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WEEKLY REPORT

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National Arthritis Month — May 2000

May is National Arthritis Month. Arthritis and other rheumatic conditions are the leading cause of disability in the United States, affecting approximately 43 million persons in 1998, and may affect 60 million by 2020 (*1*). On May 18, 2000, the Arthritis Foundation is sponsoring Arthritis Action Day to bring national attention to this public health problem. In addition, the Arthritis Foundation, in collaboration with CDC and other organizations, will implement strategies of the *National Arthritis Action Plan: A Public Health Strategy* (NAAP) (*2*) to promote progress toward reaching the arthritis national health objectives for 2010 (*3*) and to increase collaboration between the 38 CDC-funded state arthritis programs and state Arthritis Foundation chapters.

Additional information about arthritis, National Arthritis Month, Arthritis Action Day, NAAP, and ongoing local Arthritis Foundation programs and services is available from the Arthritis Foundation, telephone (800) 283-7800, or on the World-Wide Web at http://www.arthritis.org.*

References

1. CDC. Arthritis prevalence and activity limitations—United States, 1990. MMWR 1994;43:433–8.
2. Arthritis Foundation, Association of State and Territorial Health Officials, and CDC. National Arthritis Action Plan: a public health strategy. Atlanta, Georgia: Arthritis Foundation, 1999.
3. US Department of Health and Human Services. Healthy people 2010 (conference ed., 2 vols). Washington, DC: US Department of Health and Human Services, 2000.

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Health-Related Quality of Life Among Adults With Arthritis — Behavioral Risk Factor Surveillance System, 11 States, 1996–1998

Arthritis and other rheumatic conditions are the leading cause of disability in the United States (*1*), affecting 43 million persons in 1998 and—with the aging of the "baby boom" generation—are projected to affect an estimated 60 million by 2020 (*2*). In 1992, these conditions cost $65 billion in medical care and lost productivity (*3*) and were associated with 744,000 hospitalizations and 44 million ambulatory-care visits in 1997 (*4*). Because arthritis and other rheumatic conditions seldom cause death but have a substantial impact on health, health-related quality of life (HRQOL) measures are better indicators of their impact than related mortality rates. This report examines data from 11 states* that included an arthritis module in the 1996–1998 Behavioral Risk Factor Surveillance System (BRFSS); findings indicate that persons with arthritis have worse HRQOL than persons without arthritis, regardless of sex, age, or education level.

BRFSS is an ongoing state-based, random-digit–dialed telephone survey of the civilian, noninstitutionalized population aged ≥18 years (*5*). Four standard BRFSS questions defined the HRQOL measures (general self-rated health and the number of days during the 30 days preceding the survey when physical health was not good, mental health was not good, or usual activities were limited). Unhealthy days were defined as the total number of days when physical health and/or mental health were not good, with the restriction that this total could not exceed 30 days. Responses to the HRQOL questions were analyzed for 32,322 persons from the 11 states that used a six-item optional BRFSS arthritis module during 1996–1998. Persons with arthritis were defined as those having either chronic joint symptoms (CJS) or doctor-diagnosed arthritis. Persons were considered to have CJS if they responded "yes" to the questions "During the past 12 months, have you had pain, aching, stiffness, or swelling in or around a joint?" and "Were these symptoms present on most days for at least 1 month?" Persons who responded "yes" to the question "Have you ever been told by a doctor that you have arthritis?" were defined as having doctor-diagnosed arthritis. All other respondents were defined as persons without arthritis. The analyses used sample weights and SUDAAN statistical software to account for the complex survey design; selected analyses were adjusted for the potentially confounding effects of sex, age, and education level (*6,7*).

In the 11 states, 9899 (29%) persons reported having arthritis; 7414 (75%) had doctor- diagnosed arthritis. The age-adjusted (1970 U.S. population) prevalence varied by state and year, ranging from 24.2% to 35.1% in 1996, 17.7% to 30.9% in 1997, and 26.2% to 33.8% in 1998. The unadjusted prevalence of arthritis was higher among women than men, increased with age, and decreased at higher education levels; these differences persisted in a multivariate model with adjustments for sex, age, and education (Table 1).

Respondents with arthritis reported having fair or poor health approximately three times more often than respondents without arthritis (Table 2). Compared with persons without arthritis, persons with arthritis averaged 4.2 more days when physical health was not good, 1.6 more days when mental health was not good, 4.6 more unhealthy days, and 2.3 more days of recent activity limitation because of poor physical or mental health during the 30 days preceding the survey (p-values <0.01). These estimates did not change after adjusting for sex, age, and education level.

*Alabama, Arizona, Georgia, Hawaii, Kansas, Louisiana, Missouri, Montana, New Jersey, Ohio, and Rhode Island.

Arthritis — Continued

TABLE 1. Prevalence of arthritis* among persons aged ≥18 years, by selected characteristics — Behavioral Risk Factor Surveillance System, 11 states,† 1996–1998

Characteristic	Prevalence	(95% CI§)	Odds ratio¶	(95% CI)
Sex				
Women	33%	(32%–34%)	1.4	(1.3–1.5)
Men	25%	(24%–26%)	1.0	(ref)
Age group (yrs)				
18–44	16%	(15%–17%)	1.0	(ref)
45–64	39%	(37%–40%)	3.4	(3.1–3.6)
≥65	53%	(52%–55%)	5.5	(5.1–6.1)
Education level				
Less than high school	41%	(39%–44%)	1.3	(1.1–1.4)
High school graduate or some college	30%	(29%–31%)	1.0	(ref)
College graduate	21%	(20%–22%)	0.7	(0.6–0.7)
Total	**29%**	**(28%–30%)**	—	—

* Persons having either chronic joint symptoms or doctor-diagnosed arthritis.
† Alabama, Arizona, Georgia, Hawaii, Kansas, Louisiana, Missouri, Montana, New Jersey, Ohio, and Rhode Island.
§ Confidence interval.
¶ Multivariate model using weighted numbers including sex, age, and education.

During the 30 days preceding the survey, women with arthritis had an average of 4.4 more unhealthy days than women without arthritis, and men with arthritis had an average of 4.6 more unhealthy days than men without arthritis (Table 2). Among the three age groups, adults with arthritis had an average of 3.6 to 5.5 more unhealthy days than adults without arthritis. Among three education levels, adults with arthritis had an average of 2.9 to 6.7 more unhealthy days than adults without arthritis (p-values <0.01). These estimates did not change after adjusting for sex, age, and education.

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Editorial Note: The findings in this report indicate that persons with arthritis have substantially worse HRQOL than persons without arthritis. Among adults with arthritis, the largest number of unhealthy days was experienced by women, younger persons, and persons with less than a college education; among women and young persons, this was associated with more bad mental health days. Depression is common in persons with all types of arthritis and other rheumatic conditions, but depression is most clearly documented among persons with rheumatoid arthritis (*8*). Among persons with less than a college education (an indicator for socioeconomic status), more unhealthy days may reflect less access to health-care services or more physical labor that may lead to more symptomatic disease.

The findings in this report are subject to at least six limitations. First, because BRFSS does not ask about other common chronic conditions that affect HRQOL, this analysis

Arthritis — Continued

TABLE 2. Health-related quality of life measures among persons with and without arthritis,* by selected characteristics — Behavioral Risk Factor Surveillance System, 11 states,† 1996–1998

Characteristic	Persons with arthritis		Persons without arthritis	
	Estimate	(95% CI§)	Estimate	(95% CI)
Percentage with self-rated fair or poor health	28.6%	(27.4%–29.8%)	8.3%	(7.8%–8.8%)
Mean number of days during preceding 30 days				
Physical health days not good	5.9	(5.6– 6.1)	1.7	(1.6–1.8)
Mental health days not good	3.9	(3.7– 4.2)	2.3	(2.2–2.4)
Activity limitation days	3.3	(3.1– 3.6)	1.0	(0.9–1.1)
Mean number of unhealthy days during preceding 30 days	8.3	(7.9– 8.6)	3.7	(3.6–3.9)
Sex				
Women	8.9	(8.5– 9.3)	4.5	(4.3–4.7)
Men	7.8	(7.3– 8.3)	3.2	(3.0–3.4)
Age group (yrs)				
18–44	8.7	(8.2– 9.3)	4.3	(4.1–4.5)
45–64	9.0	(8.4– 9.5)	3.5	(3.2–3.7)
≥65	7.4	(6.9– 7.9)	3.8	(3.4–4.2)
Education level				
Less than high school	11.3	(10.4–12.1)	4.6	(4.1–5.2)
High school graduate or some college	7.8	(7.4– 8.2)	3.9	(3.7–4.1)
College graduate	6.0	(5.5– 6.6)	3.1	(2.9–3.3)

* Persons having either chronic joint symptoms or doctor-diagnosed arthritis.
† Alabama, Arizona, Georgia, Hawaii, Kansas, Louisiana, Missouri, Montana, New Jersey, Ohio, and Rhode Island.
§ Confidence interval.

could not adjust for these conditions in the study for comparison groups. Second, the BRFSS case definition for arthritis has not been validated, although validation studies are under way. However, in this report, the definition of "persons with CJS or doctor-diagnosed arthritis" may better identify those with arthritis and other rheumatic conditions because it is more comprehensive than a previous case definition that included only persons with CJS (*6*). Third, unhealthy days may be overestimated for persons who report both physical and mental unhealthy days when these days overlap. Fourth, because BRFSS excludes persons without telephones, those in institutions (e.g., nursing homes and the military), and persons aged <18 years, the arthritis prevalence rates do not represent the entire population. Fifth, the time and functional capacity required to complete BRFSS may limit participation by persons with arthritis who have poor health and limited function. Finally, the states participating in the BRFSS arthritis module may not be representative of other states.

This analysis shows that adults with arthritis report 4.6 more unhealthy days (a validated measure of HRQOL) compared with those without arthritis. The millions of persons who are affected by arthritis are the target for interventions to improve HRQOL. The *National Arthritis Action Plan (NAAP)—A Public Health Strategy* (*9*) identifies available

Arthritis — Continued

but underused interventions, such as the Arthritis Self-Help Course, which helps persons to decrease their pain and number of physician visits. The Arthritis Foundation estimates that these interventions reach <1% of the target population (*9*). State and local health agencies should consider using data from the BRFSS arthritis module and HRQOL measures to guide efforts in reaching the *Healthy People 2010* goal of increasing the quality and years of healthy life for persons with arthritis (*10*).

References

1. CDC. Prevalence of disabilities and associated health conditions—United States, 1991–1992. MMWR 1994;43:730–1,737–9.
2. CDC. Arthritis prevalence and activity limitations—United States, 1990. MMWR 1994;43:433–8.
3. Yelin E, Callahan LF. The economic cost and social and psychological impact of musculoskeletal conditions. Arthritis Rheum 1995;38:1351–62.
4. CDC. Impact of arthritis and other rheumatic conditions on the health-care system—United States, 1997. MMWR 1999;48:349–53.
5. CDC. Health risks in America: gaining insight from the Behavioral Risk Factor Surveillance System. Revised ed. Atlanta, Georgia: US Department of Health and Human Services, CDC, 1997.
6. CDC. Prevalence and impact of chronic joint symptoms—seven states, 1996. MMWR 1998;47:345–51.
7. CDC. Health-related quality of life and activity limitation—eight states, 1995. MMWR 1998;47:134–40.
8. Frank RG, Hagglund KJ. Mood disorders. In: Wegener ST, Belza BL, Gall EP, eds. Clinical care in the rheumatic diseases. Atlanta, Georgia: American College of Rheumatology, 1996.
9. Arthritis Foundation, Association of State and Territorial Health Officials, and CDC. National Arthritis Action Plan: a public health strategy. Atlanta, Georgia: Arthritis Foundation, 1999.
10. US Department of Health and Human Services. Healthy people 2010 (conference ed., 2 vols). Washington, DC: US Department of Health and Human Services, 2000. Available at http://www.health.gov/healthypeople. Accessed March 20, 2000.

Morbidity and Mortality Associated With Hurricane Floyd — North Carolina, September–October 1999

On September 16, 1999, Hurricane Floyd, a storm extending 300 miles with sustained winds of 96–110 miles per hour, made landfall in North Carolina, dropping up to 20 inches of rain in eastern regions of the state. Rain from Hurricane Floyd, combined with rains from Hurricane Dennis beginning on August 30 and Hurricane Irene on October 17, caused extensive flooding along the Neuse, Tar, Roanoke, Lumbar, and Cape Fear rivers, affecting an estimated 2.1 million persons. This report presents data about injuries, illnesses, and deaths during and following Hurricane Floyd in North Carolina and identifies the leading cause of death as drowning involving occupants of motor vehicles trapped in flood waters.

Epidemiologic information about deaths related to Hurricane Floyd were provided to CDC by the state medical examiner's office. To monitor illness and injury related to the hurricane and subsequent flood, emergency department (ED) surveillance was established at 20 hospitals in 18 flood-affected counties in eastern North Carolina. Standardized illness and injury classifications were developed and applied by a disaster response

Hurricane Floyd — Continued

team and ED staff during the surveillance period for comparison with similar periods in 1998. Diagnosis or chief symptoms for each patient visit was abstracted from daily ED logs to monitor trends during September 16–October 27, 1999. The 1999 illness and injury data were compared with data from 4 days in September 1998 (September 13 [Sunday], 15 [Tuesday], 17 [Thursday], and 19 [Saturday]) and 4 days in October 1998 (October 11 [Sunday], 13 [Tuesday], 15 [Thursday], and 17 [Saturday]). To compare a complete week of 1998 data with 1999 data, the September 1998 weekdays were weighted by multiplying by 2.5 and added to the weekend days; the same methods were applied to October 1998 data. Analysis of variance was used to compare the number of ED visits for each weekday during the 1999 surveillance period.

The medical examiner determined that 52 deaths were associated directly with the storm. Decedents ranged in age from 1 to 96 years (median: 43 years); 38 (73%) were males. Twenty counties reported at least one death; 40% of all deaths occurred in three counties. Of the 52 deaths, 35 (67%) occurred on September 16. The leading cause of death was drowning (Table 1); 24 (67%) deaths involved occupants of motor vehicles trapped in flood waters. Seven deaths occurred during transport by boat; flotation devices were not worn by any of the decedents. Five (10%) of the 52 decedents were rescue workers.

During September 16–October 27, 59,398 ED visits were reported; 67% related to illnesses and 33% to injuries. Four conditions accounted for 63% of all visits: orthopedic and soft tissue injury (28%), respiratory illness (15%), gastrointestinal illness (11%), and cardiovascular disease (9%); 19 cases of hypothermia occurred following the hurricane, including one death. EDs reported no hypothermia cases during the 1998 reference period. During the 1999 surveillance period, 10 cases of carbon monoxide poisoning were reported, compared with none during the 1998 reference period.

No statistical differences were found when comparing the number of ED visits with different days of the week during the surveillance period in 1999. Comparing the first week following Hurricane Floyd with the first week of September 1998, significant increases were reported in suicide attempts (relative risk [RR]=5.0; 95% confidence interval [CI]=1.4–17.1), dog bites (RR=4.1; 95% CI=2.0–8.1), febrile illnesses (RR=1.5; 95% CI=1.3–1.9), basic medical needs (e.g., oxygen, medication refills, dialysis, and vaccines) (RR=1.4; 95% CI=1.2–1.8), and dermatitis (RR=1.4; 95% CI=1.2–1.6). Comparing a week 1 month after Hurricane Floyd with the same period in 1998, significant increases were

TABLE 1. Deaths related to Hurricane Floyd, by cause of death — North Carolina, 1999

Cause of death	Number*	(%)
Drowning	36	(69)
In motor vehicle	*24*	
In boat	*7*	
As pedestrian	*4*	
In house	*1*	
Motor-vehicle crash (excluding drowning)	7	(13)
Myocardial infarction	4	(8)
Fire (burns and trauma from escape attempts)	2	(4)
Hypothermia	1	(2)
Electrocution	1	(2)
Fall	1	(2)

*n=52.

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reported in 1999 for arthropod bites (RR=2.2; 95% CI=1.4–3.4), diarrhea (RR=2.0; 95% CI=1.4–2.8), violence (i.e., assault, gunshot wounds, and rape) (RR=1.5; 95% CI=1.1–2.2), and asthma (RR=1.4; 95% CI=1.2–1.7). Routine surveillance by local public health workers following Hurricane Floyd identified outbreaks in shelters of self-limiting gastrointestinal disease and respiratory disease.

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Editorial Note: In areas where flash flooding occurs, water rises quickly, forcing persons to evacuate without preparation. During and after Hurricane Floyd, rural inland counties were the most severely affected (S. Yount, Federal Emergency Management Agency, personal communication, 2000). Persons residing in affected areas may not have recognized or been informed about the risks associated with severe storms. Most mortality and morbidity caused by inland hurricanes have been attributed to the effects of high winds (*1–3*); however, surveillance during and after Hurricane Floyd showed morbidity and mortality patterns similar to other flood-related disasters (*4–6*). Drowning was a major cause of death, especially among persons who attempted to drive through moving water.

Hurricane Floyd surveillance reports of nonfatal injuries and illnesses were similar to earlier storms, with reported increases in insect stings (*2,7,8*), dermatitis, diarrhea (*8*), and psychiatric conditions (*9*). Findings unique to Hurricane Floyd included increases in reports of hypothermia, dog bites, and asthma.

The findings in this report are subject to at least three limitations. First, the surveillance system was limited because the EDs did not represent the range of health-care services used by persons in flood-affected areas. Second, if ED logs contained misclassified diagnoses, some medical conditions might not have been identified and recorded properly. Third, on the basis of the assumption that diagnoses on weekdays do not vary, only 8 days of data were collected for September and October 1998, potentially limiting the strength of the comparison with 1999.

In the aftermath of Hurricane Floyd, some surveillance data suggest that public health intervention strategies could improve in future hurricane-related disasters. State agencies need to identify regional and local organizations that represent communities at risk. A coordinated disaster response could strengthen available resources and improve response scope and efficiency. Surveillance data also suggest that deaths from floods may be prevented by identifying flood-prone areas and advising persons at risk to take appropriate actions. Public service announcements, educational materials, and training

Hurricane Floyd — Continued

programs on hurricane preparedness should be made accessible to all communities before the hurricane season. For example, motorists should be warned not to drive through areas in imminent danger of flash floods or onto roads and bridges covered by rapidly moving water. If vehicles are necessary to evacuate a community, safe evacuation routes should be identified in advance. In addition, all persons using boats for transport should wear flotation devices. The deaths of five rescue workers suggest the need for occupational risk prevention training. Persons should take precautions against dog bites and hypothermia (*10*), and persons with asthma returning to flooded homes should guard against exposure to mold and mildew that may exacerbate respiratory symptoms (*10*). Throughout all phases of disaster relief, appropriate mental health services should be made available. In anticipation of the August–November hurricane season, community disaster planning should begin by early spring.

References

1. CDC. Deaths associated with hurricanes Marilyn and Opal—United States, September–October 1995. MMWR 1996;45:32–8.
2. Brewer RD, Morris PD, Cole TB. Hurricane-related emergency department visits in an inland area; an analysis of the public health impact of Hurricane Hugo in North Carolina. Ann Emerg Med 1994;23:731–6.
3. Philen RM, Combs DL, Miller L, Sanderson LM, Parrish RG, Ing R. Hurricane Hugo-related deaths: South Carolina and Puerto Rico, 1989. Disasters 1992;16:53–9.
4. CDC. Flood-related mortality—Georgia, July 4–14, 1994. MMWR 1994;43:526–30.
5. CDC. Public health consequences of a flood disaster—Iowa, 1993. MMWR 1993;42:653–6.
6. CDC. Storm-related mortality—central Texas, October 17–31, 1998. MMWR 2000;49:133–5.
7. CDC. Surveillance for injuries and illnesses and rapid health-needs assessment following hurricanes Marilyn and Opal, September–October 1995. MMWR 1996;45:81–5.
8. CDC. Morbidity surveillance following the Midwest flood—Missouri, 1993. MMWR 1993;42:797–8.
9. Longmire AW, Burch J, Broom LA. Morbidity of Hurricane Elena. So Med J 1988;81: 1343–6.
10. National Institute for Occupational Safety and Health. Update: NIOSH warns of hazards of flood cleanup work. Washington, DC: US Department of Health and Human Services, CDC, July 1994 (publication no. 94-123).

Surveillance for Possible Estuary-Associated Syndrome — Six States, 1998–1999

Pfiesteria piscicida (Pp) is an alga that has been associated with fish kills in estuaries (where fresh water mixes with salty seawater) along the eastern seaboard and possibly with human health effects (*1,2*). Since June 1, 1998, surveillance for possible estuary-associated syndrome (PEAS), including possible Pp-related human illness, has been conducted in Delaware, Florida, Maryland, North Carolina, South Carolina, and Virginia. This report summarizes passive surveillance for PEAS during June 1, 1998–December 31, 1999, which indicated no persons had illnesses that met PEAS criteria.

The PEAS surveillance system collects information about possible human health problems that may occur after exposure to estuarine water (such as sounds or coastal river mouths or in laboratories or aquaculture facilities). For surveillance purposes, persons are considered to have PEAS if 1) they report developing symptoms within 2 weeks after confirmed exposure to estuarine water; 2) they report memory loss or

Possible Estuary-Associated Syndrome — Continued

confusion of any duration and/or three or more selected symptoms (i.e., headache, skin rash at the site of water contact, sensation of burning skin, eye irritation, upper respiratory irritation, muscle cramps, and gastrointestinal symptoms) that, except for skin rash at the site of water contact and sensation of burning skin, persist for ≥2 weeks; and 3) a health-care provider cannot identify another cause for the symptoms.

The six state health agencies were available throughout the year to respond to inquiries from the public and health-care providers. Calls from persons requesting information or reporting symptoms that may be related to Pp or *Pfiesteria*-like organisms (PLOs) were recorded; environmental exposure and symptom information were recorded in the surveillance database. Surveillance information was periodically transferred to CDC for data aggregation and dissemination to the public.

From June 1, 1998, through December 31, 1999, the six state health departments received 1984 calls about Pp, PLOs, and PEAS (Table 1). Most (96%) calls involved requests for information about Pp, PLOs, or PEAS. Seventy-eight calls concerned a symptomatic person; 54 (69%) of these persons had possible exposure to estuarine water. Of the 54 persons, 44 were seen by or referred to a health-care provider. Of the 44, 24 did not meet PEAS symptom or exposure criteria, 15 had another cause for symptoms identified, and five have environmental and medical results pending. To date, no illnesses have met the PEAS criteria.

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TABLE 1. Possible estuary-associated syndrome (PEAS) — six states*, PEAS Surveillance System, June 1, 1998–December 31, 1999

Calls to surveillance system	January–June 1999	July–December 1999	Total 1999	Total 1998†	Cumulative 1998–1999
Requesting information only	512	451	963	943	1906
Reporting symptoms	12	21	33	45	78
Total	**524**	**472**	**996**	**988**	**1984**
Reporting symptoms and potential exposure to estuarine water§	8	16	24	30	54
No. seen by or referred to a health-care provider	6	13	19	25	44
No. for whom another cause of illness was identified by a health-care provider	1	5	6	9	15
No. with final results pending	0	4	4	1	5
Total no. meeting PEAS criteria¶	0	0	0	0	0

* Delaware, Florida, Maryland, North Carolina, South Carolina, and Virginia.
† For June–December 1998.
§ Some persons reporting symptoms and potential exposure had incomplete data or were lost to follow-up.
¶ Persons are considered to have PEAS if 1) they report developing symptoms within 2 weeks after confirmed exposure to estuarine water; 2) they report memory loss or confusion of any duration and/or three or more selected symptoms (i.e., headache, skin rash at the site of water contact, sensation of burning skin, eye irritation, upper respiratory irritation, muscle cramps, and gastrointestinal symptoms) that, except for skin rash at the site of water contact and sensation of burning skin, persist for ≥2 weeks; and 3) a health-care provider cannot identify another cause for the symptoms.

Possible Estuary-Associated Syndrome — Continued

Editorial Note: The greatest benefit of the PEAS surveillance system has been to provide information quickly to educate the public. Without specific tests, definitive diagnosis of illnesses associated with Pp or PLOs is not possible. However, health-care providers should continue to report suspected PEAS cases to their local health department. The PEAS criteria may change as new information becomes available from epidemiologic studies and laboratory tests are developed to identify Pp and its putative toxin in water and in human blood.

The lack of PEAS cases may be explained by few "fish events" that have possible links to Pp since June 1, 1998. Fish events include fish kills, large numbers of fish with ulcerative lesions, or fish displaying abnormal behavior. One possible reason for the low number of Pp blooms is the massive hurricane-related flooding during the previous 2 years. Floods can dilute estuaries or deposit contaminants into coastal waters that may affect the life cycle and behavior of Pp.

The findings in this report are subject to at least four limitations. First, because surveillance was passive, some cases may have been missed. Second, the number of information-only calls are underreported because several states do not track all information requests because of state differences in hotline system design. Third, data provided may have been incomplete because all states did not use the same data collection methods; however, a standardized core data collection method has been developed. Finally, the surveillance system tracks PEAS rather than Pp-related illness because a Pp toxin(s) has not been identified; therefore, a biomarker of exposure has not been developed. For this reason, association between PEAS and Pp remains to be established. Detection of Pp or lesioned fish in water has been used as evidence of suspected Pp toxin(s) (*3*). However, Pp has been found in waters without reports of harm to fish or persons, and fish lesions can result from a variety of biologic, physical, and environmental factors that may be unrelated to Pp. Consequently, detecting Pp or observing lesioned fish may not indicate the presence of a putative Pp toxin(s).

It is unclear whether persons exposed to Pp while swimming, boating, or engaging in other recreational activities in coastal waters are at risk for developing PEAS. PEAS is not infectious and has not been associated with eating fish or shellfish caught in waters where Pp has been found. However, persons should avoid areas with large numbers of diseased, dying, or dead fish and should promptly report those areas to the state's environmental or natural resource agency. In addition, persons should not go in or near the water in areas that are closed officially by the state and should not harvest or eat fish or shellfish from these areas.

Persons who experience health problems after exposure to estuarine water, a fish-disease event, or a fish-kill site should contact their health-care provider and state or local public health agency. Several states have established toll-free PEAS information lines: Delaware, (800) 523-3336; Florida, (888) 232-8635; Maryland, (888) 584-3110; North Carolina, (888) 823-6915; South Carolina, (888) 481-0125; and Virginia, (888) 238-6154.

References

1. Fleming LE, Easom J, Baden D, et al. Emerging harmful algal blooms and human health: *Pfiesteria* and related organisms. Toxicol Pathol 1999;27:573–81.
2. Grattan LM, Oldach D, Tracy JK, et al. Learning and memory difficulties after environmental exposure to waterways containing toxin-producing *Pfiesteria* or *Pfiesteria*-like dinoflagellates. Lancet 1998;352:532–9.
3. CDC. Results of the Public Health Response to *Pfiesteria* Workshop—Atlanta, Georgia, September 29–30, 1997. MMWR 1997;46:951–2.

Update: Influenza Activity — United States and Worldwide, 1999–2000 Season, and Composition of the 2000–01 Influenza Vaccine

Influenza A (H3N2) viruses were the predominant viruses isolated in the United States and worldwide during 1999–2000. This was the third consecutive year that influenza A/Sydney/05/97-like (H3N2) viruses were the most prevalent viruses isolated in the United States. Influenza activity in the United States was similar to the previous two seasons, although mortality measurements attributed to pneumonia and influenza (P&I) were unusually high. Overall, the 1999–2000 influenza vaccine was well matched to circulating influenza viruses. The 2000–01 influenza season will be the first for which influenza vaccination is recommended for all persons aged ≥50 years. This report summarizes surveillance for influenza in the United States and worldwide during the 1999–2000 influenza season, describes the composition of the 2000–01 influenza vaccine, and highlights changes in the recommendations for prevention and control of influenza.

United States

Influenza activity began to increase in mid-December 1999 and peaked during the weeks ending December 25, 1999 (week 51), and January 15, 2000 (week 2). Widespread* influenza activity was first reported during the week ending December 18, 1999 (week 50). The number of state and territorial epidemiologists reporting widespread or regional influenza activity peaked at 44 during the week ending January 15 (week 2) (Figure 1). No state has reported widespread or regional influenza activity since the week ending March 25 (week 12). The percentage of patient visits to U.S. sentinel physicians for influenza-like illness (ILI) increased above baseline levels (0–3%) to 4% during the week ending December 25, 1999 (week 51), and remained elevated for 4 consecutive weeks. The proportion of visits for ILI peaked at 6% during the week ending January 1 (week 52) and returned to baseline levels in all surveillance regions by the week ending February 5 (week 5) (Figure 2).

The proportion of deaths attributed to P&I reported by 122 U.S. cities exceeded the epidemic threshold† for 22 consecutive weeks beginning the week ending November 27 (week 47) through the week ending April 22 (week 16). The percentage of deaths attributed to P&I peaked at 11.2% during the week ending January 22 (week 3) (*1*).

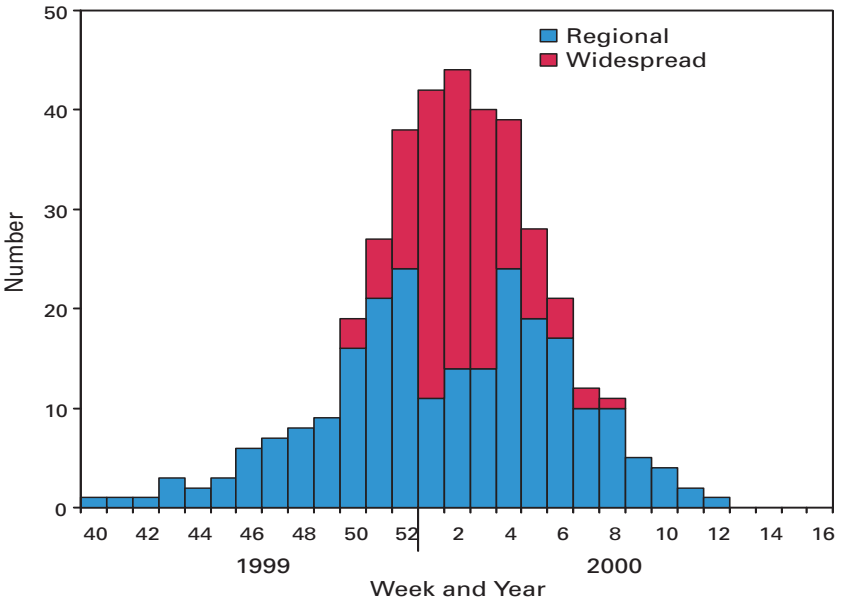
From October 3, 1999, through April 22, 2000, the predominant viruses isolated were influenza A (H3N2) with sporadic isolations of influenza B viruses throughout the season. Influenza A (H1N1) viruses were isolated sporadically throughout the season and increased in frequency during February–March. From October 3 through April 22, World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System collaborating laboratories tested 88,429 specimens for respiratory viruses; 13,623 (15%) were positive for influenza. The percentage of respiratory specimens positive for influenza peaked at 33% during the week ending December 25 (week 51) (Figure 3). Of

*Levels of activity are 1) *no activity*; 2) *sporadic*—sporadically occurring influenza-like illness (ILI) or culture-confirmed influenza with no outbreaks detected; 3) *regional*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of <50% of the state's total population; and 4) *widespread*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of ≥50% of the state's total population.

† The epidemic threshold is 1.645 standard deviations above the seasonal baseline. The expected seasonal baseline is projected using a robust regression procedure in which a periodic regression model is applied to observed percentages of deaths from P&I since 1983.

Influenza — Continued

FIGURE 1. Number of state and territorial epidemiologists reporting regional* or widespread† influenza activity, by week and year — United States, October 3, 1999, through April 22, 2000



* Outbreaks of influenza-like illness (ILI) or culture-confirmed influenza in counties with a combined population of <50% of the state's total population.

† Outbreaks of ILI or culture-confirmed influenza in counties with a combined population of ≥50% of the state's total population.

the specimens testing positive for influenza, 13,561 (99.5%) were influenza type A, and 62 (0.5%) were influenza type B. Of the 3742 influenza A viruses that were subtyped, 3622 (97%) were A (H3N2) viruses, and 120 (3%) were A (H1N1) viruses (Figure 3).

The 1999–2000 influenza vaccine strains were well matched to the circulating influenza virus strains. CDC antigenically characterized 593 influenza viruses received from U.S. laboratories since October 1. Of the 484 influenza A (H3N2) viruses tested, 469 (97%) were similar to the vaccine strain A/Sydney/05/97, and 15 (3%) showed somewhat reduced hemagglutination inhibition (HI) titers to ferret antiserum produced against the A/Sydney/05/97 virus. Of the 81 A (H1N1) viruses antigenically characterized, one (1%) was similar to the vaccine strain A/Beijing/262/95, 54 (67%) were related more closely to the recent antigenic variant A/New Caledonia/20/99, and 26 (32%) were similar to the A/Bayern/07/95 virus (*2*). A/Beijing/262/95 and A/Bayern/07/95 are antigenically distinct viruses, but vaccines containing the A/Beijing/262/95 strain induce high titers of antibody that cross-react with A/Bayern/07/95-like viruses (*2*). All 28 of the influenza type B viruses antigenically characterized were similar to the recommended B/Beijing/184/93-like virus represented in the 1999–2000 vaccine by the B/Yamanashi/166/98 virus.

Influenza — Continued

FIGURE 2. Percentage of patient visits to U.S. sentinel physicians for influenza-like illness, by week and year — United States, October 3, 1999, through April 22, 2000

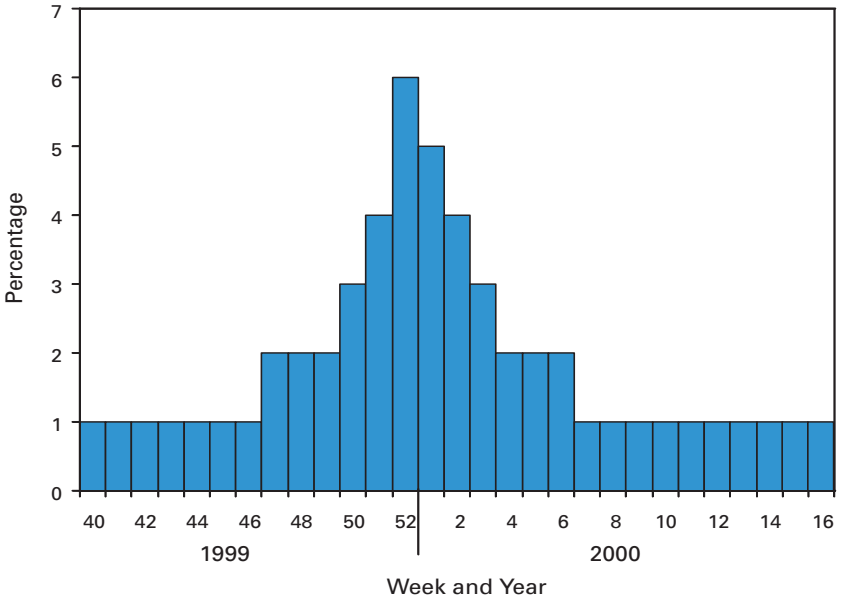
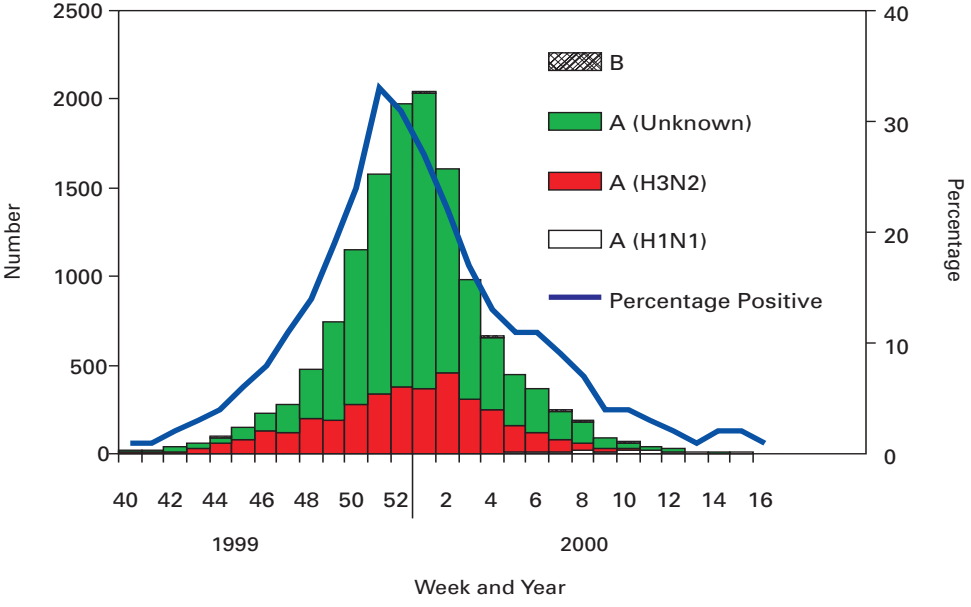


FIGURE 3. Number* and percentage of respiratory specimens testing positive for influenza reported by World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories, by week and year — United States, 1999–2000 season



* n=13,623.

Influenza — Continued

Worldwide

From October 3 through April 28, moderate to severe influenza outbreaks were reported in the Americas, Asia, and Europe. Influenza A (H3N2) viruses were associated with outbreaks in Africa (Tunisia), Asia (China, Hong Kong Special Administrative Region [SAR] of China, Iran, and Japan), Europe (Albania, Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, Ukraine, and United Kingdom), and North America (United States and Canada). Influenza A (H3N2) isolates from sporadic cases were reported from Argentina, Australia, Brazil, Republic of Cyprus, Egypt, Greece, Guam, French Guyana, India, Republic of Korea, Malaysia, Mauritius, Mexico, New Zealand, Peru, Philippines, Senegal, Singapore, South Africa, Syria, Taiwan, Thailand, Turkey, and the Federal Republic of Yugoslavia. Of the A (H3N2) isolates that were characterized antigenically, most were similar to the reference strains A/Moscow/10/99 (*2*) and A/Panama/2007/99 viruses. Many isolates also were closely related to the A/Sydney/05/97-like (H3N2) virus.

Influenza A (H1N1) outbreaks were reported in the Hong Kong SAR of China, Japan, and Spain. Isolates of influenza A (H1N1) from sporadic cases were reported from Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Iceland, Italy, Latvia, Philippines, Portugal, Russian Federation, Saudi Arabia, Singapore, South Africa, Spain, Thailand, United Kingdom, United States, and Vietnam. Of the A (H1N1) isolates that were characterized antigenically, most were similar to the A/New Caledonia/20/99 virus.

Influenza B viruses circulated at low levels, and isolates from sporadic cases were reported from Argentina, Australia, Brazil, Canada, China, Croatia, Czech Republic, Egypt, Finland, France, Germany, Hong Kong SAR of China, Hungary, Iceland, Israel, Italy, Japan, Republic of Korea, Madagascar, Malaysia, New Caledonia, New Zealand, Norway, Philippines, Russian Federation, Singapore, Senegal, South Africa, Spain, Sweden, Syria, Taiwan, Thailand, Tunisia, United Kingdom, United States, Vietnam, and the Federal Republic of Yugoslavia. Of the influenza B isolates that were characterized antigenically, most were related to B/Beijing/184/93 and B/Yamanashi/166/98 viruses.

Composition of the 2000–01 Influenza Vaccine

The Food and Drug Administration's Vaccines and Related Biologic Products Advisory Committee (VRBPAC) recommended A/New Caledonia/20/99-like (H1N1), A/Panama/2007/99-like (H3N2), and B/Yamanashi/166/98-like viruses for the 2000–01 U.S. trivalent influenza vaccine.[§] This recommendation was based on antigenic and molecular analyses of recently isolated influenza viruses, epidemiologic data, and postvaccination serologic studies in humans.

Although A/Sydney/05/97-like (H3N2) viruses have predominated in the United States for the last three influenza seasons, an increasing proportion of antigenically characterized A (H3N2) isolates worldwide were more similar to the A/Moscow/10/99 and A/Panama/2007/99 reference strains, two antigenically equivalent viruses. Vaccination with the 1999–2000 A/Sydney/05/97-like (H3N2) strain stimulated HI antibodies that were lower in titer and frequency to some recent A (H3N2) isolates (*2*). Therefore, VRBPAC

[§] The influenza A (H3N2) vaccine component recommended by WHO is an A/Moscow/10/99-like strain (*3*). The A/Panama/2007/99-like strain will be used by vaccine manufacturers in Europe and North America.

Influenza — Continued

recommended changing the A (H3N2) vaccine strain to A/Panama/2007/99-like (H3N2) virus.

Worldwide, most antigenically characterized influenza A(H1N1) virus isolates were similar to A/New Caledonia/20/99. Both A/New Caledonia/20/99 and A/Bayern/7/95 (A/Johnnesburg/82/96-like) (H1N1) viruses were isolated in the United States. The 1999–2000 vaccine contained an A/Beijing/262/95-like strain that induced a cross-reactive antibody response to A/Bayern/7/95-like viruses but induced lower titers of antibodies to A/New Caledonia/20/99-like strains (*2*). Therefore, VRBPAC recommended changing the A (H1N1) vaccine strain to A/New Caledonia/20/99-like (H1N1) virus.

Influenza type B viruses were isolated sporadically in the United States and worldwide and were antigenically similar to the 1999–2000 vaccine strain B/Beijing/184/93 and to the widely used equivalent vaccine strain B/Yamanashi/166/98. Therefore, VRBPAC recommended retaining B/Beijing184/93-like virus for the 2000–01 vaccine. Manufacturers will use the B/Yamanashi/16/98 strain as the 2000–01 influenza B vaccine component because of its growth properties and antigenic similarity to B/Beijing184/93-like viruses.

Reported by: Participating state and territorial epidemiologists and state public health laboratory directors. A Hay, PhD, World Health Organization (WHO) Collaborating Center for Reference and Research on Influenza, National Medical Institute for Medical Research, London, England. I Gust, MD, A Hampson, WHO Collaborating Center for Reference and Research on Influenza, Parkville, Australia. K Nerome, PhD, M Tashiro, MD, WHO Collaborating Center for Reference and Research on Influenza, National Institute of Infectious Diseases, Tokyo, Japan. L Canas, Armstrong Laboratory, Brooks Air Force Base, Texas. D Lavanchay, MD, Div of Emerging and Other Communicable Diseases Surveillance and Control, WHO National Influenza Centers, Geneva, Switzerland. National Respiratory Enteric Virus Surveillance System collaborating laboratories. WHO collaborating laboratories. Sentinel Physicians Influenza Surveillance System. R Levandowski, MD, Div of Virology, Center for Biologics Evaluation and Research, Food and Drug Administration. WHO Collaborating Center for Reference and Research on Influenza, Influenza Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; and an EIS Officer, CDC.

Editorial Note: During the 1999–2000 influenza season, influenza A (H3N2) viruses predominated in the United States and worldwide. This was the third consecutive season that influenza A/Sydney/05/97-like (H3N2) viruses were the most frequently isolated influenza viruses in the United States. Typically, influenza seasons in which influenza A (H3N2) viruses predominated have been more severe than seasons in which influenza A (H1N1) and influenza B viruses predominated (*4*). This season's influenza activity was similar to the previous two influenza seasons as indicated by reports from state and territorial epidemiologists, the percentage of respiratory specimens positive for influenza, and the proportion of visits for ILI. This was the fifth consecutive year in which the percentage of deaths attributed to P&I reported by 122 U.S. cities was above projected epidemic thresholds for a prolonged period, and this season's peak was higher than the peaks of the previous four seasons. However, whether this season's unusually high percentage of P&I deaths resulted from influenza activity, other respiratory pathogens, or changes in the surveillance reporting case definition is unknown (*1*). Overall, the 1999–2000 influenza vaccine strains were well matched to the circulating influenza virus strains.

Beginning with the 2000–01 influenza season, the Advisory Committee on Immunization Practices (ACIP) recommends that all persons aged ≥50 years receive annual influenza vaccination (*5*). This recommendation reduces the age for annual universal vaccination from 65 years to 50 years. The policy change was made to increase influenza

Influenza — Continued

vaccination among persons aged 50–64 years because a substantial proportion of persons in this age group (24%–32%) have chronic medical conditions that place them at high risk for influenza-related hospitalization and death (*5*). Vaccination levels of high-risk persons aged 50–64 years have been low, and age-based vaccination strategies have been more successful than risk-based vaccination strategies (*5*). No other changes have been made to the list of groups targeted for influenza vaccination. However, ACIP also recommended that persons planning large organized vaccination campaigns may consider scheduling these events after mid-October because the availability of vaccine in any location cannot be assured consistently in the early fall (*5*).

Although influenza activity typically peaks during December–March in temperate regions of the Northern Hemisphere, sporadic isolated outbreaks and large outbreaks of influenza during summer months have occurred (*6–8*). In temperate regions of the Southern Hemisphere, influenza activity peaks during May–August. In tropical regions, influenza viruses may circulate year-round. During the past two summers, large outbreaks of respiratory disease attributed to influenza occurred among persons traveling in organized overland groups and among passengers on cruise ships in Alaska and the Yukon Territory (*7,8*). Influenza outbreaks aboard cruise ships also have been reported during other times of the year worldwide (*9,10*). Persons at high risk for complications of influenza who will be traveling in large tour groups this summer 1) should consider receiving influenza vaccine if not vaccinated during the preceding fall or winter; and 2) might wish to consult their physicians to discuss the symptoms and risks for influenza and the advisability of carrying antiviral medications for either prophylaxis or treatment of influenza. This is particularly important if the group includes travelers from areas where influenza viruses are circulating or if travel will be to the Southern Hemisphere or the tropics. Physicians who evaluate persons who have traveled to these regions should consider influenza in the differential diagnosis of febrile respiratory illness during the summer. Use of rapid diagnostic tests can facilitate a diagnosis of influenza; however, such tests have lower sensitivity than viral culture. Additional information about influenza, influenza vaccine, and influenza in travelers is available on the World-Wide Web at http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm.

References

1. CDC. Update: influenza activity—United States, 1999–2000 season. MMWR 2000;49:173–7.
2. World Health Organization. Recommended composition of influenza virus vaccines for use in 2000. Wkly Epidemiol Rec 1999;74:321–5.
3. World Health Organization. Recommended composition of influenza virus vaccines for use in the 2000–2001 season. Wkly Epidemiol Rec 2000;75:61–5.
4. Simonsen L, Fukuda K, Schonberger LB, Cox NJ. The impact of influenza epidemics on hospitalizations. J Infect Dis 2000;181:831–7.
5. CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(no. RR-3).
6. CDC. Influenza A—Florida and Tennessee, July–August 1998, and virologic surveillance of influenza, May–August 1998. MMWR 1998;47:756–9.
7. CDC. Update: outbreak of influenza A infection—Alaska and the Yukon Territory, July–August 1998. MMWR 1998;47:685–8.
8. CDC. Outbreak of influenza A infection among travelers—Alaska and the Yukon Territory, May–June 1999. MMWR 1999;48:545–6,555.
9. Miller J, Tam T, Afif C, et al. Influenza A outbreak on a cruise ship. Can Commun Dis Rep 1998;24:9–11.

Influenza — Continued

10. Ferson M, Paraskevopoulos P, Hatzi S, et al. Presumptive summer influenza A: an outbreak on a trans-Tasman cruise. Commun Dis Intelligence 2000;24:45–7.

Notice to Readers

Alcohol and Other Drug-Related Birth Defects Awareness Week — May 14–20, 2000

The National Council on Alcoholism and Drug Dependence (NCADD) has designated May 14–20, 2000, as Alcohol and Other Drug-Related Birth Defects Awareness Week. This year's focus is early identification of childbearing-aged women (aged 15–44 years) with drinking problems. Two thirds of all pregnant women do not know they are pregnant until after the 4th week of pregnancy, and one third do not know until after the 6th week (*1*). Birth defects resulting from harmful alcohol exposure occur during the first 8–12 weeks of pregnancy, a period in which many problem drinkers do not know they are pregnant and continue to drink at levels that can be toxic to the developing fetus. Recent statistics from the National Household Survey of Drug Abuse (*2*) find that one in 50 pregnant women binge drink (consume five or more drinks in 1 day), resulting in approximately 80,000 alcohol-exposed pregnancies per year, and that one in eight childbearing-aged women (*3*) binge drink, potentially exposing an additional number of fetuses during the early first trimester before pregnancy recognition.

In September 1997, CDC implemented Project CHOICES, a pilot study aimed at preventing alcohol-exposed pregnancies among nonpregnant women who are at risk for an alcohol-exposed pregnancy. Sexually active women who binge drink or consume more than seven drinks a week are targeted for a behavioral intervention that teaches the consequences of drinking while pregnant and counsels women on how to reduce their risk drinking and postpone pregnancy until risk drinking is resolved. The Project CHOICES pilot study will conclude this fall and will be followed by a clinical trial to test the approach.

Additional information about fetal alcohol syndrome, Project CHOICES, and other programs is available through CDC's Fetal Alcohol Syndrome Branch, Division of Birth Defects, Child Development, and Disability and Health, National Center for Chronic Disease Prevention and Health Promotion, on the World-Wide Web at http://www.cdc.gov/nceh/programs/cddh/fashome.htm. Additional information about NCADD and materials on Alcohol and Other Drug-Related Birth Defects Awareness Week are available at the NCADD web site, http://www.ncadd.org.*

References

1. Floyd RL, Decoufle P, Hungerford DW. Alcohol use prior to pregnancy recognition. Am J Prev Med 1999;17:101–7.
2. Substance Abuse and Mental Health Services Administration, US Department of Health and Human Services. National Household Survey on Drug Abuse—main findings, 1998. Rockville, Maryland: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, 2000. (National Household Survey on Drug Abuse series: H-11).

*References to sites of non-CDC organizations on the World-Wide Web are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

Notices to Readers — Continued

3. US Department of Health and Human Services. 1997 Household Survey on Drug Abuse. Available at http://www.icpsr.umich.edu/SAMHDA/sda.html. Accessed April 20, 2000.

Notice to Readers

Symposium on Statistical Methods

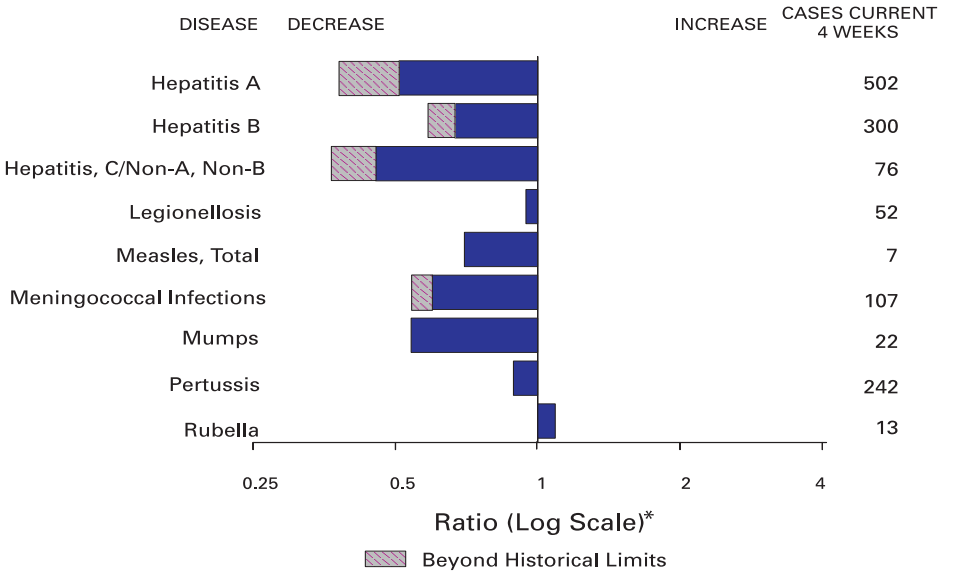
Statisticians, epidemiologists, and others with an interest in the application of statistical methods to public health are invited to participate in the eighth biennial Symposium on Statistical Methods. The symposium is sponsored by CDC and the Agency for Toxic Substances and Disease Registry (ATSDR) and will be held January 23–24, 2001, in Atlanta, Georgia. The theme for the symposium is "Issues Associated With Complicated Designs and Data Structures." A short course on a related topic will be offered on January 22, 2001, in conjunction with the symposium.

The symposium will include invited speakers and contributed papers. Authors can submit abstracts for contributed papers related to one or more of the session content areas listed below:

- Modeling and analysis of complicated data structures, including techniques for correlated, spatial, clustered, longitudinal, survey, environmental, and genetic data; repeated measures; empirical Bayes methods; medical errors; and hierarchical and causal modeling.
- Issues related to sparse and massive data sets, including missing values, limits of detection, low dosages or exposures, low response rates, noncompliance, rare conditions, and methods for large (number of observations or variables) data sets.
- Data collection and storage, including questionnaire and survey design, the use of data registries and surveillance systems, and database design.
- Use of software for exploratory and automated techniques, including data mining, multivariate adaptive regression splines, classification and regression trees, and signal/aberration detection.

Abstracts will be considered for either oral or poster presentation and must be postmarked no later than August 1, 2000. Authors of papers accepted for either oral or poster presentation will be notified by September 30, 2000. All accepted papers will be considered for publication in a dedicated issue of *Statistics in Medicine*. Registration, abstract information, forms, and additional information regarding the scientific content of the symposium are available on the World-Wide Web at http://www.cdc.gov/od/ads/sag; by mail to 2001 CDC and ATSDR Symposium on Statistical Methods, 4770 Buford Highway N.E., Mailstop K-21, Atlanta, GA 30341; telephone (770) 488-5185; fax (770) 488-5967; or e-mail to CJohnson3@cdc.gov.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending April 29, 2000, with historical data — United States



*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending April 29, 2000 (17th Week)

	Cum. 2000		Cum. 2000
Anthrax	-	HIV infection, pediatric*§	32
Brucellosis*	8	Plague	2
Cholera	-	Poliomyelitis, paralytic	-
Congenital rubella syndrome	2	Psittacosis*	4
Cyclosporiasis*	4	Rabies, human	-
Diphtheria	-	Rocky Mountain spotted fever (RMSF)	31
Encephalitis: California* serogroup viral	2	Streptococcal disease, invasive Group A	1,032
eastern equine*	-	Streptococcal toxic-shock syndrome*	37
St. Louis*	-	Syphilis, congenital¶	10
western equine*	-	Tetanus	5
Ehrlichiosis human granulocytic (HGE)*	19	Toxic-shock syndrome	44
human monocytic (HME)*	1	Trichinosis	2
Hansen Disease*	12	Typhoid fever	94
Hantavirus pulmonary syndrome*†	2	Yellow fever	-
Hemolytic uremic syndrome, post-diarrheal*	25		

-: no reported cases
*Not notifiable in all states.
† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§ Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update March 26, 2000.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending April 29, 2000, and May 1, 1999 (17th Week)

Reporting Area	AIDS		Chlamydia[§]		Cryptosporidiosis		*Escherichia coli* O157:H7*			
							NETSS		PHLIS	
	Cum. 2000[†]	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	10,143	14,727	174,274	214,089	325	489	438	382	271	327
NEW ENGLAND	666	759	6,801	6,882	17	25	34	58	37	55
Maine	11	15	368	223	4	2	3	4	3	-
N.H.	8	24	347	346	1	4	4	3	4	6
Vt.	1	5	188	163	8	2	1	6	2	1
Mass.	446	481	3,343	2,961	2	14	12	30	14	27
R.I.	21	52	755	738	2	-	-	1	-	3
Conn.	179	182	1,800	2,451	-	3	14	14	14	18
MID. ATLANTIC	2,471	3,595	8,919	25,914	33	104	58	24	45	13
Upstate N.Y.	131	402	N	N	24	31	56	19	38	1
N.Y. City	1,441	1,895	1,659	12,399	5	59	2	2	-	-
N.J.	563	752	1,295	4,153	-	7	-	3	2	12
Pa.	336	546	5,965	9,362	4	7	N	N	5	-
E.N. CENTRAL	921	1,104	29,302	33,878	58	81	81	71	21	54
Ohio	139	185	7,243	10,296	17	12	17	28	7	15
Ind.	88	146	4,034	3,865	5	7	17	13	7	10
Ill.	542	504	8,107	9,313	3	10	27	18	-	12
Mich.	114	214	7,981	6,785	10	13	12	12	4	11
Wis.	38	55	1,937	3,619	23	39	8	N	3	6
W.N. CENTRAL	203	286	8,361	12,447	26	29	86	73	60	73
Minn.	44	45	2,002	2,520	4	11	18	16	28	21
Iowa	15	37	1,389	1,326	6	6	17	8	4	2
Mo.	90	105	1,472	4,470	8	5	36	8	14	6
N. Dak.	-	4	61	318	1	-	2	3	4	2
S. Dak.	2	11	573	536	3	2	2	1	2	4
Nebr.	13	24	956	1,218	2	4	4	30	5	38
Kans.	39	60	1,908	2,059	2	1	7	7	3	-
S. ATLANTIC	2,848	4,079	37,569	44,611	58	88	36	42	20	30
Del.	45	50	989	938	1	-	-	2	-	-
Md.	271	466	3,536	4,471	5	5	6	2	1	-
D.C.	186	159	1,049	N	-	3	-	-	U	U
Va.	221	226	4,620	4,906	2	3	6	10	7	9
W. Va.	15	24	450	688	-	-	2	1	2	1
N.C.	128	268	6,635	7,740	6	1	8	8	2	8
S.C.	232	401	3,431	6,919	-	-	2	5	-	3
Ga.	300	583	6,678	9,159	32	58	3	2	3	U
Fla.	1,450	1,902	10,181	9,790	12	18	9	12	5	9
E.S. CENTRAL	415	631	15,992	14,816	13	4	25	26	16	17
Ky.	56	104	2,563	2,528	-	1	9	8	4	5
Tenn.	172	283	4,520	4,663	2	2	9	9	10	6
Ala.	120	111	5,250	3,658	7	1	1	4	-	5
Miss.	67	133	3,659	3,967	4	-	6	5	2	1
W.S. CENTRAL	824	1,544	28,410	28,174	10	32	17	16	30	22
Ark.	42	56	1,682	1,805	1	-	4	4	3	3
La.	143	161	5,467	4,452	-	16	-	3	11	3
Okla.	42	46	2,520	2,624	1	1	4	4	3	4
Tex.	597	1,281	18,741	19,293	8	15	9	5	13	12
MOUNTAIN	342	535	9,335	10,968	24	28	36	27	15	22
Mont.	5	4	400	431	1	2	8	1	-	-
Idaho	6	8	556	550	3	2	4	1	-	3
Wyo.	2	3	261	267	1	-	3	2	2	3
Colo.	70	102	1,051	2,367	6	4	12	10	7	5
N. Mex.	40	18	1,200	1,461	1	11	-	2	-	1
Ariz.	115	270	4,171	4,254	3	7	7	5	5	3
Utah	41	54	821	605	8	N	1	6	1	6
Nev.	63	76	875	1,033	1	2	1	-	-	1
PACIFIC	1,453	2,194	29,585	36,399	86	98	65	45	27	41
Wash.	148	115	4,014	3,851	N	N	9	11	13	17
Oreg.	35	50	1,466	2,077	2	8	9	13	9	10
Calif.	1,230	1,990	22,611	28,776	84	90	42	20	-	13
Alaska	5	6	825	658	-	-	1	-	-	-
Hawaii	35	33	669	1,037	-	-	4	1	5	1
Guam	13	1	-	155	-	-	N	N	U	U
P.R.	187	494	142	U	-	-	-	6	U	U
V.I.	16	13	-	U	-	U	-	U	U	U
Amer. Samoa	-	-	-	U	-	U	-	U	U	U
C.N.M.I.	-	-	-	U	-	U	-	U	U	U

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

* Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

† Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update March 26, 2000.

§ Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 29, 2000, and May 1, 1999 (17th Week)

Reporting Area	Gonorrhea		Hepatitis C/NA,NB		Legionellosis		Lyme Disease	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	92,402	113,353	719	1,180	209	282	973	1,581
NEW ENGLAND	1,839	2,244	20	4	12	20	110	404
Maine	25	17	-	-	2	2	-	1
N.H.	29	22	-	-	2	2	18	-
Vt.	17	19	2	2	-	3	1	-
Mass.	857	880	18	1	5	5	51	144
R.I.	198	193	-	1	-	2	-	10
Conn.	713	1,113	-	-	3	6	40	249
MID. ATLANTIC	6,075	13,829	17	44	39	78	675	843
Upstate N.Y.	1,973	1,937	17	21	18	21	335	296
N.Y. City	632	5,267	-	-	-	10	4	27
N.J.	668	2,410	-	-	-	5	-	137
Pa.	2,802	4,215	-	23	21	42	336	383
E.N. CENTRAL	18,315	20,165	80	678	58	85	9	60
Ohio	4,161	5,472	2	-	27	27	8	12
Ind.	1,851	2,161	1	-	13	7	-	2
Ill.	5,563	6,492	5	13	3	10	1	2
Mich.	5,546	4,578	72	217	10	25	-	1
Wis.	1,194	1,462	-	448	5	16	U	43
W.N. CENTRAL	2,824	5,165	165	51	15	10	40	24
Minn.	820	922	1	-	1	-	11	8
Iowa	310	303	-	-	3	4	1	2
Mo.	529	2,481	151	49	8	4	7	10
N. Dak.	4	34	-	-	-	-	-	1
S. Dak.	82	49	-	-	1	1	-	-
Nebr.	300	556	1	2	-	1	-	-
Kans.	779	820	12	-	2	-	21	3
S. ATLANTIC	28,131	33,491	34	75	44	31	113	168
Del.	540	583	-	-	4	2	10	7
Md.	2,480	4,242	5	21	13	4	78	133
D.C.	741	2,221	-	-	-	-	-	1
Va.	3,339	3,175	1	7	3	7	8	5
W. Va.	118	208	3	11	N	N	4	4
N.C.	5,756	6,663	8	18	5	6	4	16
S.C.	3,850	3,381	-	12	2	6	-	1
Ga.	4,271	6,141	-	1	2	-	-	-
Fla.	7,036	6,877	17	5	15	6	9	1
E.S. CENTRAL	11,243	11,666	133	75	6	14	-	22
Ky.	1,041	1,149	15	5	4	7	-	2
Tenn.	3,410	3,610	29	32	1	5	-	8
Ala.	3,943	3,416	4	1	1	2	-	6
Miss.	2,849	3,491	85	37	-	-	-	6
W.S. CENTRAL	14,841	15,967	137	129	2	1	-	4
Ark.	876	853	3	6	-	-	-	-
La.	3,964	3,853	47	97	-	1	-	2
Okla.	1,101	1,354	1	3	1	-	-	2
Tex.	8,900	9,907	86	23	1	-	-	-
MOUNTAIN	3,151	2,995	76	74	14	18	-	3
Mont.	8	16	1	4	-	-	-	-
Idaho	26	27	-	4	1	-	-	-
Wyo.	24	10	45	28	1	-	-	1
Colo.	1,019	708	12	10	6	1	-	-
N. Mex.	259	252	4	11	1	1	-	1
Ariz.	1,369	1,524	11	13	2	1	-	-
Utah	95	62	-	2	3	9	-	1
Nev.	351	396	3	2	-	6	-	-
PACIFIC	5,983	7,831	57	50	19	25	26	53
Wash.	722	690	7	4	6	7	-	1
Oreg.	168	297	12	6	N	N	2	2
Calif.	4,915	6,573	38	40	13	17	24	50
Alaska	95	121	-	-	-	1	-	-
Hawaii	83	150	-	-	-	-	N	N
Guam	-	23	-	-	-	-	-	-
P.R.	111	128	1	-	-	-	N	N
V.I.	-	U	-	U	-	U	-	U
Amer. Samoa	-	U	-	U	-	U	-	U
C.N.M.I.	-	U	-	U	-	U	-	U

N: Not notifiable U: Unavailable - : no reported cases

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 29, 2000, and May 1, 1999 (17th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	254	363	1,452	1,798	7,049	7,992	4,459	7,311
NEW ENGLAND	6	15	192	279	463	455	452	483
Maine	1	-	51	50	39	30	15	19
N.H.	-	-	3	16	25	18	29	20
Vt.	1	1	14	48	37	17	40	20
Mass.	2	6	65	58	266	272	253	273
R.I.	-	-	5	32	18	22	26	37
Conn.	2	8	54	75	78	96	89	114
MID. ATLANTIC	35	114	287	338	902	1,164	809	870
Upstate N.Y.	16	25	213	224	254	249	203	264
N.Y. City	13	52	U	U	242	332	311	339
N.J.	-	26	47	70	197	283	124	253
Pa.	6	11	27	44	209	300	171	14
E.N. CENTRAL	27	40	9	14	1,065	1,271	542	1,084
Ohio	3	5	2	5	274	257	173	211
Ind.	2	6	-	-	124	95	99	97
Ill.	13	18	-	-	343	418	1	399
Mich.	9	8	7	9	190	275	193	252
Wis.	-	3	-	-	134	226	76	125
W.N. CENTRAL	14	13	148	236	383	478	381	575
Minn.	4	2	24	31	43	144	115	195
Iowa	-	3	21	37	56	55	25	50
Mo.	1	7	4	7	151	140	128	185
N. Dak.	2	-	39	48	14	8	18	19
S. Dak.	-	-	32	70	21	17	24	26
Nebr.	1	-	-	1	34	45	37	41
Kans.	6	1	28	42	64	69	34	59
S. ATLANTIC	70	81	614	655	1,331	1,471	803	1,286
Del.	2	-	10	19	20	29	22	37
Md.	26	25	137	141	204	201	173	213
D.C.	2	7	-	-	1	27	U	U
Va.	16	18	141	155	147	180	139	138
W. Va.	-	1	38	37	39	25	27	26
N.C.	7	7	133	136	207	273	122	260
S.C.	-	-	45	51	118	86	79	95
Ga.	1	7	67	61	226	269	235	366
Fla.	16	16	43	55	369	381	6	151
E.S. CENTRAL	11	8	61	87	385	430	227	282
Ky.	2	2	9	19	79	90	36	71
Tenn.	2	3	37	28	98	120	109	103
Ala.	6	3	15	40	131	132	74	93
Miss.	1	-	-	-	77	88	8	15
W.S. CENTRAL	2	11	23	37	433	651	485	584
Ark.	1	2	-	-	77	80	22	64
La.	1	7	-	-	27	104	95	110
Okla.	-	1	23	37	72	84	55	58
Tex.	-	1	-	-	257	383	313	352
MOUNTAIN	16	15	51	57	744	686	473	659
Mont.	1	2	13	21	23	16	-	1
Idaho	-	1	-	-	40	22	-	30
Wyo.	-	-	21	20	11	8	3	9
Colo.	8	5	-	1	220	225	186	231
N. Mex.	-	2	3	-	61	84	44	83
Ariz.	2	4	13	15	214	179	144	157
Utah	3	1	1	-	112	98	96	103
Nev.	2	-	-	-	63	54	-	45
PACIFIC	73	66	67	95	1,343	1,386	287	1,488
Wash.	5	5	-	-	93	117	127	207
Oreg.	17	7	-	1	92	106	107	141
Calif.	50	49	55	89	1,080	1,058	-	1,049
Alaska	-	-	12	5	20	11	8	6
Hawaii	1	5	-	-	58	94	45	85
Guam	-	-	-	-	-	19	U	U
P.R.	-	-	12	33	14	146	U	U
V.I.	-	U	-	U	-	U	U	U
Amer. Samoa	-	U	-	U	-	U	U	U
C.N.M.I.	-	U	-	U	-	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 29, 2000, and May 1, 1999 (17th Week)

Reporting Area	Shigellosis* NETSS Cum. 2000	Shigellosis* NETSS Cum. 1999	Shigellosis* PHLIS Cum. 2000	Shigellosis* PHLIS Cum. 1999	Syphilis (Primary & Secondary) Cum. 2000	Syphilis (Primary & Secondary) Cum. 1999	Tuberculosis Cum. 2000	Tuberculosis Cum. 1999†
UNITED STATES	4,219	3,856	1,666	2,216	1,910	2,193	2,799	4,417
NEW ENGLAND	88	92	69	86	25	24	91	115
Maine	2	1	-	-	-	-	2	6
N.H.	1	6	1	5	-	-	2	1
Vt.	1	4	-	3	-	1	-	-
Mass.	64	57	49	53	21	14	64	57
R.I.	7	12	7	8	1	1	7	15
Conn.	13	12	12	17	3	8	16	36
MID. ATLANTIC	529	315	316	176	55	93	600	727
Upstate N.Y.	274	68	94	22	4	7	59	75
N.Y. City	224	100	155	84	17	38	349	356
N.J.	-	93	35	70	11	21	160	149
Pa.	31	54	32	-	23	27	32	147
E.N. CENTRAL	696	668	234	345	396	341	352	369
Ohio	59	201	33	39	23	28	58	75
Ind.	126	23	11	10	156	103	19	23
Ill.	211	252	2	221	109	147	215	171
Mich.	243	96	179	61	88	49	33	73
Wis.	57	96	9	14	20	14	27	27
W.N. CENTRAL	314	216	171	177	19	54	152	158
Minn.	47	30	60	35	2	5	51	68
Iowa	58	2	21	4	8	3	13	12
Mo.	170	146	76	117	5	39	63	55
N. Dak.	1	2	1	2	-	-	-	1
S. Dak.	1	5	-	3	-	-	8	3
Nebr.	18	17	8	9	2	4	6	6
Kans.	19	14	5	7	2	3	11	13
S. ATLANTIC	596	632	107	145	633	791	540	875
Del.	4	7	3	2	2	1	-	11
Md.	34	40	10	8	99	154	70	73
D.C.	-	24	U	U	17	45	2	14
Va.	24	23	15	5	40	59	46	83
W. Va.	2	3	2	1	1	2	14	15
N.C.	37	73	16	36	180	180	92	123
S.C.	9	32	4	12	70	92	26	109
Ga.	67	69	25	25	104	141	112	152
Fla.	419	361	32	56	120	117	178	295
E.S. CENTRAL	216	375	91	208	307	394	199	244
Ky.	41	39	21	26	32	41	33	30
Tenn.	115	266	63	162	193	199	79	77
Ala.	12	43	5	19	41	99	87	101
Miss.	48	27	2	1	41	55	-	36
W.S. CENTRAL	396	670	334	276	269	325	78	672
Ark.	66	39	3	21	30	26	48	40
La.	19	57	50	40	63	68	-	U
Okla.	11	168	6	51	63	74	30	30
Tex.	300	406	275	164	113	157	-	602
MOUNTAIN	314	214	98	124	69	64	127	143
Mont.	2	4	-	-	-	-	4	5
Idaho	26	3	-	3	-	-	2	-
Wyo.	1	2	1	1	1	-	-	1
Colo.	43	40	21	29	2	-	12	U
N. Mex.	37	31	15	19	7	3	19	21
Ariz.	126	109	43	51	57	60	59	71
Utah	21	16	18	15	-	1	8	13
Nev.	58	9	-	6	2	-	23	32
PACIFIC	1,070	674	246	679	137	107	660	1,114
Wash.	206	29	188	40	18	16	64	54
Oreg.	80	20	49	20	2	1	-	34
Calif.	764	609	-	604	117	88	541	953
Alaska	7	-	1	-	-	1	21	23
Hawaii	13	16	8	15	-	1	34	50
Guam	-	4	U	U	-	-	-	-
P.R.	1	27	U	U	36	69	-	61
V.I.	-	U	U	U	-	U	-	U
Amer. Samoa	-	U	U	U	-	U	-	U
C.N.M.I.	-	U	U	U	-	U	-	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending April 29, 2000, and May 1, 1999 (17th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 2000†	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	389	431	3,578	6,197	1,543	2,013	-	10	2	5	15	42
NEW ENGLAND	22	29	84	71	14	55	-	-	-	-	-	7
Maine	1	2	6	2	2	-	-	-	-	-	-	-
N.H.	6	5	8	7	6	4	-	-	-	-	-	1
Vt.	2	4	3	1	3	1	-	-	-	-	-	-
Mass.	8	12	36	24	3	24	-	-	-	-	-	6
R.I.	1	-	1	6	-	10	-	-	-	-	-	-
Conn.	4	6	30	31	-	16	U	-	U	-	-	-
MID. ATLANTIC	55	67	154	399	169	298	-	-	-	-	-	2
Upstate N.Y.	26	27	76	79	35	61	-	-	-	-	-	2
N.Y. City	12	21	78	106	134	101	-	-	-	-	-	-
N.J.	13	18	-	50	-	35	-	-	-	-	-	-
Pa.	4	1	-	164	-	101	U	-	U	-	-	-
E.N. CENTRAL	54	61	463	1,215	186	185	-	3	-	-	3	1
Ohio	24	24	115	275	36	33	-	2	-	-	2	-
Ind.	7	8	17	46	15	10	-	-	-	-	-	1
Ill.	19	24	158	228	15	-	-	-	-	-	-	-
Mich.	4	5	160	628	119	129	-	1	-	-	1	-
Wis.	-	-	13	38	1	13	-	-	-	-	-	-
W.N. CENTRAL	15	26	402	262	124	92	-	1	-	-	1	-
Minn.	7	12	36	18	7	12	-	-	-	-	-	-
Iowa	-	1	36	53	19	15	-	-	-	-	-	-
Mo.	4	6	235	150	78	54	-	-	-	-	-	-
N. Dak.	1	-	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	1	-	8	-	-	-	-	-	-	-	-
Nebr.	1	3	7	27	8	10	-	-	-	-	-	-
Kans.	2	3	88	6	12	1	U	1	U	-	1	-
S. ATLANTIC	111	88	443	540	331	324	-	-	1	1	1	4
Del.	-	-	-	1	-	-	-	-	-	-	-	-
Md.	25	27	58	121	40	69	-	-	-	-	-	-
D.C.	-	2	2	23	6	7	U	-	U	-	-	-
Va.	20	10	49	46	42	36	U	-	U	-	-	3
W. Va.	3	1	34	5	2	8	-	-	-	-	-	-
N.C.	8	16	77	45	92	69	-	-	1	1	1	-
S.C.	5	2	14	8	2	35	-	-	-	-	-	-
Ga.	33	21	53	161	45	41	-	-	-	-	-	-
Fla.	17	9	156	130	102	59	-	-	-	-	-	1
E.S. CENTRAL	20	34	131	153	98	151	-	-	-	-	-	2
Ky.	9	5	18	29	27	12	-	-	-	-	-	2
Tenn.	8	16	21	65	28	70	-	-	-	-	-	-
Ala.	3	11	22	30	9	38	-	-	-	-	-	-
Miss.	-	2	70	29	34	31	-	-	-	-	-	-
W.S. CENTRAL	21	31	569	1,513	77	253	-	-	-	-	-	2
Ark.	-	1	58	16	30	23	-	-	-	-	-	-
La.	4	9	11	56	18	67	-	-	-	-	-	-
Okla.	17	19	117	205	29	44	-	-	-	-	-	-
Tex.	-	2	383	1,236	-	119	-	-	-	-	-	2
MOUNTAIN	51	48	300	531	137	196	-	6	1	1	7	-
Mont.	-	1	1	7	3	8	U	-	U	-	-	-
Idaho	2	1	12	18	4	10	-	-	-	-	-	-
Wyo.	-	1	6	3	-	2	-	-	-	-	-	-
Colo.	11	5	57	92	28	29	-	1	1	1	2	-
N. Mex.	10	10	31	19	34	73	-	-	-	-	-	-
Ariz.	24	26	153	324	51	42	-	-	-	-	-	-
Utah	4	3	19	22	4	9	-	3	-	-	3	-
Nev.	-	1	21	46	13	23	-	2	-	-	2	-
PACIFIC	40	47	1,032	1,513	407	459	-	-	-	3	3	24
Wash.	3	-	86	92	15	18	-	-	-	-	-	5
Oreg.	13	16	71	93	33	38	U	-	U	-	-	8
Calif.	11	26	871	1,321	351	391	U	-	U	3	3	11
Alaska	1	4	4	4	3	7	-	-	-	-	-	-
Hawaii	12	1	-	3	5	5	-	-	-	-	-	-
Guam	-	-	-	2	-	2	U	-	U	-	-	1
P.R.	-	1	16	93	21	93	-	-	-	-	-	-
V.I.	-	U	-	U	-	U	U	-	U	-	-	U
Amer. Samoa	-	U	-	U	-	U	U	-	U	-	-	U
C.N.M.I.	-	U	-	U	-	U	U	-	U	-	-	U

N: Not notifiable U: Unavailable - : no reported cases

*For imported measles, cases include only those resulting from importation from other countries.

†Of 87 cases among children aged <5 years, serotype was reported for 38 and of those, 7 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending April 29, 2000, and May 1, 1999 (17th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	796	957	2	120	134	53	1,290	1,999	6	25	32
NEW ENGLAND	49	52	-	2	3	9	346	180	-	5	7
Maine	3	3	-	-	-	-	9	-	-	-	-
N.H.	3	9	-	-	1	3	52	30	-	1	-
Vt.	2	3	-	-	-	5	74	9	-	-	-
Mass.	31	29	-	-	2	1	193	133	-	3	7
R.I.	3	2	-	1	-	-	6	3	-	-	-
Conn.	7	6	U	1	-	U	12	5	U	1	-
MID. ATLANTIC	75	90	-	7	15	2	113	427	-	2	3
Upstate N.Y.	16	25	-	5	2	2	71	371	-	2	2
N.Y. City	17	28	-	-	3	-	-	10	-	-	-
N.J.	20	14	-	-	-	-	-	10	-	-	1
Pa.	22	23	U	2	10	U	42	36	U	-	-
E.N. CENTRAL	134	167	-	14	16	2	177	169	-	-	-
Ohio	28	59	-	6	6	-	131	93	-	-	-
Ind.	20	15	-	-	-	-	12	8	-	-	-
Ill.	35	55	-	3	4	1	14	27	-	-	-
Mich.	39	19	-	5	6	1	10	18	-	-	-
Wis.	12	19	-	-	-	-	10	23	-	-	-
W.N. CENTRAL	65	114	-	10	4	10	57	38	-	2	6
Minn.	3	26	-	-	-	10	31	-	-	-	-
Iowa	12	21	-	4	3	-	10	13	-	-	-
Mo.	42	44	-	1	1	-	7	10	-	-	-
N. Dak.	1	-	-	-	-	-	1	-	-	-	-
S. Dak.	4	5	-	-	-	-	1	2	-	-	-
Nebr.	1	7	-	2	-	-	2	1	-	-	6
Kans.	2	11	U	3	-	U	5	12	U	2	-
S. ATLANTIC	125	134	1	17	26	2	97	91	6	12	2
Del.	-	2	-	-	-	-	1	-	-	-	-
Md.	12	25	-	4	4	1	29	33	-	-	1
D.C.	-	1	U	-	1	U	-	-	U	-	-
Va.	19	20	U	4	8	U	10	12	U	-	-
W. Va.	3	2	-	-	-	-	-	1	-	-	-
N.C.	25	18	1	3	5	1	29	22	6	6	1
S.C.	9	19	-	6	2	-	15	7	-	6	-
Ga.	22	24	-	-	-	-	13	6	-	-	-
Fla.	35	23	-	-	6	-	-	10	-	-	-
E.S. CENTRAL	57	77	-	3	3	2	29	44	-	4	-
Ky.	12	15	-	-	-	-	16	12	-	1	-
Tenn.	26	29	-	2	-	2	4	22	-	-	-
Ala.	16	21	-	1	1	-	8	8	-	3	-
Miss.	3	12	-	-	2	-	1	2	-	-	-
W.S. CENTRAL	51	78	-	1	15	1	7	52	-	-	5
Ark.	5	16	-	1	-	1	7	4	-	-	-
La.	13	33	-	-	2	-	-	2	-	-	-
Okla.	17	17	-	-	1	-	-	3	-	-	-
Tex.	16	12	-	-	12	-	-	43	-	-	5
MOUNTAIN	51	73	1	9	8	11	272	232	-	-	7
Mont.	1	-	U	1	-	U	1	1	U	-	-
Idaho	6	8	-	-	-	-	35	87	-	-	-
Wyo.	-	2	-	-	-	-	-	2	-	-	-
Colo.	12	20	-	1	3	5	149	58	-	-	-
N. Mex.	7	8	-	1	N	2	50	13	-	-	-
Ariz.	16	25	-	-	-	3	29	42	-	-	6
Utah	7	5	1	4	4	1	5	27	-	-	1
Nev.	2	5	-	2	1	-	3	2	-	-	-
PACIFIC	189	172	-	57	44	14	192	766	-	-	2
Wash.	15	24	-	2	1	14	78	394	-	-	-
Oreg.	24	32	N	N	N	U	24	10	U	-	-
Calif.	144	107	U	51	37	U	81	342	U	-	2
Alaska	3	5	-	3	1	-	5	3	-	-	-
Hawaii	3	4	-	1	5	-	4	17	-	-	-
Guam	-	-	U	-	1	U	-	1	U	-	-
P.R.	2	7	-	-	-	-	-	4	-	-	-
V.I.	-	U	U	-	U	U	-	U	U	-	U
Amer. Samoa	-	U	U	-	U	U	-	U	U	-	U
C.N.M.I.	-	U	U	-	U	U	-	U	U	-	U

N: Not notifiable U: Unavailable - : no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending April 29, 2000 (17th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	532	395	84	29	11	13	70
Boston, Mass.	140	92	29	8	5	6	20
Bridgeport, Conn.	26	21	3	2	-	-	2
Cambridge, Mass.	23	17	4	1	1	-	7
Fall River, Mass.	35	31	3	-	-	1	5
Hartford, Conn.	57	41	5	7	1	3	9
Lowell, Mass.	35	26	7	2	-	-	7
Lynn, Mass.	14	12	2	-	-	-	-
New Bedford, Mass.	27	22	5	-	-	-	2
New Haven, Conn.	41	26	9	4	-	2	3
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	3	3	-	-	-	-	1
Springfield, Mass.	53	41	6	3	3	-	6
Waterbury, Conn.	17	14	2	-	-	1	3
Worcester, Mass.	61	49	9	2	1	-	5
MID. ATLANTIC	2,296	1,630	427	158	35	44	113
Albany, N.Y.	44	33	7	2	1	1	6
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	99	74	14	7	2	2	8
Camden, N.J.	39	20	17	2	-	-	1
Elizabeth, N.J.	28	23	3	2	-	-	-
Erie, Pa.§	44	32	6	3	1	2	4
Jersey City, N.J.	33	21	7	4	-	1	-
New York City, N.Y.	1,054	754	191	79	10	19	31
Newark, N.J.	71	53	8	3	4	3	2
Paterson, N.J.	30	17	5	5	2	1	-
Philadelphia, Pa.	466	306	106	37	11	5	26
Pittsburgh, Pa.§	43	30	9	-	-	4	5
Reading, Pa.	43	32	4	2	2	3	5
Rochester, N.Y.	128	100	20	6	1	1	11
Schenectady, N.Y.	22	16	5	1	-	-	-
Scranton, Pa.§	22	20	1	1	-	-	-
Syracuse, N.Y.	103	77	20	3	1	2	12
Trenton, N.J.	10	9	-	1	-	-	1
Utica, N.Y.	17	13	4	-	-	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,144	1,457	422	154	50	60	173
Akron, Ohio	52	33	9	6	2	2	1
Canton, Ohio	44	27	15	2	-	-	6
Chicago, Ill.	432	285	88	35	11	12	47
Cincinnati, Ohio	82	49	21	4	3	5	9
Cleveland, Ohio	144	89	34	12	3	6	6
Columbus, Ohio	197	131	47	11	2	6	10
Dayton, Ohio	126	86	25	12	1	2	12
Detroit, Mich.	216	134	49	18	9	6	23
Evansville, Ind.	43	36	4	2	-	1	2
Fort Wayne, Ind.	78	61	10	6	1	-	5
Gary, Ind.	21	10	7	3	-	1	1
Grand Rapids, Mich.	63	47	11	4	-	1	16
Indianapolis, Ind.	186	132	27	14	6	7	4
Lansing, Mich.	39	29	6	4	-	-	5
Milwaukee, Wis.	138	94	27	11	1	5	6
Peoria, Ill.	48	31	9	4	2	2	5
Rockford, Ill.	49	35	10	2	1	1	-
South Bend, Ind.	48	42	1	1	3	1	6
Toledo, Ohio	91	66	17	2	4	2	8
Youngstown, Ohio	47	40	5	1	1	-	1
W.N. CENTRAL	722	517	119	44	21	20	44
Des Moines, Iowa	69	49	11	7	-	2	7
Duluth, Minn.	16	10	4	-	-	1	-
Kansas City, Kans.	36	19	12	2	3	-	3
Kansas City, Mo.	86	68	8	5	3	2	5
Lincoln, Nebr.	32	24	5	2	-	1	2
Minneapolis, Minn.	148	110	20	12	3	3	10
Omaha, Nebr.	97	69	18	4	1	5	3
St. Louis, Mo.	102	65	19	9	5	4	-
St. Paul, Minn.	71	54	9	2	4	2	10
Wichita, Kans.	65	49	13	1	2	-	4
S. ATLANTIC	1,172	763	234	126	33	16	75
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	215	120	52	34	6	3	14
Charlotte, N.C.	111	74	17	13	3	4	12
Jacksonville, Fla.	134	76	31	17	5	5	11
Miami, Fla.	94	66	11	14	2	1	6
Norfolk, Va.	41	30	6	2	2	1	-
Richmond, Va.	46	31	10	3	1	1	1
Savannah, Ga.	46	32	5	6	3	-	5
St. Petersburg, Fla.	57	42	10	3	2	-	3
Tampa, Fla.	204	148	40	10	6	-	16
Washington, D.C.	200	120	52	24	3	1	7
Wilmington, Del.	24	24	-	-	-	-	-
E.S. CENTRAL	874	602	167	60	33	12	77
Birmingham, Ala.	158	109	28	11	7	3	15
Chattanooga, Tenn.	99	69	20	6	2	2	5
Knoxville, Tenn.	63	48	12	1	2	-	4
Lexington, Ky.	87	60	14	6	5	2	9
Memphis, Tenn.	179	124	38	9	6	2	18
Mobile, Ala.	79	54	16	6	3	-	5
Montgomery, Ala.	53	38	7	6	1	1	8
Nashville, Tenn.	156	100	32	15	7	2	13
W.S. CENTRAL	1,425	900	326	124	49	26	89
Austin, Tex.	90	61	20	4	4	1	5
Baton Rouge, La.	49	32	13	2	1	1	-
Corpus Christi, Tex.	53	38	9	4	2	-	4
Dallas, Tex.	196	114	51	18	6	7	11
El Paso, Tex.	87	51	24	4	6	2	3
Ft. Worth, Tex.	88	54	22	7	1	4	6
Houston, Tex.	361	221	71	49	15	5	28
Little Rock, Ark.	57	39	11	3	3	1	4
New Orleans, La.	121	72	34	7	6	2	4
San Antonio, Tex.	136	90	33	11	1	1	15
Shreveport, La.	63	41	16	4	2	-	2
Tulsa, Okla.	124	87	22	11	2	2	7
MOUNTAIN	1,027	678	205	83	41	20	71
Albuquerque, N.M.	124	78	27	13	5	1	9
Boise, Idaho	58	40	11	4	1	2	3
Colo. Springs, Colo.	43	33	3	4	3	-	-
Denver, Colo.	94	67	12	9	3	3	11
Las Vegas, Nev.	218	126	63	20	7	2	17
Ogden, Utah	27	20	5	1	1	-	2
Phoenix, Ariz.	179	119	31	12	10	7	9
Pueblo, Colo.	35	25	6	2	1	1	1
Salt Lake City, Utah	116	75	22	12	4	3	16
Tucson, Ariz.	133	95	25	6	6	1	3
PACIFIC	1,709	1,205	301	127	26	48	160
Berkeley, Calif.	21	19	1	-	-	1	1
Fresno, Calif.	101	69	19	11	1	1	6
Glendale, Calif.	26	23	-	3	-	-	10
Honolulu, Hawaii	89	67	15	3	-	4	6
Long Beach, Calif.	68	44	16	5	-	3	8
Los Angeles, Calif.	369	250	68	36	7	8	24
Pasadena, Calif.	35	34	-	1	-	-	6
Portland, Oreg.	154	110	24	10	2	8	9
Sacramento, Calif.	172	123	32	8	3	6	16
San Diego, Calif.	162	111	26	18	5	2	14
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	178	124	35	8	2	9	22
Santa Cruz, Calif.	31	23	7	-	-	-	6
Seattle, Wash.	137	87	26	16	4	4	15
Spokane, Wash.	62	45	14	3	-	-	5
Tacoma, Wash.	104	76	18	5	2	2	12
TOTAL	11,901¶	8,147	2,285	905	299	259	872

U: Unavailable -:no reported cases

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

Errata: Vol. 49, No. 14

On page 308, in Table II. Provisional cases of selected notifiable diseases, United States, weeks ending April 8, 2000, and April 10, 1999 (14th Week), the number of cases reported for New Hampshire, Rhode Island, Puerto Rico, and Virgin Islands were incorrect. The correct number of reported cases, respectively, are as follows: cumulative AIDS cases in 2000: 8, 21, 187, and 16; cumulative AIDS cases in 1999: 19, 30, 413, and 10; cumulative chlamydia cases in 2000: 284, 624, 142, and 0; cumulative chlamydia cases in 1999: 288, 596, unavailable, and unavailable; cumulative cryptosporidiosis cases in 2000: 0, 2, 0, and 0; cumulative cryptosporidiosis cases in 1999: 2, 0, 0, and unavailable; cumulative *Escherichia coli* O157:H7 reported to the National Electronic Telecommunications System for Surveillance (NETSS) for 2000: 4, 0, 4, and unavailable; cumulative *E. coli* O157:H7 reported to NETSS for 1999: 3, 1, 4, and unavailable; cumulative *E. coli* O157:H7 reported to the Public Health Laboratory Information System (PHLIS) for 2000: 4, 0, unavailable, and unavailable; and cumulative *E. coli* O157:H7 reported to PHLIS for 1999: 3, 1, unavailable, and unavailable.

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