



Georgia Tick-borne Disease Surveillance

Announcement of Tick Attach Study

The Georgia Department of Human Resources, Division of Public Health has partnered with the University of Georgia and the Georgia Poison Center to conduct a tick attach study. The study will help identify areas in Georgia where the chances of getting sick from a tick bite are the greatest. **Enrollees must have had a tick attached to them (i.e. mouth parts inserted into the skin) and that tick must be available for identification and testing.** The study is open to all Georgia residents with or without symptoms of tick-borne disease. Residents may enroll on their own without their physician's assistance.

To enroll a patient, save the tick in a small amount of rubbing alcohol and call the Georgia Poison Center (404-616-9000 or 800-222-1222) 24 hours a day, 7 days a week. The Georgia Poison Center will provide instructions for how to mail the tick for testing. The University of Georgia will test the tick for the bacteria that cause tick-borne diseases like Rocky Mountain spotted fever, ehrlichiosis, Lyme disease, southern tick-associated rash illness (STARI), and tularemia, depending on the species of tick. **Results of tick testing will not be available in time to guide diagnosis should an enrollee develop symptoms of tick-borne disease.** Suspected cases of tick-borne disease should be treated empirically, appropriate laboratory tests should be ordered, and cases should be reported promptly to public health whether or not they are enrolled in the Tick Attach Study.

Three weeks after the patient has enrolled through the Georgia Poison Center, an expert in tick illness from the Georgia Division of Public Health will call the enrollee to ask some questions about exposures to tick habitats and any symptoms of tick-borne disease. The enrollee will get the results of the tick testing when it is done. The only cost is the cost of mailing the tick. The Tick Attach Study began in April 2005 and will continue through fall 2006.

Tick-borne Disease Surveillance Highlights for 2005

Rocky Mountain spotted fever (RMSF) was the most commonly reported tick-borne disease in Georgia for the eleventh straight year. Although fewer in number, cases of human monocytic ehrlichiosis (HME), human granulocytic anaplasmosis (HGA), and Lyme disease were also reported.

There were 23 confirmed and 63 probable RMSF cases reported to the Georgia Department of Human Resources, Division of Public Health (GDPH) in 2005. All cases met laboratory and/or clinical criteria, as required by the CDC case definition (Figure 1).

Of the 86 cases of confirmed and probable RMSF in Georgia in 2005, 47 (55%) were male, and the median age was 46 (range 4-92). Of the 72 cases where both race and ethnicity were known, 66 (92%) were non-Hispanic whites. One case, a 9-year-old from northwest Georgia, was fatal. Ninety-two percent of cases had onsets during April-September, with numbers peaking during the second week of June (Figure 2).

Figure 1.

Surveillance Case Definitions and Laboratory Criteria—RMSF

A **confirmed** case of Rocky Mountain spotted fever (RMSF) is defined as a **clinically compatible case that is laboratory confirmed** using the following criteria:

- Serological evidence of a significant change in serum antibody titer reactive with *Rickettsia rickettsii* antigen between paired acute- and convalescent-phase specimens ideally taken 3 weeks apart, or
- Positive polymerase chain reaction assay to *R. rickettsii*, or
- Demonstration of positive immunofluorescence of skin lesion (biopsy) or organ tissue (autopsy), or
- Isolation of *R. rickettsii* from a clinical specimen

A **probable** case is a **clinically compatible case with a single serum sample at a titer considered indicative of current or past infection** (cutoff titers are determined by individual laboratories).

Number of Rocky Mountain Spotted Fever Cases by Week, Georgia, 2005

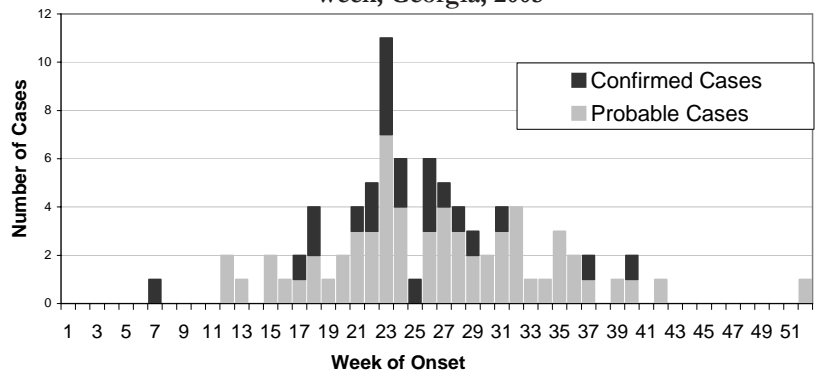


Figure 2. Although RMSF can be acquired any time of the year, most cases have onsets during warmer months due to increased activity of hosts and tick vectors.

The incidence of Rocky Mountain spotted fever cases continued to increase during 2005, following a 3-year trend (Figure 3). Changes in the number of cases from year to year may reflect changes in surveillance and/or changes in environmental factors that affect tick abundance. The incidence of RMSF in Georgia is generally much higher than the national incidence, but pattern of highs and lows are generally comparable.

Incidence of Rocky Mountain Spotted Fever in Georgia, 1987 - 2005

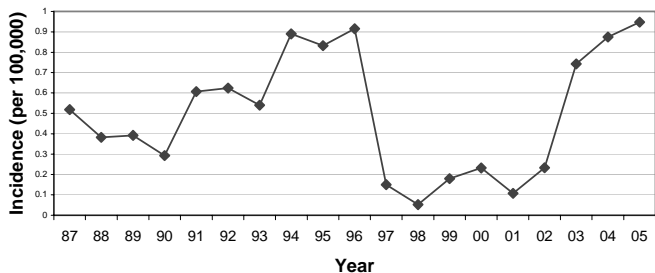


Figure 3. Incidence of RMSF continued to increase in 2005.

Counties with the most confirmed cases of RMSF were Gordon and Polk, each reporting three. The Northwest Georgia Health District (Rome) had more confirmed cases (nine) than any other Health District. It is likely that increased testing in the northwest corner of the state was the result of increased awareness associated with the highly publicized RMSF death in that area. Other Health Districts with significant RMSF activity during 2005 were LaGrange (serving Butts, Carroll, Coweta, Fayette, Heard, Henry, Lamar, Meriwether, Pike, Spalding, Troup, and Upson counties), Lawrenceville (serving Gwinnett, Newton, and Rockdale counties), and Macon (serving Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, and Wilkinson counties). Eighty-three percent of cases resided north of the Piedmont Fall Line (the dividing line between the Piedmont and the Coastal Plain stretching across the state roughly from Columbus to Macon to Augusta). See Figure 4.

Other tick-borne diseases reported to GDPH during 2005 included human monocytic ehrlichiosis (HME), human granulocytic anaplasmosis (HGA), and Lyme disease. Enhanced passive surveillance for ehrlichiosis detected two confirmed and six probable cases of HME, two probable cases of HGA, and one confirmed case of human illness caused by another species of *Ehrlichia*. All HME cases occurred during the summer (June through the first week in September), while the HGA cases occurred during the fall (September and the first week in November). All ehrlichiosis cases except for two HME cases resided north of the Piedmont Fall Line. It is unclear whether this phenomenon represents the distribution of the tick vectors, lack of access to health care, or less diagnostic testing (and perhaps less case identification) south of the Fall Line. There were six cases of Lyme disease that fit the CDC surveillance case definition reported to GDPH during 2005. Three cases had recent tick exposure outside of Georgia and likely acquired their infections out of state.

How to Report to Public Health

To report a case of tick-borne illness electronically, log on to Georgia’s State Electronic Notifiable Disease Surveillance System (SENDSS) at <http://sendss.state.ga.us>. Enhanced screens for tick-borne diseases now collect complete information needed for

Incidence of Rocky Mountain Spotted Fever by County of Residence, 2005

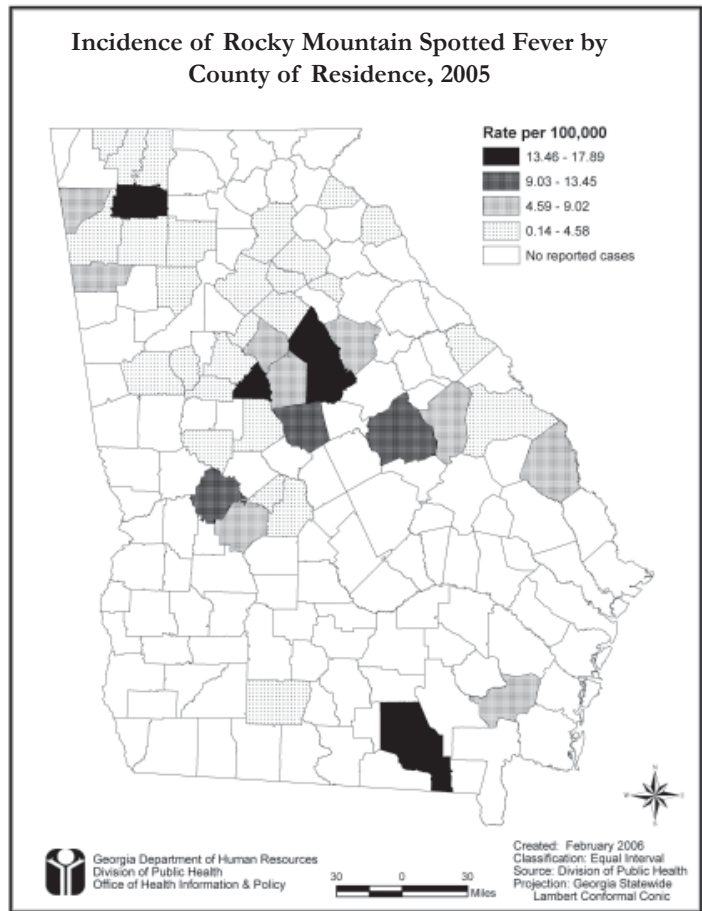


Figure 4. Counties in the top three categories have greater incidences of RMSF than the national average.

case confirmation. Alternatively, complete a Notifiable Disease Report Form (form 3095) and mail to your District Health Office. Be sure to include clinical signs and symptoms in addition to laboratory results, as clinical compatibility is required by the surveillance case definitions. For more immediate notification, for example reporting a cluster of disease or a case of tularemia, please call your County Health Department, District Health Office, or Georgia Division of Public Health. After hours, call 1-866-PUB-HLTH statewide.

Tick-borne Disease Education Materials Available from the Division of Public Health

- Mosquitoes and Ticks and the Diseases They Spread (public information brochure)
- Tick-borne Diseases Poster (for physician’s offices and hospitals)
- Tick-borne Diseases website <http://www.health.state.ga.us/epi/vbd/tick.asp>
 - Disease fact sheets
 - Pictures of common ticks in Georgia
 - Information about tick identification and testing

To order education materials, contact your district Public Health Liaison or the Division of Public Health at 404-657-2588 or gaepinfo@dhr.state.ga.us.

Recommended Reading (includes Continuing Education Examination):

Centers for Disease Control and Prevention. Diagnosis and management of tickborne rickettsial diseases: Rocky Mountain spotted fever, ehrlichiosis, and anaplasmosis—United States: a practical guide for physicians and other health-care and public health professionals. *MMWR* 2006;55 (No. RR-4).

Article written by Laurel E. Garrison, M.P.H.

Georgia's Notifiable Disease Emergency Reporting System

Information for Healthcare Providers

What is 1-866-PUB-HLTH?

1-866-PUB-HLTH, also called the Notifiable Disease Emergency Reporting System, is a statewide service that facilitates better communication among Georgia health care providers, health departments, and emergency response personnel. **This telephone number is used to report public health emergencies and immediately notifiable diseases.** This includes clusters of illness as well as diseases that could result from a bioterrorism event. The Notifiable Disease Emergency Reporting System is available 24 hours a day, 7 days a week through the combined efforts of the Georgia Department of Human Resources Division of Public Health (GDPH), the Georgia Poison Center (GPC), and District Public Health Offices.

Who should use 1-866-PUB-HLTH?

Clinicians, laboratory personnel, and public health professionals should use the number to report immediately notifiable diseases or other public health emergencies. Private citizens should NOT use this number.

How does it work?

When you call 1-866-PUB-HLTH, a specially trained poison center employee answers the phone. The poison center employee fills out a report, and then contacts the District Health Office of the patient's residence either by phone or fax, depending on the disease reported. **You can request that someone from the health department return your call 24 hours a day, 7 days a week.** The poison center employee has no clinical or formal public health training and cannot answer questions directly, but will put you in contact with someone who can.

When should I use 1-866-PUB-HLTH versus other methods of reporting?

When you recognize a public health emergency or diagnose an immediately notifiable disease, including clusters of any illness, disease outbreaks and potential agents of bioterrorism. To report other notifiable diseases, you may: call your County or District Health Office, OR report cases electronically through the State Electronic Notifiable Disease Surveillance System (SENDSS) at <http://sendss.state.ga.us>, OR complete a Notifiable Disease Report Form (#3095) and mail in an envelope marked CONFIDENTIAL to your County, District, or State Health Department.

If I report a case using 1-866-PUB-HLTH, should I also report using additional (redundant) mechanisms?

No. There is no need to report a case through multiple channels.

Botulism Information for Clinicians

Botulism is a neurological illness caused by a toxin produced by the bacterium *Clostridium botulinum*. In addition to recent concerns about the potential use of botulism toxin for bioterrorism, there are three naturally occurring types of botulism: 1. Wound botulism occurs when a wound is infected by *C. botulinum* that produces toxin. 2. Foodborne botulism occurs when toxin is ingested, often from home-canned foods of low acid content. 3. Infant botulism occurs when the bacterial spores are ingested by a baby under the age of 1 year. Botulism is characterized by an incubation period ranging from 2 hours to 8 days and symptoms of a descending paralysis. Stool, serum, and epidemiologically implicated food may be tested for both the presence of the bacteria and the toxin. CDC performs testing for most cases of suspected botulism, but specimens should be submitted through the Georgia Public Health Laboratory. CDC requires consultation with a medical epidemiologist in order to ap-

prove both testing and the release of antitoxin for patient treatment. Consultation for cases of suspected infant botulism is done in conjunction with the California Department of Health Services, Infant Botulism Treatment and Prevention Program. The Division of Public Health, Epidemiology Branch, Notifiable Diseases Epidemiology Section is available to discuss suspect cases with clinicians, and refer to the appropriate place—CDC or California Department of Health Services. We also facilitate submission of laboratory specimens. If you suspect a case of botulism, please contact us immediately at 404-657-2588, 1-866-PUB-HLTH, or call your District Health Office. For more information, please refer to the following sites:

<http://health.state.ga.us/epi/disease/botulism.asp>

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/botulism_g.htm

<http://www.dhs.ca.gov/ps/dc/dc/InfantBot/ibtindex.htm>

Division of Public Health
<http://health.state.ga.us>

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Reported Cases of Selected Notifiable Diseases in Georgia Profile* for December 2005

Selected Notifiable Diseases	Total Reported for December 2005	Previous 3 Months Total Ending in December			Previous 12 Months Total Ending in December		
	2005	2003	2004	2005	2003	2004	2005
Campylobacteriosis	29	100	129	114	619	589	593
Chlamydia trachomatis	2215	8278	8070	7401	35846	34476	32315
Cryptosporidiosis	8	34	38	40	122	179	149
<i>E. coli</i> O157:H7	0	4	8	7	27	23	30
Giardiasis	50	200	234	150	844	903	669
Gonorrhea	968	4152	4043	3417	17749	16063	15019
<i>Haemophilus influenzae</i> (invasive)	6	23	26	18	81	117	104
Hepatitis A (acute)	4	187	43	16	771	320	113
Hepatitis B (acute)	5	141	119	22	598	469	157
Legionellosis	2	5	7	14	35	43	39
Lyme Disease	0	0	0	1	10	12	6
Meningococcal Disease (invasive)	1	12	3	3	37	15	18
Mumps	1	0	1	1	3	2	2
Pertussis	1	8	10	7	36	29	47
Rubella	0	0	0	0	0	1	0
Salmonellosis	96	554	456	560	2041	1942	1990
Shigellosis	52	198	169	257	1159	655	672
Syphilis - Primary	0	38	27	4	126	117	93
Syphilis - Secondary	2	136	108	31	476	476	381
Syphilis - Early Latent	7	137	70	32	740	395	282
Syphilis - Other**	16	220	214	98	896	837	774
Syphilis - Congenital	0	1	2	0	11	6	1
Tuberculosis	48	133	152	140	523	539	509

* The cumulative numbers in the above table reflect the date the disease was first diagnosed rather than the date the report was received at the state office, and therefore are subject to change over time due to late reporting. The 3 month delay in the disease profile for a given month is designed to minimize any changes that may occur. This method of summarizing data is expected to provide a better overall measure of disease trends and patterns in Georgia.

** Other syphilis includes latent (unknown duration), late latent, late with symptomatic manifestations, and neurosyphilis.

AIDS Profile Update

Report Period	Total Cases Reported*			Percent Female	Risk Group Distribution (%)						Race Distribution (%)		
	<13yrs	>=13yrs	Total		MSM	IDU	MSM&IDU	HS	Blood	Unknown	White	Black	Other
Latest 12 Months: 02/05-01/06	3	1,836	1,839	25.8	32.4	5.6	2.0	9.0	1.3	49.7	24.4	73.6	2.0
Five Years Ago: 02/01-01/02	2	1,619	1,621	26.9	33.6	9.1	2.8	18.7	2.0	33.8	18.6	77.1	4.3
Cumulative: 07/81-01/06	226	29,567	29,793	19.6	45.1	15.6	4.9	14.1	1.9	18.5	31.7	65.8	2.5

MSM - Men having sex with men IDU - Injection drug users HS - Heterosexual

* Case totals are accumulated by date of report to the Epidemiology Section