Epi Notes
Disease Prevention and Epidemiology Newsletter
South Carolina Department of Health and Environmental Control
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Prevention of Perinatal Hepatitis B Infection

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National guidelines call for the following strategies to eliminate perinatal hepatitis B transmission in the United States:

- Universal screening of pregnant women for hepatitis B surface antigen (HBsAg) during ***each*** pregnancy
- Case management of HBsAg-positive mothers and their infants
- Provision of immunoprophylaxis for infants born to infected mothers, including Hepatitis B vaccine and Hepatitis B immune globulin
- Routine vaccination of all infants with the Hepatitis B vaccine series, with the first dose administered at birth

The CDC recommends that all pregnant women be tested routinely for hepatitis B surface antigen (HBsAg) during each pregnancy, even if they have been previously vaccinated or tested. A woman presenting with symptoms consistent with Acute Hepatitis B infection should be reported to DHEC within 24 hours. Positive test results, along with mother's pregnancy status, should be reported to DHEC within 3 days.

For all pregnant women, a copy of the original laboratory report of HBsAg test results should be transferred from the prenatal care provider to the delivery hospital. Delivery hospitals should implement policies and procedures to ensure identification and initiation of postexposure immunoprophylaxis of infants born to HBsAg-positive mothers.

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In This Issue

Updates to the School and Childcare Exclusion Lists for the 2013-2014 Academic Year

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The School and Childcare Exclusion Lists were revised for the 2013-2014 school year to address disease reporting by schools subject to FERPA, to clarify and streamline exclusions for diarrheal illnesses and skin lesions, and to update exclusion criteria for unvaccinated contacts in varicella outbreaks. Revision to exclusion and readmission criteria were based upon updates in the 2012 *Red Book* (American Academy of Pediatrics).

The Exclusion Lists allow schools, parents, and healthcare providers to collaborate to decrease the spread of illness in schools. It is important for providers to check these lists, or the parent brochures, when giving parents information about their children returning to school after an illness.

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Prevention of Perinatal Hepatitis B Infection

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Management of infants born to women who are known to be HBsAg-positive:

- Administer single antigen Hepatitis B vaccine and Hepatitis B Immune Globulin (HBIG) (0.5 mL) within 12 hours of birth
- Complete the vaccine series according to recommended schedule for infants born to HBsAg-positive mothers (see Tables 3&4 below and on page 3 (*CDC/MMWR numbering of tables*)
- For infants weighing less than 2000 g (~4 pounds, 6 oz) at birth, do not count the birth dose as part of the vaccine series—administer a total of 4 doses of Hepatitis B vaccine.
- Assure a referral to public health for Perinatal Hepatitis B Case Management.
- Conduct post-vaccination serologic testing for anti-HBs and HBsAg after completion of the vaccine series, at age 9-18 months. The CDC provides guidance on evaluation of serologic test results for Hepatitis B: http://www.cdc.gov/hepatitis/HBV/PDFs/SerologicChartv8.pdf. The American Academy of Pediatrics' *Red Book* provides guidance for re-immunization of these high-risk children if they are identified as "non-responders." (2012, pp. 384-385)

Mothers whose Hepatitis B status is unknown should have blood drawn and tested for HBsAg as soon as possible after admission for delivery. The Hepatitis B vaccine series should be initiated within 12 hours of birth. If the mother is found to be HBsAg positive, the infant should receive HBIG as soon as possible, but no later than 7 days of age.

DHEC's Perinatal Hepatitis B Case Management

The DHEC Immunization Division and Perinatal Hepatitis B prevention program provide case management for infants born to HBsAg-positive mothers. Case management is initiated upon receipt of an HBsAg-positive test result in a pregnant woman. Case Managers in each DHEC Region collaborate with prenatal care providers, delivery hospital staff, pediatric care providers, and families to assure that infants receive recommended postexposure prophylaxis and post-vaccination serologic testing. Data regarding Case Management to prevent Perinatal Hepatitis B transmission are entered into the DHEC tracking system. DHEC completes an annual report to the CDC each March regarding completion of recommended follow-up.

For Birth Year 2011, DHEC identified 74 infants born to HBsAg-positive mothers and in need of case management. 36 of the 74 infants had completed case management at the time the annual report was submitted to CDC. Postvaccination serologic testing for all 36

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TABLE 3. Hepatitis B vaccine schedules for newborn infants, by maternal hepatitis B surface antigen (HBsAg) status*

Maternal HBsAg status	Single-antigen vaccine		Single antigen + combination vaccine	
	Dose	Age	Dose	Age
Positive	1†	Birth (≤12 hrs)	1†	Birth (≤12 hrs)
	HBIG§	Birth (≤12 hrs)	HBIG	Birth (≤12 hrs)
	2	1–2 mos	2	2 mos
	3¶	6 mos	3	4 mos
			4¶	6 mos (Pediarix) or 12–15 mos (Comvax)
Unknown**	1†	Birth (≤12 hrs)	1†	Birth (≤12 hrs)
	2	1–2 mos	2	2 mos
	3¶	6 mos	3	4 mos
			4¶	6 mos (Pediarix) or 12–15 mos (Comvax)
Negative	1†,††	Birth (before discharge)	1†,††	Birth (before discharge)
	2	1–2 mos	2	2 mos
	3¶	6–18 mos	3	4 mos
			4¶	6 mos (Pediarix) or 12–15 mos (Comvax)

* See Table 4 for vaccine schedules for preterm infants weighing <2,000 g.
† Recombivax HB or Engerix-B should be used for the birth dose. Comvax and Pediarix cannot be administered at birth or before age 6 weeks.
§ Hepatitis B immune globulin (0.5 mL) administered intramuscularly in a separate site from vaccine.
¶ The final dose in the vaccine series should not be administered before age 24 weeks (164 days).
** Mothers should have blood drawn and tested for HBsAg as soon as possible after admission for delivery; if the mother is found to be HBsAg positive, the infant should receive HBIG as soon as possible but no later than age 7 days.
†† On a case-by-case basis and only in rare circumstances, the first dose may be delayed until after hospital discharge for an infant who weighs ≥2,000 g and whose mother is HBsAg negative, but only if a physician's order to withhold the birth dose and a copy of the mother's original HBsAg-negative laboratory report are documented in the infant's medical record.

(CDC, 2005)

Prevention of Perinatal Hepatitis B Infection

Corrected Table 4:

Hepatitis B Immunization Management of Preterm Infants Weighing <2,000 g, by Maternal Hepatitis B Surface Antigen (HBsAg) Status

Maternal HBsAg status	Recommendation
Positive	• Administer HBIG* + single-antigen hepatitis B vaccine within 12 hrs of birth. • Do not count the birth dose as part of the vaccine series. • Administer 3 additional hepatitis B vaccine doses with - single-antigen vaccine at ages 1, 2–3, and 6 mos, *or* - hepatitis B-containing combination vaccine at ages 2, 4, and 6 mos (Pediarix) or 2, 4, and 12–15 mos (Comvax).† • Test for HBsAg and antibody to HBsAg 1–2 mos after completion of ≥3 doses of a licensed hepatitis B vaccine series (i.e., at age 9–18 mos, generally at the next well-child visit). Testing should not be performed before age 9 mos nor within 4 wks of the most recent vaccine dose.
Unknown	• Administer HBIG + single-antigen hepatitis B vaccine within 12 hrs of birth. • Test mother for HBsAg. • Do not count the birth dose as part of the vaccine series. • Administer 3 additional hepatitis B vaccine doses with - single-antigen vaccine at ages 1, 2–3, and 6 mos, *or* - hepatitis B-containing combination vaccine at ages 2, 4, and 6 mos (Pediarix) or 2, 4, and 12–15 mos (Comvax).†
Negative	• Delay first dose of hepatitis B vaccine until age 1 mo or hospital discharge. • Complete the hepatitis B vaccine series with - single-antigen vaccine at ages 2 mos and 6–18 mos, *or* - hepatitis B-containing combination vaccine at ages 2, 4, and 6 mos (Pediarix) or 2, 4, and 12–15 mos (Comvax).†

* Hepatitis B immune globulin.

† The final dose in the vaccine series should not be administered before age 24 weeks (164 days).

(CDC, 2007)

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infants indicated immunity. Seven infants were lost to case management follow-up and the remaining 31 infants remained open to case management. These numbers are comparable to data from 2007-2010.

Hepatitis B Birth Dose Rates in South Carolina

DHEC conducted a medical record abstraction in 45 birthing hospitals in South Carolina during 2012. A total of 2058 records (mother-baby pairs) were assessed from a sampling frame of CY 2011 birth records. The Birth Dose rate for hepatitis B vaccine (administered before hospital discharge) was 90.2% (range among hospitals was 71% and 100%).

Resources

DHEC has developed Fact Sheets on Hepatitis B that may prove informative for your patients:

- "Protect Your Baby for Life" has general information on prevention of hepatitis B, including prenatal testing and infant immunization: http://www.scdhec.gov/administration/library/CR-010083.pdf (2 pages)
- "Protect Your Baby for Life: When a Pregnant Woman has Hepatitis B" includes health messages about prevention of the spread of Hepatitis B in the home: http://www.scdhec.gov/administration/library/CR-010084.pdf (2 pages)

The CDC has fact sheets in multiple languages, as well as information for health professionals and maternity hospitals available at this page: http://www.cdc.gov/hepatitis/HBV/PerinatalXmtn.htm

Contact DHEC's perinatal Hepatitis Prevention program at 803-898-0712, or email questions to rhamele@dhec.sc.gov

Bibliography

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Centers for Disease Control and Prevention. (2005, December 23). A comprehensive immunization strategy to eliminate transmission of hepatitis B virus in the United State: Recommendations of the Advisory Committee on Immunization Practices (ACIP. Part 1: Immunization of infants, children, and adolescents. *Morbidity and Mortality Weekly Report, 54*(RR-16), pp. 1-32. Retrieved from http://www.cdc.gov/mmwr/PDF/rr/rr5416.pdf

Centers for Disease Control and Prevention. (2007, December 7). *Corrected Table 4: Hepatitis B Immunization Management of Preterm Infants Weighing <2,000 g, by Maternal Hepatitis B Surface Antigen (HBsAg) Status .* Retrieved August 5, 2013, from Hepatitis B Information for Health Professionals: Perinatal Transmission: http://www.cdc.gov/HEPATITIS/HBV/PDFs/CorrectedTable4.pdf

Centers for Disease Control and Prevention. (2012, September 11). *Hepatitis B information for health professionals: Perinatal transmission.* Retrieved August 5, 2013, from http://www.cdc.gov/hepatitis/HBV/PerinatalXmtn.htm

Centers for Disease Control and Prevention. (2012, February 1). *Hepatitis B Information for Health Professionals: Vaccination of Infants, Children, and Adolescents.* Retrieved August 1, 2013, from http://www.cdc.gov/hepatitis/HBv/vaccChildren.htm

SC Department of Health and Environmental Control. (n.d.). *Perinatal Hepatitis B Prevention.* Retrieved August 5, 2013, from http://www.scdhec.gov/health/disease/immunization/perinatal_hepB_prev.htm

New Contact Numbers for Disease Reporting

In 2013, DHEC's Public Health services were reorganized into four public health regions: Low Country, Midlands, Pee Dee, and Upstate. Reports for notifiable diseases, outbreaks, or other epidemiology questions for DHEC's outbreak Response Teams should be directed to the numbers below.

LOW COUNTRY PUBLIC HEALTH REGION

Berkeley, Charleston, Dorchester
4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 953-0043
Fax: (843) 953-0051
Nights / Weekends: (843) 441-1091

Beaufort, Colleton, Hampton, Jasper
219 S. Lemacks Street
Walterboro, SC 29488
Phone: (843) 549-1516
Fax: (843) 549-6845
Nights / Weekends: (843) 441-1091

Allendale, Bamberg, Calhoun, Orangeburg
PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 268-5866
Fax: (843) 549-6845
Nights / Weekends: (843) 441-1091

MIDLANDS PUBLIC HEALTH REGION

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

Chester, Fairfield, Lancaster, York
PO Box 817
1833 Pageland Highway
Lancaster, SC 29720
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: (888) 554-9915

Aiken, Barnwell, Edgefield, Saluda
222 Beaufort Street, NE
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: (888) 554-9915

PEE DEE PUBLIC HEALTH REGION

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion
145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 915-8845

Clarendon, Lee, Sumter
PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 775-9941
Nights/Weekends: (843) 915-8845

Georgetown, Horry, Williamsburg
1931 Industrial Park Road
Conway, SC 29526-5482
Phone: (843) 915-8804
Fax: (843) 365-0085
Nights/Weekends: (843) 915-8845

UPSTATE PUBLIC HEALTH REGION

Anderson, Oconee
220 McGee Road
Anderson, SC 29625
Phone: (864) 260-5801
Fax: (864) 260-5623
Nights / Weekends: (866) 298-4442

Abbeville, Greenwood, Laurens, McCormick
1736 S. Main Street
Greenwood, SC 29646
Phone: (864) 227-5947
Fax: (864) 942-3690
Nights / Weekends: (866) 298-4442

Cherokee , Greenville, Pickens, Spartanburg, Union
PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 372-3133
Fax: (864) 282-4373
Nights / Weekends: (866) 298-4442

DHEC BUREAU OF DISEASE CONTROL / Division of Acute Disease Epidemiology

1751 Calhoun Street
Box 101106
Columbia, SC 29211

Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902

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South Carolina Department of Health and Environmental Control

Contact Information for Animal Bite Reports / Medical Consultation for Animal Bites

During working hours, animal bite reports should be made to the DHEC Environmental Health Services offices. Requests for medical consultations should be directed to the DHEC medical consultants. After working hours, the statewide toll-free answering service is available to appropriately direct calls for bite reports or medical consultations.

The contact numbers for the Bureau of Environmental Health Services offices and the Medical Consultants are provided below for each county during regular working hours and after hours. Please call for assistance in the county where the animal bite occurs.

During Business Hours

County of Occurrence	Animal Bite Reports		Medical Consultation for Rabies PEP	County of Occurrence	Animal Bite Reports		Medical Consultation for Rabies PEP
	Phone	Fax			Phone	Fax	
ABBEVILLE	864-227-5915	864-942-3680	864-372-3269	GREENWOOD	864-227-5915	864-942-3680	864-372-3269
AIKEN	803-642-1637	803-643-4027	803-576-2900	HAMPTON	843-846-1030	843-846-0604	843-953-0038
ALLENDALE	803-642-1637	803-643-4027	843-953-0038	HORRY	843-915-8801	843-365-0099	843-661-4830
ANDERSON	864-260-5585	864-222-3923	864-372-3269	JASPER	843-846-1030	843-846-0604	843-953-0038
BAMBERG	803-533-5490	803-268-5784	843-953-0038	KERSHAW	803-778-6548	803-934-2938	803-576-2900
BARNWELL	803-642-1637	803-643-4027	803-576-2900	LANCASTER	803-285-7461	803-285-5594	803-576-2900
BEAUFORT	843-846-1030	843-846-0604	843-953-0038	LAURENS	864-227-5915	864-942-3680	864-372-3269
BERKELEY	843-202-7020	843-202-7050	843-953-0038	LEE	803-778-6548	803-934-2938	843-661-4830
CALHOUN	803-533-5490	803-268-5784	843-953-0038	LEXINGTON	803-896-0620	803-896-0617	803-576-2900
CHARLESTON	843-202-7020	843-202-7050	843-953-0038	MARION	843-661-4825	843-661-4858	843-661-4830
CHEROKEE	864-596-3327	864-596-3920	864-372-3269	MARLBORO	843-661-4825	843-661-4858	843-661-4830
CHESTER	803-285-7461	803-285-5594	803-576-2900	MCCORMICK	864-227-5915	864-942-3680	864-372-3269
CHESTERFIELD	843-661-4825	843-661-4858	843-661-4830	NEWBERRY	803-896-0620	803-896-0617	803-576-2900
CLARENDON	803-778-6548	803-934-2938	843-661-4830	OCONEE	864-638-4185	864-638-4186	864-372-3269
COLLETON	843-846-1030	843-846-0604	843-953-0038	ORANGEBURG	803-533-5490	803-268-5784	843-953-0038
DARLINGTON	843-661-4825	843-661-4858	843-661-4830	PICKENS	864-372-3273	864-282-4371	864-372-3269
DILLON	843-661-4825	843-661-4858	843-661-4830	RICHLAND	803-896-0620	803-896-0617	803-576-2900
DORCHESTER	843-202-7020	843-202-7050	843-953-0038	SALUDA	864-227-5915	864-942-3680	803-576-2900
EDGEFIELD	803-642-1637	803-643-4027	803-576-2900	SPARTANBURG	864-596-3327	864-596-3920	864-372-3269
FAIRFIELD	803-896-0620	803-896-0617	803-576-2900	SUMTER	803-778-6548	803-934-2938	843-661-4830
FLORENCE	843-661-4825	843-661-4858	843-661-4830	UNION	864-596-3327	864-596-3920	864-372-3269
GEORGETOWN	843-915-8801	843-365-0099	843-661-4830	WILLIAMSBURG	843-915-8801	843-365-0099	843-661-4830
GREENVILLE	864-372-3273	864-282-4371	864-372-3269	YORK	803-285-7461	803-285-5594	803-576-2900

Nights/Weekends/Holidays

All after-hours/nights/weekends/holiday bite reports or requests for medical consultation should be called to 1-888-847-0902.

Updates to the School and Childcare Exclusion Lists for the 2012-2013 Academic Year

(Continued from page 1)

Updated sections of the lists are summarized below. Please see the full text of the School and Childcare Exclusion Lists for official agency recommendations: http://www.scdhec.gov/health/disease/exclusion.htm.

Updates and clarifications for the current academic year include:

- **Diarrheal Illnesses**
  - The exclusion period for most diarrheal illnesses (e.g., *Campylobacter*, *Giardia*, non-Typhoid *Salmonella*, Rotavirus, and Norovirus, and *Shigella*) will now last "until symptoms have resolved for at least 24 hours."
  - The parent brochure informs families that "Your child can return with a Parent Note when the diarrhea has stopped for at least 24 hours."
  - *E. coli* O157:H7 and *Salmonella* Typhi may still require labs to re-enter school, especially for children for whom the Childcare Exclusion List applies.
    - *E. coli* O157:H7 or other shiga-toxin producing bacteria

      Children are excluded from school or childcare until diarrhea resolves and 2 consecutive stool specimens collected at least 24 hours apart test negative for *E. coli* O157:H7 or STEC.
    - *Salmonella* Typhi

      Children 5 years of age and younger are excluded until diarrhea resolves for at least 24 hours and three stool cultures are negative for *Salmonella* Typhi.

      Children and adolescents over 5 years of age are excluded until at least 24 hours without a diarrheal stool.

      Healthcare providers must clear students with diagnosed *Salmonella* Typhi for re-admission to school or childcare.
  - It is well-documented that some children continue to have diarrheal symptoms even after they have received appropriate antibiotics for a bacterial gastrointestinal infection. These students may return to school or childcare when cleared by their healthcare provider.
- **Skin Lesions (Staphylococcal and Streptococcal skin and soft tissue Infections, MRSA, Herpes Gladiatorum, etc.)**
  - According to the American Academy of Pediatrics, most students with these conditions are not contagious except through direct contact with draining lesions.
  - The Exclusion Lists now direct schools and childcare providers to "Exclude only if skin lesions are draining and cannot be covered with a watertight dressing."
  - Sports governing bodies may impose stricter conditions for participation on student athletes who have skin lesions. Schools may also opt to hold students with covered skin lesions out of physical education activities where close contact is expected until the student's condition is resolved.
- **Other Skin Infections and Infestations (Bed bug bites, Head lice, Ringworm of the scalp or body)**
  - **Children with bedbug bites are not excluded**. Management of bedbug infestations is outside of the purview of DHEC. Schools identifying bedbug infestation in classrooms, or observing students with bedbugs should implement their integrated pest management plans. The Environmental Protection Agency (EPA) has developed good resources for families and schools to consult with their questions on bedbug management: http://www.epa.gov/bedbugs/.
  - Updates to the **head lice** exclusion criteria made in 2012-2013 still apply. These updates include:
    - Exclude students with Head Lice (pediculosis), defined as
      - the presence of live, crawling lice visualized on direct inspection of the scalp, and/or
      - the presence of nits (eggs) that appear to be ¼ inch or 6 mm from the scalp.
    - School-age students identified with pediculosis may be allowed to remain in the classroom until the end of the school day,

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Updates to the School and Childcare Exclusion Lists for the 2012-2013 Academic Year

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with limitations placed upon activities that cause head-to-head contact.

- ♦ Childcare centers may opt to exclude children immediately if close head-to-head contact cannot be avoided in the classroom/center setting.
- ♦ Excluded students may return when two criteria are met:
  1. The child must have received one initial treatment with an over-the-counter or prescription chemical product (shampoo, lotion, oral medication) identified in literature as having pediculicidal activity, or one initial treatment with a mechanical lice removal or pediculicidal method, or, if allowed by the school, one initial treatment with an herbal or botanical product advertised or identified in literature as having pediculicidal properties.
  2. When screening identifies no active live crawling lice on the child's scalp.
- ♦ Rescreening is advised at 7-10 days after initial treatment. At that time, students with live crawling lice are excluded until after a second treatment.
- ♦ Re-treatment is indicated for nearly all OTC and prescription pediculicidal products.

- ○ Ringworm of scalp requires initiation of treatment for a child to return to school. This means at least one dose of oral anti-fungal medicine designed for *Tinea capitis* (e.g., Griseofulvin, Terbinafine hydrochloride). Application of an antifungal cream to the scalp may decrease infectivity, but does not clear *Tinea capitis*.

- ▪ **Update to Exclusion of Unvaccinated Children or Students exposed to cases/outbreaks of certain vaccine-preventable diseases: Measles, Mumps, Rubella, Varicella**
  - ○ Unvaccinated students may return immediately after receipt of vaccine.
  - ○ Post-exposure immunization might not prevent all cases of mumps and rubella in contacts to cases in this outbreak, but it can prevent subsequent outbreaks.
- ▪ **Exclusion of Unvaccinated Contacts to Chicken Pox cases during a Varicella Outbreak**
  - ○ In an outbreak, schools and out-of-home childcare providers will exclude unvaccinated students from the start of outbreak (or when it is recognized) to Day 21 after onset of rash in last case of varicella in the school or childcare center.
  - ○ An outbreak is defined as five or more cases occurring within 6 weeks (two incubation periods) in a common school, facility, etc.
  - ○ These cases do not have to be in the same grade or classroom.

Print and Web Versions

DHEC has posted full versions of the Exclusion Lists for schools and healthcare providers. Parent Versions are available as printable brochures or as text accessible from any device that can access the web.

Type Exclusion into the search box at www.scdhec.gov or bookmark www.scdhec.gov/health/disease/exclusion.htm

References:

American Academy of Pediatrics. (2013). *Managing Infectious Diseases in Child Care and Schools: A Quick Reference Guide* (3rd ed.). (S. S. Aronson, & T. R. Shope, Eds.) Elk Grove Village, IL: American Academy of Pediatrics.

American Academy of Pediatrics. (2012). *Red Book: 2012 Report of the Committee on Infectious Diseases* (29th ed.). (L. K. Pickering, C. J. Baker, D. W. Kimberlin, & S. S. Long, Eds.) Elk Grove Village, IL: American Academy of Pediatrics.

Health Alert Network

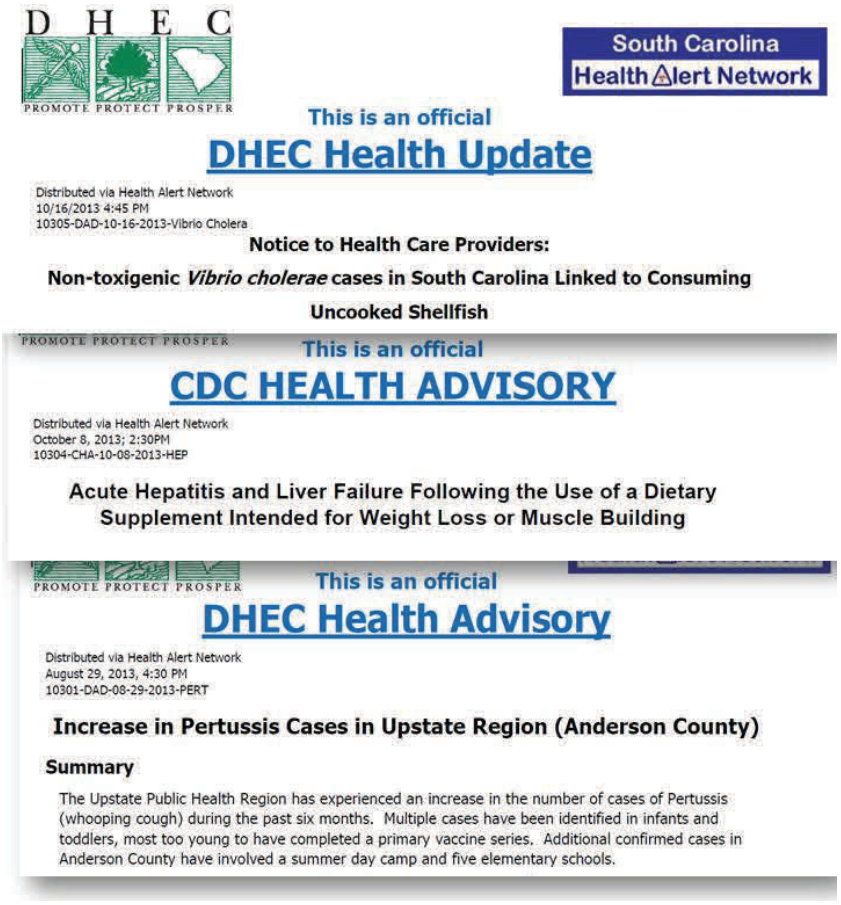
DHEC uses the Health Alert Network (HAN) to notify healthcare providers of outbreaks, clusters and other events of public health significance. SC DHEC also uses the Health Alert Network to distribute health advisories and updates from the CDC.

Through November 30, this notification system has been used 33 times in 2013

- **13 DHEC Health Advisories:** These provided heightened situational awareness to providers on several major outbreaks, including TB outbreaks in the Upstate and Coastal/Pee Dee areas of the state, Pertussis outbreaks in the Upstate; Hepatitis B cases associated with healthcare, significant outbreaks in neighboring state with possible impact on SC providers (Hepatitis B and measles), and other time-sensitive information on risks of infection or drug shortages. The HAN was also used to alert providers to new contact numbers for DHEC's Regional Outbreak Response Teams.
- **2 DHEC Health Updates:** One on toxigenic Vibrio cholerae linked to uncooked shellfish, and a primer on influenza surveillance for the 2013-2014 flu season.
- **14 CDC Health Advisories/HAN Info Service Bulletins:** These were distributed to update providers on topics including treatment of free-living ameba infections, medication shortages and recalls, guidelines for responses to emerging infections (variant H3N2, MERS-CoV, H7N9, carbapenem-resistant enterobacteriaceae).
- **4 CDC Health Updates:** These addressed fungal infections associate with contaminated steroid injections, shortages of TB skin test antigen; acute hepatitis and liver disease following use of weight-loss supplements, and Serogroup B meningitis associated with university-based outbreaks.

There are three categories of Health Alert messages:

- **Health Alert:** Conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory:** Provides important information for a specific incident or situation; may not require immediate action.


D H E C
PROMOTE PROTECT PROSPER
South Carolina Health Alert Network
This is an official
DHEC Health Update
Distributed via Health Alert Network
10/16/2013 4:45 PM
10305-DAD-10-16-2013-Vibrio Cholera
Notice to Health Care Providers:
Non-toxigenic *Vibrio cholerae* cases in South Carolina Linked to Consuming Uncooked Shellfish
PROMOTE PROTECT PROSPER
This is an official
CDC HEALTH ADVISORY
Distributed via Health Alert Network
October 8, 2013; 2:30PM
10304-CHA-10-08-2013-HEP
Acute Hepatitis and Liver Failure Following the Use of a Dietary Supplement Intended for Weight Loss or Muscle Building
PROMOTE PROTECT PROSPER
This is an official
DHEC Health Advisory
Distributed via Health Alert Network
August 29, 2013, 4:30 PM
10301-DAD-08-29-2013-PERT
Increase in Pertussis Cases in Upstate Region (Anderson County)
Summary
The Upstate Public Health Region has experienced an increase in the number of cases of Pertussis (whooping cough) during the past six months. Multiple cases have been identified in infants and toddlers, most too young to have completed a primary vaccine series. Additional confirmed cases in Anderson County have involved a summer day camp and five elementary schools.

- **Health Update:** Provides updated information regarding an incident or situation; unlikely to require immediate action.

The Health Alert Network is always accessible from the "Home page" of the DHEC website (as a featured item in the "In the News" box), by typing "HAN" into the search box at the top of any page on the DHEC website, or by navigating to http://www.scdhec.gov/health/disease/han/

If you are a health professional interested in receiving health notifications from the South Carolina Health Alert Network, please contact Shana Dorsey, HAN Coordinator, by phone at 803-898-0431 or email SCHAN@dhec.sc.gov.

Outbreaks by the Numbers

In calendar year 2013, through November 1, DHEC's 4 Regional Outbreak Response Teams and the Division of Acute Disease Epidemiology had investigated 161 outbreaks of disease and/or single cases of illnesses of public health significance.

Outbreaks by Conditions:

Data are preliminary, but trends so far show these as the **top conditions by numbers of outbreaks investigated** *(see Chart 1).*

- Norovirus GII
- Unknown Enteric
- Seasonal Influenza
- Scabies
- Salmonellosis
- Pertussis
- Unknown Respiratory
- Norovirus GII
- Varicella, Norovirus (not otherwise specified)
- Cryptosporidiosis
- Hand, Foot, and Mouth Disease

Including mixed outbreaks and conditions that include an enteric/foodborne/or other fecal oral mechanisms of spread, **enteric illnesses accounted for over 60% of outbreaks investigated through November 1, 2013**.

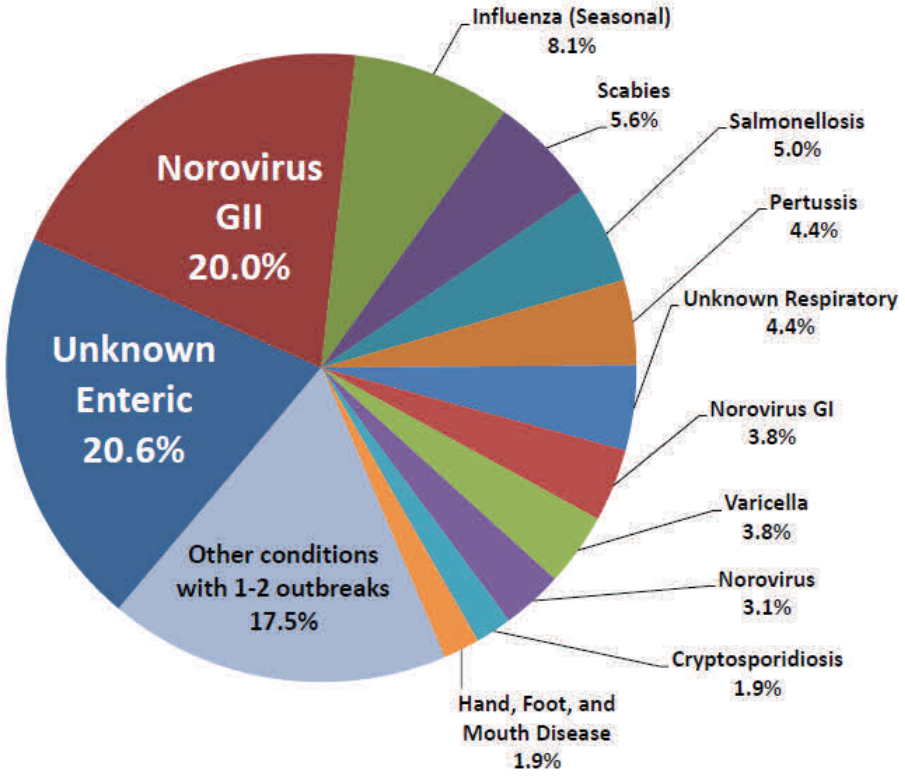


Chart 1: Communicable Disease Outbreaks Investigated by DHEC in CY 2013, through 11-1-2013, by Agent Identified.

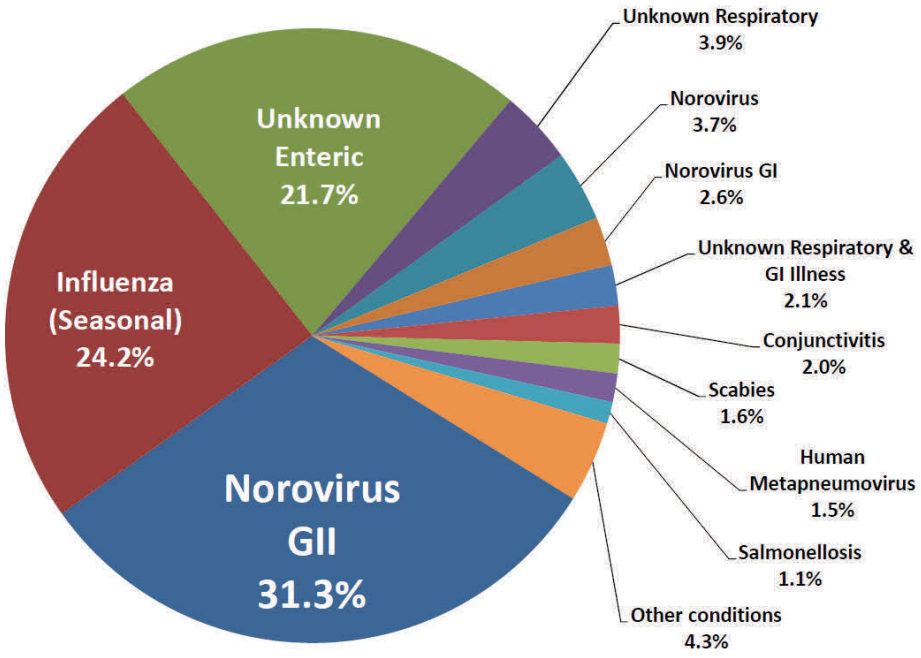


Chart 2. Communicable Disease Outbreaks Investigated by SC DHEC in 2012, through 11-1-2013, by Numbers of Persons Affected.

Outbreaks by Numbers of Persons Affected *(see Chart 2)*:

While final numbers of persons affected are still pending for some on-going outbreak investigations, enteric illnesses, followed by respiratory illnesses, especially seasonal influenza, lead as causes of illnesses among persons associated with outbreaks in 2013.

63% of persons associated with outbreaks investigated by DHEC between January 1 and November 1, 2013 experienced enteric illnesses; 34% had illnesses with respiratory symptoms or spread by respiratory droplets. Some of these were outbreaks with mixed symptoms.

Summary of Conditions reported to DHEC January 1 through October 15, 2013

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

Condition ¶	Confirmed#	Probable
Animal Bite - Bat (PEP Initiated) ©	4	
Animal Bite - Cat (PEP Initiated) ©	6	
Animal Bite - Dog (PEP Initiated) ©	25	
Animal Bite - Raccoon (PEP Initiated) ©	7	
Aseptic meningitis	108	*
Babesiosis	1	0
Brucellosis	0	1
Campylobacteriosis	286	3
Cryptosporidiosis	46	31
Dengue Fever	2	7
Ehrlichiosis, chaffeensis	2	4
Giardiasis	105	0
Group A Streptococcus, invasive	70	0
Group B Streptococcus, invasive	33	0
Haemophilus influenzae, invasive	83	0
Hepatitis A, acute	11	0
Hepatitis B virus infection, Chronic	51	310
Hepatitis B, acute	45	0
Hepatitis C Virus Infection, past or present	2,868	*
Hepatitis Delta co- or super-infection, acute	1	0
Influenza, human isolates	629	0
Legionellosis	18	0
Listeriosis	10	0
Lyme disease	20	5
Malaria	8	0
Mumps	0	2

Summary of Conditions reported to DHEC January 1 through October 15, 2013

Condition	Confirmed	Probable
Neisseria meningitidis, invasive (Mening. disease)	2	0
Pertussis	100	79
Q fever, Acute	0	1
Salmonellosis	909	1
Shiga toxin-producing Escherichia coli (STEC)	7	0
Shigellosis	94	*
Spotted Fever Rickettsiosis	1	39
Strep pneumoniae, invasive	342	0
Streptococcal toxic-shock syndrome	4	0
Toxic-shock syndrome,staphylococcal	*	0
Tuberculosis	84	0
Typhus fever-fleaborne, murine	0	*
Varicella (Chickenpox)	58	88
Vibrio parahaemolyticus	5	0
Vibrio spp., non-toxigenic, other or unspecified	7	0
Vibrio vulnificus infection	*	0
West Nile Fever	*	*
Yersiniosis	4	0

¶ To save space, reportable conditions with no cases reported are not included in this list.

‡ Not all conditions on this list have an "official" probable or confirmed status defined. Case status indicated on these pages is based upon what is reported in the Carolina's Health Electronic Surveillance System.

* To avoid identifying specific patients, cell values greater than 0, but less than 4 are suppressed.

© Animal Bites, PEP (Post-exposure prophylaxis) Initiated are submitted as morbidity reports. These do not have a "confirmed" or "probable" case status defined. All animal bites for which PEP was recommended = 44 through October 15. In addition to those categories enumerated above, this number also included bites from an opossum and one unidentified animal species.

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Data are preliminary, and include only those reports for which a final case status has been assigned. Conditions with no reported cases may have no reports, or may be the subject of on-going investigations. Most recent ,complete, full-year data are available from the DHEC Annual Report on Reportable Conditions: http://www.scdhec.gov/health/disease/docs/Annual_Report_on_Reportable_Conditions.pdf. Questions may be directed to the Surveillance Section of the DHEC Bureau of Disease Control's Division of Acute Disease Epidemiology.
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Bureau of Disease Control
Division of Acute Disease Epidemiology

DISEASE REPORTING

For immediately and urgently reportable conditions, call your local county health department. After hours, weekends or holidays, call 1-888-847-0902. Routine reports may be phoned in to your regional health department or mailed on a completed DHEC DISEASE REPORTING CARD (DHEC 1129.) Health department numbers are listed on the Official List of Reportable Conditions.

For a copy of the current Official List of Reportable Conditions, call 803-898-0861 or visit www.scdhec.gov/health/disease/reportables.htm

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Flu Watch

Flu season has arrived. Be sure to check DHEC's weekly Flu Watch for updates on influenza activity in South Carolina.

- Click the graphic to the left,
- Click "Flu in SC" from DHEC's home page, or
- Bookmark DHEC's 2013-2014 Flu in South Carolina page in your browser: www.scdhec.gov/flu/flu-activity-surveillance.htm

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