



# Public Health Newsletter

## INVASIVE *HAEMOPHILUS INFLUENZAE* TYPE B

*Haemophilus influenzae* is a bacteria found in the nose and throat of children and adults. *Haemophilus influenzae* type B (Hib) occurs most often in infants, but also in young children and usually requires hospitalization. Hib infection can result in serious and sometimes fatal illnesses such as meningitis, bloodstream infection, epiglottitis, pneumonia, bone or joint infections.

During 2008 in Minnesota, five children aged 5 months to 3 years were reported with invasive Hib disease; one died. The patients resided in five different counties in Minnesota and had no known relationship to each other. Three patients had received no vaccinations because of parent or guardian deferral or refusal. One child was aged 5 months and had received 2 doses of Hib PRP-TT vaccine in accordance with the primary series schedule. Another child had received 2 doses of Hib PRP-OMP vaccine, but no booster dose, per CDC recommendations during the shortage. Subsequent to Hib infection, this child was diagnosed with hypogammaglobulinemia. None of the five were enrolled in

group child care. The five cases in 2008 were the most reported for 1 year from Minnesota since 1992, when 10 cases were reported.

Although the recall and cessation of production of Merck Hib-containing vaccines in December 2007 resulted in a nationwide Hib vaccine shortage, supply of the remaining two products manufactured by Sanofi Pasteur is adequate for all infants to complete the 3-dose primary vaccine series. However, in February 2008 the Minnesota Vaccines for Children program began receiving reports from vaccine providers regarding shortages of vaccine in their offices. In response, MDH advised providers to ensure completion of the primary series as recommended whenever possible and to track and recall infants who had not completed the primary series so that they could be vaccinated as soon as doses were available. On January 13, MDH examined 2008 vaccination coverage data in the Minnesota Immunization Information Connection (MIIC), Minnesota's immunization registry. Data were reviewed for 25,699 children born between November 1, 2007 and March

31, 2008. Among children aged 7 months, 3-dose primary Hib series coverage was 46.5%, which is lower than the age-appropriate coverage for children who had received pneumococcal conjugate or diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccination. In contrast, data from the 2007 National Immunization Survey, conducted prior to the shortage, showed that Hib vaccination coverage among children in Minnesota aged 19 months to 35 months was high and did not differ from the national average, suggesting that coverage has declined as a result of the shortage.

*Information obtained from the Minnesota Department of Health and the CDC. Invasive Haemophilus influenzae Type B Disease in Five Young Children—Minnesota, 2008. MMWR 2009;58 (Early Release; 1-3).*



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## HUMAN RABIES DEATH

The Missouri Department of Health and Senior Services reported a southern Missouri man died from rabies after being bitten by a bat.

According to the department the man was reportedly bitten on the left ear by a bat. He did not seek treatment or report the incident at the time, and became ill November 19. Rabies was suspected after doctors were informed about the patient's bite history and he began to show symptoms consistent with the disease. On November 25, specimens sent to the Centers for Disease Control and Prevention were confirmed positive and typed as a variant of the rabies virus associated with silver haired and eastern pipistrelle bats. The 55-year-old man died November 30. Rabies in humans remains rare, however rabies is almost always fatal once symptoms begin.

State health officials are working closely with the local health department to identify other individuals who might have had contact with the rabid bat or close contact with the patient. Rabies is not spread among people by casual contact.

There are no documented cases of person-to-person transmission of rabies in the United States other than a small number of cases associated with organ and corneal transplants. Currently, five individuals who might have had contact with the bat or the patient are receiving rabies treatment to prevent rabies.

“Unfortunately this sad case is an important reminder that people need to avoid contact with wild animals, and need to report wild-animal bites to health officials to determine if they are at risk,” said Dr. Howard Pue, State Public Health Veterinarian.

Pue said that while the disease is very rare in humans, it is not uncommon in wild animals in Missouri, particularly in bats and skunks. He said that Missouri has seen a larger number of rabid wild animals this year. So far in 2008 the department has reports of 61 rabid animals: 55 bats, five skunks, and one horse. That compares to an average of 54 total animals as of this date over the past 5 years, with an average of 42 bats and 10 skunks for the same time period.

The last human rabies case recorded in Missouri was in Pulaski County in 1959, according to Pue. He said that aggressive follow-up by public health officials of people bitten by animals, effective control of stray and wild animals by animal-control agencies, vaccination of dogs and cats against rabies, and a more effective anti-rabies regimen available for use by medical professionals have all helped to make rabies in people so rare. The United States has about one to three cases of rabies in people each year.

“It is important that anyone bitten by a wild animal or a domestic animal, particularly a stray, should report the incident to their medical provider to receive appropriate wound care, antibiotics and tetanus vaccination as needed, as well as a rabies risk assessment,” Pue said. He said the anti-rabies series of shots is very effective in preventing rabies if administered before symptoms begin. However, once the person bitten shows signs of rabies, death is almost a certainty.

*Information obtained from the Missouri Department of Health and Senior Services.*

## INCREASE IN NUMBER OF PERTUSSIS CASES

Missouri experienced a significant increase in pertussis cases in 2008. From the beginning of the year through December 6, a total of 424 cases of pertussis have been reported in the state compared to 102 cases reported for the same period in 2007. Of the 424 cases reported so far this year, 41 (10%) have occurred in infants < 12 months of age. Pertussis cases in early infancy are at greatest risk for complications and fatalities. Infants < 12 months of age accounted for 145 (93%) of 156 pertussis-related deaths reported to the Centers for Disease Control and Prevention (CDC) from 2000 to 2006. Parents, especially mothers, have been identified as the most important and inadvertent source of spread of pertussis to their infants, even if the adult was vaccinated against pertussis in his/her childhood or had the disease as a child. One or more household contacts with pertussis is the source of infection in approximately 75% of cases among infants aged ≤6 months for whom the source is identified.

Therefore, it is important to ensure, in any household where an infant < 12 months of age lives, that all children in the household are up-to-date with the recommended doses of D'TaP, and that all adults (including the mother) and adolescent household contacts have appropriately received a dose of Tdap.

Providers should also encourage other previously unvaccinated adults and adolescents who anticipate contact with an infant to receive Tdap. Vaccination of these potential contacts before discharge of the mother after giving birth and infant rather than at a follow-up visit has the advantage of decreasing the time when contacts of the newborns could acquire and transmit pertussis to the infant.

*Information obtained from the Missouri Department of Health and Senior Services.*



## SALMONELLA TYPHIMURIUM

CDC is collaborating with public health officials in many states and the United States Food and Drug Administration (FDA) to investigate a multistate outbreak of human infections due to *Salmonella* serotype Typhimurium.

Among the persons with confirmed, reported dates available, illnesses began between September 14, 2008 and January 8, 2009. Patients range in age from <1 to 98 years; 48% are female. Among persons with available information, 22% reported being hospitalized. Infection may have contributed to seven deaths.

Preliminary analysis of the first national case-control study conducted by CDC and public health officials in multiple states on January 3 and 4, 2009, comparing foods eaten by ill and well persons indicates that peanut butter is a likely source of the bacteria causing the infections.

To date, 15 clusters of infections in five states have been reported in schools and other institutions, such as long-term care facilities and hospitals. Among 14 clusters for which we have detailed information, King Nut is the only brand of peanut butter used in those facilities.

King Nut is produced by Peanut Corporation of America (PCA) in Blakely, Georgia. This facility, which is no longer producing any products, has expanded its recall to include all peanut butter and peanut paste produced at this plant since July 1, 2008. Peanut butter and peanut butter paste was not sold directly to consumers but was distributed to institutions, food service providers, food manufacturers and distributors

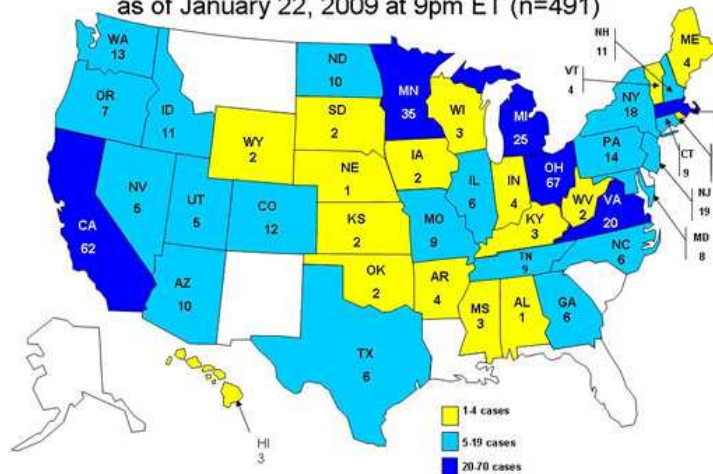
in many states and countries. Peanut butter and peanut paste is commonly used as an ingredient in many products, including cookies, crackers, cereal, candy, ice cream, pet treats, and other foods.

More than 180 peanut butter-containing products produced by a variety of companies may have been made with the ingredients recalled by PCA. The list of currently recalled products can be found at [www.fda.gov](http://www.fda.gov). FDA and the product manufacturers are working to determine the list of affected products, which may be extensive.

Many companies have already announced whether their products include ingredients being recalled by Peanut Corporation of America, Georgia, and more companies are expected to make similar announcements.

*Information obtained from the CDC.*

Cases infected with the outbreak strain of *Salmonella* Typhimurium, United States, by state, as of January 22, 2009 at 9pm ET (n=491)



## INFLUENZA ANTIVIRAL MEDICATIONS

Although influenza activity is low in the United States to date, preliminary data from a limited number of states indicate that the prevalence of influenza A (H1N1) virus strains resistant to the antiviral medication oseltamivir is high. Therefore, CDC is issuing interim recommendations for antiviral treatment and chemoprophylaxis of influenza during the 2008-09 influenza season. When influenza A (H1N1) virus infection or exposure is suspected, zanamivir or a combination of oseltamivir and rimantadine are more appropriate options than oseltamivir alone. The 2008-09 influenza vaccine is expected to be ef-

fective in preventing or reducing the severity of illness with currently circulating influenza viruses, including oseltamivir-resistant influenza A (H1N1) virus strains. Since influenza activity remains low and is expected to increase in the weeks and months to come, CDC recommends that influenza vaccination efforts continue.

At this time, if a patient tests positive for influenza A, use of zanamivir should be considered if treatment is indicated. Oseltamivir should be used alone only if recent local surveillance data indicate that circulating viruses are likely to be

influenza A (H3N2) or influenza B viruses. Combination treatment with oseltamivir and rimantadine is an acceptable alternative, and might be necessary for patients that cannot receive zanamivir, (e.g., patient is <7 years old, has chronic underlying airways disease, or cannot use the zanamivir inhalation device), or zanamivir is unavailable. Amantadine can be substituted for rimantadine if rimantadine is unavailable.

*Information obtained from the Missouri Department of Health and Senior Services.*



# December Communicable Disease Report

Disease/Condition		Oct-08	Nov-08	Dec-08	Dec-07	YTD 2008	cases investi- gated current month	% change +/- from prior month
Influenza-like Illness		871	775	<b>414</b>	459	6538	0	-46.6%
Hemorrhagic Disease		0	0	<b>0</b>	0	0	0	0.0%
Gastrointestinal Ill- ness		1130	1307	<b>908</b>	915	10018	0	-30.5%
Neurologic Illness		249	259	<b>118</b>	82	1984	0	-54.4%
Rash Illness		200	124	<b>61</b>	61	1145	0	-50.8%
Fever Illness		832	570	<b>333</b>	482	5762	0	-41.6%
Respiratory Illness		1191	1182	<b>683</b>	858	8783	0	-42.2%
Chemical Exposure		1	0	<b>0</b>	0	4	0	0.0%
Animal bites		15	6	<b>14</b>	5	126	14	133.3%
GI Illness	Salmonellosis	0	2	<b>0</b>	1	13	0	-100.0%
	Giardiasis	0	0	<b>1</b>	0	6	1	*
	Campylobacter	0	0	<b>2</b>	1	6	2	*
	Cryptosporidium	0	0	<b>1</b>	0	2	1	*
	Shigellosis	0	0	<b>0</b>	0	0	0	0.0%
	E. Coli	0	0	<b>0</b>	0	1	0	0.0%
	Respiratory Illness	Influenza A	0	2	<b>3</b>	0	338	0
	Influenza B	0	0	<b>0</b>	0	82	0	0.0%
	Influenza A and B	0	2	<b>0</b>	0	2	0	-100.0%
	Influenza, untyped	0	0	<b>0</b>	0	176	0	0.0%
	Legionellosis	1	0	<b>0</b>	0	1	0	0.0%
	Tularemia, francisella	0	0	<b>0</b>	0	0	0	0.0%
Vaccine-Preventable	Chickenpox	1	1	<b>3</b>	46	147	0	200.0%
	Rubella	0	1	<b>0</b>	0	1	0	-100.0%
	H. influenzae, invasive	1	0	<b>0</b>	0	3	0	0.0%
	Measles	0	0	<b>0</b>	0	0	0	0.0%
	Mumps	0	0	<b>0</b>	0	0	0	0.0%
	Pertussis	0	0	<b>0</b>	0	2	0	0.0%
Hepatitis	A	1	0	<b>0</b>	0	2	0	0.0%
	B	2	1	<b>3</b>	3	39	3	200.0%
	C	23	10	<b>21</b>	31	226	2	110.0%
Streptococcal Illness	Throat Cultures	3	0	<b>0</b>	191	1229	0	0.0%
	Strept, Group A, invasive	1	0	<b>0</b>	0	4	0	0.0%
	Strept pneumoniae, invasive	0	0	<b>0</b>	0	0	0	0.0%
CNS Illness	Encephalitis	0	0	<b>0</b>	0	0	0	0.0%
	Menigitis, viral	0	0	<b>0</b>	0	1	0	0.0%
	Menigitis, bacterial	0	0	<b>0</b>	0	0	0	0.0%
	West Nile Virus	0	0	<b>0</b>	0	0	0	0.0%
	Lyme Disease	0	0	<b>0</b>	0	2	0	0.0%
	Ehrlichiosis	0	0	<b>0</b>	0	2	0	0.0%
	Rocky Mountain Spotted Fever	0	0	<b>0</b>	0	5	0	0.0%
	Other	Listeria	1	0	<b>0</b>	0	1	0
Other		0	0	<b>0</b>	0	0	0	0.0%
<b>Total</b>		<b>49</b>	<b>25</b>	<b>48</b>	<b>278</b>	<b>2417</b>	<b>23</b>	<b>92.0%</b>