



Georgia Epidemiology Report

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Rabies Triage in Georgia by the Regional Poison Center: Financial and Other Benefits

The Georgia Poison Center (GaPC) is the Regional Poison Center for the 7 million residents of Georgia providing 24-hour poison emergency treatment information. Among the services the GaPC provides is treatment advice regarding the need for post-exposure rabies prophylaxis for animal bites or other animal-inflicted wounds. In July 1994, the Georgia Department of Human Resources, Division of Public Health, Epidemiology and Prevention Branch (EPB) formalized the GaPC as the state's resource for offering protocol-driven treatment and prevention advice for animal bites and rabies exposures, with backup from GaPC and EPB physicians and epidemiologists. These protocols enable the GaPC specialists to assess the animal bite in terms of provocation, vaccination status, and potential for rabies transmission, and make appropriate recommendations for care.

In 1995, the GaPC received 84,954 poison exposure calls. Seven hundred eighty-seven (1%) involved animal-inflicted bites or wounds. The GaPC categorized the animal bite/ rabies exposure calls managed in 1995, and counted the recommendations for rabies treatment with biologicals. Domestic dogs and cats were involved in 419 (53%) of the 787 exposures; only 29 (7%) of the animals wore vaccination tags indicating current rabies vaccination. Medical records subsequently confirmed that an additional 49 dogs and cats had been vaccinated within the last year. Of the 787 victims, 643 (82%) were provided reassurance that no form of rabies vaccination treatment was necessary. Of those 643 individuals, 138 were children ages 0-5 years (22%), 187 were children 6-12 years (29%), and 284 were 13 years or older (44%). Thirty-four were of unknown age but were assumed to follow the known age spread. Once triage was completed, attempts were made for 24 hours to ascertain the therapy actually received by the victim. The data collected were forwarded to EPB for further follow-up as appropriate.

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The direct health care costs potentially saved by providing this service can be estimated. The average cost for rabies immunoglobulin and rabies vaccine is \$1127 for a child of 33 pounds, \$1430 for an adult weighing 132 pounds, and \$1498 for an adult weighing approximately 165 pounds (using CDC cost figures for Connecticut in 1994). Based on these figures (assuming half of all callers would have received biologicals if untriaged), the potential savings in health care expenditures in 1995 for the cases handled by the GaPC is \$412,583. In 1995, the average rabies call to the GaPC cost an estimated \$23.88; the total for the 787 rabies calls is \$18,794. If the Epidemiology and Prevention Branch offered the same service, without GaPC involvement, the cost would approach \$19,600, based on the need for 15% of 3.5 full time epidemiologists for 24 hour triage.

The societal perception of the value of this service may be inferred from the public's willingness-to-pay for emergency triage. The willingness-to-pay figure for typical Poison Center calls is estimated at \$2.55 per family per month (California data from 1995), which, when applied to Georgia, would be \$56.9 million for the 1.86 million Georgian families served annually (3000 times more than the financial cost of rabies triage and some 29 times the cost of all GaPC services).

In summary, rabies triage by the GaPC provides

financial savings to the community by providing centralized, around-the-clock, rabies treatment and prevention advice. This service also reduces opportunity costs by saving time and energy spent seeking care, especially after hours, and offers prompt reassurance. In addition, offering rabies triage assists in defraying the cost of GaPC services. This service allows for data collection and development of focused educational interventions regarding animal safety, further reducing the incidence of animal bites.

Editorial Note

Scores of pets must be euthanized each year (after biting a human or being exposed to a rabid animal) because they are not adequately vaccinated against rabies. The best protection for your pet is **rabies vaccination**. Current Georgia law requires dogs and cats to be vaccinated with an approved vaccine. Check with your local veterinarian about specific regulations for your county.

The Georgia Poison Center can be contacted for rabies triage and for poisoning emergencies **24 hours a day, 7 days a week**, within the **Atlanta dialing area at (404) 616-9000**, or **elsewhere in Georgia at (800) 282-5846**.

Submitted by RJ Geller MD, EM Wisniewski MPH, SE Gorman PharmD, GP Lopez PharmD; Ga PC, 80 Butler St, SE, Box 26066, Atlanta, GA 30335; and KE Toomey MD, MPH; EPB, Division of Public Health, GA Dept of Human Resources, Atlanta, GA 30303.

The Decline of Childhood *Haemophilus influenzae* Type b (Hib) Disease in Georgia

Reported trends reflect success of the Hib vaccine program

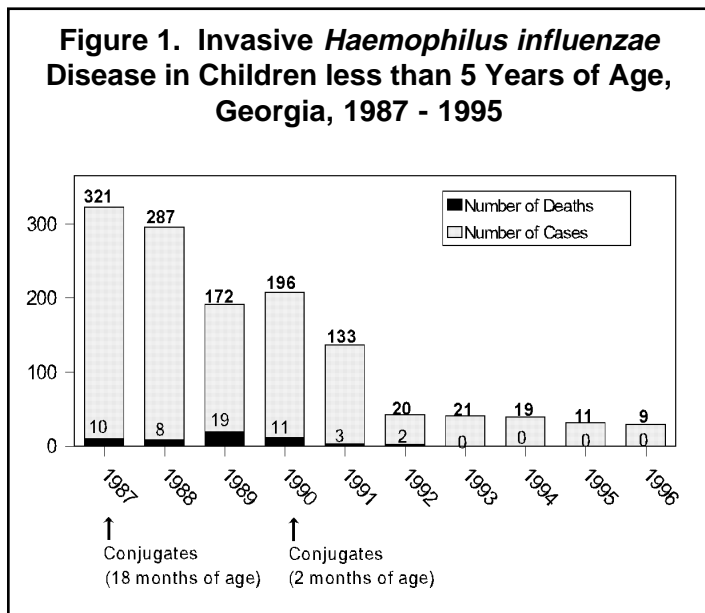
Notifiable disease reports submitted to public health by physicians and other providers are essential to identify outbreaks of emerging infectious disease or unusual disease patterns. Examining changes in notifiable disease trends can be particularly important to monitor the impact of prevention efforts.

For example, the decline of vaccine-preventable diseases in the United States demonstrates the impressive impact of immunizations, particularly in childhood. One of the more recent vaccine success stories is that of the *Haemophilus influenzae* Type b vaccine. Invasive Hib disease was the leading cause of childhood meningitis in the United States before the intro-

duction of conjugate vaccines (first licensed for use in U.S. children at least 18 month old in December 1987 and for infants at least 2 months old in October 1990.) National data suggest that this vaccine has had a marked impact on the incidence of Hib disease in the United States, preventing an estimated 10,000-16,000 cases in 1991 alone^{1,2}.

The impact of the Hib vaccine in Georgia is equally impressive. Between 1987 and 1990, nearly 1000 cases of invasive Hib disease were reported among Georgia children resulting in 48 deaths and unmeasured long-term disability. Since the widespread implementation of the Hib vaccine program, the num-

ber of cases has declined to less than 10 in 1996, with no reported deaths from Hib disease among children since 1991 (Figure 1).



These dramatic statistics reflecting the success of the Hib vaccine program would not have been possible without the cooperation of physicians and other providers, hospitals, and laboratories statewide in re-

porting notifiable diseases to the Epidemiology and Prevention Branch, Georgia Division of Public Health.

Editors note

We urge you to include *Haemophilus influenzae* typing whenever a culture confirms invasive *Haemophilus influenzae* type b will help us better identify and monitor the incidence of this vaccine-preventable disease in children.

Special thanks to Dr. Sanford "Sandy" Matthews, an Atlanta pediatrician, whose interest in the Hib statistics for Georgia led to this report.

References

1. Decline of Childhood *Haemophilus influenzae* Type b(Hib) Disease in the Hib Vaccine Era. Adams WG, Deaver KA, Cochi SL, et al. JAMA 1993;269:221-6.
2. Morbidity and Mortality Weekly Report (MMWR), October 25, 1996;45:901-6.

This report was contributed by Kathleen E. Toomey, State Epidemiologist, Epidemiology Section, EPB, GDHR

A Call for All Sterile-Site Meningococcal Isolates

The Georgia Division of Public Health is pleased to be participating as the fifth "Emerging Infections Program" (EIP) in the United States. This CDC-funded collaboration between the Epidemiology and Prevention Branch, the State Public Health Laboratory and Emory University will conduct active, laboratory-based surveillance for several emerging pathogens. We will join the other EIP sites in California, Oregon, Minnesota, and Connecticut in conducting surveillance and studies of pathogens recently recognized or becoming increasingly important.

One area of increased surveillance is invasive meningococcal disease. Cases of meningococcal meningitis and bacteremia in Georgia have increased in recent years, from 82 in 1994, to 106 in 1995, and 144 in 1996. Many other states are also experiencing increasing cases of meningococcal disease. We will perform advanced molecular typing on all isolates of *Neisseria meningitis* we obtain state-wide, to better characterize Georgia strains causing invasive disease.

We ask all laboratories to send any isolates of *N. meningitidis* obtained from sterile sites to the State Public Health Laboratory for further characterization. These isolates should be mailed to the Bacteriology Section of the State Public Health Laboratory, using Lab Outfit #0505 and Form #3410. With your help the epidemiology of this serious pathogen within Georgia can be better understood leading to improved disease control efforts.

This announcement was contributed by Jane E. Koehler, DVM, MPH; Infectious Disease Unit, EPB, DPH, Ga DHR.

Errata

Volume 12 Number 12 - December 1996 - Georgia Epidemiology Report:

Page 3 paragraph 3 lines 12-13: "...this mandate will increase daily consumption of folic acid on average by **100 milligrams**." should be "...this mandate will increase daily consumption of folic acid on average by **100 micrograms**."



Reported Cases of Selected Notifiable Diseases in Georgia Profile* for October 1996

Selected Notifiable Diseases	Total Reported for October	Previous 3 Months Total Ending in October			Previous 12 Months Total Ending in October		
	1996	1994	1995	1996	1994	1995	1996
Campylobacteriosis	23	333	306	133	952	1077	710
Chlamydia genital infection	1967	NA	3319	4815	NA	9812	13569
Cryptosporidiosis	2	NA	NA	15	NA	NA	56
E. coli O157:H7	0	12	11	8	20	33	33
Giardiasis	23	136	204	187	453	547	628
Gonorrhea	2091	0	5816	5674	0	17557	21681
Haemophilus influenzae (invasive)	2	7	1	4	65	38	43
Hepatitis A (acute)	11	8	22	62	43	93	158
Hepatitis B (acute)	0	31	11	12	669	124	37
Blood Lead Level ≥ 10 µg/dL (cap)	248	NA	978	969	NA	2528	3082
Blood Lead Level ≥ 10 µg/dL (ven)	53	NA	211	204	NA	536	620
Legionellosis	0	21	1	0	111	25	4
Lyme Disease	0	33	1	0	121	20	1
Meningococcal Disease (invasive)	7	6	24	23	72	98	150
Mumps	0	7	2	1	18	8	6
Pertussis	2	9	12	3	33	31	23
Rubella	0	0	0	0	7	0	0
Salmonellosis	70	577	732	373	1475	1651	1316
Shigellosis	117	564	315	333	1522	1654	798
Syphilis - Primary	14	74	78	53	256	272	223
Syphilis - Secondary	49	164	194	133	623	611	520
Syphilis - Early Latent	138	458	394	336	1804	1708	1367
Syphilis - Other**	76	192	286	220	769	1091	912
Syphilis - Congenital	2	13	17	4	53	56	49
Tuberculosis	74	170	214	193	732	786	779

* 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 (%)		
			MSM	IDU	MSM&IDU	HS	Blood	Unknown	White	Black	Other
<i>Last 12 Mos</i> 01/96 to 12/96	2424	19.0	43.0	17.2	4.1	15.9	1.4	18.3	32.9	64.5	2.5
<i>5 Yrs Ago</i> 01/91 to 12/91	1530	12.0	57.4	20.8	5.9	8.6	2.0	5.2	45.9	52.4	1.7
<i>Cumulative</i> 01/80 to 12/96	16948	14.3	52.2	19.0	5.9	10.9	2.1	9.9	40.9	57.1	1.9

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

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