 and 2008, the following were reportable: Influenza A, avian or novel (not H1 or H3), by name, (reportable immediately by telephone); positive rapid flu tests, by number, (reportable within 7 days); positive influenza cultures, by name, (reportable within 7 days); and pediatric influenza associated deaths, by name, (reportable within 7 days).

2007 SC Incidence: 13,543 positive rapid tests were reported by SC providers. 203 positive cultures were reported (4.6 per 100,000 population) by the Bureau of Laboratories and other reference labs.

2008 SC Incidence: 30,040 positive rapid tests were reported by SC providers. 653 positive cultures were reported (14.6 per 100,000 population) by the Bureau of Laboratories other reference labs.

Legionellosis (Legionnaires' Disease)

Cause: The bacterium *Legionella pneumophila*.

Illness and treatment: Symptoms of Legionnaires' disease can include a high fever, chills, cough, pneumonia. Incubation ranges from 2 to 14 days. Legionnaire's treatment is as per the most recent from the Infectious Disease Society of American (IDSA) recommendations for community-acquired pneumonia. Pontiac Fever is a milder, self-limiting infection caused by the same bacteria. The symptoms of Pontiac Fever usually last for 2 to 5 days and may also include fever, headaches, and muscle aches; however, there is no pneumonia.

Sources: *Legionella* can be found in natural, freshwater environments, but they are present in insufficient numbers to cause disease. Potable (drinking) water systems, whirlpool spas, and cooling towers provide the 3 conditions needed for *Legionella* transmission: heat, stasis, and aerosolization; therefore, these are common sources of outbreaks.

Additional risks: While this disease is most frequently found in older people (>65 years), smokers, those with chronic lung disease (i.e. emphysema), or people who have weak immune systems from either disease or immunosuppressive therapies are also at increased risk.

Prevention: The likelihood of *Legionella* infection can be best reduced by good engineering practices in the operation and maintenance of air and water handling systems. If preventive engineering measures alone do not control the bacteria, disinfection procedures can be implemented.

Recent South Carolina trends: Since 1999, an average of twelve (12) cases per year of Legionellosis have been reported to SC DHEC.

2007 SC Incidence: 16 cases reported.

2008 SC Incidence: 12 cases reported.

Leprosy (Hansen's disease)

Cause: Hansen's Disease, more commonly known as Leprosy, is an infectious disease caused by *Mycobacterium leprae*.

Illness and Treatment: Leprosy affects the skin, peripheral nerves and mucous membranes, and other tissues, most notably the eye, the mucosa of the upper respiratory tract, muscles, bone, and testes. Untreated, disseminated leprosy can be debilitating, with sensory loss resulting from nerve damage leading to loss of muscle control and crippling of hands and feet. Eye involvement may lead to blindness. Persons receiving antibiotic treatment (which may take one to three years to complete) or having completed treatment are considered free of active infection.

Sources: Hansen's is most common in tropical climates. The largest numbers of patients in the Western Hemisphere are in Brazil. In 2002, WHO listed Brazil, Madagascar, Mozambique, Tanzania, and Nepal as having 90% of worldwide cases.

Prevention: Although the mode of transmission of Hansen's disease remains uncertain, most investigators think that *M. leprae* is usually spread from person to person in respiratory droplets. Prevention efforts focus on treatment of infected individuals, since most transmission appears to be related to prolonged exposure. Incubation periods for Hansen's Disease range from months to decades.

Recent South Carolina Trends: The two cases diagnosed in SC in the past two years were considered imported cases, with initial infection occurring in the Oceania Region of the world.

2007: 1 case was reported (0.02381 cases/100,000 population).

2008: 1 case was reported (0.02381 cases/100,000 population).

Leptospirosis

Cause: Bacteria of the genus *Leptospira*.

Illness: Symptoms of leptospirosis include fever, headache, chills, muscle aches, vomiting, jaundice, anemia, and sometimes a rash. The incubation period usually is 7 days, with a range of 2-29 days. Meningitis, hemorrhage, hepatomegaly, pulmonary hemorrhage, ARDS, and jaundice are among the severe features of advanced or untreated disease. The case fatality rate is 1 to 5%. Leptospirosis should be treated early with antibiotics.

Sources. Leptospirosis is described by the CDC as the most widespread zoonotic disease in the world. Primarily a tropical disease, outbreaks have involved bathing in contaminated river water, exposure to water contaminated by rodent feces, or working in rice fields during the rainy season. A number of cases of leptospirosis in the US have been associated with athletic activities occurring in swampy water, either swimming or canoeing in or drinking contaminated water.

Additional Risks: Persons most at risk are workers who are in frequent contact with soil; animal caretakers and veterinarians; and travelers to tropical parts of the world involved in recreational activities in fresh water. Recreational exposures can include rafting, kayaking, and swimming, in tropical and temperate climates. Because of their outdoor activities and frequent contact with water or soil contaminated with the organism, dog infections are not uncommon. Infected dogs theoretically pose a risk of transmission to their owners through contact with their urine.

Prevention. There are 13 named and 4 unnamed species of pathogenic leptospires, with over 200 serologic variants. Previous infection does not confer immunity to other strains. Preventive measures include use of boots and gloves in high-risk places, including recently flooded soil and swampy or flooded areas. Rodent control decreases run-off and can help reduce spread.

Recent South Carolina trends: The last two reported cases in South Carolina occurred in 1995 in residents of the Upstate.

2007 SC Incidence: 0 cases reported.

2008 SC Incidence: 0 cases reported.

Listeriosis

Cause: Bacterium *Listeria monocytogenes*.

Illness and treatment: Symptoms are usually mild and include fever, muscle aches, and sometimes gastrointestinal symptoms such as nausea or diarrhea. However, infection can cause meningoenzephalitis and/or septicemia. Maternal infection can be asymptomatic or associated with a mild influenza-like illness. However, infection during pregnancy is particularly dangerous as it can lead to miscarriage or stillbirth, premature delivery, or infection of the newborn.

Sources: *Listeria* is distributed widely in the environment, including soil and water. Animals and humans can also carry the bacterium. Most infections result from the ingestion of contaminated food, often refrigerated products that are not heated before consumption. *Listeria* can survive and even multiply at refrigerated temperatures, which is why risk groups are told to heat products such as deli meat and hot dogs to steaming. Common sources include: unpasteurized dairy products, processed meats, deli salads, fruits and vegetables.

Additional risks: Those most at risk for infection are pregnant women (20 times more likely to be infected), newborns and those with a weakened immune system. Illness may be severe for newborns and those with a weakened immune system although pregnant women may have few symptoms but experience fetal loss or premature birth.

Prevention: At risk groups should avoid eating foods such as hot dogs, deli meats and salads unless heated to steaming hot. At risk groups should not eat soft cheeses (brie, feta, queso fresco, etc.) unless the label clearly states that pasteurized milk was used in production. All persons should avoid eating undercooked meat and unpasteurized dairy products; avoid cross-contamination by thoroughly cleaning cutting boards and counters used for raw meats; wash hands after handling animals or raw meat and thoroughly wash produce prior to ingestion.

Recent South Carolina trends: Each year there are approximately 10 cases reported.

2007 SC Incidence: 10 cases were reported (<1.0 cases/100,000 population).

2008 SC Incidence: 6 cases were reported (<1.0 cases/100,000 population).

Lyme Disease (erythema migrans)

Cause: Bacterial spirochete *Borrelia burgdorferi*.

Illness and treatment: Lyme disease has three stages of clinical symptoms. Initially, at the site of the tick bite, in 60% - 80% of patients, there is a rash: *erythema migrans*. This rash often takes a bull's-eye appearance. For surveillance purposes, the size of the *erythema migrans* must be equal or greater than 5 cm in diameter. Several weeks after the exposure, the early disseminated stage occurs: body rash with lesions smaller than the initial lesion, cranial nerve neuropathies, lymphocytic meningitis, and conjunctivitis. From two months or years after primary exposure symptoms, late Lyme disease may develop, which include recurrent arthritis, chronic neurologic disease, and cardiac disease. Treatment is with antibiotics.

Sources: Wild rodents act as a natural reservoir for *Borrelia burgdorferi*, while deer act as a mammalian maintenance host for the *Ixodes* tick vectors, which spread the disease between rodents, deer, and humans. Ticks must attach at least 24 hours to transmit the disease.

Prevention: Avoiding human and pet exposure to ticks is the best prevention: avoid tick infested areas, cover exposed skin as much as possible, wear light-colored clothing to better visualize ticks, tuck pants into socks so that ticks cannot crawl inside clothing, apply repellents (those containing permethrin can be sprayed on boots and clothing and last for days, those containing DEET can be applied to the skin and last only a few hours), search the body for ticks, remove ticks immediately using fine tweezers, grasp ticks close to the skin, pull straight out, without twisting, do not use bare fingers to crush ticks. Wash hands following tick removal.

Recent SC Trends: Since 1999, reported cases averaged 18 per year.

2007 SC Incidence: 34 cases reported.

2008 Sc Incidence: 31 cases reported.

Lymphogranuloma venereum

Cause: Serovars L1, L2, or L3 of the bacterium *Chlamydia trachomatis*.

Illness/Treatment: Symptoms may include genital papules or ulcers, swelling of the genital lymph glands, rectal bleeding. Antibiotic therapy is indicated.

Source: Person to person transmission through direct contact with infected lesion, ulcers, or the areas where bacteria are present.

Prevention: Refrain from sexual activity with persons known to be infected. Use of condoms may reduce transmission.

Recent SC Trends: No cases have been reported in the past ten years. The CDC did not publish national data for 2008 due to low numbers of cases reported. SC trend data is not appropriate for this disease since the numbers have been small each year

2007 SC Incidence: 0 cases.

2008 SC Incidence: 0 cases.

Malaria

Cause: Intracellular protozoan parasite: Plasmodium species, commonly *P. vivax*, *P. falciparum*, *P. ovale*, and *P. malariae*.

Illness and treatment: Symptoms of malaria depend on the species of plasmodium causing infection. Classic malaria includes recurrent bouts of fever, chills, sweats, and headache. Protean symptoms due to involvement of gastrointestinal, respiratory, muscular, and neurological systems may be present. Antimalarials drugs are prescribed based on infective agent, patterns of drug resistance, and severity of disease.

Sources: Transmission occurs by the bite of an infected female *Anopheles* sp. mosquito.

Additional risks: Transmission can occur through blood contact (e.g. transfusions or needle sharing).

Prevention: Persons traveling in at-risk areas should take one of the recommended chemoprophylaxis regimens appropriate for the region of travel and use personal protective measures to avoid mosquito bites. Seek proper treatment if symptoms develop after visiting a risk area.

Recent South Carolina trends: Reports of malaria cases range from 6 to 12 per year and are associated with travel abroad.

2007 SC Incidence: 8 cases reported.

2008 SC Incidence: 8 cases reported.

Measles

Cause: Measles virus.

Illness and treatment: Symptoms include fever, cough, runny nose, conjunctivitis, generalized rash and mouth sores (Koplik spots). Complications include ear infection, diarrhea, pneumonia, and encephalitis. Treatment is supportive.

Sources: Humans are the reservoir and transmit mainly through respiratory droplets, direct contact with respiratory secretions and less commonly through airborne transmission. Measles is one of the most highly contagious infections.

Additional risks: Risk of death is higher among children under 5 years, adults over 20 years, and malnourished persons. Infection in U.S. residents occurs primarily as a result of international travel involving regions with endemic measles.

Prevention: Immunize all children with 2 vaccine doses to prevent infection. Health care providers born after 1957 and students also need 2 vaccine doses.

Recent South Carolina trends: During the 10-year period from 1996 to 2006 in South Carolina, there have been no cases of indigenous measles and only one case of imported measles in 1997.

2007 SC Incidence: No cases were reported.

2008 SC Incidence: No cases were reported.

Melioidosis

Cause: Bacterium *Burkholderia pseudomallei*

Illness/Treatment: Also called Whitmore's Disease, melioidosis may occur in humans and animals after direct contact with contaminated water and soil, with small cuts and sores on exposed skin often serving as the route of infection. Person-to-person transmission is rare. The incubation period may range from 2 days to many years. The fatality rate of melioidosis is greater in people with specific comorbidities, such as diabetes mellitus, renal dysfunction, or chronic pulmonary disease, and in people who are immunosuppressed. Illness from melioidosis can be categorized as acute or localized infection, acute pulmonary infection, acute bloodstream infection (septicemia), and chronic suppurative infection. Asymptomatic infections are also possible. Antibiotic therapy is the indicated treatment.

Sources: Predominately a disease of tropical climates, melioidosis is endemic in Southeast Asia. *B. pseudomallei* are normally found deep in the soil, but may be found in water or mud after heavy rainfall, especially in tropical rainy seasons.

Additional risks: Melioidosis is common to military personnel who have served in endemic areas. Inhalation of *Burkholderia pseudomallei* may occur during near-drowning incidents.

Prevention: There is no vaccine for Melioidosis. Prevention of the infection in endemic-disease areas can be difficult since contact with contaminated soil is so common. Persons with diabetes and skin lesions should avoid contact with soil and standing water in these areas. Wearing boots during agricultural work can prevent infection through the feet and lower legs. In health care settings, using common blood and body fluid precautions can prevent transmission.

Recent South Carolina trends: No cases of melioidosis have been reported to DHEC in the past 10 years.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.



Classified as a "Category B" biological threat by the CDC.

Meningococcal Disease (Invasive)

Cause: Bacterium *Neisseria meningitidis*, mainly serogroups B, C, Y, and W135 in this country, and additionally serogroup A elsewhere. Invasive infection usually results in meningococcemia (blood infection), meningitis or both.

Illness and treatment: Symptoms of meningococcal meningitis include fever, headache, stiff neck, and often vomiting, light sensitivity and confusion. Symptoms of meningococcemia include fever, malaise, myalgia and a rash; it can result in hypotension and shock. Pneumonia and joint infections can also occur. Treatment is with antibiotics and supportive care. The case fatality ratio, even with appropriate antibiotic treatment, is 9% to 12%. As many as 20% of survivors have permanent sequelae, such as hearing loss, neurologic damage, or loss of a limb.

Sources: Humans, including asymptomatic carriers, are the reservoir and transmit through respiratory droplets or direct contact.

Additional risks: Rates are highest in infancy, decline in early childhood and increase again during adolescence and early adulthood. Risk for invasive infection increases with crowded living conditions, low socioeconomic status, tobacco smoke exposure, and certain immune deficiencies including asplenia. Vaccines available in the U.S. do not include serogroup B, but do include A, C, Y and W-135.

Prevention: Immunize persons aged 2 to 55 years who have elevated risk for meningococcal disease and all adolescents aged 11 to 18 years to prevent infection. Use respiratory hygiene/cough etiquette to prevent infection. Exposed persons should take prophylactic antibiotics.

Recent South Carolina trends: In 2006, there were 15 cases (<1 case per 100,000 population).

2007 SC Incidence: 18 cases were reported (<1 case per 100,000 population).

2008 SC Incidence: 21 cases were reported (<1 case per 100,000 population).

Mumps

Cause: Mumps virus.

Illness and treatment: Classic symptoms are inflammation and swelling of the parotid glands. Up to 20% of cases are asymptomatic and another 40 to 50% have mild or mainly respiratory symptoms. Complications include orchitis in post-pubertal males, but sterility rarely occurs. Central nervous system involvement in the form of aseptic meningitis is common, occurring asymptotically in 50% to 60% of patients. Symptomatic meningitis (headache, stiff neck) occurs in up to 15% of patients and resolves without sequelae. Rarely, infection of other organs, deafness, or miscarriage can occur. Treatment is supportive.

Sources: Humans including persons with asymptomatic infections are the reservoir and transmit through respiratory droplets or direct contact.

Additional risks: Mumps can occur at any age, regardless of vaccination status, but is rare in fully immunized persons.

Prevention: Immunize all children with 2 vaccine doses to reduce the risk of infection. Health care providers born after 1957 and students also need 2 vaccine doses. Use respiratory hygiene/cough etiquette to prevent transmission.

Recent South Carolina trends: There were 10 cases reported in 2006 (<1 case per 100,000 population).

2007 SC Incidence: 2 cases were reported (<1 case per 100,000 population).

2008 SC Incidence: No cases were reported.

Pertussis

Cause: *Bordetella pertussis* bacterium.

Illness and treatment: Classic signs are an extended illness of 2 or more weeks with cold like symptoms followed by spasms of severe coughing (paroxysms) ending in a gasp, whoop, or vomiting. Infants may have apnea. Adults may have urinary incontinence. Serious complications include pneumonia, seizures, and encephalopathy. Treatment is with antibiotics and supportive care.

Sources: Humans are the reservoir and transmit through respiratory droplets or direct contact.

Additional risks: Pertussis can occur at any age, regardless of vaccination history. Death and severe complications occur mainly in young infants.

Prevention: Immunize all persons with primary series and booster doses to reduce the risk of infection. Use respiratory hygiene/cough etiquette to prevent transmission. Exposed persons should take prophylactic antibiotics, particularly children under a year of age or pregnant women, and their close contacts including healthcare workers.

Recent South Carolina trends: There were 204 cases reported in 2006 (4.7 cases per 100,000 population).

2007 SC Incidence: 98 cases were reported (2.2 cases per 100,000 population).

2008 SC Incidence: 167 cases were reported (3.7 cases per 100,000 population).

Plague

Cause: Plague is an infectious disease of animals and humans caused by a bacterium *Yersinia pestis*.

Illness and treatment: Bubonic plague should be suspected when a person develops a swollen gland, fever, chills, headache, and extreme exhaustion, and has a history of possible exposure to infected rodents, rabbits, or fleas. Incubation period is normally 2 to 6 days. If left untreated, patients can develop septicemia. Infection of the lungs with the plague bacterium causes the pneumonic form of plague characterized by high fever, chills, cough, breathing difficulty, and bloody sputum. Without antibiotic therapy, the disease can progress rapidly to death. About 14% of all plague cases in the United States are fatal.

Sources: Bites of infected rodent fleas or through handling infected rodents, rabbits, or wild carnivores that prey on these animals.

Additional risks: Most human cases in the United States occur in two regions: 1) northern New Mexico, northern Arizona, and southern Colorado; and 2) California, southern Oregon, and far western Nevada.

Prevention: Control rodents and their fleas around places where people live, work, and play through environmental sanitation. Preventive antibiotic therapy.

Recent South Carolina trends: No cases have been reported in South Carolina in the past ten years.

2007 SC Incidence: 0 cases.

2008 SC Incidence: 0 cases.



Potential Agent of Bioterrorism: Classified as a "Category A" biological threat by the CDC.

Poliomyelitis

Causes: Poliomyelitis, or polio, is caused by the poliovirus, usually spread person-to-person, via the fecal-oral route.

Illness and Treatment: Polio is characterized by acute onset of a flaccid paralysis of one or more limbs with decreased or absent reflexes in the affected limbs, without other apparent cause, and without sensory or cognitive loss (as reported by a physician.) Up to 95% of all poliovirus infections are inapparent or asymptomatic; less than 1% of all polio infections result in flaccid paralysis. For those cases, only symptomatic treatment is available, ranging from pain and fever relief to intubation and mechanical ventilation for those with respiratory insufficiency.

Sources: Since 1979, transmission of wild poliovirus has been interrupted in the US. All US wild-type polio cases since that time have been imported from areas of the world with endemic polio. Transmission of vaccine-associated paralytic polio in the US, associated with use of oral polio vaccine (OPV), greatly decreased following the adoption of an all injectable-polio vaccine (IPV) schedule in 1999.

Additional Risks: Infected persons without symptoms shed virus in the stool and are able to transmit the virus to others. Travelers to countries where polio is endemic (Nigeria, India, Pakistan, Afghanistan, Niger, and Egypt) or where outbreaks are occurring should be made aware of the risk for acquiring paralytic polio in those countries and be immunized in accordance with current recommendations.

Prevention: Polio is primarily prevented through use of IPV as part of the childhood immunization schedule. Health-care providers assessing vaccine needs for unimmunized adults traveling to countries that use OPV should be aware of the risk that OPV might pose to such travelers and should consider offering them polio vaccine. At least 4 to 6 weeks before departure, international travelers should contact travel medicine providers to obtain immunizations and prophylactic medications.

Recent South Carolina trends: There have been no cases of polio in the US since 1979.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.

Psittacosis

Cause: Bacterium *Chlamydophila* (previously *Chlamydia*) *psittaci*.

Illness and treatment: Abrupt onset of fever, chills, headache, and nonproductive cough, shortness of breath and pneumonia. Disease is usually mild to moderate in severity, although symptoms are more likely to progress in elderly and immunocompromised patients. Antibiotic therapy is indicated for treatment.

Sources: Psittacine birds (Parrots, parakeets, and cockatiels) are common sources, with turkeys, pigeons, canaries, and seabirds being less common sources. Birds may be asymptomatic carriers. Latent infections in birds may be activated by stress. Infection in humans usually occurs via inhalation of organisms from aerosolized dried feces or respiratory tract secretions of infected birds.

Prevention: Avoid purchasing or selling birds that appear ill; practice preventive husbandry; and wear personal protective equipment (gloves, masks, and clothing) when cleaning cages or handling infected birds. If respiratory or influenza-like symptoms occur after bird caretaking, seek medical attention and report bird contact.

2007 SC Incidence: 0 cases

2008 SC Incidence: 0 cases



Potential Agent of Bioterrorism: Classified as a “Category B” biological threat by the CDC.

Q Fever

Cause: Q fever is a zoonotic disease caused by the obligate intracellular rickettsial agent *Coxiella burnetii*.

Illness and treatment: Though roughly 50% of infections are asymptomatic, acute cases of Q fever typically begin with sudden onset of one or more of the following: high fevers (up to 104-105°F), severe headache, general malaise, myalgia, chills and/or sweats, non-productive cough, nausea, vomiting, diarrhea, abdominal pain, chest pain. Fever usually lasts for 1 to 2 weeks with thirty to fifty percent of patients with a symptomatic infection developing pneumonia. Antibiotic therapy is the indicated treatment and is most effective when initiated within the first 3 days of illness.

Sources: Cattle, sheep, and goats are common reservoirs of *C. burnetii*, and the bacteria shed from these animals are responsible for most human infections.

Additional risks: Humans are often highly susceptible to the disease, and very few organisms (as few as 1-10 *C. burnetii* organisms) may be required to cause infection. It can be aerosolized and inhalation is the primary route of infection for humans. Q fever outbreaks have resulted mainly from occupational exposure involving veterinarians, meat processing plant workers, sheep and dairy workers, livestock farmers, and researchers at facilities housing sheep.

Prevention: Appropriately dispose of placenta, birth products, fetal membranes, and aborted fetuses at facilities housing sheep and goats. Restrict access to barns and laboratories used in housing potentially infected animals. Use only pasteurized milk and milk products. Educate the public on exposures.

Recent South Carolina trends: The SC average is less than one case a year since 1999.

2007 SC Incidence: Two (2) unrelated cases.

2008 SC Incidence: One (1) case.



Potential Agent of Bioterrorism: Classified as a “Category B” biological threat by the CDC.

Rabies (human)

Cause: Rabies virus.

Illness and treatment: Initial neurologic symptoms include: headache, fever, malaise, apprehension, subtle personality changes, and abnormal skin sensation often affecting the site of the bite. Progressive encephalomyelitic symptoms almost always develop, including: seizures, excessive salivation, hydrophobia, delirium, agitation, and paralysis. Symptomatic illness is considered fatal; however, a novel experimental treatment, the "Wisconsin Protocol", has resulted in survival in one person in the USA and 2 others internationally.

Sources: In the United States, wild animals are the primary reservoirs for the Rabies virus, due to extensive vaccination efforts in dogs. In South Carolina, raccoons are the primary reservoir for the Rabies virus; skunks, foxes, and bats are additional vector species in this State. In other regions of the USA, skunks, foxes, or bats are the most common reservoir species for Rabies transmission in that area.

In developing nations, dogs are the main reservoir for Rabies transmission. The World Health Organization estimates that approximately 55,000 people die from Rabies each year. Most of these deaths occur in Asia and Africa; and, over 80% of them occur in children.

Rabies is transmitted when saliva or central nervous system tissue from an infected animal is deposited in a new victim via either a bite wound, entry through breaks in the skin or mucous membranes, or inhalation. Person to person transmission has been documented extremely rarely by tissue/organ transplantation in this country.

Prevention: Rabies Post-exposure Prophylaxis therapy (vaccine and immunoglobulin) must be obtained after exposure to a known or suspect rabid animal. Certain high risk groups should have pre-exposure vaccination, such as veterinarians, wild life workers, and virology laboratorians. Rabies vaccinations for dogs, cats, ferrets, horses, and ruminants (cattle, sheep, and goats) should be kept current. Humans should avoid contact with unfamiliar animals, as well as restrict bat entry into homes, schools, and workplaces.

2007 Incidence: 0 cases reported.

2008 Incidence: 0 cases reported.

Rocky Mountain Spotted Fever

Cause: *Rickettsia rickettsii*

Illness and treatment: Disease onset is usually seven days after exposure. Symptoms and signs include: fever, headache, malaise, myalgia, nausea/vomiting, neurologic signs. Rash appears 4-7 days after onset. The illness can last as long as three weeks and can be severe; Rocky Mountain Spotted Fever may be fatal in 20% of untreated cases. Treatment is with antibiotics.

Sources: Transmission occurs by the bite of an infected tick.

Prevention: Prevention of tick bites is the best way to avoid disease: wear light-colored clothing to better visualize ticks, tuck pants into socks so that ticks cannot crawl inside clothing, apply repellents (those containing permethrin can be sprayed on boots and clothing and last for days, those containing DEET can be applied to the skin and last only a few hours), search the body for ticks, remove ticks immediately.

Recent South Carolina trends: Reports range from 31 to 75 per year. Illness is more likely during the summer months due to increased exposure to the vector.

2007 SC Incidence: 67 cases reported.

2008 SC Incidence: 60 cases reported.

Rubella

Cause: Rubella virus.

Illness and treatment: Acquired rubella is usually mild, with fever and rash, although half of cases are inapparent. Adults may have arthritis or rarely encephalitis. Congenital rubella from infection during pregnancy may cause congenital malformations (most often deafness) or fetal death. Pregnant women may receive immune globulin treatment to prevent congenital rubella.

Sources: Humans are the reservoir. Transmission is airborne or through respiratory droplets. Infected infants may shed for extended periods.

Additional risks: Adult women are more likely to have arthritis and adults to have encephalitis.

Prevention: Immunize all persons to prevent infection. Use respiratory hygiene/cough etiquette to prevent transmission.

Recent South Carolina trends: During the 10-year period in South Carolina from 1996-2006, no cases of rubella have been reported.

2007 SC Incidence: No cases were reported.

2008 SC Incidence: No cases were reported.

Salmonellosis

Cause: One of the many serotypes of the bacteria *Salmonella* (Nontyphoidal).

Illness and treatment: Nontyphoidal *Salmonella* can range from asymptomatic carriage to gastroenteritis or bacteremia. Common symptoms include diarrhea, abdominal cramps and fever. Most infections are self-limiting and do not require treatment.

Sources: Poultry, livestock and reptiles are the common reservoirs. Pets can also be infected. Infected animals are often asymptomatic. However, many human infections result from consumption of contaminated food. Commonly implicated food items include: poultry, eggs and unpasteurized dairy products. However, in recent years outbreaks have been caused by unlikely sources such as produce and peanut butter. Cross-contamination of ingredients along the farm to table continuum are the likely explanation for such events.

Additional risks: Children under 5 years of age and those with weakened immune systems are at increased risk for infection. Contact with reptiles is an important contributing factor to many infections in young children. Families with young children should be discouraged from owning reptiles as pets.

Prevention: Avoid eating undercooked meat and unpasteurized dairy products. Avoid cross-contamination by thoroughly cleaning cutting boards and counters used for raw meats. Wash hands after handling animals or raw poultry. Avoid swallowing water during recreational water use. Thoroughly wash produce prior to ingestion. Young children should avoid contact with reptiles.

Recent South Carolina trends: Each year there are approximately 1200 cases reported. The DHEC Bureau of Laboratories serotypes all received isolates and the five most common serotypes are as follows:

2007 Top 5 Serotypes (% Total): Newport (16.1%); Enteritidis (13.8%); Javiana (12.9%); Typhimurium (12.1%) and Muenchen (7.5%)

2008 Top 5 Serotypes (% Total): Newport (16.9%); Enteritidis (16.7%); Javiana (15.9%); Typhimurium (13.1%) and Muenchen (6.4%)

2007 SC Incidence: 1160 cases were reported (26.3 cases/100,000 population). Salmonellosis was diagnosed most frequently in children under 2 years of age.

2008 SC Incidence: 1201 cases were reported (26.8 cases/100,000 population). Salmonellosis was diagnosed most frequently in children under 2 years of age.

St. Louis Encephalitis

Cause: St. Louis Encephalitis Virus of the genus Flavivirus

Illness and treatment: The clinical spectrum for the St. Louis encephalitis varies: many people develop asymptomatic infection, some develop mild illness (fever and headache), and others develop severe infection (headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, occasional convulsions (especially in infants) and spastic (but rarely flaccid) paralysis). The incubation period ranges between 5 - 15 days. Treatment is supportive.

Sources: Transmission of St. Louis virus occurs primarily through *Culex* mosquito bites. Mosquitoes feed on infected birds and then transmit the virus to humans.

Prevention: Avoiding mosquitoes bites is the best prevention. Drain areas of standing water around the house to eliminate mosquito breeding. Use insect repellants on skin (containing DEET, picaridin, oil of eucalyptus) and/or on clothes (containing DEET, picaridin). Avoid being outdoors during the times when mosquitos are seeking a blood meal (usually dusk to dawn). Dress in long sleeves and long pants. Inspect screens on doors and windows for holes in order to stop mosquitoes entrance in the homes.

Recent South Carolina trends: 2 cases have been reported since 2003.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.

Shigellosis

Cause: One of the species of the bacteria *Shigella*. *S. sonnei* is the most common in the United States.

Illness and treatment: Symptoms generally include diarrhea, abdominal cramps and fever. Diarrhea is often bloody. Asymptomatic carriage is also possible. Most infections are self-limiting and do not require treatment.

Sources: Humans are natural host and transmission is usually fecal-oral person-to-person transmission. Most outbreak-related cases involve childcare center attendees or workers. Contaminated food and water can also cause illness.

Additional risks: Outbreaks have also occurred among men who have sex with men.

Prevention: Wash hands before eating, after using the bathroom and after diapering small children. Parents and childcare workers should pay close attention to the hand hygiene of small children. Dispose of soiled diapers promptly and properly. Report cases to the local health department to assist in outbreak detection and control.

Recent South Carolina trends: Each year there are approximately 500 cases reported.

2007 SC Incidence: 235 cases were reported (5.3 cases/100,000 population). Shigellosis was diagnosed most frequently in children under 10 years of age.

2008 SC Incidence: 551 cases were reported (12.3 cases/100,000 population). Shigellosis was diagnosed most frequently in children under 10 years of age.

Smallpox

Cause: Variola virus

Illness and Treatment: Smallpox has two main forms: variola major and variola minor, both forms with similar lesions, which progress from macules to papules to vesicles to pustules. All lesions in a given area progress at the same rate through these stages. From 8 to 14 days after the onset of symptoms, the pustules form scabs, which leave depressed depigmented scars upon healing. The disease follows a milder course in variola minor, which has a case-fatality rate of less than 1 per cent. The fatality rate of variola major is around 30%. There are also two rare forms of smallpox: hemorrhagic and malignant, both almost invariably fatal. There are no proven treatments for clinical smallpox; medical care is generally supportive. Vaccination can prevent or lessen the severity of disease if given within 2-3 days of the initial exposure and decreases symptoms if given within the first week of exposure.

Sources/Prevention: Smallpox was declared eradicated in 1979, but preventive measures are still used due to the possibility of its use as a weapon of bioterrorism (BT.) Limited vaccination was resumed in the US in 2002 for persons who would respond to a BT event, care for patients, or handle laboratory samples. In the event of an outbreak, vaccine, vaccinia-immune globulin (if available), and social distancing measures would be first employed to contain the spread of disease.

Recent SC trends: No case of smallpox has occurred in the US since 1949. The last known natural case was in Somalia in 1977.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.



Potential Agent of Bioterrorism: Classified as a "Category A" biological threat by the CDC.

Streptococcal disease, Group A

Cause: Group A *Streptococcus* (GAS), also known as *Streptococcus pyogenes*,

Illness and treatment: Causes a spectrum of diseases that includes a variety of respiratory and cutaneous and deep soft tissue infections (e.g., myositis or necrotizing fasciitis) as well as invasive infections such as meningitis, peritonitis, neonatal sepsis. GAS can also lead to acute rheumatic fever or glomerulonephritis. GAS infections can be treated with many different antibiotics

Sources: These bacteria are spread through direct contact with mucus from the nose or throat of persons who are infected or through contact with infected wounds or sores on the skin.

Additional risks: Although healthy people can get invasive GAS disease, people with chronic illnesses or compromised immune status, and those who use medications such as steroids have a higher risk. Persons with open skin lesions, the elderly, and adults with a history of alcohol abuse or injection drug use also have a higher risk for disease.

Prevention: The spread of all types of GAS infection can be reduced by good hand washing, especially after coughing and sneezing and before preparing foods or eating. Persons with sore throats should be seen by a doctor who can perform tests to find out whether the illness is strep throat.

Recent South Carolina trends: The number of cases per year in SC from 1999 to 2005 has ranged from 5 cases in 1999 to 46 cases in 2005, with incidence rates of 0.13 to 1.08 cases per 100,000 population respectively. In 2006, SC had 71 cases, corresponding to an incidence rate of 1.64 cases/100,000 population.

2007: 104 cases were reported (2.4 cases/100,000 population).

2008: 76 cases were reported (1.7 cases/100,000 population).

Streptococcal disease, Group B

Cause: Group B *Streptococcus* (GBS), also known as *Streptococcus agalactiae*

Illness and treatment: Group B strep is the most common cause of sepsis (blood infection) and meningitis (infection of the fluid and lining around the brain) in newborns. Group B strep is a frequent cause of newborn pneumonia and is more common than other, more well-known, newborn problems such as rubella, congenital syphilis, and spina bifida. Group B strep bacteria are usually treated with penicillin or other common antibiotics.

Sources: About half of the cases of group B strep disease among newborns happen in the first week of life ("early-onset disease"), and most of these cases start a few hours after birth. Sepsis, pneumonia (infection in the lungs), and meningitis (infection of the fluid and lining around the brain) are the most common problems.

Additional risks: The rates of serious group B strep infections are much higher among newborns than among any other age group. Nonetheless, serious group B strep infections occur in other age groups in both men and women. Among non-pregnant adults, rates of serious disease range from 4.1 to 7.2 cases per 100,000 population.

Prevention: Most early-onset group B strep disease in newborns can be prevented by giving pregnant women antibiotics (medicine) through the vein (IV) during labor. Antibiotics help to kill some of the strep bacteria that are dangerous to the baby during birth.

Recent South Carolina trends: Following the widespread use of intrapartum antibiotics to prevent neonatal GBS disease, the incidence of early-onset disease declined by 70% to 0.5 cases per 1,000 live births in 1999. The rate of late-onset disease remained fairly constant (approximately to 0.5 cases per 1,000 live births) suggesting that this intervention is not effective against late-onset disease.

2007: 39 cases were reported (0.89 cases/100,000 population).

2008: 47 cases were reported (1.03 cases/100,000 population).

Streptococcus Pneumoniae, Invasive Disease

Cause: Bacterium *Streptococcus pneumoniae*. At least 90 serotypes have been identified.

Illness and treatment: A leading cause of illness in young children and causes illness and death among the elderly and persons who have certain underlying medical conditions. Invasive infection causes pneumonia, meningitis, or bacteremia (bloodstream infection). However, non-invasive disease is also very common, leading to ear infections, sinusitis, and conjunctivitis. Treatment is with antibiotics.

Sources: Transmission is from person to person by respiratory droplets. Many people are carriers (in the nasopharynx) of the bacteria. In children, carriage rates range from 21% to 59%.

Additional risks: People with certain medical problems are at higher risk for infection (e.g. sickle cell disease, HIV infection). Rates of infection are also high in infants and young children, elderly, and some ethnic groups (African Americans, Alaskan Natives and some Native American populations).

Prevention: Vaccinate with pneumococcal polysaccharide vaccine in all adults 65 years and older, and those 2 years and older with high risk medical conditions. Children 2 through 59 months of age should receive primary series and catch-up vaccination with pneumococcal conjugate vaccine.

Recent South Carolina trends: 243 cases were reported in 2006 (5.6 cases per 100,000 population).

2007 SC Incidence: 378 cases were reported (8.6 cases per 100,000 population).

2008 SC Incidence: 588 cases were reported (13.1 cases per 100,000 population).

Syphilis

Cause: Spirochete *Treponema pallidum*.

Illness and treatment: The disease has 4 stages. Primary syphilis involves a painless ulcer at the site of infection. Secondary syphilis involves fever, diffuse rash, headache, hair loss, and muscle aches. Early latent and late/late latent syphilis, which are infections acquired in the past, can result in damage to the brain, heart, or other organs. Congenital syphilis may result in organ damage and bone deformities. Antibiotics treat the infection but organ damage is permanent.

Sources: Syphilis is sexually transmitted or acquired before birth.

Additional risks: Risk for syphilis is higher among men who have sex with men.

Prevention: Use safe sexual practices to reduce transmission.

Recent South Carolina trends: Since 2004, approximately 461 cases were reported each year.

2007 SC Incidence: 408 cases were reported (9.6 cases/100,000 population).

2008 SC Incidence: 432 cases were reported (10.2 cases/100,000 population).

Tetanus

Cause: Toxin produced by the bacterium *Clostridium tetani*.

Illness and treatment: Most cases are generalized, starting with trismus (lockjaw) followed by painful spasms of the skeletal muscles that can cause fractures or impair breathing and result in death. Treatment is with human tetanus immune globulin, antibiotics, wound care, and supportive care.

Sources: Tetanus cannot be passed from person to person. Tetanus spores are found in soil, and in animal and human feces. Spores can grow in a wound, even a minor one. Puncture wounds and wounds with a significant amount of tissue injury are more likely to be infected.

Additional risks: Older adults may not have received primary vaccination series, putting them at risk for developing the disease.

Prevention: Immunize all persons with primary series and adult booster doses to prevent infection.

Recent South Carolina trends: The last reports of tetanus were 2 cases in 1996.

2007 SC Incidence: No cases were reported.

2008 SC Incidence: No cases were reported.

Toxic shock syndrome (Staphylococcal or streptococcal)

Cause: Endotoxin toxic shock syndrome toxin-1 (TSST-1) is the major toxin produced by strains of *Staphylococcus aureus* that are responsible for causing TSS. *Streptococcus pyogenes* exotoxin A (SPEA) and *S pyogenes* exotoxin B (SPEB) are the major toxins that mediate streptococcal toxic shock syndrome.

Illness and treatment: Toxic shock syndrome (TSS) is a toxin-mediated disease characterized by fever, rash, hypotension, constitutional symptoms, and multiorgan involvement. Treatment includes: Fluid management to maintain adequate venous return and cardiac filling pressures to prevent end-organ damage, parental antimicrobial therapy at maximum doses, and IG intravenous.

Sources: *S. aureus* commonly colonizes skin and mucous membranes in humans. TSS has been associated with use of tampons and intravaginal contraceptive devices in women and occurs as a complication of skin abscesses or surgery.

Additional risks: Menstruating women, women using barrier contraceptive devices, persons who have undergone nasal surgery, and persons with postoperative staphylococcal wound infections.

Prevention: The bacteria that cause toxic shock syndrome can be carried on unwashed hands and prompt an infection anywhere on the body. So hand washing is extremely important. The best defense against STSS is to clean and bandage all skin wounds as quickly as possible.

2007: There were no cases of toxic shock syndrome in South Carolina for the year 2007.

2008: There were no cases of toxic shock syndrome in South Carolina for the year 2008.

Toxins

Marine Toxins

Cause: Marine toxins are naturally occurring chemicals that can contaminate certain seafood. Contaminated seafood frequently looks, smells, and tastes normal.

Illness/Treatment: Scombroid symptoms are caused by an allergic-type reaction to a histamine-like compound and include nausea, vomiting, flushing, headache. Ciguatera poisoning is caused by a marine microalgae toxin. Symptoms include nausea, vomiting, and neurologic symptoms such as tingling fingers and toes. Diagnosis is generally based on symptoms and a history of recently eating a particular kind of seafood. Therapy is supportive.

Sources: Ciguatera: reef fish such as grouper, snapper, or Spanish mackerel. Scombroid: inadequately preserved fish such as mackerel, tuna, mahi-mahi.

Prevention: It is important to notify public health departments about even one person with marine toxin poisoning. Public health departments can then investigate to determine if a restaurant, oyster bed, or fishing area has a problem, in order to prevent other illnesses. In any food poisoning occurrence, consumers should note foods eaten and freeze any uneaten portions, in case they need to be tested.

Recent South Carolina trends: In 2007, one case each of ciguatera and scombroid fish poisoning; no cases reported in 2008.

Foodborne Toxins

Cause: *Staphylococcus aureus*, *Clostridium perfringens*, and *Bacillus cereus* are three bacteria that can produce enterotoxins that cause human gastrointestinal illness.

Illness and Treatment: Illness is caused by eating foods contaminated with toxins produced by these bacteria. 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 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.

Sources: *Staphylococcus* toxin: contact with food workers who carry the bacteria, or contaminated milk and cheeses. *Clostridium perfringens* toxin: beef, poultry, gravies, dried or precooked foods. *Bacillus cereus* toxin: rice, meat, and vegetables. These toxins are resistant to heat and cannot be destroyed by cooking.

Prevention: Practice proper food handling practices. Notify public health departments about even one person with foodborne toxin poisoning to prompt an investigation to determine if a restaurant or a common public food source is implicated.


Recent South Carolina trends: In 2007, 10 persons were affected by one outbreak involving *C. perfringens*/*S. aureus*; over 130 persons in 3 outbreaks of *C. perfringens*; ~40 persons by 3 outbreaks of *S. aureus*; and ~16 persons in one outbreak of *B. cereus*. In 2008, 2 outbreaks of *C. perfringens* affected ~100 persons.

Ricin

Cause: Ricin is a poison that can be made from the waste left over from processing castor beans. It can occur as a powder, a mist, a pellet, or it can be dissolved in water or weak acid.

Illness and Treatment: 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 8 hours of exposure. Following ingestion of ricin, initial symptoms typically occur in less than 6 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. Treatment is supportive.

Sources: It would take a deliberate act to make ricin and use it to poison people; accidental exposure to ricin is highly unlikely.

 Epsilon toxin of *Clostridium perfringens*, ricin toxin, and staphylococcal enterotoxin B are classified by CDC as Category B agents

Trichinosis (Trichinellosis)

Cause: Intestinal roundworm *Trichinella spiralis*.

Illness and treatment: Ingested larvae migrate and become encapsulated in muscle. Infection ranges from asymptomatic to severe, depending on the dose. Diarrhea may occur first. There is usually sudden onset of muscle pain, swelling of the upper eyelids, and recurring fever. Death can result from damage to heart muscle. Treatment depends on the stage of illness at diagnosis.

Sources: The infection is caused by ingesting raw or insufficiently cooked meat from infected animals. Historically, undercooked pork was a risk. Wild game is now the most likely exposure in North America. There is no person-to-person spread.

Additional risks: Freezing meat will not necessarily inactivate larvae of arctic strains.

Prevention: Cook or irradiate all wild game to reliably kill larvae. Regulations to prevent trichinosis require the cooking of garbage and offal fed to swine.

Recent South Carolina trends: No cases of trichinosis have been reported in over ten years.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.

Tuberculosis

Cause: Tuberculosis (TB), a communicable disease caused by mycobacterium tuberculosis, is primarily found in the lungs, but the bacteria can attack any part of the body.

Illness and treatment: Once a person is exposed and infected, the TB bacterium can remain dormant, also called latent TB infection (LTBI), or it can progress to active TB disease. LTBI progresses more rapidly to TB disease in persons with a weakened immune system. Active TB disease, if not treated properly, can be fatal. A standard four drug regimen is used for 6 – 9 months. Multi-drug resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) require the use of 2nd line drugs with extended treatment up to 24 months.

Sources: Transmission of TB occurs by the expectoration of droplets into the air from a person with active pulmonary disease and the subsequent inhalation of these aerosolized droplets by another person.

Additional risks: In both 2007 and 2008, fifteen persons were found to have resistance to at least one drug and three persons met the definition of multi-drug resistant tuberculosis (MDR-TB). The risk of becoming infected and progressing to TB disease is higher for persons with HIV/AIDS coinfections, compromised immune status, illegal drug use, and those residing in institutional settings or homeless.

Prevention: If a person believes they have been exposed to someone with TB disease, they should consult their doctor or local health department about getting a TB skin test or a special TB blood test. Persons, especially those traveling to countries with high rates of tuberculosis, should take precautions to prevent exposure to known persons with TB disease.

Recent South Carolina trends: Cases decreased 1.8% in 2007 and 14% in 2008. The percentage of cases remained highest for 2007 and 2008 in the African-American population (58%-54%), in males (56%-68%), and in the foreign-born populations (27%-30%). The percentage of cases in the <15 years of age population group increased from 6% of cases in 2007 to 10% of cases in 2008, a sign of recent transmission within the state.

2007 SC Incidence: 218 cases were verified. The state case rate was 5.0/100,000, exceeding the national case rate of 4.4.

2008 SC Incidence: 188 cases were verified. The state case rate was 4.3/100,000, meeting the national case rate.

Tularemia

Cause: Bacterium *Francisella tularensis*.

Illness and treatment: Symptoms include: high fever, malaise, swollen lymph nodes, skin ulcers, eye infection, sore throat, abdominal pain, nausea, diarrhea and pneumonia, and sepsis. Treatment requires antibiotics and supportive care.

Sources: The reservoir is wild mammals (especially rabbits, hares, voles, squirrels, muskrats, and beavers). Infection can occur through direct contact with an infected animal, an arthropod (tick, deerfly) bite, ingestion of contaminated raw meat or water, or inhalation (during outdoor work or with improper handling of cultures in laboratories). In the US, organism is found more commonly in the western states.

Prevention: Wear gloves if skinning wild game, and keep hands or gloves away from the eyes. Drink only treated water when in wilderness areas. In endemic areas avoid tick and insect bites.

2007 SC Incidence: 0 cases

2008 SC Incidence: 0 cases



Potential Agent of Bioterrorism: Classified as a "Category A" biological threat by the CDC.

Typhoid Fever (Salmonella Typhi)

Cause: Bacterium *Salmonella* Typhi.

Illness and treatment: Onset of symptoms is usually gradual and includes fever, headache, malaise, abdominal pain, constipation or diarrhea, and in some cases rash. Disease ranges from mild to severe, sometimes resulting in death. Prolonged carriage following illness is possible, particularly among children under 5 years of age.

Sources: Humans are the only reservoir. Disease results from direct contact with stool of an infected person (either symptomatic or carrier state). Food and water can also become contaminated. Although disease is rare in the United States, *S. Typhi* is endemic in the developing world. International travel accounts for 75% of cases reported in the United States.

Additional risks: Due to possibility of prolonged carriage and disease severity, culturing patients to confirm clearance of the infection is recommended.

Prevention: Vaccine is recommended for those travelling to countries with endemic disease.

Additionally, hand washing and observation of the food and water safety rule of "*Boil it, cook it, peel it, or forget it*" can prevent disease.

Recent South Carolina trends: Each year approximately 0-5 cases are reported. Most cases reported have history of international travel.

2007 SC Incidence: 1 case was reported (<1.0 case/100,000 population).

2008 SC Incidence: 4 cases were reported (<1.0 case/100,000 population).

Typhus Fever

Cause: Rickettsial organism *Rickettsia prowazekii*

Illness and treatment: Louseborne typhus is characterized by fevers, chills, headache, muscle aches, and a macular rash. Rash usually appears on the 5th to 6th day of infection on the upper trunk, and spreads to the remainder of the body, generally sparing the face, palms, and soles. Epidemics may occur during times of wars or famine due to substandard hygienic living conditions. Antibiotic therapy is the indicated treatment.

Sources: Humans are the reservoir and the body louse is the vector for louse-borne typhus. Flying squirrels in the US constitute a zoonotic reservoir for human disease; serologic evidence exists that contact with the squirrel flea may be the vector of transmission to humans in this case. Human infection is acquired by rubbing louse feces into a bite or other fresh skin wound, or inhalation of louse feces.

Additional risks: Most cases occur in southern California, southern Texas, the Gulf Coast, and Hawaii.

Prevention: Keep rodents, especially rats, away from human habitations.

2007 Incidence: 0 cases

2008 Incidence: 0 cases



Potential Agent of Bioterrorism: Classified as a "Category B" biological threat by the CDC.

Varicella

Cause: Varicella zoster virus.

Illness and treatment: Varicella (chickenpox) infection leads to a highly contagious itchy, blister-like skin rash covering the body. The varicella rash is usually more concentrated on the face, scalp and trunk. Most infected individuals have fever, which develops just before or when the rash appears. If exposed, persons who have been vaccinated against the disease may get a milder illness, with less severe rash and mild or no fever. Treatment is usually supportive care only; but in certain cases antiviral drugs can be used.

Sources: Transmission is from person to person by direct contact, or through the air from an infected person's coughing and sneezing, or from inhaling droplets of the virus from the fluid-filled blisters.

Additional risks: Outbreaks have been occurring primarily among students in elementary schools who often have received only 1 dose of the varicella vaccine. It is expected that as more children become protected with 2 doses of the vaccine, cases and outbreaks will decline further.

Prevention: Once a universal childhood illness in the United States, cases of varicella have decreased 85% since the varicella vaccine became available in 1995. The 2007 recommendation for 2 doses of varicella vaccine is expected to help decrease cases and outbreaks.

Recent South Carolina trends: In 2006, there were 1,228 cases (28.4 cases per 100,000 population).

2007 SC Incidence: 1,121 cases were reported (25.5 cases per 100,000 population).

2008 SC Incidence: 870 cases were reported (19.4 cases per 100,000 population).

Vibrio Infection (non Cholera)

Cause: One of the species of the bacteria *Vibrio* (non Cholera). The most common are *V. parahaemolyticus* and *V. vulnificus*.

Illness and treatment: Symptoms include watery diarrhea, abdominal cramps, nausea, fever, vomiting and chills. Wound infections are also possible. Most disease is self-limiting but severe disease and septicemia, including death can occur in persons with weakened immune systems.

Sources: Noncholera *Vibrio* species naturally inhabit marine environments, especially during warmer months. Most cases result from consumption of undercooked shellfish, specifically oysters. Wound infections occur from exposing open wounds to seawater, or less commonly from sustaining an injury while underwater or while shucking oysters.

Additional risks: Patients with compromised immune systems should be warned not to consume raw or undercooked shellfish, specifically oysters.

Prevention: Consume only thoroughly cooked shellfish, including oysters. Wash hands after handling raw seafood and take care not to sustain injury while shucking oysters. Do not enter ocean with open wounds.

Recent South Carolina trends: Each year approximately 10 cases are reported. Approximately half the cases are due to wound infection. The remaining half of cases usually report consumption of raw oysters. Commonly, only cases with systemic disease are tested and reported so this is a likely underestimation of cases of self-resolving gastrointestinal illness.

2007 SC Incidence: 8 cases were reported (<1.0 case/100,000 population). No deaths occurred in 2007.

2008 SC Incidence: 13 cases were reported (<1.0 case/100,000 population). One death occurred in 2008.

Viral Hemorrhagic Fever

Source: Viral hemorrhagic fever (VHF) refers to a group of diseases that are caused by four distinct families of viruses: filoviruses, e.g. Ebola; arenaviruses, e.g. Lassa; bunyaviruses; and flaviviruses.

Illness and Treatment: In general, the term "viral hemorrhagic fever" is used to describe a severe multisystem syndrome. Specific symptoms vary by the type of VHF, but initial symptoms often include marked fever, fatigue, dizziness, muscle aches, loss of strength, and exhaustion. Patients with severe cases of VHF often show signs of bleeding under the skin, in internal organs, or from body orifices like the mouth, eyes, or ears. Critically ill patients may also show shock, nervous system malfunction, coma, delirium, seizures, and death. Patients receive supportive therapy, but generally speaking, there is no other treatment or established cure for VHFs. Ribavirin, an anti-viral drug, has been effective in treating certain viruses.

Cause: The viruses carried in rodent reservoirs are transmitted when humans have contact with urine, fecal matter, saliva, or other body excretions from infected rodents. The viruses associated with arthropod vectors are spread most often when the vector mosquito or tick bites a human. Person-to-person transmission may occur by contact with infected blood and body fluids.

Prevention: Viruses associated with most VHFs are zoonotic, that is, the viruses naturally reside in an animal reservoir host (mainly rodents) or arthropod vector. They are totally dependent on their hosts for replication and overall survival, therefore controlling pest populations and utilizing insect repellent and exposure control methods such as proper clothing and window screens is essential. For VHFs that can be transmitted person-to-person, avoid close physical contact with infected persons and their body fluids. No vaccines exist that can protect against any VHF.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.



Classified as a Category "A" biological threat by the CDC.

West Nile Virus (WNV)

Cause: West Nile Virus, an RNA flavivirus

Illness and treatment: The clinical spectrum for the WNV infection varies: 80% develop asymptomatic infection, 20% have mild illness (fever and headache), and only <1% experience neuroinvasive disease (aseptic meningitis, encephalitis, or flaccid paralysis). The incubation period ranges between 2-14 days, and can be up to 21 days in immunocompromised people. Treatment is supportive.

The virus causes a disease also in horses, birds, dogs and cats.

Sources: Transmission of WNV occurs primarily through *Culex* mosquito bites. Mosquitoes feed on infected birds and then transmit the virus to humans.

Additional risks: Other possible methods of transmission: blood transfusion, organ transplant. The level of virus transmission between bird and mosquito population is higher in months with warmer temperatures.

Prevention: Avoiding mosquitoes bites is the best prevention. Drain areas of standing water around the house to eliminate mosquito breeding. In areas with WNV infected mosquitoes, use insect repellants on skin (containing DEET, picaridin, oil of eucalyptus) and/or on clothes (containing DEET, picaridin). Avoid being outdoors during the times when mosquitos are seeking a blood meal (usually dusk to dawn). Dress in long sleeves and long pants. Inspect screens on doors and windows for holes to stop mosquitoes entrance in the homes. There is vaccine available to protect horses.

Recent South Carolina trends: Since 2002, 15 cases of WNV encephalitis and 9 cases of WNV fever were reported.

2007 SC Incidence: 2 cases of WNV encephalitis and 2 cases WNV fever were reported.

2008 SC Incidence: 2 cases of WNV fever reported.

Yellow Fever

Source: Yellow fever virus, a flavivirus.

Illness and Treatment: Illness ranges in severity from an influenza-like syndrome to severe hepatitis, hemorrhagic fever, and death. Many yellow fever infections are mild, but the disease can cause severe, life-threatening illness. Symptoms of severe infection are high fever, chills, headache, muscle aches, vomiting, and backache. After a brief recovery period, the infection can lead to shock, bleeding, and kidney and liver failure. Liver failure causes jaundice (yellowing of the skin and the whites of the eyes), which gives yellow fever its name. Severe yellow fever infections can be fatal. There is no specific treatment for yellow fever. Treatment is symptomatic-rest, fluids, and ibuprofen, naproxen, acetaminophen, or paracetamol may relieve symptoms of fever and aching. Aspirin should be avoided.

Cause: Bite of an infected mosquito.

Additional Risks: Yellow fever is endemic to only Africa and South America. In Africa the virus is transmitted in three geographic regions: in the humid savanna zones of West and Central Africa during the rainy season, in urban locations and villages, and finally, to a lesser extent, in jungle regions. In South America sporadic infections occur almost exclusively in forestry and agricultural workers from occupational exposure in or near forests. Most countries have regulations and requirements for yellow fever vaccination that must be met prior to entering the country.

Prevention: Yellow fever is preventable by a relatively safe, effective vaccine. General precautions to avoid mosquito bites should be followed, including the use of insect repellent, protective clothing, and mosquito netting.

2007 SC Incidence: No cases reported.

2008 SC Incidence: No cases reported.

Yersiniosis

Cause: Bacteria of the genus *Yersinia*, most commonly *Y. enterocolitica*.

Illness and treatment: Infection with *Y. enterocolitica* occurs most often in young children. Common symptoms in children are fever, abdominal pain, and diarrhea, which is often bloody. Symptoms typically develop 4 to 7 days after exposure and may last 1 to 3 weeks or longer. In older children and adults, right-sided abdominal pain and fever may be the predominant symptoms, and may be confused with appendicitis. In a small proportion of cases, complications such as skin rash, joint pains, or spread of bacteria to the bloodstream can occur. Uncomplicated cases of diarrhea due to *Y. enterocolitica* usually resolve on their own without antibiotic treatment. However, in more severe or complicated infections, antibiotic therapy may be indicated.

Sources: Infection is most often acquired by eating contaminated food, especially raw or undercooked pork products. The preparation of raw pork intestines (chitterlings) may be particularly risky. Drinking contaminated unpasteurized milk or untreated water can also transmit the infection. Occasionally *Y. enterocolitica* infection occurs after contact with infected animals. On rare occasions, it can be transmitted as a result of the bacterium passing from the stools or soiled fingers of one person to the mouth of another person.

Prevention: Avoid eating raw or undercooked pork. Consume only pasteurized milk or milk products. Wash hands with soap and water before eating and preparing food, after contact with animals, and after handling raw meat. After handling raw chitterlings, clean hands and fingernails scrupulously with soap and water before touching infants or their toys, bottles, or pacifiers. Someone other than the foodhandler should care for children while chitterlings are being prepared. Prevent cross-contamination in the kitchen.

Recent South Carolina trends: Yersiniosis was added to the List of Reportable Conditions in 2006, with ten (10) cases being reported that year.

2007 SC Incidence: Nine (9) cases were reported.

2008 SC Incidence: Six (6) cases were reported.

Selected Outbreak Investigations: 2007-2008

The “Diagnosis and investigation of health problems and health hazards in the community” is one of the Ten Essential Services of Public Health, as described by the American Public Health Association (available at: www.apha.org/programs/standards/performancestandardsprogram/resexxentialservices.htm). For infectious diseases and many other acute conditions, the capacity for response to these outbreaks is structured around our Regional Outbreak Response Teams and subject-matter experts from many program areas in the SC DHEC Central Office.

SC DHEC is legally mandated by State Law to investigate outbreaks of public health significance and relies heavily upon the legal mandate present on our reporting partners (SC law 44-29-10 and Regulation 61-60), which requires reporting of conditions present on our Annual List of Reportable Conditions (available at: www.scdhec.gov/administration/library/CR-009025.pdf).

The goals of public health investigations are to control the actual outbreak via public health interventions, to respond to community concerns regarding the potential for infectious disease outbreaks and to prevent further occurrences of the same kind of outbreak via education and communication.

During 2007 and 2008, staff from SC DHEC investigated over one-hundred outbreaks **each year** caused by infectious diseases/toxins ranging from norovirus, varicella (chickenpox), pertussis, and toxins such as scombroid/other foodborne toxins, to undiagnosed respiratory/enteric outbreaks and chemical-mercury lamp exposures. In addition, SC DHEC staff participated in multi-state and national outbreak investigations related to widely distributed food products.

Below is a summary of selected outbreaks from 2007 and 2008 to briefly show some of the diversity in the diseases/conditions investigated, method of how the initial report was received by SC DHEC, and the venues where investigations occurred.

Gastroenteritis from a catered meal, 2007

Initial detection/reporting: In October, a report was received by regional environmental health staff of an illness following a catered meal for 75 persons at a catered church supper.

Investigation: All 75 attendees were contacted and 33 interviewed. Nineteen reported symptoms (predominantly diarrhea and abdominal cramps) after the meal, with the remaining 14 reporting no illness. Analysis of these interviews identified the Incubation period for the symptoms to be between 3.5 hours-18 hours; median 11 hours, and duration of illness ranging from 1.5 hours-96 hours; median 24 hours. One case was hospitalized and lab confirmed with *C. perfringens*. DHEC collected a stool sample from this hospitalized patient and tested it, along with food sample leftovers at the church function. Environmental Health inspection of the caterer's facility was conducted; no major violations were noted.

Resolution: Education provided to caterer regarding proper food handling, holding, and transportation. Symptoms, incubation and duration of illness were consistent with a heat-stable toxin-producer such as *C. perfringens* and *B. cereus*. Both organisms were isolated by the SC DHEC Bureau of Laboratories in a food sample. One stool specimen from a hospitalized patient tested positive for *C. perfringens*.

Pertussis outbreak in a university-setting, 2007

Initial detection/reporting: An IgM + case of pertussis was reported from a physician practice to SC DHEC from a patient with cough onset in mid-October. The physician had also tested the patient's roommate who had cough onset in September, via PCR for pertussis, which was also positive for pertussis. An additional symptomatic case was “epi-linked” (i.e. associated via person, place and/or time in relation to the

disease of interest and the confirmed cases already identified). With 3 likely cases based on clinical diagnosis, laboratory results and epi-linkages, and outbreak investigation was initiated on 11/15/07.

Investigation: The Contact tracing was performed by facility staff nurses (for students) and SC DHEC Regional Outbreak Response Team staff (for community contacts) for evaluation of symptoms, post-exposure prophylaxis (PEP), and heightened awareness. The schools (elementary, daycare) and extended community expressed increasing concerns and questions regarding the potential for further spread. Tetanus-diphtheria-acellular pertussis (Tdap) vaccine clinics were offered at Greenville health department. The school decided to close campus one week early for Christmas break which increased urgency to identify and treat/PEP to prevent further spread. SC DHEC regional staff visited infirmary and overflow areas to interview students about symptoms, exposure, treatment, PEP. Information collected from students over Christmas break was analyzed to determine final outbreak numbers: 15 confirmed (5 with lab confirmation, 10 direct epi links to lab confirmed), 10 probable (met outbreak case definition but not epi linked). Outbreak determined to be over when students returned after Christmas break and no new cases reported through 1/9/08.

Resolution: A DHEC letter and fact sheet provided along with a letter from the school administrator. These letters, distributed prior to Thanksgiving holiday, explained that pertussis is particularly concerning in infants since infants are at greatest risk of severe complications and death due to pertussis and the risk posed by secondary transmission to house-hold contacts from ill individuals. More than 1400 received antibiotics, more than 2000 were vaccinated with Tdap.

A multistate outbreak of human *Salmonella* infections associated with exposure to turtles, 2007-2008

Initial detection/reporting: On August 31, 2007, a girl aged 13 years visited a South Carolina hospital emergency department, where she reported a 5-day history of bloody diarrhea, abdominal cramps, fever, and vomiting. She was treated with but was not hospitalized. Her illness resolved in 7 days. A stool specimen yielded *Salmonella* Paratyphi B var. Java. Also on August 31, a girl aged 15 years was admitted to a North Carolina hospital with acute renal failure and a 4-day history of bloody diarrhea, abdominal cramps, fever, and vomiting. She was hospitalized for 8 days and recovered fully.

Investigation: A joint investigation by North Carolina Department of Public Health (NCPH) and the South Carolina Department of Health and Environmental Control revealed that, on August 24, the two girls swam in an unchlorinated, in-ground swimming pool belonging to the family of the older girl. Two pet turtles belonging to the family also were permitted to swim in the pool. The turtles, both of which had carapace lengths of less than 4 inches, had been purchased recently from a pet shop in South Carolina. A water sample collected from the turtle habitat yielded *Salmonella* Paratyphi B var. Java with an indistinguishable pattern by pulsed-field gel electrophoresis (PFGE) from the isolates of the younger girl. Stool specimens were not collected from the older girl. After NCDPH contacted CDC on October 23 about the possible cluster of turtle-associated *Salmonella* Paratyphi B var. Java infections, CDC and state and local health departments initiated a multistate investigation to determine the extent of the outbreak and the sources of infection. As of January 18, 2008, a total of 103 cases with isolates indistinguishable from the outbreak strain were reported to CDC from 33 states. Among 70 case-patients interviewed, 44 (63%) reported exposure to a turtle during the 7 days before illness onset, compared with two (4%) of 45 controls.

Resolution: The prohibition on the sale and distribution of small turtles was enacted in 1975, after public health investigations demonstrated that small turtles were a major source of human *Salmonella* infections, particularly in children. However, this prohibition has an exception: small turtles may be sold legally for scientific, educational or exhibition purposes. During 2001--2006, the number of turtles kept as pets in the United States increased 86% to nearly 2 million turtles, suggesting that this exception might provide a mechanism by which small turtles become household pets.

Additional information regarding this investigation can be found in the 25 Jan 08 issue of the CDC's Morbidity and Mortality Weekly Report (available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm5703a3.htm)

Hand, foot and mouth disease in a daycare, 2008

Initial detection/reporting: On July 1st, the SC DHEC Regional Disease Surveillance and Response Coordinator was notified by a daycare director of outbreak at the daycare of hand foot and mouth disease. The first case was clinically diagnosed by a physician approximately two weeks prior to the report.

Investigation: Upon investigation, it was found that several rooms were affected. Symptoms consisted of plantar, palmar and oral lesions. No children required hospitalization, but 4 did not attend the daycare center for at least 1 week. SC DHEC recommended implementation of cleaning measures and emphasis on hand hygiene. On July 2nd, SC DHEC obtained 6 throat swabs for enterovirus testing to be performed by the SC DHEC Bureau of Laboratories (BoL). Results from the BoL identified two specimens positive for enterovirus and 1 positive CMV. Isolates sent to CDC for further typing. Active surveillance initiated to discover new cases.

Resolution: Exclusion of children with fever or too ill to participate in activities. A letter and fact sheet were sent to parents and workers recommending that symptomatic children be evaluated by a physician and must be fever free and have a medical note to return to daycare. A total of 17 other cases were identified associated with this outbreak.

Additional information regarding child care and school exclusion criteria for contagious and communicable diseases can be found at the SC DHEC website: www.scdhec.gov/health/disease/exclusion.htm

Gastroenteritis illness in a Long-term care facility, 2008

Initial detection/reporting: On March 21st, a local county health department was notified of a gastrointestinal illness at a long-term care facility.

Investigation: The illness began with a resident on March 13th, and progressed to all the wings of the facility in addition to affecting staff. Primary symptoms included nausea, vomiting and diarrhea. Duration of illness ranged between 24-48 hours, and person to person transmission was evident. The SC DHEC Bureau of Laboratories identified norovirus from stool specimens obtained from ill individuals.

Resolution: Recommendations were made for the control of norovirus in this type of setting. The institution expanded their control measures which included closing the dining room (providing meals in rooms to residents), limiting visitors, no transfers in or out, frequent hand washing, isolation of patients in their rooms, suspending group activities, and use of the recommended bleach solution at least every shift for aggressive cleaning. Aggressive cleaning continued until April 21st, per the facility protocol, at which point the dining room was reopened & group activities/visitations/new admissions were restarted.

TABLES

**Meningitis, aseptic
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	1	*	0	*
Aiken	0	*	5	3.4	5	3.3	5	3.3	3	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	10	5.7	10	5.7	17	9.4	11	6.0
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	1	*	0	*	0	*
Beaufort	0	*	8	5.8	4	*	8	5.5	6	4.0
Berkeley	0	*	15	9.8	16	10.1	10	6.1	19	11.2
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	7	2.1	10	2.9	14	4.1	20	5.7
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	1	*	0	*	0	*	2	*
Chesterfield	0	*	0	*	0	*	1	*	0	*
Clarendon	0	*	0	*	0	*	1	*	0	*
Colleton	0	*	0	*	1	*	2	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	7	6.3	23	19.6	10	8.1	16	12.6
Edgefield	0	*	0	*	1	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	7	11.8	1	*	3	*	2	*
Greenville	0	*	2	*	0	*	0	*	1	*
Greenwood	0	*	2	*	0	*	0	*	0	*
Hampton	0	*	0	*	1	*	1	*	0	*
Horry	0	*	6	2.6	7	2.9	5	2.0	11	4.3
Jasper	0	*	2	*	0	*	1	*	2	*
Kershaw	0	*	0	*	1	*	0	*	0	*
Lancaster	0	*	5	7.2	1	*	0	*	4	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	1	*	19	8.0	9	3.7	3	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	1	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	1	*	0	*	0	*
Oconee	0	*	11	15.9	9	12.9	6	8.5	13	18.2
Orangeburg	0	*	0	*	1	*	0	*	0	*
Pickens	0	*	1	*	0	*	1	*	1	*
Richland	0	*	1	*	3	*	6	1.7	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	1	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	3	*
York	0	*	0	*	0	*	4	*	3	*
Unknown	0		0		0		4		2	
Grand Total	0	*	91	2.1	115	2.7	109	2.5	124	2.8

**Meningitis, aseptic
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	NR	*
2000	NR	*
2001	NR	*
2002	NR	*
2003	NR	*
2004	NR	*
2005	91	2.1
2006	115	2.7
2007	109	2.5
2008	124	2.8

*Incidence rate not calculated for < 5 cases

**Botulism, foodborne
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	1	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	1	*	0	*	0	0.0	0	0.0	0	0.0

**Botulism, foodborne
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	1	*
2005	0	*
2006	0	*
2007	0	*
2008	0	*

*Incidence rate not calculated for < 5 cases

Botulism, infant
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	1	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	1	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	0	*	0	0.0	1	0.0	1	0.0

Botulism, infant
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	#N/A	#N/A
2000	#N/A	#N/A
2001	#N/A	#N/A
2002	#N/A	#N/A
2003	#N/A	#N/A
2004	0	*
2005	0	*
2006	0	*
2007	1	*
2008	1	*

*Incidence rate not calculated for < 5 cases

Brucellosis
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	1	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	1	*	0	*	1	*
Calhoun	0	*	0	*	1	*	0	*	0	*
Charleston	0	*	1	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	1	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	1	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	1	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		1		0	
Grand Total	1	*	1	*	3	0.1	2	0.0	2	0.0

Brucellosis
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	1	*
2002	0	*
2003	0	*
2004	1	*
2005	1	*
2006	3	*
2007	2	*
2008	2	*

*Incidence rate not calculated for < 5 cases

**Campylobacteriosis
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	1	*	1	*	1	*	6	23.6	1	*
Aiken	6	4.1	11	7.4	7	4.7	7	4.6	13	8.4
Allendale	0	*	1	*	0	*	1	*	0	*
Anderson	20	11.6	11	6.3	19	10.7	16	8.9	13	7.1
Bamberg	1	*	0	*	0	*	0	*	0	*
Barnwell	2	*	0	*	1	*	0	*	1	*
Beaufort	3	*	4	*	15	10.5	11	7.5	2	*
Berkeley	5	3.3	18	11.8	13	8.2	9	5.5	7	4.1
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	15	4.5	26	7.7	29	8.5	26	7.6	14	4.0
Cherokee	1	*	2	*	1	*	0	*	1	*
Chester	2	*	0	*	0	*	2	*	0	*
Chesterfield	2	*	1	*	3	*	2	*	4	*
Clarendon	0	*	1	*	2	*	4	*	1	*
Colleton	3	*	0	*	0	*	1	*	0	*
Darlington	3	*	2	*	3	*	4	*	3	*
Dillon	2	*	0	*	2	*	1	*	3	*
Dorchester	3	*	10	9.0	8	6.8	8	6.5	5	3.9
Edgefield	0	*	1	*	0	*	0	*	1	*
Fairfield	0	*	1	*	1	*	0	*	0	*
Florence	9	7.0	3	*	8	6.1	7	5.3	7	5.3
Georgetown	4	*	2	*	2	*	3	*	2	*
Greenville	17	4.3	14	3.4	14	3.4	16	3.7	18	4.1
Greenwood	6	8.9	5	7.4	4	*	5	7.3	6	8.8
Hampton	0	*	2	*	0	*	1	*	0	*
Horry	15	6.9	22	9.6	10	4.2	12	4.8	10	3.9
Jasper	0	*	0	*	0	*	1	*	0	*
Kershaw	1	*	1	*	1	*	4	*	6	10.2
Lancaster	1	*	2	*	5	7.0	3	*	6	7.9
Laurens	3	*	2	*	4	*	2	*	3	*
Lee	1	*	0	*	0	*	1	*	1	*
Lexington	11	4.8	14	6.0	15	6.3	16	6.6	23	9.3
Marion	1	*	1	*	0	*	0	*	0	*
Marlboro	4	*	0	*	0	*	0	*	1	*
McCormick	0	*	0	*	0	*	2	*	1	*
Newberry	3	*	2	*	0	*	2	*	3	*
Oconee	6	8.8	17	24.6	16	22.9	10	14.2	7	9.8
Orangeburg	0	*	1	*	1	*	3	*	1	*
Pickens	8	7.1	9	7.9	5	4.4	15	13.0	4	*
Richland	19	5.5	14	4.1	21	6.0	21	5.9	18	4.9
Saluda	0	*	2	*	0	*	1	*	1	*
Spartanburg	6	2.3	5	1.9	2	*	4	*	0	*
Sumter	9	8.6	5	4.8	8	7.7	5	4.8	7	6.7
Union	0	*	1	*	0	*	0	*	0	*
Williamsburg	1	*	0	*	0	*	0	*	1	*
York	7	3.8	6	3.2	4	*	6	2.9	8	3.7
Unknown	2		0		0		29		46	
Grand Total	203	4.8	220	5.2	225	5.2	267	6.1	249	5.6

**Campylobacteriosis
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	206	5.2
2000	168	4.2
2001	196	4.8
2002	212	5.2
2003	238	5.7
2004	203	4.8
2005	220	5.2
2006	225	5.2
2007	267	6.1
2008	249	5.6

*Incidence rate not calculated for < 5 cases

Cholera
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	1	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	0	*	1	0.0	0	0.0	0	0.0

Cholera
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	0	*
2005	0	*
2006	1	*
2007	0	*
2008	0	*

*Incidence rate not calculated for < 5 cases

**Ciguatera fish poisoning
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	1	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	1	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	0	*	1	0.0	1	0.0	0	0.0

**Ciguatera fish poisoning
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	#N/A	#N/A
2000	#N/A	#N/A
2001	#N/A	#N/A
2002	#N/A	#N/A
2003	#N/A	#N/A
2004	0	*
2005	0	*
2006	1	*
2007	1	*
2008	0	*

*Incidence rate not calculated for < 5 cases

**Cryptosporidiosis
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	1	*	4	*	5	3.3	2	*	2	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	1	*	1	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	1	*	0	*	0	*	0	*	0	*
Beaufort	1	*	1	*	6	4.2	1	*	1	*
Berkeley	0	*	2	*	22	13.9	2	*	2	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	5	1.5	5	1.5	52	15.3	17	4.9	4	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	1	*	0	*	1	*
Chesterfield	0	*	0	*	1	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	1	*	3	*	2	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	2	*	0	*	15	12.8	0	*	2	*
Edgefield	0	*	0	*	0	*	1	*	0	*
Fairfield	0	*	0	*	0	*	1	*	0	*
Florence	0	*	1	*	0	*	0	*	0	*
Georgetown	0	*	0	*	3	*	2	*	0	*
Greenville	0	*	0	*	2	*	6	1.4	2	*
Greenwood	0	*	1	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	4	*	2	*	4	*	3	*	0	*
Jasper	0	*	0	*	1	*	0	*	0	*
Kershaw	0	*	1	*	0	*	1	*	1	*
Lancaster	0	*	0	*	0	*	0	*	1	*
Laurens	0	*	0	*	0	*	1	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	1	*	1	*	1	*	19	7.8	10	4.0
Marion	0	*	0	*	1	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	5	7.2	4	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	1	*
Pickens	3	*	1	*	4	*	6	5.2	5	4.3
Richland	2	*	0	*	1	*	7	2.0	1	*
Saluda	0	*	0	*	0	*	1	*	0	*
Spartanburg	1	*	0	*	1	*	0	*	1	*
Sumter	1	*	2	*	1	*	0	*	1	*
Union	1	*	1	*	0	*	0	*	0	*
Williamsburg	1	*	0	*	1	*	1	*	1	*
York	1	*	2	*	3	*	1	*	9	4.1
Unknown	0		0		0		6		16	
Grand Total	25	0.6	26	0.6	134	3.1	84	1.9	61	1.4

**Cryptosporidiosis
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	10	0.3
2000	23	0.6
2001	7	0.2
2002	8	0.2
2003	18	0.4
2004	25	0.6
2005	26	0.6
2006	134	3.1
2007	84	1.9
2008	61	1.4

*Incidence rate not calculated for < 5 cases

**Cryptosporidiosis
Cases By Month and Year**

Month	2004	2005	2006	2007	2008
January	0	1	0	2	5
February	3	2	4	5	0
March	3	3	1	2	4
April	0	3	3	4	4
May	2	1	7	11	3
June	2	0	4	6	8
July	1	0	17	14	8
August	3	5	45	13	7
September	5	5	33	8	9
October	2	3	12	13	4
November	2	2	3	2	6
December	2	1	5	4	3
Year Total	25	26	134	84	61

Cumulative Cases By Month and Year

Month	2004	2005	2006	2007	2008
January	0	1	0	2	5
February	3	3	4	7	5
March	6	6	5	9	9
April	6	9	8	13	13
May	8	10	15	24	16
June	10	10	19	30	24
July	11	10	36	44	32
August	14	15	81	57	39
September	19	20	114	65	48
October	21	23	126	78	52
November	23	25	129	80	58
December	25	26	134	84	61
Year Total	25	26	134	84	61

Percentages By Month and Year

Month	2004	2005	2006	2007	2008
January	0%	4%	0%	2%	8%
February	12%	8%	3%	6%	0%
March	12%	12%	1%	2%	7%
April	0%	12%	2%	5%	7%
May	8%	4%	5%	13%	5%
June	8%	0%	3%	7%	13%
July	4%	0%	13%	17%	13%
August	12%	19%	34%	15%	11%
September	20%	19%	25%	10%	15%
October	8%	12%	9%	15%	7%
November	8%	8%	2%	2%	10%
December	8%	4%	4%	5%	5%
Year Total	100%	100%	100%	100%	100%

Cyclosporiasis
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	2	*	2	*	0	*	0	*
Berkeley	0	*	1	*	1	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	1	*	1	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	1	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	1	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	3	*	5	0.1	1	0.0	1	0.0

Cyclosporiasis
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	1	*
2001	0	*
2002	3	*
2003	0	*
2004	0	*
2005	3	*
2006	5	0.1
2007	1	*
2008	1	*

*Incidence rate not calculated for < 5 cases

Dengue
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	1	*	2	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	1	*	0	*
Greenwood	1	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	1	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	1	*	0	*	1	0.0	3	0.1	1	0.0

Dengue
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	1	*
2000	1	*
2001	0	*
2002	0	*
2003	0	*
2004	1	*
2005	0	*
2006	1	*
2007	3	*
2008	1	*

*Incidence rate not calculated for < 5 cases

**E. coli, shiga toxin - producing (STEC)
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	1	*	0	*	0	*	0	*
Aiken	0	*	0	*	1	*	1	*	1	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	3	*	2	*	1	*	1	*
Bamberg	0	*	0	*	0	*	0	*	1	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	1	*	1	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	2	*	1	*
Calhoun	0	*	0	*	0	*	0	*	1	*
Charleston	2	*	0	*	5	1.5	1	*	3	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	1	*	1	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	1	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	1	*	0	*	1	*	0	*	1	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	1	*	1	*	1	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	1	*	0	*
Florence	1	*	1	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	2	*	0	*	0	*	4	*	1	*
Greenwood	0	*	1	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	2	*	2	*	0	*
Jasper	0	*	0	*	0	*	0	*	1	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	1	*	0	*	0	*	0	*	1	*
Laurens	0	*	1	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	1	*	1	*	0	*	7	2.8
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	1	*	0	*	0	*	0	*	1	*
Oconee	0	*	1	*	0	*	1	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	1	*	0	*	1	*	0	*
Richland	1	*	1	*	2	*	2	*	5	1.4
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	1	*	0	*	1	*	4	*	3	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	1	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	1	*	1	*	1	*	0	*	0	*
Unknown	0		0		0		5		9	
Grand Total	14	0.3	14	0.3	17	0.4	27	0.6	38	0.8

**E. coli, shiga toxin - producing
(STEC)
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	22	0.6
2000	21	0.5
2001	24	0.6
2002	7	0.2
2003	7	0.2
2004	14	0.3
2005	14	0.3
2006	17	0.4
2007	27	0.6
2008	38	0.8

*Incidence rate not calculated for < 5 cases

**Ehrlichiosis
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	1	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	1	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	1	*	0	*	2	*	0	*
Berkeley	0	*	0	*	0	*	1	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	2	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	1	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	2	*	0	*	0	*
Florence	1	*	2	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	1	*	1	*	1	*	0	*
Greenwood	2	*	1	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	1	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	1	*	0	*	1	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	1	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	1	*	1	*	0	*	0	*	0	*
Unknown	0		3		0		1		1	
Grand Total	7	0.2	11	0.3	6	0.1	6	0.1	1	0.0

Ehrlichiosis Statewide By Year		
Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	1	*
2001	1	*
2002	4	*
2003	1	*
2004	7	0.2
2005	11	0.3
2006	6	0.1
2007	6	0.1
2008	1	*

**Encephalitis, Eastern equine
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	1	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	1	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	1	*	1	*	0	0.0	0	0.0	0	0.0

**Encephalitis, Eastern equine
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	1	*
2001	0	*
2002	1	*
2003	2	*
2004	1	*
2005	1	*
2006	0	*
2007	0	*
2008	0	*

*Incidence rate not calculated for < 5 cases

Giardiasis
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	1	*	0	*
Aiken	3	*	4	*	1	*	2	*	6	3.9
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	13	7.5	4	*	5	2.8	8	4.4	4	*
Bamberg	1	*	0	*	0	*	1	*	0	*
Barnwell	1	*	1	*	0	*	0	*	0	*
Beaufort	4	*	2	*	6	4.2	8	5.5	3	*
Berkeley	5	3.3	5	3.3	6	3.8	7	4.3	2	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	20	6.0	16	4.7	16	4.7	24	7.0	18	5.2
Cherokee	0	*	0	*	0	*	1	*	1	*
Chester	1	*	0	*	0	*	1	*	1	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	1	*	0	*	0	*	1	*
Colleton	0	*	2	*	1	*	2	*	0	*
Darlington	2	*	0	*	0	*	1	*	0	*
Dillon	0	*	1	*	0	*	0	*	1	*
Dorchester	5	4.7	6	5.4	2	*	1	*	6	4.7
Edgefield	0	*	2	*	0	*	1	*	2	*
Fairfield	1	*	0	*	0	*	0	*	1	*
Florence	4	*	2	*	3	*	2	*	0	*
Georgetown	4	*	1	*	4	*	5	8.3	1	*
Greenville	15	3.8	16	3.9	15	3.6	9	2.1	12	2.7
Greenwood	1	*	1	*	1	*	0	*	0	*
Hampton	0	*	2	*	0	*	0	*	1	*
Horry	4	*	7	3.1	4	*	3	*	8	3.1
Jasper	0	*	0	*	1	*	0	*	0	*
Kershaw	2	*	0	*	2	*	3	*	1	*
Lancaster	1	*	0	*	2	*	1	*	1	*
Laurens	1	*	3	*	1	*	0	*	1	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	7	3.1	3	*	3	*	4	*	5	2.0
Marion	1	*	0	*	0	*	0	*	1	*
Marlboro	2	*	0	*	0	*	0	*	1	*
McCormick	0	*	1	*	0	*	0	*	0	*
Newberry	1	*	1	*	1	*	0	*	4	*
Oconee	1	*	2	*	2	*	4	*	3	*
Orangeburg	2	*	0	*	0	*	1	*	1	*
Pickens	1	*	3	*	4	*	5	4.3	4	*
Richland	27	7.9	9	2.6	16	4.6	7	2.0	11	3.0
Saluda	1	*	0	*	0	*	2	*	1	*
Spartanburg	5	1.9	5	1.9	8	3.0	4	*	1	*
Sumter	1	*	3	*	1	*	1	*	1	*
Union	1	*	0	*	0	*	0	*	1	*
Williamsburg	2	*	1	*	0	*	0	*	0	*
York	5	2.7	2	*	6	3.0	2	*	5	2.3
Unknown	0		0		0		11		32	
Grand Total	145	3.5	106	2.5	111	2.6	122	2.8	142	3.2

Giardiasis
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	150	3.7
2003	163	3.9
2004	145	3.5
2005	106	2.5
2006	111	2.6
2007	122	2.8
2008	142	3.2

*Incidence rate not calculated for < 5 cases

**Haemophilus influenzae, all types, invasive disease
Cases, Rate per 100,000 Population**

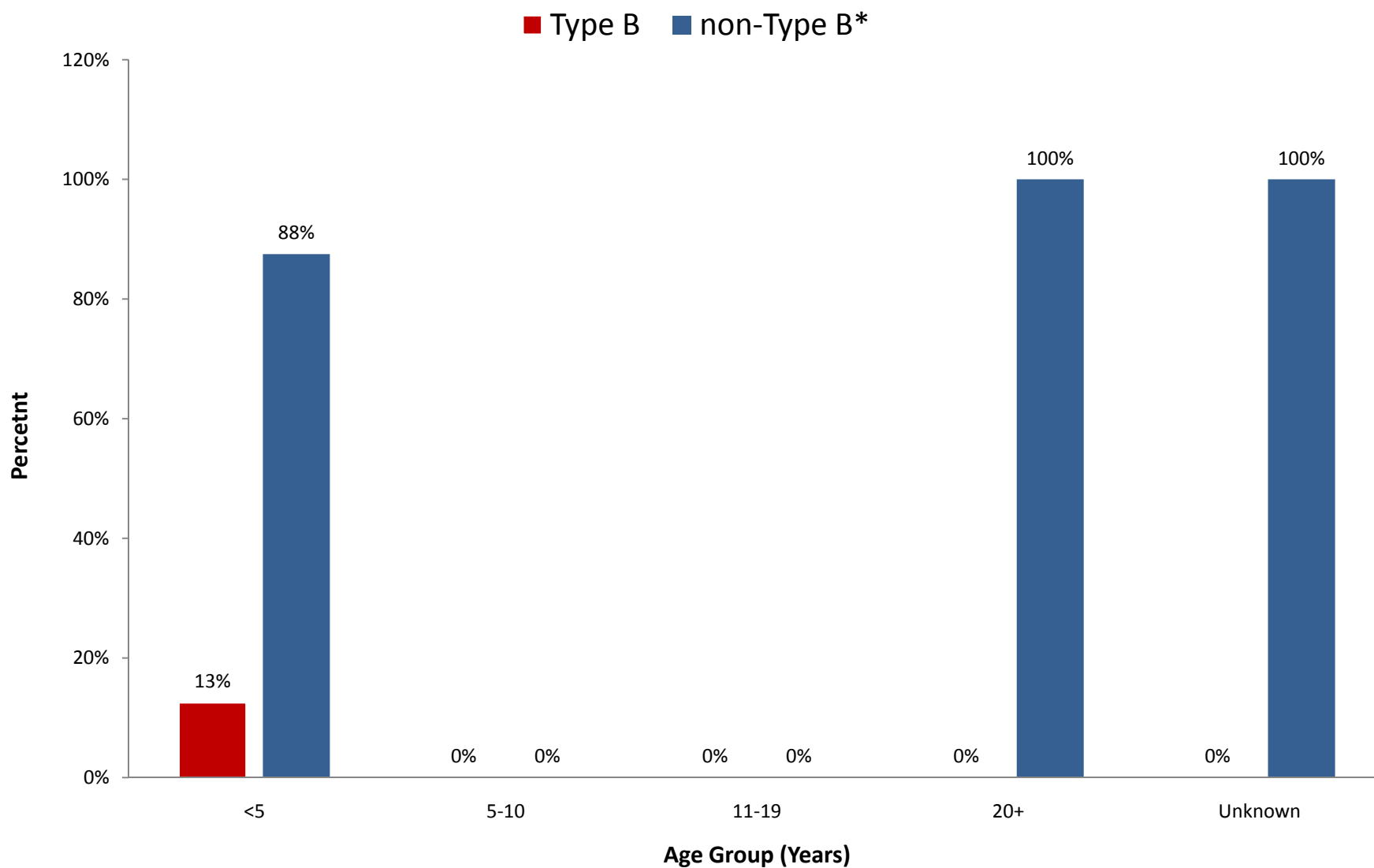
	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	2	*	0	*	0	*
Aiken	2	*	3	*	0	*	0	*	3	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	2	*	3	*	3	*	4	*	5	2.7
Bamberg	0	*	0	*	0	*	1	*	0	*
Barnwell	0	*	1	*	0	*	0	*	0	*
Beaufort	0	*	1	*	0	*	1	*	1	*
Berkeley	1	*	2	*	5	3.2	4	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	8	2.4	3	*	7	2.0	8	2.3
Cherokee	0	*	0	*	0	*	0	*	1	*
Chester	1	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	1	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	2	*	1	*	1	*	0	*
Dillon	0	*	0	*	0	*	3	*	0	*
Dorchester	1	*	0	*	2	*	0	*	1	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	1	*	1	*
Florence	1	*	4	*	1	*	1	*	1	*
Georgetown	3	*	0	*	2	*	2	*	1	*
Greenville	0	*	4	*	4	*	10	2.3	5	1.1
Greenwood	1	*	0	*	0	*	3	*	1	*
Hampton	0	*	0	*	0	*	0	*	2	*
Horry	0	*	3	*	2	*	1	*	5	1.9
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	2	*	1	*	0	*
Lancaster	1	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	1	*	2	*	2	*
Lee	0	*	0	*	1	*	1	*	0	*
Lexington	0	*	0	*	0	*	0	*	1	*
Marion	0	*	0	*	0	*	3	*	2	*
Marlboro	0	*	2	*	1	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	1	*
Newberry	0	*	0	*	0	*	2	*	0	*
Oconee	0	*	0	*	0	*	1	*	1	*
Orangeburg	1	*	1	*	0	*	1	*	0	*
Pickens	1	*	0	*	0	*	1	*	1	*
Richland	0	*	3	*	4	*	3	*	4	*
Saluda	0	*	0	*	0	*	0	*	1	*
Spartanburg	1	*	0	*	3	*	1	*	3	*
Sumter	0	*	0	*	0	*	1	*	2	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	2	*	0	*	1	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		3		7	
Grand Total	16	0.4	38	0.9	39	0.9	59	1.3	61	1.4

**Haemophilus influenzae, all
types, invasive disease
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	6	0.2
2000	7	0.2
2001	1	*
2002	15	0.4
2003	16	0.4
2004	16	0.4
2005	38	0.9
2006	39	0.9
2007	59	1.3
2008	61	1.4

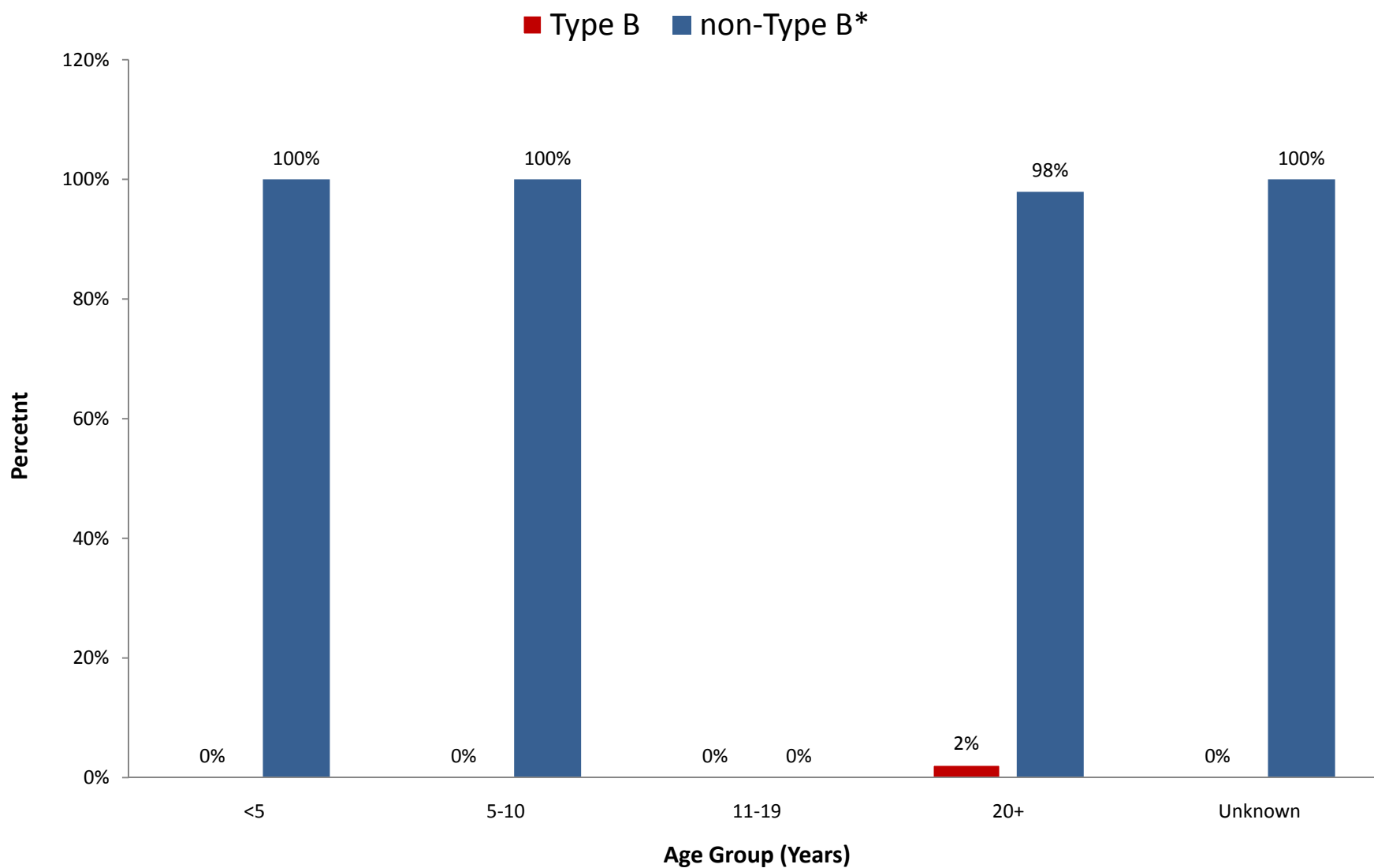
*Incidence rate not calculated for < 5 cases

Proportion of Haemophilus Influenza Cases by Age and Serotype, South Carolina, 2007



* Other includes: nongroupbables, Other and Unknown

Proportion of Haemophilus Influenza Cases by Age and Serotype, South Carolina, 2008



* Other includes: nongroupbables, Other and Unknown

**Hemolytic uremic syndrome (HUS)
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	1	*
Calhoun	0	*	0	*	0	*	0	*	1	*
Charleston	1	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	1	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	1	*	1	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	1	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	2	*	0	*	2	0.0	1	0.0	2	0.0

**Hemolytic uremic syndrome
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	3	*
2002	0	*
2003	0	*
2004	2	*
2005	0	*
2006	2	*
2007	1	*
2008	2	*

*Incidence rate not calculated for < 5 cases

**Hepatitis A, acute
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	1	*	2	*	0	*	0	*	1	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	1	*	0	*	1	*	0	*	1	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	1	*	0	*	0	*	0	*	0	*
Beaufort	2	*	1	*	2	*	0	*	1	*
Berkeley	0	*	1	*	1	*	1	*	2	*
Calhoun	1	*	0	*	0	*	0	*	0	*
Charleston	2	*	11	3.3	1	*	1	*	3	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	1	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	2	*	0	*	0	*
Darlington	0	*	1	*	0	*	0	*	0	*
Dillon	1	*	0	*	0	*	0	*	0	*
Dorchester	1	*	1	*	1	*	1	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	1	*	0	*	0	*	0	*	0	*
Florence	3	*	2	*	1	*	2	*	2	*
Georgetown	1	*	0	*	0	*	0	*	0	*
Greenville	4	*	9	2.2	2	*	1	*	1	*
Greenwood	1	*	2	*	3	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	3	*	2	*	4	*	0	*	1	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	1	*	0	*	1	*
Lancaster	1	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	2	*	0	*	0	*	0	*	0	*
Lexington	4	*	2	*	2	*	1	*	2	*
Marion	1	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	1	*	0	*	0	*	0	*	0	*
Oconee	1	*	1	*	0	*	0	*	0	*
Orangeburg	1	*	0	*	1	*	0	*	0	*
Pickens	2	*	0	*	1	*	1	*	0	*
Richland	4	*	2	*	1	*	1	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	2	*	2	*	1	*	1	*	1	*
Sumter	1	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	1	*	1	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	3	*	2	*	2	*	1	*	0	*
Unknown	1		1		0		4		2	
Grand Total	47	1.1	43	1.0	27	0.6	16	0.4	19	0.4

**Hepatitis A, acute
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	48	1.2
2000	97	2.4
2001	86	2.1
2002	64	1.6
2003	54	1.3
2004	47	1.1
2005	43	1.0
2006	27	0.6
2007	16	0.4
2008	19	0.4

*Incidence rate not calculated for < 5 cases

Hepatitis B, acute
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	3	*	0	*	0	*	0	*	0	*
Aiken	9	6.1	1	*	2	*	2	*	1	*
Allendale	1	*	0	*	0	*	0	*	0	*
Anderson	3	*	0	*	3	*	2	*	0	*
Bamberg	2	*	1	*	0	*	0	*	2	*
Barnwell	1	*	2	*	0	*	1	*	0	*
Beaufort	4	*	5	3.6	2	*	2	*	0	*
Berkeley	1	*	3	*	6	3.8	3	*	3	*
Calhoun	0	*	3	*	0	*	1	*	0	*
Charleston	11	3.3	22	6.5	13	3.8	8	2.3	8	2.3
Cherokee	1	*	1	*	0	*	1	*	0	*
Chester	0	*	2	*	0	*	0	*	0	*
Chesterfield	1	*	2	*	1	*	0	*	0	*
Clarendon	3	*	0	*	2	*	0	*	1	*
Colleton	2	*	0	*	3	*	0	*	0	*
Darlington	1	*	6	9.0	2	*	0	*	0	*
Dillon	0	*	1	*	0	*	0	*	0	*
Dorchester	2	*	6	5.4	2	*	1	*	1	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	2	*	0	*
Florence	11	8.5	4	*	8	6.1	1	*	2	*
Georgetown	1	*	2	*	3	*	1	*	0	*
Greenville	9	2.3	7	1.7	10	2.4	4	*	4	*
Greenwood	1	*	4	*	1	*	3	*	0	*
Hampton	1	*	0	*	3	*	2	*	1	*
Horry	12	5.5	22	9.6	14	5.8	3	*	5	1.9
Jasper	1	*	1	*	1	*	1	*	0	*
Kershaw	3	*	2	*	0	*	0	*	2	*
Lancaster	0	*	2	*	0	*	1	*	0	*
Laurens	2	*	1	*	1	*	3	*	3	*
Lee	2	*	1	*	1	*	0	*	0	*
Lexington	11	4.8	5	2.1	3	*	6	2.5	1	*
Marion	0	*	0	*	1	*	0	*	0	*
Marlboro	1	*	3	*	0	*	1	*	0	*
McCormick	1	*	1	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	1	*	1	*	0	*	0	*	1	*
Orangeburg	4	*	9	9.9	1	*	1	*	0	*
Pickens	2	*	2	*	3	*	3	*	0	*
Richland	25	7.3	25	7.3	9	2.6	3	*	11	3.0
Saluda	0	*	1	*	0	*	0	*	0	*
Spartanburg	2	*	4	*	3	*	0	*	4	*
Sumter	9	8.6	7	6.7	2	*	2	*	3	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	4	*	2	*	1	*	0	*	0	*
York	5	2.7	7	3.7	4	*	2	*	3	*
Unknown	3		5		0		11		12	
Grand Total	156	3.7	173	4.1	105	2.4	71	1.6	68	1.5

Hepatitis B, acute
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	63	1.6
2000	23	0.6
2001	72	1.8
2002	139	3.4
2003	196	4.7
2004	156	3.7
2005	173	4.1
2006	105	2.4
2007	71	1.6
2008	68	1.5

*Incidence rate not calculated for < 5 cases

**Hepatitis B, chronic
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	7	26.9	1	*	3	*	2	*	1	*
Aiken	12	8.1	14	9.4	14	9.3	16	10.5	12	7.8
Allendale	3	*	3	*	1	*	1	*	1	*
Anderson	16	9.3	9	5.2	18	10.2	20	11.1	14	7.7
Bamberg	2	*	2	*	3	*	1	*	0	*
Barnwell	6	26.0	3	*	5	21.8	2	*	1	*
Beaufort	23	17.1	20	14.4	32	22.4	20	13.6	12	8.0
Berkeley	24	15.9	26	17.0	16	10.1	22	13.5	18	10.6
Calhoun	1	*	0	*	1	*	0	*	0	*
Charleston	134	40.3	91	27.0	54	15.9	41	11.9	47	13.5
Cherokee	10	18.7	4	*	1	*	3	*	2	*
Chester	2	*	7	21.3	4	*	2	*	2	*
Chesterfield	4	*	4	*	7	16.4	3	*	3	*
Clarendon	6	18.3	2	*	4	*	4	*	2	*
Colleton	9	23.2	8	20.6	14	36.0	3	*	3	*
Darlington	12	17.9	8	12.0	7	10.5	9	13.5	5	7.5
Dillon	3	*	0	*	1	*	0	*	2	*
Dorchester	16	15.1	21	18.8	14	11.9	8	6.5	13	10.2
Edgefield	2	*	3	*	1	*	2	*	2	*
Fairfield	7	29.3	4	*	3	*	2	*	4	*
Florence	29	22.5	33	25.4	34	26.0	19	14.4	20	15.1
Georgetown	17	28.7	2	*	9	15.0	2	*	1	*
Greenville	79	19.8	53	13.1	66	15.9	67	15.7	42	9.6
Greenwood	8	11.9	6	8.9	8	11.8	8	11.7	5	7.3
Hampton	6	28.5	5	23.8	8	38.0	5	23.6	1	*
Horry	30	13.8	17	7.4	25	10.4	16	6.4	8	3.1
Jasper	1	*	1	*	3	*	2	*	2	*
Kershaw	6	10.9	7	12.5	8	14.0	5	8.6	4	*
Lancaster	8	11.7	6	8.6	7	9.8	4	*	5	6.6
Laurens	9	13.0	20	28.8	8	11.5	8	11.5	5	7.2
Lee	3	*	4	*	5	24.9	0	*	5	25.1
Lexington	38	16.6	18	7.7	34	14.3	22	9.1	31	12.5
Marion	2	*	4	*	5	49.5	3	*	2	*
Marlboro	3	*	1	*	3	*	1	*	4	*
McCormick	2	*	0	*	2	*	1	*	2	*
Newberry	7	19.0	4	*	1	*	1	*	0	*
Oconee	9	13.1	8	11.6	7	10.0	6	8.5	5	7.0
Orangeburg	8	8.8	10	11.0	15	16.7	3	*	4	*
Pickens	4	*	7	6.2	10	8.7	8	6.9	3	*
Richland	155	45.2	114	33.1	134	38.2	89	24.9	95	26.1
Saluda	0	*	1	*	1	*	0	*	0	*
Spartanburg	38	14.5	9	3.4	15	5.6	16	5.8	25	8.9
Sumter	24	22.8	21	20.0	27	25.9	22	21.2	13	12.5
Union	2	*	0	*	1	*	0	*	0	*
Williamsburg	5	14.2	3	*	9	25.5	4	*	0	*
York	17	9.3	24	12.7	23	11.6	18	8.6	12	5.5
Unknown	25		32		1		93		142	
Grand Total	834	19.9	640	15.1	672	15.5	584	13.3	580	12.9

**Hepatitis B, chronic
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	54	1.4
2000	341	8.5
2001	675	16.6
2002	999	24.4
2003	612	14.8
2004	834	19.9
2005	640	15.1
2006	672	15.5
2007	584	13.3
2008	580	12.9

*Incidence rate not calculated for < 5 cases

Hepatitis C, acute
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	1	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	1	*
Bamberg	2	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	1	*	0	*	0	*	0	*	0	*
Cherokee	0	*	1	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	1	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	1	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	2	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	2	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	3	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	1	*	0	*
Oconee	1	*	0	*	0	*	0	*	0	*
Orangeburg	3	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	1	*	0	*	0	*	0	*	0	*
Sumter	1	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	1	*	0	*	0	*	0	*
Unknown	0		0		0		0		3	
Grand Total	16	0.4	4	*	1	0.0	1	0.0	4	0.1

Hepatitis C, acute
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	21	0.5
2000	3	*
2001	13	0.3
2002	5	0.1
2003	28	0.7
2004	16	0.4
2005	4	*
2006	1	*
2007	1	*
2008	4	*

*Incidence rate not calculated for < 5 cases

**Hepatitis C, chronic
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	8	30.8	13	50.7	17	66.7	17	66.8	14	55.1
Aiken	53	35.9	81	54.5	91	60.6	67	44.0	42	27.3
Allendale	1	*	7	65.3	8	75.9	3	*	1	*
Anderson	219	126.9	248	142.3	291	164.4	200	111.1	191	104.5
Bamberg	5	31.6	10	63.6	14	89.5	5	32.3	5	32.7
Barnwell	4	*	15	65.1	18	78.4	8	34.8	8	35.0
Beaufort	58	43.1	81	58.3	107	74.8	88	60.0	64	42.5
Berkeley	70	46.2	102	66.8	128	80.8	102	62.4	100	59.1
Calhoun	2	*	9	60.6	10	67.6	1	*	4	*
Charleston	346	104.0	404	119.9	578	169.7	356	103.6	317	91.1
Cherokee	14	26.2	32	59.8	48	89.3	33	61.2	30	55.2
Chester	11	33.1	11	33.4	33	101.1	18	55.3	29	88.9
Chesterfield	16	37.5	36	84.3	33	77.5	28	65.5	4	*
Clarendon	12	36.7	25	76.4	31	94.7	19	58.1	14	42.2
Colleton	11	28.3	26	66.8	45	115.8	33	84.8	9	23.1
Darlington	44	65.6	77	115.2	76	113.7	55	82.3	15	22.4
Dillon	10	32.5	21	68.4	18	58.7	10	32.6	4	*
Dorchester	75	70.6	82	73.5	142	120.7	91	73.8	101	79.4
Edgefield	7	27.8	6	23.6	16	63.7	6	23.7	6	23.5
Fairfield	21	87.8	23	97.1	27	114.4	15	64.4	15	64.0
Florence	105	81.4	159	122.5	172	131.5	94	71.4	67	50.5
Georgetown	32	54.1	36	60.5	56	93.5	43	71.2	28	46.1
Greenville	285	71.3	467	115.1	501	120.5	439	102.7	454	103.6
Greenwood	24	35.7	38	56.2	59	86.9	58	85.1	63	91.9
Hampton	8	38.0	20	95.3	19	90.2	8	37.8	9	42.7
Horry	168	77.1	255	111.7	269	112.3	207	82.9	143	55.6
Jasper	10	47.8	17	80.5	21	97.7	15	68.5	4	*
Kershaw	46	83.9	80	143.4	65	114.0	54	92.9	46	78.1
Lancaster	40	58.7	40	57.3	50	69.7	26	35.4	50	65.9
Laurens	38	54.9	97	139.9	73	105.2	65	93.5	69	99.0
Lee	8	39.4	5	24.7	12	59.7	14	70.0	15	75.4
Lexington	206	89.9	158	67.8	211	88.7	92	37.9	132	53.1
Marion	17	170.7	16	160.0	29	287.3	12	119.1	18	178.3
Marlboro	6	17.3	38	110.5	36	105.7	15	44.3	7	20.7
McCormick	1	*	3	*	4	*	5	17.3	8	27.9
Newberry	15	40.8	24	65.0	25	67.0	11	29.3	11	29.1
Oconee	61	89.0	55	79.5	67	95.9	56	79.3	51	71.6
Orangeburg	37	40.9	64	70.6	69	76.9	31	34.3	21	23.2
Pickens	76	67.3	93	81.9	77	67.3	85	73.5	73	62.4
Richland	418	122.0	527	152.9	542	154.5	380	106.1	316	86.8
Saluda	2	*	5	26.8	7	37.4	5	26.7	5	26.8
Spartanburg	298	113.5	369	139.1	351	130.2	221	80.3	290	103.3
Sumter	77	73.2	96	91.6	84	80.7	83	79.8	61	58.6
Union	12	42.2	20	70.8	32	114.0	14	50.4	13	47.0
Williamsburg	15	42.5	13	37.4	33	93.4	13	36.7	13	37.0
York	52	28.5	111	58.7	145	73.2	106	50.8	104	47.8
Unknown	120		454		2		700		881	
Grand Total	3164	75.4	4569	107.5	4742	109.6	4007	91.0	3925	87.6

**Hepatitis C, chronic
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	1030	25.9
2000	3001	74.6
2001	4018	98.9
2002	3235	78.9
2003	1015	24.5
2004	3164	75.4
2005	4569	107.5
2006	4742	109.6
2007	4007	91.0
2008	3925	87.6

Legionellosis
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	1	*	1	*
Aiken	1	*	0	*	0	*	1	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	1	*	1	*	0	*	1	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	1	*	0	*	0	*
Beaufort	1	*	1	*	0	*	0	*	0	*
Berkeley	0	*	0	*	1	*	3	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	3	*	0	*	3	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	1	*	0	*
Chesterfield	1	*	0	*	0	*	1	*	0	*
Clarendon	0	*	0	*	0	*	0	*	1	*
Colleton	1	*	0	*	0	*	0	*	0	*
Darlington	1	*	0	*	0	*	0	*	1	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	2	*	0	*	1	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	2	*	0	*	0	*	0	*	0	*
Georgetown	2	*	0	*	0	*	0	*	0	*
Greenville	1	*	3	*	0	*	0	*	1	*
Greenwood	0	*	1	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	2	*	1	*	2	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	1	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	1	*	0	*	1	*
Marion	0	*	0	*	0	*	1	*	0	*
Marlboro	0	*	0	*	0	*	0	*	1	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	1	*	0	*
Orangeburg	0	*	2	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	1	*	1	*	2	*	1	*	3	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	2	*	0	*	0	*	0	*	0	*
Sumter	0	*	1	*	0	*	0	*	1	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	1	*	0	*	0	*
Unknown	1		0		0		1		1	
Grand Total	16	0.4	16	0.4	9	0.2	16	0.4	12	0.3

Legionellosis
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	12	0.3
2000	7	0.2
2001	15	0.4
2002	10	0.2
2003	12	0.3
2004	16	0.4
2005	16	0.4
2006	9	0.2
2007	16	0.4
2008	12	0.3

*Incidence rate not calculated for < 5 cases

**Leprosy (Hansen's Disease)
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	1	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	1	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	0	*	0	0.0	1	0.0	1	0.0

Leprosy (Hansen's Disease) Statewide By Year		
Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	0	*
2005	0	*
2006	0	*
2007	1	*
2008	1	*

*Incidence rate not calculated for < 5 cases

**Listeriosis
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	1	*	0	*	0	*	0	*	0	*
Aiken	1	*	1	*	0	*	2	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	1	*	0	*	0	*	1	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	1	*	1	*	1	*	0	*	1	*
Berkeley	1	*	1	*	0	*	1	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	1	*	1	*	1	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	1	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	1	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	1	*
Greenville	0	*	2	*	1	*	2	*	1	*
Greenwood	0	*	0	*	0	*	1	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	1	*	1	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	1	*	1	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	1	*	2	*	1	*	0	*	0	*
Marion	1	*	1	*	0	*	0	*	0	*
Marlboro	0	*	1	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	1	*	1	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	1	*	1	*	2	*	0	*	0	*
Pickens	0	*	0	*	0	*	1	*	0	*
Richland	1	*	4	*	1	*	0	*	1	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	1	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		1		0	
Grand Total	11	0.3	18	0.4	9	0.2	10	0.2	6	0.1

**Listeriosis
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	11	0.3
2000	9	0.2
2001	5	0.1
2002	8	0.2
2003	8	0.2
2004	11	0.3
2005	18	0.4
2006	9	0.2
2007	10	0.2
2008	6	0.1

*Incidence rate not calculated for < 5 cases

**Lyme disease
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	1	*	1	*
Aiken	0	*	1	*	1	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	1	*	0	*	4	*	3	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	1	*	2	*	1	*
Berkeley	0	*	0	*	0	*	1	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	2	*	3	*	2	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	1	*	0	*	1	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	1	*	0	*	0	*
Fairfield	0	*	1	*	0	*	0	*	0	*
Florence	0	*	1	*	2	*	0	*	0	*
Georgetown	0	*	1	*	1	*	0	*	0	*
Greenville	0	*	0	*	1	*	2	*	1	*
Greenwood	1	*	0	*	0	*	0	*	1	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	2	*	2	*	3	*	2	*	1	*
Jasper	0	*	0	*	1	*	0	*	1	*
Kershaw	1	*	0	*	0	*	3	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	1	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	2	*	1	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	1	*	1	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	1	*	1	*
Orangeburg	0	*	0	*	0	*	0	*	2	*
Pickens	0	*	2	*	0	*	0	*	0	*
Richland	1	*	0	*	1	*	4	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	1	*	0	*
Sumter	0	*	0	*	2	*	2	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	1	*
York	0	*	1	*	0	*	1	*	6	2.8
Unknown	0		0		0		3		9	
Grand Total	5	0.1	11	0.3	18	0.4	34	0.8	31	0.7

**Lyme disease
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	6	0.2
2000	25	0.6
2001	6	0.1
2002	26	0.6
2003	18	0.4
2004	5	0.1
2005	11	0.3
2006	18	0.4
2007	34	0.8
2008	31	0.7

*Incidence rate not calculated for < 5 cases

Malaria
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	1	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	2	*	0	*	0	*	0	*
Berkeley	0	*	0	*	1	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	1	*	2	*	2	*	0	*	1	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	1	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	1	*	0	*	0	*	0	*	1	*
Edgefield	1	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	1	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	1	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	1	*	1	*	0	*	0	*	1	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	1	*	1	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	1	*	0	*	0	*
Marion	0	*	0	*	0	*	1	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	1	*	1	*	2	*	0	*
Richland	4	*	4	*	3	*	2	*	2	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	1	*	0	*
Sumter	1	*	1	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		2	
Grand Total	10	0.2	12	0.3	9	0.2	8	0.2	8	0.2

Malaria
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	19	0.5
2000	2	*
2001	9	0.2
2002	9	0.2
2003	6	0.1
2004	10	0.2
2005	12	0.3
2006	9	0.2
2007	8	0.2
2008	8	0.2

**Meningococcal disease
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	1	*
Aiken	0	*	0	*	0	*	2	*	1	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	1	*	0	*	2	*	1	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	3	*	2	*	0	*	1	*
Berkeley	2	*	0	*	0	*	0	*	1	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	1	*	2	*	0	*	1	*	1	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	1	*
Chesterfield	0	*	0	*	0	*	1	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	1	*	1	*	0	*
Georgetown	1	*	1	*	3	*	0	*	0	*
Greenville	4	*	0	*	8	1.9	1	*	7	1.6
Greenwood	0	*	0	*	1	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	1	*	0	*	1	*	0	*	1	*
Jasper	0	*	0	*	0	*	1	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	1	*	0	*	0	*	0	*
Laurens	0	*	1	*	0	*	1	*	0	*
Lee	0	*	0	*	0	*	1	*	0	*
Lexington	0	*	3	*	1	*	0	*	2	*
Marion	0	*	0	*	1	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	1	*	0	*	0	*	1	*	1	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	3	*	3	*	2	*	2	*	0	*
Richland	1	*	0	*	3	*	2	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	1	*	1	*	1	*	0	*
Sumter	0	*	0	*	0	*	1	*	2	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	1	*	0	*	0	*	0	*	1	*
Unknown	0		0		0		1		1	
Grand Total	16	0.4	15	0.4	26	0.6	18	0.4	21	0.5

**Meningococcal disease
Statewide By Year**

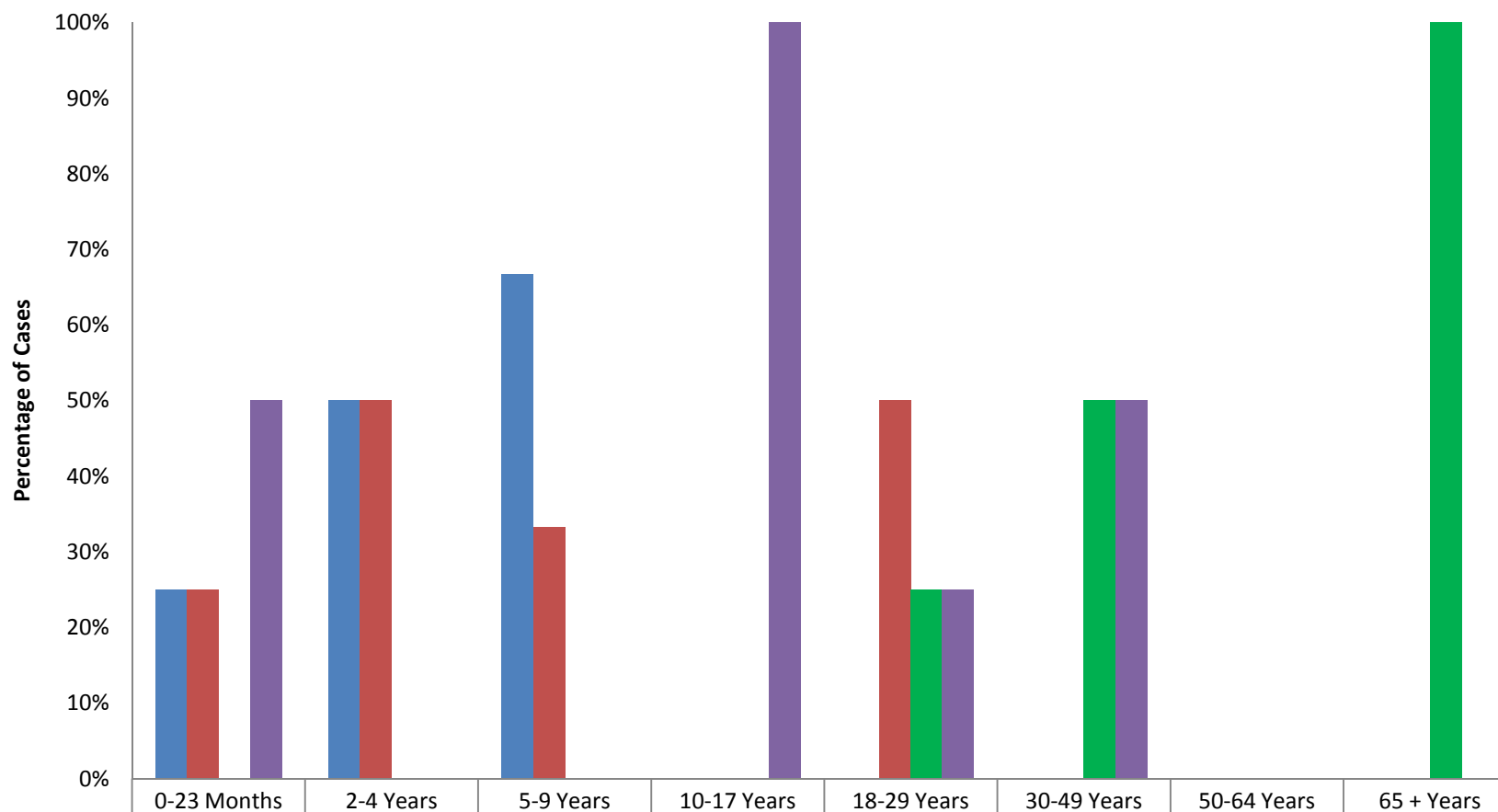
Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	48	1.2
2000	26	0.6
2001	33	0.8
2002	34	0.8
2003	31	0.7
2004	16	0.4
2005	15	0.4
2006	26	0.6
2007	18	0.4
2008	21	0.5

*Incidence rate not calculated for < 5 cases

Meningococcal disease

Percent in Serogroup by Age Group

2007

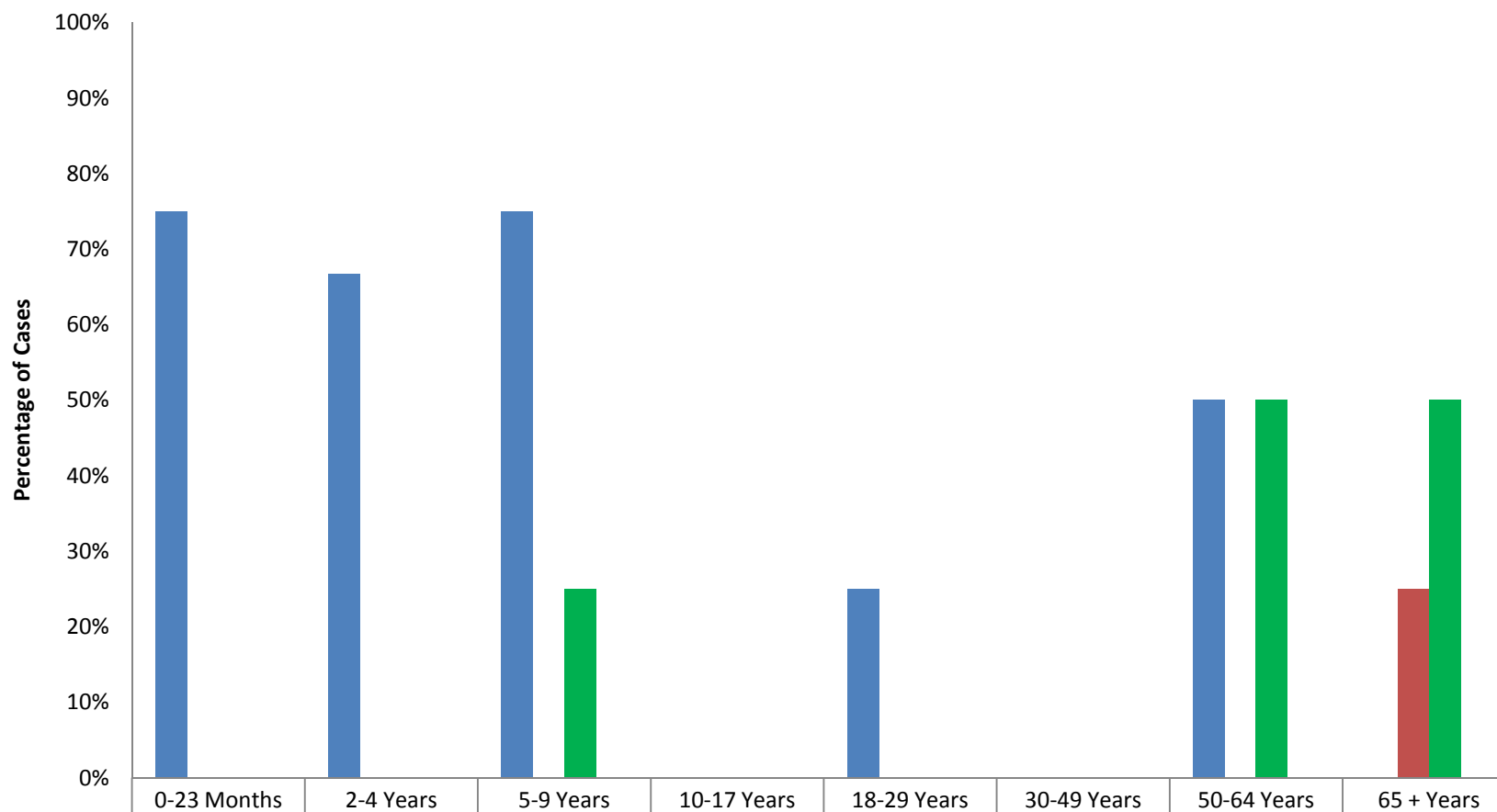


	0-23 Months	2-4 Years	5-9 Years	10-17 Years	18-29 Years	30-49 Years	50-64 Years	65 + Years
Serogroup B	25%	50%	67%	0%	0%	0%	0%	0%
Serogroup C	25%	50%	33%	0%	50%	0%	0%	0%
Serogroup Y	0%	0%	0%	0%	25%	50%	0%	100%
Other or Unknown	50%	0%	0%	100%	25%	50%	0%	0%

Meningococcal disease

Percent in Serogroup by Age Group

2008



	0-23 Months	2-4 Years	5-9 Years	10-17 Years	18-29 Years	30-49 Years	50-64 Years	65 + Years
■ Serogroup B	75%	67%	75%	0%	25%	0%	50%	0%
■ Serogroup C	0%	0%	0%	0%	0%	0%	0%	25%
■ Serogroup Y	0%	0%	25%	0%	0%	0%	50%	50%
■ Other or Unknown	0%	0%	0%	0%	0%	0%	0%	0%

Mumps
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	1	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	1	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	1	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	1	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	1	*	0	*	0	*
Greenville	0	*	0	*	5	1.2	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	1	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	1	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	1	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	1	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	1	*	1	*	10	0.2	2	0.0	0	0.0

Mumps
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	6	0.2
2000	11	0.3
2001	7	0.2
2002	3	*
2003	4	*
2004	1	*
2005	1	*
2006	10	0.2
2007	2	*
2008	0	*

*Incidence rate not calculated for < 5 cases

Pertussis
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	1	*	5	19.6	1	*	0	*
Aiken	0	*	1	*	3	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	28	16.2	46	26.4	28	15.8	8	4.4	1	*
Bamberg	0	*	0	*	0	*	0	*	1	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	9	6.5	1	*	0	*	0	*
Berkeley	26	17.2	14	9.2	11	6.9	1	*	1	*
Calhoun	0	*	1	*	0	*	0	*	0	*
Charleston	22	6.6	24	7.1	42	12.3	22	6.4	11	3.2
Cherokee	1	*	0	*	0	*	0	*	1	*
Chester	0	*	1	*	0	*	0	*	0	*
Chesterfield	0	*	1	*	0	*	2	*	0	*
Clarendon	1	*	0	*	0	*	0	*	0	*
Colleton	0	*	1	*	2	*	0	*	1	*
Darlington	0	*	0	*	2	*	0	*	0	*
Dillon	0	*	1	*	0	*	1	*	0	*
Dorchester	16	15.1	25	22.4	26	22.1	5	4.1	6	4.7
Edgefield	0	*	2	*	0	*	0	*	0	*
Fairfield	1	*	1	*	1	*	0	*	0	*
Florence	0	*	2	*	2	*	0	*	0	*
Georgetown	9	15.2	22	37.0	1	*	3	*	2	*
Greenville	9	2.3	21	5.2	9	2.2	29	6.8	25	5.7
Greenwood	3	*	40	59.2	3	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	2	*	6	2.6	17	7.1	2	*	14	5.4
Jasper	1	*	0	*	0	*	0	*	0	*
Kershaw	2	*	12	21.5	0	*	0	*	1	*
Lancaster	0	*	8	11.5	1	*	0	*	0	*
Laurens	82	118.5	108	155.8	1	*	0	*	2	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	9	3.9	16	6.9	3	*	2	*	32	12.9
Marion	0	*	0	*	2	*	0	*	1	*
Marlboro	0	*	0	*	0	*	2	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	1	*	0	*	9	23.8
Oconee	0	*	4	*	5	7.2	3	*	13	18.2
Orangeburg	1	*	2	*	0	*	0	*	2	*
Pickens	3	*	4	*	4	*	1	*	4	*
Richland	2	*	28	8.1	22	6.3	3	*	17	4.7
Saluda	0	*	0	*	6	32.1	0	*	0	*
Spartanburg	3	*	1	*	7	2.6	4	*	1	*
Sumter	2	*	5	4.8	1	*	1	*	1	*
Union	0	*	2	*	0	*	0	*	0	*
Williamsburg	6	17.0	1	*	0	*	0	*	0	*
York	1	*	0	*	0	*	4	*	8	3.7
Unknown	0		3		0		4		13	
Grand Total	230	5.5	413	9.7	206	4.8	98	2.2	167	3.7

Pertussis
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	26	0.7
2000	62	1.5
2001	34	0.8
2002	49	1.2
2003	198	4.8
2004	230	5.5
2005	413	9.7
2006	206	4.8
2007	98	2.2
2008	167	3.7

*Incidence rate not calculated for < 5 cases

Q fever (Coxiella burnetii)
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	1	*	1	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	1	*	0	*	0	*	0	*	1	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	1	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	1	*	0	*
Unknown	0		0		0		0		0	
Grand Total	2	*	1	*	0	0.0	2	0.0	1	0.0

Q fever (Coxiella burnetii)
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	2	*
2005	1	*
2006	0	*
2007	2	*
2008	1	*

*Incidence rate not calculated for < 5 cases

**Rocky Mountain Spotted Fever
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	1	*	1	*	0	*	1	*	2	*
Aiken	0	*	0	*	3	*	0	*	1	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	3	*	2	*	3	*	7	3.9	5	2.7
Bamberg	0	*	1	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	1	*	0	*	0	*	0	*	0	*
Berkeley	0	*	2	*	1	*	2	*	6	3.5
Calhoun	0	*	0	*	1	*	0	*	1	*
Charleston	1	*	3	*	3	*	4	*	4	*
Cherokee	1	*	0	*	2	*	0	*	0	*
Chester	0	*	1	*	1	*	1	*	1	*
Chesterfield	0	*	1	*	1	*	0	*	1	*
Clarendon	0	*	0	*	0	*	1	*	0	*
Colleton	1	*	0	*	0	*	0	*	0	*
Darlington	1	*	0	*	0	*	1	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	2	*	0	*
Edgefield	0	*	0	*	0	*	0	*	1	*
Fairfield	2	*	0	*	0	*	0	*	0	*
Florence	5	3.9	2	*	4	*	1	*	0	*
Georgetown	1	*	0	*	0	*	0	*	0	*
Greenville	4	*	8	2.0	4	*	4	*	0	*
Greenwood	8	11.9	7	10.4	3	*	4	*	9	13.1
Hampton	2	*	0	*	0	*	0	*	0	*
Horry	4	*	5	2.2	2	*	1	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	2	*	0	*	0	*	2	*	0	*
Lancaster	2	*	1	*	1	*	1	*	3	*
Laurens	6	8.7	1	*	0	*	5	7.2	1	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	2	*	0	*	0	*	2	*	0	*
Marion	0	*	2	*	2	*	0	*	0	*
Marlboro	0	*	1	*	0	*	0	*	0	*
McCormick	0	*	0	*	1	*	1	*	1	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	1	*	0	*	1	*	2	*	1	*
Orangeburg	1	*	2	*	0	*	0	*	0	*
Pickens	3	*	4	*	1	*	1	*	1	*
Richland	5	1.5	0	*	3	*	3	*	0	*
Saluda	0	*	0	*	0	*	2	*	0	*
Spartanburg	6	2.3	2	*	0	*	0	*	1	*
Sumter	1	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	1	*
Williamsburg	0	*	0	*	1	*	1	*	0	*
York	4	*	4	*	10	5.0	7	3.4	10	4.6
Unknown	0		1		0		11		10	
Grand Total	68	1.6	51	1.2	48	1.1	67	1.5	60	1.3

**Rocky Mountain Spotted Fever
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	52	1.3
2000	51	1.3
2001	31	0.8
2002	75	1.8
2003	53	1.3
2004	68	1.6
2005	51	1.2
2006	48	1.1
2007	67	1.5
2008	60	1.3

*Incidence rate not calculated for < 5 cases

Rocky Mountain Spotted Fever Cases By Month and Year

Month	2004	2005	2006	2007	2008
January	1	1	0	2	0
February	0	0	1	2	0
March	3	0	1	2	0
April	4	4	2	5	4
May	13	10	9	8	8
June	11	11	4	15	7
July	13	8	12	9	6
August	11	7	6	14	20
September	5	3	3	7	7
October	2	3	7	2	5
November	4	1	3	0	2
December	1	3	0	1	1
Year Total	68	51	48	67	60

Cumulative Cases By Month and Year

Month	2004	2005	2006	2007	2008
January	1	1	0	2	0
February	1	1	1	4	0
March	4	1	2	6	0
April	8	5	4	11	4
May	21	15	13	19	12
June	32	26	17	34	19
July	45	34	29	43	25
August	56	41	35	57	45
September	61	44	38	64	52
October	63	47	45	66	57
November	67	48	48	66	59
December	68	51	48	67	60
Year Total	68	51	48	67	60

Percentages By Month and Year

Month	2004	2005	2006	2007	2008
January	1%	2%	0%	3%	0%
February	0%	0%	2%	3%	0%
March	4%	0%	2%	3%	0%
April	6%	8%	4%	7%	7%
May	19%	20%	19%	12%	13%
June	16%	22%	8%	22%	12%
July	19%	16%	25%	13%	10%
August	16%	14%	13%	21%	33%
September	7%	6%	6%	10%	12%
October	3%	6%	15%	3%	8%
November	6%	2%	6%	0%	3%
December	1%	6%	0%	1%	2%
Year Total	100%	100%	100%	100%	100%

**Salmonellosis
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	4	*	10	39.2	6	23.6	4	*
Aiken	19	12.9	32	21.5	28	18.7	35	23.0	46	29.9
Allendale	1	*	2	*	0	*	0	*	0	*
Anderson	11	6.4	48	27.5	39	22.0	52	28.9	29	15.9
Bamberg	0	*	5	31.8	0	*	2	*	2	*
Barnwell	0	*	3	*	4	*	3	*	6	26.2
Beaufort	27	20.1	62	44.6	65	45.4	52	35.4	42	27.9
Berkeley	17	11.2	56	36.7	58	36.6	75	45.9	61	36.0
Calhoun	0	*	0	*	2	*	3	*	0	*
Charleston	62	18.6	115	34.1	104	30.5	94	27.4	107	30.7
Cherokee	0	*	3	*	3	*	6	11.1	5	9.2
Chester	2	*	7	21.3	9	27.6	4	*	5	15.3
Chesterfield	2	*	3	*	9	21.1	6	14.0	7	16.3
Clarendon	5	15.3	1	*	7	21.4	7	21.4	10	30.2
Colleton	1	*	9	23.1	9	23.2	17	43.7	9	23.1
Darlington	6	8.9	16	23.9	20	29.9	20	29.9	18	26.9
Dillon	4	*	8	26.1	9	29.3	4	*	5	16.3
Dorchester	13	12.2	64	57.3	42	35.7	55	44.6	59	46.4
Edgefield	2	*	6	23.6	5	19.9	1	*	11	43.1
Fairfield	2	*	26	109.8	3	*	6	25.8	4	*
Florence	10	7.8	71	54.7	33	25.2	47	35.7	38	28.6
Georgetown	4	*	36	60.5	34	56.7	36	59.6	21	34.6
Greenville	8	2.0	52	12.8	39	9.4	46	10.8	48	11.0
Greenwood	4	*	20	29.6	16	23.6	16	23.5	21	30.6
Hampton	4	*	2	*	2	*	6	28.3	4	*
Horry	26	11.9	136	59.6	111	46.3	102	40.8	126	49.0
Jasper	2	*	8	37.9	9	41.9	8	36.5	5	22.4
Kershaw	3	*	179	320.9	25	43.9	17	29.2	20	34.0
Lancaster	7	10.3	30	43.0	18	25.1	8	10.9	16	21.1
Laurens	0	*	10	14.4	1	*	10	14.4	5	7.2
Lee	0	*	15	74.2	4	*	6	30.0	6	30.2
Lexington	19	8.3	64	27.5	46	19.3	48	19.8	62	24.9
Marion	3	*	27	269.9	8	79.3	5	49.6	4	*
Marlboro	5	14.4	8	23.3	5	14.7	9	26.6	4	*
McCormick	1	*	2	*	2	*	2	*	4	*
Newberry	2	*	3	*	5	13.4	4	*	12	31.7
Oconee	1	*	18	26.0	5	7.2	6	8.5	10	14.0
Orangeburg	12	13.2	27	29.8	16	17.8	17	18.8	3	*
Pickens	3	*	18	15.8	36	31.5	19	16.4	12	10.3
Richland	14	4.1	144	41.8	100	28.5	117	32.7	97	26.6
Saluda	0	*	2	*	6	32.1	8	42.8	7	37.6
Spartanburg	4	*	30	11.3	35	13.0	61	22.2	46	16.4
Sumter	16	15.2	50	47.7	28	26.9	17	16.3	42	40.3
Union	0	*	8	28.3	7	24.9	2	*	7	25.3
Williamsburg	1	*	9	25.9	6	17.0	6	17.0	0	*
York	12	6.6	42	22.2	52	26.2	49	23.5	45	20.7
Unknown	0		0		0		40		106	
Grand Total	335	8.0	1481	34.9	1075	24.9	1160	26.3	1201	26.8

**Salmonellosis
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	699	17.6
2000	780	19.4
2001	918	22.6
2002	896	21.8
2003	868	20.9
2004	335	8.0
2005	1481	34.9
2006	1075	24.9
2007	1160	26.3
2008	1201	26.8

*Incidence rate not calculated for < 5 cases

**Salmonellosis
Cases By Month and Year**

Month	2004	2005	2006	2007	2008
January	2	71	32	74	66
February	4	30	12	56	55
March	3	54	25	49	50
April	2	104	76	54	59
May	6	322	124	58	72
June	16	140	104	61	111
July	22	136	112	150	157
August	17	177	163	185	163
September	29	141	138	154	174
October	110	148	154	151	144
November	77	98	67	103	78
December	47	60	68	65	72
Year Total	335	1481	1075	1160	1201

Cumulative Cases By Month and Year

Month	2004	2005	2006	2007	2008
January	2	71	32	74	66
February	6	101	44	130	121
March	9	155	69	179	171
April	11	259	145	233	230
May	17	581	269	291	302
June	33	721	373	352	413
July	55	857	485	502	570
August	72	1034	648	687	733
September	101	1175	786	841	907
October	211	1323	940	992	1051
November	288	1421	1007	1095	1129
December	335	1481	1075	1160	1201
Year Total	335	1481	1075	1160	1201

Percentages By Month and Year

Month	2004	2005	2006	2007	2008
January	1%	5%	3%	6%	5%
February	1%	2%	1%	5%	5%
March	1%	4%	2%	4%	4%
April	1%	7%	7%	5%	5%
May	2%	22%	12%	5%	6%
June	5%	9%	10%	5%	9%
July	7%	9%	10%	13%	13%
August	5%	12%	15%	16%	14%
September	9%	10%	13%	13%	14%
October	33%	10%	14%	13%	12%
November	23%	7%	6%	9%	6%
December	14%	4%	6%	6%	6%
Year Total	100%	100%	100%	100%	100%

Shigellosis
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	1	*	0	*	0	*	0	*	0	*
Aiken	17	11.5	5	3.4	0	*	9	5.9	9	5.8
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	61	35.3	0	*	4	*	2	*	8	4.4
Bamberg	0	*	0	*	0	*	0	*	1	*
Barnwell	3	*	1	*	1	*	14	61.0	1	*
Beaufort	8	5.9	4	*	3	*	35	23.9	6	4.0
Berkeley	45	29.7	4	*	0	*	7	4.3	21	12.4
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	56	16.8	36	10.7	5	1.5	16	4.7	89	25.6
Cherokee	0	*	0	*	1	*	1	*	1	*
Chester	0	*	0	*	1	*	0	*	1	*
Chesterfield	1	*	0	*	0	*	0	*	6	14.0
Clarendon	1	*	0	*	0	*	0	*	5	15.1
Colleton	1	*	1	*	0	*	2	*	2	*
Darlington	1	*	0	*	0	*	0	*	16	23.9
Dillon	6	19.5	0	*	0	*	2	*	7	22.8
Dorchester	19	17.9	6	5.4	2	*	4	*	19	14.9
Edgefield	0	*	0	*	0	*	2	*	0	*
Fairfield	2	*	0	*	1	*	0	*	1	*
Florence	9	7.0	1	*	0	*	30	22.8	14	10.5
Georgetown	11	18.6	2	*	1	*	3	*	9	14.8
Greenville	76	19.0	2	*	3	*	15	3.5	32	7.3
Greenwood	2	*	2	*	0	*	0	*	1	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	133	61.0	2	*	5	2.1	8	3.2	29	11.3
Jasper	3	*	2	*	0	*	3	*	3	*
Kershaw	6	10.9	0	*	0	*	4	*	2	*
Lancaster	0	*	6	8.6	0	*	0	*	1	*
Laurens	5	7.2	1	*	0	*	0	*	2	*
Lee	1	*	0	*	0	*	4	*	2	*
Lexington	5	2.2	4	*	3	*	5	2.1	61	24.5
Marion	0	*	0	*	0	*	1	*	4	*
Marlboro	89	256.9	0	*	0	*	1	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	1	*	0	*	0	*	2	*	5	13.2
Oconee	8	11.7	0	*	0	*	0	*	0	*
Orangeburg	2	*	0	*	0	*	6	6.6	1	*
Pickens	1	*	2	*	0	*	0	*	1	*
Richland	23	6.7	19	5.5	4	*	17	4.7	79	21.7
Saluda	2	*	0	*	1	*	0	*	3	*
Spartanburg	4	*	9	3.4	36	13.4	0	*	22	7.8
Sumter	10	9.5	0	*	0	*	4	*	18	17.3
Union	0	*	1	*	2	*	0	*	0	*
Williamsburg	3	*	0	*	0	*	0	*	3	*
York	2	*	2	*	1	*	3	*	10	4.6
Unknown	0		0		0		35		56	
Grand Total	618	14.7	112	2.6	74	1.7	235	5.3	551	12.3

Shigellosis
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	121	3.0
2000	145	3.6
2001	249	6.1
2002	149	3.6
2003	561	13.5
2004	618	14.7
2005	112	2.6
2006	74	1.7
2007	235	5.3
2008	551	12.3

*Incidence rate not calculated for < 5 cases

**Shigellosis
Cases By Month and Year**

Month	2004	2005	2006	2007	2008
January	39	13	10	9	37
February	74	6	13	2	51
March	84	16	10	9	68
April	33	2	9	6	50
May	38	7	18	10	109
June	54	13	1	15	51
July	119	5	3	21	34
August	80	21	4	22	27
September	43	6	2	41	23
October	31	10	2	33	47
November	14	6	0	36	26
December	9	7	2	31	28
Year Total	618	112	74	235	551

Cumulative Cases By Month and Year

Month	2004	2005	2006	2007	2008
January	39	13	10	9	37
February	113	19	23	11	88
March	197	35	33	20	156
April	230	37	42	26	206
May	268	44	60	36	315
June	322	57	61	51	366
July	441	62	64	72	400
August	521	83	68	94	427
September	564	89	70	135	450
October	595	99	72	168	497
November	609	105	72	204	523
December	618	112	74	235	551
Year Total	618	112	74	235	551

Percentages By Month and Year

Month	2004	2005	2006	2007	2008
January	6%	12%	14%	4%	7%
February	12%	5%	18%	1%	9%
March	14%	14%	14%	4%	12%
April	5%	2%	12%	3%	9%
May	6%	6%	24%	4%	20%
June	9%	12%	1%	6%	9%
July	19%	4%	4%	9%	6%
August	13%	19%	5%	9%	5%
September	7%	5%	3%	17%	4%
October	5%	9%	3%	14%	9%
November	2%	5%	0%	15%	5%
December	1%	6%	3%	13%	5%
Year Total	100%	100%	100%	100%	100%

**Streptococcus pneumoniae, invasive
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	2	*	1	*	1	*	2	*	4	*
Aiken	2	*	8	5.4	6	4.0	15	9.8	18	11.7
Allendale	0	*	0	*	0	*	2	*	2	*
Anderson	24	13.9	25	14.3	31	17.5	41	22.8	40	21.9
Bamberg	2	*	0	*	2	*	1	*	0	*
Barnwell	0	*	0	*	0	*	1	*	2	*
Beaufort	3	*	1	*	4	*	3	*	5	3.3
Berkeley	6	4.0	11	7.2	16	10.1	12	7.3	17	10.0
Calhoun	0	*	1	*	1	*	0	*	0	*
Charleston	20	6.0	34	10.1	51	15.0	45	13.1	42	12.1
Cherokee	0	*	0	*	0	*	0	*	1	*
Chester	1	*	0	*	0	*	2	*	7	21.5
Chesterfield	3	*	0	*	0	*	2	*	3	*
Clarendon	1	*	1	*	1	*	4	*	3	*
Colleton	0	*	1	*	1	*	0	*	2	*
Darlington	1	*	2	*	15	22.4	7	10.5	12	17.9
Dillon	1	*	0	*	2	*	6	19.6	10	32.6
Dorchester	9	8.5	4	*	5	4.3	5	4.1	10	7.9
Edgefield	0	*	0	*	1	*	0	*	1	*
Fairfield	0	*	0	*	0	*	0	*	1	*
Florence	5	3.9	5	3.9	8	6.1	27	20.5	24	18.1
Georgetown	9	15.2	7	11.8	7	11.7	13	21.5	8	13.2
Greenville	7	1.8	13	3.2	6	1.4	31	7.3	67	15.3
Greenwood	9	13.4	8	11.8	5	7.4	8	11.7	12	17.5
Hampton	0	*	0	*	0	*	0	*	1	*
Horry	4	*	11	4.8	23	9.6	25	10.0	32	12.4
Jasper	1	*	0	*	1	*	1	*	1	*
Kershaw	0	*	0	*	0	*	2	*	8	13.6
Lancaster	1	*	0	*	0	*	0	*	2	*
Laurens	1	*	4	*	1	*	2	*	6	8.6
Lee	0	*	1	*	1	*	3	*	3	*
Lexington	3	*	5	2.1	3	*	7	2.9	22	8.9
Marion	3	*	1	*	3	*	2	*	6	59.4
Marlboro	0	*	1	*	1	*	3	*	1	*
McCormick	0	*	0	*	0	*	0	*	1	*
Newberry	0	*	1	*	2	*	1	*	2	*
Oconee	3	*	4	*	5	7.2	11	15.6	7	9.8
Orangeburg	0	*	4	*	8	8.9	4	*	1	*
Pickens	2	*	2	*	2	*	11	9.5	26	22.2
Richland	7	2.0	16	4.6	16	4.6	19	5.3	20	5.5
Saluda	1	*	0	*	0	*	1	*	3	*
Spartanburg	6	2.3	7	2.6	1	*	5	1.8	13	4.6
Sumter	0	*	4	*	8	7.7	11	10.6	18	17.3
Union	2	*	1	*	1	*	1	*	6	21.7
Williamsburg	0	*	1	*	3	*	6	17.0	9	25.6
York	0	*	2	*	1	*	6	2.9	8	3.7
Unknown	0		0		0		30		101	
Grand Total	139	3.3	187	4.4	243	5.6	378	8.6	588	13.1

**Streptococcus pneumoniae,
invasive
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	1	*
2002	64	1.6
2003	137	3.3
2004	139	3.3
2005	187	4.4
2006	243	5.6
2007	378	8.6
2008	588	13.1

*Incidence rate not calculated for < 5 cases

**Streptococcus, group A, invasive disease
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	1	*	0	*	0	*	1	*	1	*
Aiken	1	*	2	*	3	*	2	*	3	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	5	2.9	1	*	5	2.8	5	2.8	10	5.5
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	6	4.2	2	*	1	*
Berkeley	3	*	3	*	3	*	4	*	2	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	8	2.4	8	2.4	12	3.5	12	3.5	11	3.2
Cherokee	1	*	0	*	0	*	1	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	1	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	1	*	1	*
Colleton	0	*	1	*	1	*	0	*	1	*
Darlington	2	*	0	*	1	*	2	*	1	*
Dillon	1	*	0	*	0	*	0	*	0	*
Dorchester	3	*	3	*	2	*	2	*	5	3.9
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	1	*	0	*	0	*	0	*
Florence	2	*	0	*	4	*	9	6.8	3	*
Georgetown	1	*	0	*	3	*	2	*	0	*
Greenville	15	3.8	14	3.4	10	2.4	15	3.5	6	1.4
Greenwood	1	*	0	*	1	*	2	*	2	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	1	*	0	*	4	*	8	3.2	1	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	1	*	1	*
Lancaster	0	*	0	*	1	*	1	*	0	*
Laurens	0	*	0	*	3	*	1	*	0	*
Lee	0	*	0	*	1	*	0	*	0	*
Lexington	0	*	1	*	2	*	2	*	2	*
Marion	0	*	0	*	0	*	1	*	1	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	1	*	1	*	0	*
Newberry	1	*	0	*	0	*	0	*	0	*
Oconee	1	*	0	*	0	*	4	*	1	*
Orangeburg	0	*	0	*	1	*	1	*	0	*
Pickens	2	*	2	*	1	*	3	*	2	*
Richland	1	*	4	*	2	*	4	*	3	*
Saluda	1	*	0	*	0	*	0	*	0	*
Spartanburg	9	3.4	3	*	3	*	9	3.3	7	2.5
Sumter	0	*	1	*	2	*	0	*	2	*
Union	0	*	0	*	0	*	0	*	1	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	1	*	2	*	0	*	1	*	1	*
Unknown	0		0		0		7		7	
Grand Total	62	1.5	46	1.1	72	1.7	104	2.4	76	1.7

Streptococcus, group A, invasive disease Statewide By Year		
Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	5	0.1
2000	13	0.3
2001	14	0.3
2002	42	1.0
2003	44	1.1
2004	62	1.5
2005	46	1.1
2006	72	1.7
2007	104	2.4
2008	76	1.7

*Incidence rate not calculated for < 5 cases

**Streptococcus, group B, age < 90 days
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	1	*	0	*
Aiken	0	*	1	*	1	*	1	*	2	*
Allendale	0	*	0	*	1	*	0	*	0	*
Anderson	0	*	0	*	0	*	1	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	1	*	0	*	1	*	1	*
Beaufort	1	*	2	*	0	*	2	*	2	*
Berkeley	1	*	1	*	0	*	1	*	4	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	2	*	7	2.1	8	2.3	2	*	7	2.0
Cherokee	0	*	0	*	0	*	1	*	0	*
Chester	0	*	0	*	0	*	0	*	2	*
Chesterfield	0	*	1	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	1	*	2	*	1	*	0	*
Darlington	1	*	1	*	1	*	1	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	2	*	1	*	1	*	1	*	3	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	1	*	0	*	3	*	0	*
Georgetown	1	*	1	*	2	*	1	*	0	*
Greenville	1	*	0	*	1	*	3	*	3	*
Greenwood	0	*	1	*	1	*	1	*	0	*
Hampton	0	*	1	*	0	*	0	*	0	*
Horry	2	*	2	*	2	*	0	*	0	*
Jasper	0	*	1	*	0	*	1	*	0	*
Kershaw	0	*	0	*	1	*	0	*	1	*
Lancaster	0	*	0	*	0	*	0	*	1	*
Laurens	0	*	0	*	1	*	0	*	2	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	3	*	6	2.5	4	*	1	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	1	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	1	*	0	*	0	*
Newberry	1	*	0	*	0	*	0	*	1	*
Oconee	0	*	2	*	2	*	1	*	0	*
Orangeburg	1	*	1	*	1	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	4	*	5	1.5	3	*	4	*	4	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	1	*	0	*	0	*	1	*	1	*
Sumter	1	*	2	*	1	*	0	*	2	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	1	*	0	*	0	*	0	*	1	*
York	0	*	0	*	0	*	0	*	1	*
Unknown	0		0		0		7		8	
Grand Total	21	0.5	36	0.8	36	0.8	39	0.9	47	1.0

Streptococcus, group B, age < 90 days Statewide By Year		
Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	19	0.5
2000	39	1.0
2001	22	0.5
2002	30	0.7
2003	28	0.7
2004	21	0.5
2005	36	0.8
2006	36	0.8
2007	39	0.9
2008	47	1.0

*Incidence rate not calculated for < 5 cases

Tetanus
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	1	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	0	*	1	0.0	0	0.0	0	0.0

Tetanus
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	1	*
2003	0	*
2004	0	*
2005	0	*
2006	1	*
2007	0	*
2008	0	*

*Incidence rate not calculated for < 5 cases

**Toxic-shock syndrome (staphylococcal)
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	1	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	0	*	1	0.0	0	0.0	0	0.0

**Toxic-shock syndrome
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	2	*
2000	0	*
2001	3	*
2002	2	*
2003	0	*
2004	0	*
2005	0	*
2006	1	*
2007	0	*
2008	0	*

*Incidence rate not calculated for < 5 cases

Tuberculosis Cases By County – Ten Year Comparison 1999 – 2008

South Carolina

COUNTY	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	TOTALS
ABBEVILLE	1	0	0	0	1	0	3	1	0	0	6
AIKEN	6	8	9	5	2	6	0	6	7	5	54
ALLENDALE	2	4	4	3	1	2	1	0	2	1	20
ANDERSON	3	3	5	2	2	3	2	4	0	2	26
BAMBERG	1	0	0	2	0	1	1	0	0	1	6
BARNWELL	3	4	0	1	4	0	0	2	1	2	17
BEAUFORT	6	8	12	8	9	10	1	4	2	4	64
BERKELEY	6	4	7	4	12	11	11	9	13	10	87
CALHOUN	2	1	0	1	2	1	1	0	0	0	8
CHARLESTON	18	31	20	20	19	28	30	23	26	19	234
CHEROKEE	7	3	6	8	5	1	5	2	5	1	43
CHESTER	1	1	1	0	2	2	9	8	5	1	30
CHESTERFIELD	6	4	0	1	2	2	2	2	0	2	21
CLARENDON	5	3	2	2	2	3	2	7	1	2	29
COLLETON	5	5	2	6	5	3	3	3	5	3	40
DARLINGTON	13	8	14	12	8	9	23	12	8	9	116
DILLON	7	7	3	6	4	0	0	0	0	1	28
DORCHESTER	4	3	5	3	9	2	3	2	5	2	38
EDGEFIELD	6	0	1	3	1	1	2	1	1	0	16
FAIRFIELD	3	0	0	0	0	0	0	0	2	0	5
FLORENCE	37	21	10	24	17	17	25	11	21	10	193
GEORGETOWN	11	3	7	2	5	1	5	5	2	4	45
GREENVILLE	12	21	12	13	11	11	5	9	15	16	125
GREENWOOD	2	5	5	4	6	5	3	0	1	0	31
HAMPTON	0	0	2	4	1	1	1	1	0	1	11
HORRY	34	21	27	24	25	15	23	24	22	16	231
JASPER	1	4	0	0	1	3	3	1	1	2	16
KERSHAW	3	2	4	2	1	4	0	2	2	2	22
LANCASTER	3	3	3	3	1	4	6	5	3	1	32
LAURENS	5	4	3	1	2	8	1	2	2	1	29
LEE	1	1	2	3	4	2	3	4	0	0	20
LEXINGTON	12	9	9	5	5	6	5	6	5	7	69
MARION	11	11	8	9	14	3	13	5	1	3	78
MARLBORO	1	3	3	2	2	2	1	2	0	2	18
MCCORMICK	0	1	0	2	0	0	0	0	0	0	3
NEWBERRY	3	1	2	1	2	2	3	1	0	0	15
OCONEE	2	2	2	1	0	1	1	1	0	1	11
ORANGEBURG	14	13	12	8	5	5	5	4	8	2	76
PICKENS	0	0	1	1	1	0	0	0	1	2	6
RICHLAND	18	18	16	14	20	19	6	12	22	15	160
SALUDA	1	1	0	4	1	0	2	0	0	0	9
SPARTANBURG	11	15	10	15	11	7	13	12	12	14	120
SUMTER	9	14	5	8	10	2	9	4	4	2	67
UNION	1	3	5	0	1	0	0	0	0	1	11
WILLIAMSBURG	10	3	8	4	3	2	12	6	7	6	61
YORK	8	10	16	15	15	28	17	19	6	15	149
TOTALS	315	286	263	256	254	233	261	222	218	188	2496

2/17/2009

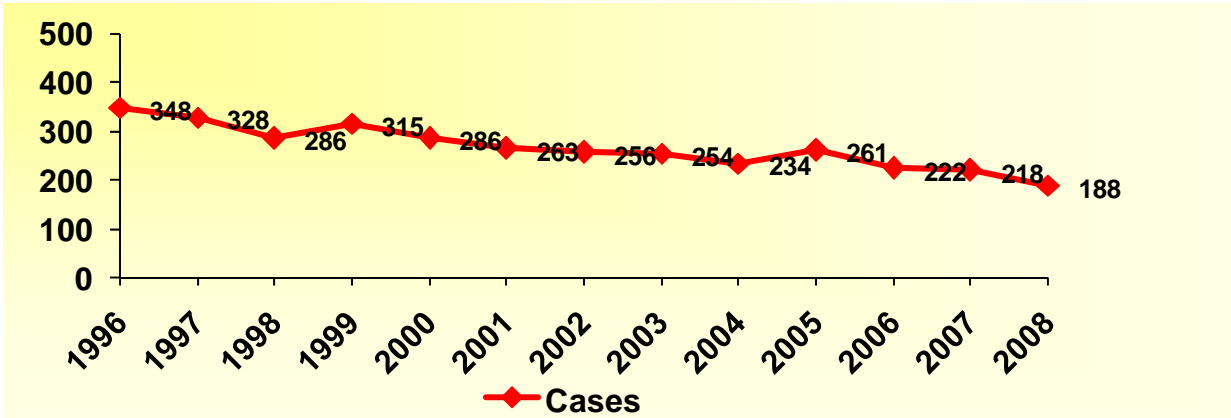
South Carolina

Tuberculosis Cases, Case Rates and US Ranking

1999 - 2008

Year	Total Cases	Case Rate*	US Rank
1999	315	8.1	9th
2000	286	7.1	10th
2001	263	6.5	9th
2002	256	6.2	7th
2003	254	6.1	6th
2004	234	5.6	8th
2005	261	6.2	7th
2006	222	5.2	9th
2007	218	5.0	10th
2008	188	4.3	11th

*Cases per 100,000 population



Tularemia
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	1	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	1	*	0	0.0	0	0.0	0	0.0

Tularemia
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	0	*
2005	1	*
2006	0	*
2007	0	*
2008	0	*

*Incidence rate not calculated for < 5 cases

**Typhoid fever (Salmonella typhi)
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	1	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	1	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	1	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	1	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		2	
Grand Total	0	*	0	*	1	0.0	1	0.0	4	0.1

Typhoid fever (Salmonella typhi) Statewide By Year		
Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	3	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	0	*
2005	0	*
2006	1	*
2007	1	*
2008	4	*

*Incidence rate not calculated for < 5 cases

**Typhus Fever, (endemic fleaborne, Murine)
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	1	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	0	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	1	*	0	*	0	0.0	0	0.0	0	0.0

Typhus Fever Statewide By Year		
Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	1	*
2005	0	*
2006	0	*
2007	0	*
2008	0	*

*Incidence rate not calculated for < 5 cases

Varicella
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	1	*	4	*	4	*	27	106.1	1	*
Aiken	8	5.4	4	*	126	83.9	83	54.5	28	18.2
Allendale	0	*	1	*	0	*	1	*	0	*
Anderson	5	2.9	15	8.6	44	24.9	102	56.7	62	33.9
Bamberg	0	*	0	*	0	*	1	*	1	*
Barnwell	0	*	3	*	6	26.1	1	*	0	*
Beaufort	4	*	24	17.3	15	10.5	17	11.6	14	9.3
Berkeley	40	26.4	22	14.4	21	13.3	28	17.1	38	22.4
Calhoun	0	*	4	*	2	*	1	*	1	*
Charleston	26	7.8	32	9.5	66	19.4	42	12.2	16	4.6
Cherokee	33	61.8	0	*	0	*	5	9.3	1	*
Chester	0	*	1	*	9	27.6	4	*	2	*
Chesterfield	2	*	1	*	1	*	1	*	0	*
Clarendon	2	*	1	*	3	*	8	24.5	23	69.4
Colleton	0	*	0	*	4	*	1	*	1	*
Darlington	3	*	26	38.9	57	85.3	32	47.9	6	9.0
Dillon	6	19.5	5	16.3	24	78.2	5	16.3	0	*
Dorchester	18	17.0	40	35.8	98	83.3	29	23.5	29	22.8
Edgefield	1	*	0	*	0	*	1	*	3	*
Fairfield	1	*	2	*	3	*	1	*	2	*
Florence	26	20.2	24	18.5	111	84.9	50	38.0	36	27.1
Georgetown	2	*	14	23.5	9	15.0	2	*	2	*
Greenville	88	22.0	164	40.4	181	43.5	151	35.3	72	16.4
Greenwood	9	13.4	18	26.6	15	22.1	15	22.0	7	10.2
Hampton	1	*	0	*	0	*	1	*	2	*
Horry	8	3.7	35	15.3	50	20.9	71	28.4	68	26.4
Jasper	4	*	5	23.7	0	*	2	*	0	*
Kershaw	3	*	2	*	8	14.0	1	*	18	30.6
Lancaster	1	*	7	10.0	8	11.2	17	23.1	12	15.8
Laurens	3	*	3	*	8	11.5	1	*	41	58.8
Lee	0	*	0	*	2	*	0	*	3	*
Lexington	58	25.3	61	26.2	77	32.4	101	41.6	133	53.5
Marion	1	*	0	*	8	79.3	5	49.6	3	*
Marlboro	0	*	1	*	1	*	0	*	7	20.7
McCormick	0	*	0	*	1	*	0	*	0	*
Newberry	0	*	1	*	0	*	1	*	6	15.9
Oconee	24	35.0	42	60.7	18	25.8	11	15.6	9	12.6
Orangeburg	6	6.6	6	6.6	6	6.7	8	8.9	10	11.1
Pickens	86	76.1	43	37.9	45	39.3	27	23.4	51	43.6
Richland	13	3.8	23	6.7	39	11.1	77	21.5	46	12.6
Saluda	3	*	6	32.1	4	*	0	*	4	*
Spartanburg	3	*	1	*	28	10.4	5	1.8	10	3.6
Sumter	5	4.8	14	13.4	4	*	4	*	44	42.2
Union	0	*	0	*	0	*	1	*	0	*
Williamsburg	1	*	1	*	7	19.8	0	*	7	19.9
York	62	33.9	74	39.1	115	58.0	168	80.6	33	15.2
Unknown	0		0		0		12		18	
Grand Total	557	13.3	730	17.2	1228	28.4	1121	25.4	870	19.4

*Incidence rate not calculated for < 5 cases

Varicella
Statewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	NR	*
2000	NR	*
2001	NR	*
2002	190	4.6
2003	NR	*
2004	557	13.3
2005	730	17.2
2006	1228	28.4
2007	1121	25.4
2008	870	19.4

**Vibriosis (non-cholera Vibrio species infections)
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	1	*
Beaufort	0	*	0	*	2	*	0	*	1	*
Berkeley	0	*	0	*	1	*	1	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	3	*	2	*	5	1.4
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	1	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	1	*	0	*	0	*
Colleton	1	*	1	*	1	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	2	*	0	*	0	*	1	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	2	*	0	*	0	*	0	*	0	*
Georgetown	0	*	1	*	0	*	0	*	1	*
Greenville	0	*	1	*	0	*	0	*	1	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	3	*	1	*	2	*	2	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	1	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	1	*	0	*	1	*	1	*	0	*
Orangeburg	0	*	0	*	1	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	1	*	0	*	1	*	1	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	1	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		1	
Grand Total	6	0.1	8	0.2	13	0.3	8	0.2	13	0.3

**Vibriosis (non-cholera Vibrio
species infections)
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	6	0.2
2000	2	*
2001	4	*
2002	0	*
2003	5	0.1
2004	6	0.1
2005	8	0.2
2006	13	0.3
2007	8	0.2
2008	13	0.3

*Incidence rate not calculated for < 5 cases

**Encephalitis, West Nile
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	0	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	1	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	1	*	0	*	0	*	0	*
Dillon	0	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	0	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	1	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	1	*	0	*	0	*
Pickens	0	*	0	*	0	*	1	*	0	*
Richland	0	*	2	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	0	*	4	*	1	0.0	2	0.0	0	0.0

**Encephalitis, West Nile
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	1	*
2003	7	0.2
2004	0	*
2005	4	*
2006	1	*
2007	2	*
2008	0	*

*Incidence rate not calculated for < 5 cases

**West Nile Fever
Cases, Rate per 100,000 Population**

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	0	*	0	*	1	*	0	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	0	*	0	*	0	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	0	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	0	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	0	*	0	*	0	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	1	*	0	*	0	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	1	*	0	*	0	*	0	*
Florence	0	*	0	*	0	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	2	*	0	*	0	*	0	*	1	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	0	*	0	*
Jasper	0	*	0	*	0	*	0	*	0	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	0	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	0	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	1	*	0	*
Oconee	0	*	0	*	0	*	0	*	0	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	1	*	0	*	0	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	1	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	0	*	0	*
York	0	*	0	*	0	*	0	*	0	*
Unknown	0		0		0		0		0	
Grand Total	3	*	2	*	0	0.0	2	0.0	2	0.0

**West Nile Fever
Statewide By Year**

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	NR	*
2000	NR	*
2001	NR	*
2002	NR	*
2003	NR	*
2004	3	*
2005	2	*
2006	0	*
2007	2	*
2008	2	*

*Incidence rate not calculated for < 5 cases

Yersiniosis
Cases, Rate per 100,000 Population

	2004		2005		2006		2007		2008	
County	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Abbeville	0	*	0	*	0	*	0	*	0	*
Aiken	0	*	1	*	0	*	1	*	1	*
Allendale	0	*	0	*	0	*	0	*	0	*
Anderson	0	*	1	*	1	*	1	*	0	*
Bamberg	0	*	0	*	0	*	0	*	0	*
Barnwell	0	*	0	*	0	*	1	*	0	*
Beaufort	0	*	0	*	0	*	0	*	0	*
Berkeley	0	*	0	*	0	*	2	*	0	*
Calhoun	0	*	0	*	0	*	0	*	0	*
Charleston	0	*	0	*	3	*	0	*	1	*
Cherokee	0	*	0	*	0	*	0	*	0	*
Chester	0	*	0	*	0	*	0	*	0	*
Chesterfield	0	*	0	*	0	*	0	*	0	*
Clarendon	0	*	0	*	0	*	0	*	0	*
Colleton	0	*	0	*	0	*	0	*	0	*
Darlington	0	*	0	*	0	*	0	*	0	*
Dillon	0	*	0	*	1	*	0	*	0	*
Dorchester	0	*	0	*	0	*	0	*	0	*
Edgefield	0	*	0	*	0	*	0	*	0	*
Fairfield	0	*	0	*	0	*	0	*	0	*
Florence	0	*	0	*	1	*	0	*	0	*
Georgetown	0	*	0	*	0	*	0	*	0	*
Greenville	0	*	0	*	2	*	0	*	0	*
Greenwood	0	*	0	*	0	*	0	*	0	*
Hampton	0	*	0	*	0	*	0	*	0	*
Horry	0	*	0	*	0	*	1	*	0	*
Jasper	0	*	0	*	1	*	0	*	1	*
Kershaw	0	*	0	*	0	*	0	*	0	*
Lancaster	0	*	0	*	0	*	1	*	0	*
Laurens	0	*	0	*	0	*	0	*	0	*
Lee	0	*	0	*	0	*	0	*	0	*
Lexington	0	*	0	*	1	*	0	*	0	*
Marion	0	*	0	*	0	*	0	*	0	*
Marlboro	0	*	0	*	0	*	0	*	0	*
McCormick	0	*	0	*	0	*	0	*	0	*
Newberry	0	*	0	*	0	*	0	*	1	*
Oconee	0	*	0	*	0	*	0	*	1	*
Orangeburg	0	*	0	*	0	*	0	*	0	*
Pickens	0	*	0	*	0	*	0	*	0	*
Richland	0	*	1	*	0	*	1	*	0	*
Saluda	0	*	0	*	0	*	0	*	0	*
Spartanburg	0	*	0	*	0	*	0	*	0	*
Sumter	0	*	0	*	0	*	0	*	0	*
Union	0	*	0	*	0	*	0	*	0	*
Williamsburg	0	*	0	*	0	*	1	*	0	*
York	0	*	0	*	0	*	0	*	1	*
Unknown	0		0		0		0		0	
Grand Total	0	*	3	*	10	0.2	9	0.2	6	0.1

Yersiniosis
Satewide By Year

Cases, Rate per 100,000 Pop.		
Year	Cases	Rate
1999	0	*
2000	0	*
2001	0	*
2002	0	*
2003	0	*
2004	0	*
2005	3	*
2006	10	0.2
2007	9	0.2
2008	6	0.1

APPENDIX

Disease Control Information on the DHEC web site.

The links presented below provide access to a variety of information related to communicable disease control in South Carolina. As this list is not exhaustive, links to other topics of interest may be found by browsing through the DHEC web site.

Web Link	Topic
www.dhec.sc.gov/	DHEC's Home page
www.dhec.sc.gov/administration/atoz.htm	A to Z subject listing
www.dhec.sc.gov/health/	Health Services
www.dhec.sc.gov/health/disease/index.htm	Bureau of Disease Control home page . (Also provides links to current and past issues (in PDF format) of DHEC's EpiNotes, a newsletter which contains updates regarding SC communicable disease issues.)
www.dhec.sc.gov/health/disease/acute/flu.htm	Influenza surveillance
http://www.scdhec.gov/administration/library/CR-009025.pdf	Current (2010) List of reportable conditions
www.dhec.sc.gov/health/disease/exclusion.htm	Child Care and School Exclusion lists of Contagious or communicable diseases.
www.dhec.sc.gov/health/disease/han/notifications.htm	Public Health Notifications
www.dhec.sc.gov/health/disease/immunization/index.htm	Immunization Division
www.dhec.sc.gov/health/disease/stdhiv/index.htm	STD/HIV program
www.dhec.sc.gov/health/disease/tb/index.htm	Tuberculosis Control
www.dhec.sc.gov/health/disease/acute/index.htm	Acute Disease Epidemiology
www.dhec.sc.gov/health/envhlth/	Environmental Health

Other Selected Web Resources

Presented below are selections of useful web sites maintained by government agencies, private foundations, and educational institutions which present quality information relating to infectious diseases of public health importance.

Web site	Organization	Info and Tips
www.cdc.gov	US Centers for Disease Control and Prevention	At the top of the CDC home page, click on "A-Z Index" (or go directly to www.cdc.gov/az.do). This provides access to extensive information on many specific infectious conditions.
http://medlineplus.gov/	National Library of Medicine of the National Institutes of Health	Access to information about 700 medical conditions... and much more.
www.pubmed.gov	National Library of Medicine of the National Institutes of Health	Access to abstracts to most of the world's peer-reviewed medical literature since 1966.
www.who.int	World Health Organization	Clicking on "Health Topics" provides access to alphabetical listing of conditions similar to CDC's A-Z index, but with additional global perspectives.
www.cidrap.umn.edu/	University of Minnesota's Center for Infectious Disease Research and Policy	Good mix of academically sound information and updates on infectious disease news
www.idsociety.org/	Infectious Disease Society of America	An important non-governmental professional organization devoted to infectious disease research, training, and other issues.
www.nfid.org/	National Foundation for Infectious Diseases	A non-profit, organization founded dedicated to educating the public and healthcare professionals about the causes, treatment and prevention of infectious diseases.
www.ashastd.org/	American Social Health Association	Extensive information and links regarding sexually transmitted diseases (STDs)
http://aidsinfo.nih.gov/	Project sponsored by the U.S. Department of Health and Human Services	Extensive up-to-date information about HIV/AIDS Treatment, Prevention, and Research
www.nastad.org/	National Alliance of State and Territorial AIDS directors	An organization which seeks to bridge science policy and public health aspects of AIDS
www.vaccineinformation.org/	Immunization Action Coalition	Information about vaccine preventable diseases for the public and for health professionals
www.nationaltbcenter.edu/	Curry National TB Center in San Francisco	Extensive resources and links regarding Tuberculosis.
www.pandemicflu.gov/	US Dept of Health and Human Services	Avian and pandemic flu information

Contact Information

South Carolina Department of Health and Environmental Control

<http://www.scdhec.gov/>

Bureau of Disease Control

<http://www.scdhec.gov/health/disease/index.htm>

Jerry Gibson, MD, MPH, Director

803-898-0861

Bureau of Disease Control Divisions

Division of Acute Disease Epidemiology

Dana Giurgiutiu, PhD, Director

803-898-0861

Division of Immunization

Susan Smith, MN, RN

803-898-0460

Division of STD/HIV

Dr. Wayne Duffus, Acting Director

803-898-0691

Division of Surveillance and Technical Support

Terri Stephens, MSPH, Director

803-898-0419

Division of Tuberculosis Control

Shea Rabley, RN, MN, Director

803-898-0558

Report Contact Information

Marya Barker, MPH

Division of Acute Disease Epidemiology

803-898-0861

barkerms@dhec.sc.gov

Claire Youngblood, MA

Division of Acute Disease Epidemiology

803-898-0861

youngbhc@dhec.sc.gov

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