

CONNECTICUT EPIDEMIOLOGIST

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Epidemiology Section, Susan S. Addiss, MPH, MUR, Commissioner

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MENINGOCOCCAL DISEASE CONNECTICUT, 1980 - 1994

From 1980 through 1994, 745 systemic infections with *Neisseria meningitidis* were reported to the Department of Public Health and Addiction Services (DPHAS) (see Figure 1 on pg 12). Of the cases reported, 404 (54%) were female. Although meningococcal disease occurred in all age groups, the highest rates were observed in children aged less than 1 year (Table 1). While cases of meningococcal disease were reported throughout the year, the majority of cases occurred during winter and spring (see Figure 2 on pg 12).

Information on serogrouping was available on 540 (72%) isolates. Of these, 3 (1%) were serogroup A, 228 (42%) were serogroup B, 222 (41%) were serogroup C, 26 (5%) were serogroup Y, 32 (6%) were serogroup W135, and 29 (5%) were nongroupable.

EDITORIAL NOTE: Meningococcal disease is a severe and potentially fatal infection. Invasive meningococcal infections usually result in meningococemia with or without meningitis. Onset is often quite sudden. If left untreated, or when treatment is delayed, mortality rates may exceed 50 percent. With appropriate antibiotic treatment, fatality rates are reduced to less than 10 percent.

Invasive disease caused by *N. meningitidis* is reportable by physicians on the day of recognition or

strong suspicion of disease to both the local and state health departments. Clinical laboratory directors are also required to report and send isolates of *N. meningitidis* to the DPHAS. Preventing secondary cases of meningococcal disease depends on prompt and complete reporting of cases. Prompt reporting is also essential to identify outbreaks quickly so that appropriate public health prevention measures can be taken.

Prevention measures include prophylaxis of close contacts with antibiotics (usually rifampin) and vaccination of persons within a particular institutional setting where an outbreak may occur (such as a school) or in a community setting for more widespread outbreaks. Currently, vaccine is considered if the following criteria are met: three or more cases occur with onsets within a three month period in a definable population; the rate is ≥ 10 per 100,000; and all isolates are part of the same serogroup and the group is one covered by the meningococcal vaccine. The quadrivalent polysaccharide vaccine and provides protection against meningococcal serogroups A, C, Y and W-135, but not serogroup B.

Table 1: Meningococcal Disease by Age Group, Connecticut, 1980 - 1994

Age Group	No. of Cases	Incidence
<1	144	21.7
1-4	146	5.9
5-9	40	1.3
10-19	125	1.9
20-29	67	.8
30-39	46	.6
40-49	34	.6
50-59	35	.7
60+	100	1.1
Unknown	8	-
Total	745	1.5

BABESIOSIS CONNECTICUT, 1990-1994

From 1990 through 1994, 59 cases of babesiosis were reported to the Connecticut Department of Public Health and Addiction Services (DPHAS). Of these, 42 (71%) were reported in residents of New London County (Table 1). No cases were reported in residents from Tolland, Windham, or Litchfield counties. The mean age of reported babesiosis cases was 66 years with a median age of 68.5 years (Figure 1). Cases involved more men (61%) than women (39%). Infection was seasonal with the majority of cases (87%) being reported in July and August (Figure 2).

EDITORIAL NOTE: Babesiosis is caused by infection of red blood cells with a protozoan parasite, *Babesia microti*, which is transmitted through the bite of infected *Ixodes scapularis* ticks and occasionally by blood transfusion. The first documented endemic case of babesiosis in Connecticut was reported from Stonington in 1988. Babesiosis has been a reportable disease since October 1989.

The elderly, immunocompromised, and persons who lack a functioning spleen are particularly susceptible to babesiosis. The clinical presentation is generally mild or subclinical in healthy children and adults. Symptoms may include fever, chills, headache, and weakness accompanied by findings of anemia, thrombocytopenia, microscopic hematuria, and mild elevations of bilirubin, lactic dehydrogenase, and hepatic transaminases. Intra-erythrocytic parasites are often observed on careful examination of peripheral blood smears, though their absence does not exclude the diagnosis.

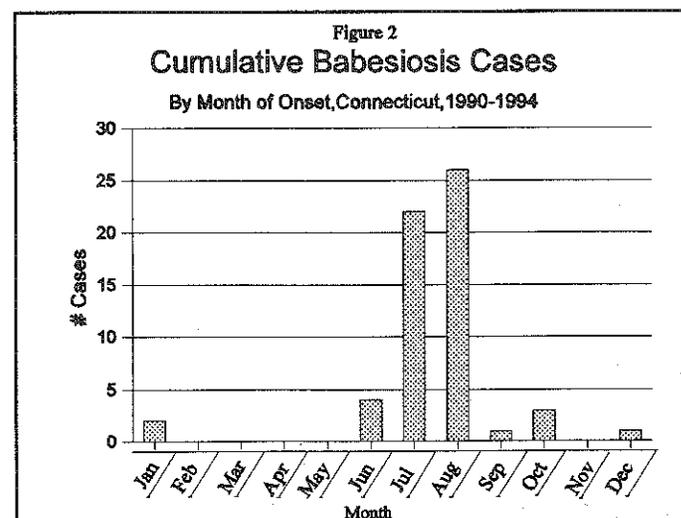
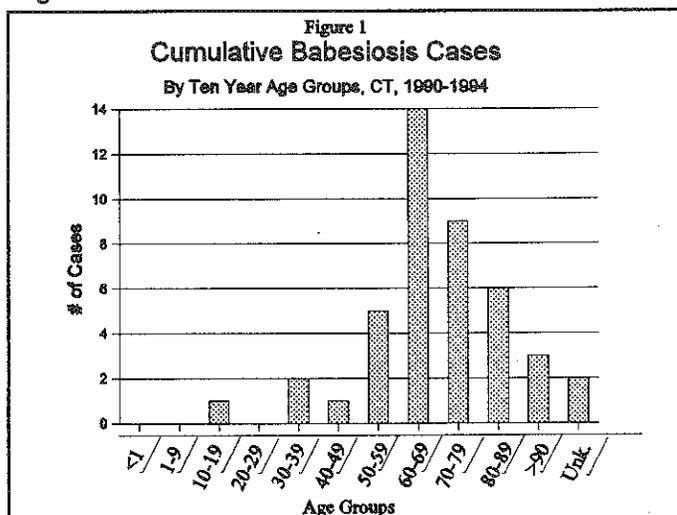
Reported cases of babesiosis and Lyme disease have similar spatial and temporal patterns. In 1993, reported Lyme disease cases decreased by 23% and the number of reported babesiosis cases decreased by 68%. In 1994, reported cases of Lyme disease increased by 49% and babesiosis cases by 138%. Of the state's eight counties New London County had the highest number of reported babesiosis cases as well as the highest rate of reported Lyme disease in the state.

Physicians should consider a diagnosis of babesiosis in patients with a clinical presentation of fever, fatigue and hemolytic anemia lasting from several days to a few months. All suspect cases should be reported to the Epidemiology Program using the Reportable Disease Confidential Case Report form (PD23) or by calling 566-5058.

Serologic testing for antibodies to *Babesia* can be obtained through the State Bureau of Laboratory Services.

Table 1
Reported Babesiosis Cases
By County and Year
Connecticut, 1990-1994

County	1990	1991	1992	1993	1994
Fairfield	1	0	1	1	1
Hartford	0	0	1	1	1
Litchfield	0	0	0	0	0
Middlesex	1	1	1	1	1
New Haven	0	0	2	1	0
New London	1	2	19	4	16
Tolland	0	0	0	0	0
Windham	0	0	0	0	0
Unknown	1	0	1	0	0
TOTAL	4	3	25	8	19



GUIDELINES FOR RESTRICTING ILL FOOD HANDLERS

The following guidelines are recommended when restricting ill food handlers from working in commercial food establishments.

Amebiasis

Persons excreting Entamoeba histolytica should not work as food handlers until a therapeutic regimen has been completed and the person is no longer clinically ill.

Campylobacteriosis

Persons excreting Campylobacter fetus should not work as food handlers until clinical recovery from C. fetus infection. The role of asymptomatic food handlers in disease transmission is unclear. Exclusion of asymptomatic individuals from food handling is indicated only for those with poor hygienic habits.

Cholera

Persons excreting Vibrio cholera should not work as food handlers until clinical recovery from V. cholera infection and until two fecal specimens collected at intervals not less than 24 hours apart have been examined in an approved laboratory or in the laboratory of the State Department of Public Health and Addiction Services (DPHAS) and no V. cholera organisms are found. If an antibiotic has been given, the initial culture should be taken at least 48 hours after the last dose.

Diarrhea-Undiagnosed

No person should work as a food handler until at least 48 hours after clinical recovery from diarrheal symptoms and until cleared by local health authorities.

E. coli 0157:H7 Gastroenteritis

Persons excreting Escherichia coli 0157:H7 should not work as food handlers until clinical recovery from E. coli 0157:H7 infection and until two fecal specimens collected not less than 24 hours apart have been examined in an approved laboratory or in the DPHAS laboratory and no E. coli 0157:H7 organisms are found. If antibiotics have been given, the initial culture should be taken at least 48 hours after the last dose.

Giardiasis

Persons excreting Giardia lamblia should not work as food handlers until clinical recovery from G. lamblia infection and until three fecal specimens collected not less than 24 hours apart have been examined in an approved laboratory or in the laboratory of the DPHAS and no Giardia cysts are found. If an antiprotozoal has been given, the initial fecal specimen should be taken at least 48 hours after the last dose.

Hepatitis A (IgM+)

Food handlers with confirmed hepatitis A should be excluded from work for the interval extending through day 10 following onset of jaundice or for the interval extending through day 14 following onset of symptoms in the absence of jaundice.

Salmonellosis

Persons excreting Salmonella should not work as food handlers until clinical recovery from Salmonella infection and until two fecal specimens collected not less than 24 hours apart have been examined in an approved laboratory or in the laboratory of the DPHAS and no Salmonella organisms are found. If antibiotics have been given, the initial culture should be taken at least 48 hours after the last dose.

Shigellosis

Persons excreting Shigella should not work as food handlers until clinical recovery from Shigella infection and until two fecal specimens collected not less than 24 hours apart have been examined in an approved laboratory or in the laboratory of the DPHAS and no Shigella organisms are found. If antibiotics have been given, the initial culture should be taken at least 48 hours after the last dose.

Staphylococcal Infections (Cutaneous)

No person should work as a food handler until the local health director determines that the risk of transmitting staphylococcal bacteria through boils, abscesses and other purulent lesions of hands, face or nose have been eliminated.

Typhoid Fever

Persons excreting Salmonella typhi should not work as food handlers until clinical recovery from S. typhi infection and until three consecutive negative cultures are obtained from stool specimens taken at least 1 month apart and at least 48 hours after antibiotic therapy has stopped. If antibiotics

have been given, the initial culture should be taken at least 48 hours after the last dose.

Vomiting - Undiagnosed

No person should work as a food handler until at least 48 hours after clinical recovery from vomiting and until cleared by local health authorities.

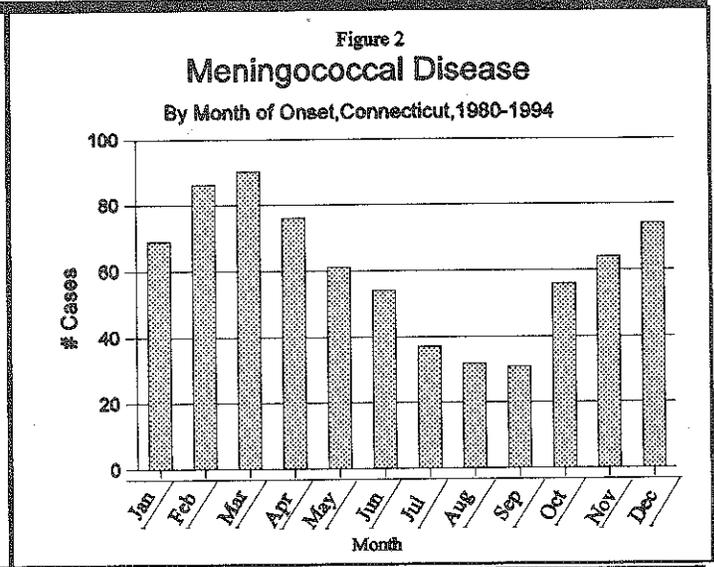
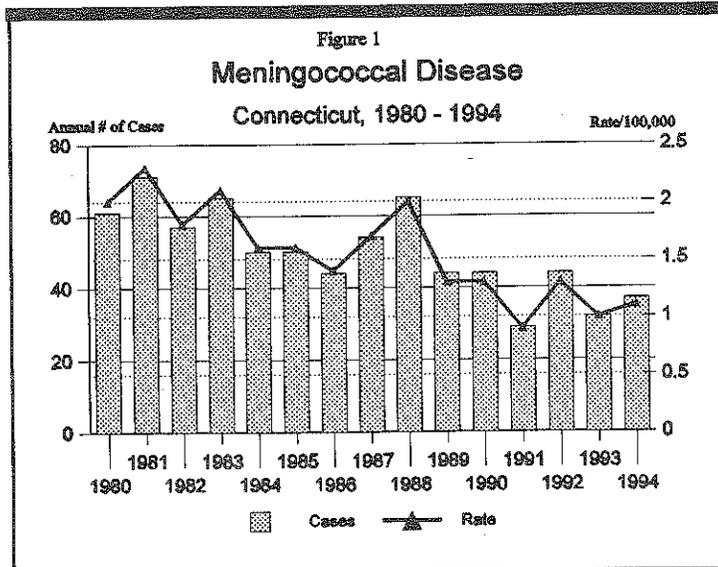
Yersiniosis

Persons excreting Yersinia enterocolitica should not work as food handlers until clinical

recovery from Y. enterocolitica infection. The role of asymptomatic food handlers in disease transmission is unclear. Exclusion of asymptomatic individuals from food handling is indicated only for those with questionable hygienic habits.

QUESTIONS?

Please contact the Food Protection Program at 240-9214 or the Epidemiology Program at 566-5058.



SAVE THE DATES! The next CDC satellite training course "Epidemiology & Prevention of Vaccine-Preventable Disease" will be held on four consecutive Thursdays starting July 20 - August 10, 1995. For additional information contact Susan Cavanna at 566-4141.

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