

**MMWR**<sup>TM</sup>  
**MORBIDITY AND MORTALITY  
WEEKLY REPORT**

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### Measles — United States, 1999

State and local health departments reported a provisional total of 100 confirmed measles cases to CDC in 1999. This total equals the record low number of cases reported in 1998 (1). Since 1997, measles incidence in the United States has remained  $\leq 0.5$  cases per 1,000,000 population. This report describes the epidemiology of measles during 1999, which indicates that measles is not endemic in the United States.

#### Case Classification

Of the 100 cases reported during 1999, 33 were imported, and 67 were indigenous.\* Of the 67 indigenous cases, 33 were import-linked and 34 were unknown-source cases.† Although some import-linked cases had supporting virologic evidence, no reports relied solely on virologic evidence for classification.

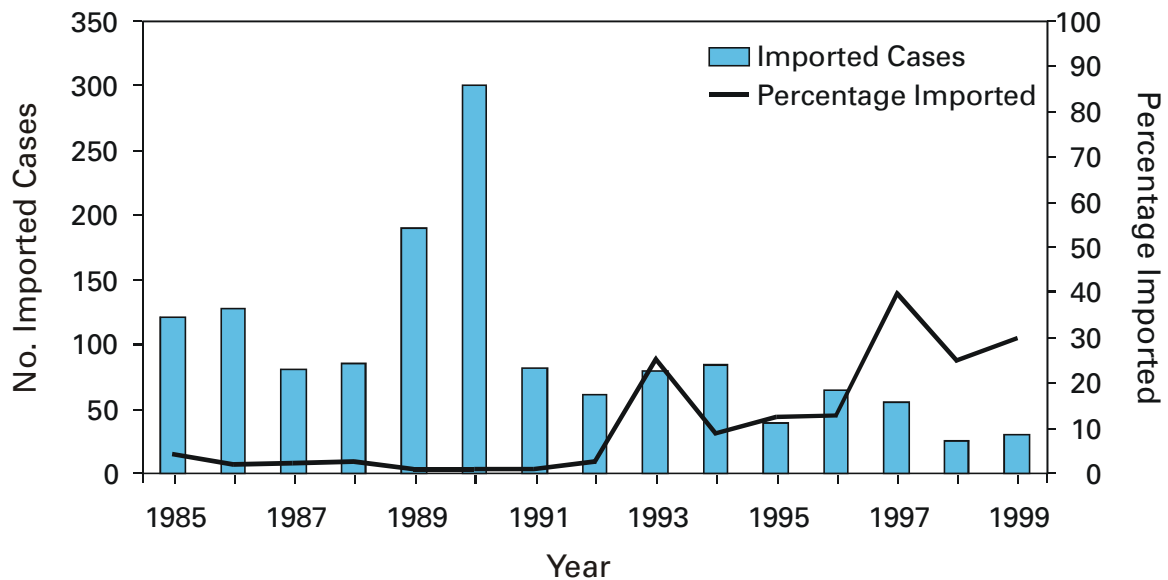
Imported cases accounted for 33% of all measles cases reported in 1999, continuing a trend since 1992 of an increased proportion of imported cases (Figure 1). Imported measles cases occurred among 14 international visitors and 19 U.S. residents exposed to measles while traveling abroad.

Imported cases, by World Health Organization (WHO) region, included 10 from the Western Pacific region, six each from the Eastern Mediterranean, European, and South East Asia regions, two from the American region, and one from the African region. The source region of two cases was unknown.

Persons with imported cases transmitted measles virus to 33 persons with import-linked measles cases. The average number of import-linked cases spread from each imported case was one (range: 0–14). Virologic evidence of importation was found in seven chains of transmission, including seven imported cases and 26 import-linked cases. In each chain, the viral genotype identified was consistent with the genotype of virus known to be circulating in the source country of the imported case. In the chains of

\*Imported=cases among persons who were infected outside the United States; indigenous=cases in persons infected in the United States.

† Indigenous cases are subclassified into three groups: import-linked=cases epidemiologically linked to an imported case (virologic evidence of importation is not required for this classification); imported virus=cases that cannot be linked epidemiologically to an imported case, but for which imported virus has been isolated from the case or from an epidemiologically linked case; and unknown source=includes all other cases acquired in the United States for which no epidemiologic link or virologic evidence is found to indicate importation.

*Measles — Continued***FIGURE 1. Number of imported measles cases and percentage of all measles cases that were imported, by year — United States, 1999**

transmission associated with imported cases from England, Italy, and Sweden, a new measles virus genotype was isolated. This new genotype is proposed by the WHO measles strain bank to be labeled D7.

In 1999, the proportion of all cases classified as unknown source cases was 34%; this proportion has been decreasing since 1995 (Figure 2). Of the 34 unknown-source cases, 10 were isolated cases with no epidemiologic link to any other measles case. The remaining 24 cases occurred in four outbreaks.

### Geographic and Temporal Patterns of Distribution

During 1999, 31 states and the District of Columbia reported no confirmed measles cases. Ten states accounted for 86% of cases. Unknown source cases were reported from nine states. During 33 weeks, all reported measles cases were importation-associated (no unknown source cases were reported), including cases reported during a continuous period of 12 weeks (weeks 19–30).

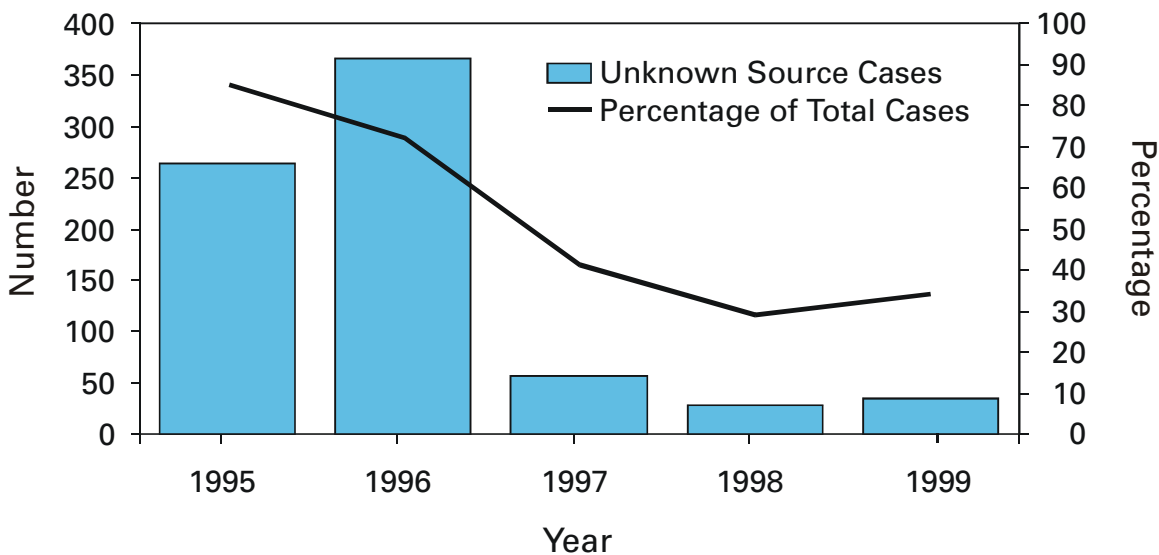
Of the 3140 counties in the United States, 16 (0.5%) reported measles cases of unknown source. In 10 of these counties, unknown source cases occurred during 1-week periods. Five counties reported unknown source cases for periods between 2 and 4 weeks, and one county reported unknown source cases during 11 noncontinuous weeks.

### Age and Vaccination Status

During 1999, persons aged  $\geq 20$  years accounted for 32% of reported measles cases. Elementary school-aged children and adolescents (aged 5–19 years) accounted for 26% of cases, followed by preschool children (aged 1–4 years) with 24% of cases, and infants (aged <1 year) with 18% of cases.

Among the 100 persons with measles, 16 had been vaccinated with one or more doses of measles-containing vaccine. Measles vaccination rates were 0% among

Measles — Continued

**FIGURE 2. Number of measles cases of unknown source and percentage of all measles cases of unknown source, by year — United States, 1999**

infants, 17% among preschool-aged children, 19% among school-aged children including adolescents, and 22% among persons aged  $\geq 20$  years. Among U.S. residents with measles, 15 (17%) of 86 were vaccinated, compared with one (7%) of 14 among international visitors.

### Outbreaks

Eleven measles outbreaks (a cluster of three or more cases) with a median of four cases per outbreak were reported in 1999 and accounted for 63% of all cases reported during 1999. An epidemiologic link to an imported measles case was documented in seven of the outbreaks.

The largest outbreak (15 cases) during 1999 occurred in Bedford, Virginia. The index case-patient was an adult who had traveled through Europe, Africa, and the Middle East. Fourteen cases occurred in three generations of spread. Settings of transmission included the household and church of the index case-patient and health-care settings.

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**Editorial Note:** The findings in this report document a continuing trend of record low numbers of measles cases and a high percentage of imported cases, suggesting that measles is not endemic in the United States. In 1999, as in the previous 2 years, few measles cases of unknown source were reported and these cases did not cluster temporally or geographically in patterns that would suggest a chain of endemic transmission. Virologic data indicated that only imported virus strains were transmitted in the United States in 1999.

*Measles — Continued*

During March 2000, CDC convened a consultation of measles experts<sup>§</sup> to evaluate data on the elimination of endemic measles from the United States. The data indicated that, during 1997–1999, measles incidence has remained low ( $\leq 0.5$  cases per 1,000,000 population) and that most states and 99% of counties reported no measles cases. In addition, measles surveillance was sensitive enough to consistently detect imported cases, isolated cases, and small outbreaks. Evidence of high population immunity included coverage of  $>90\%$  with the first dose of measles vaccine in children aged 19–35 months since 1996 (2) and 98% coverage among children entering school (3). In 48 states and the District of Columbia, a second dose of measles vaccine is required for school entry (4). A national serosurvey indicated that 93% of persons aged  $>6$  years have antibody to measles (5).

On the basis of these findings, the experts concluded that measles is no longer endemic in the United States. However, because endemic measles could be reestablished if vaccination coverage declines, efforts should continue to ensure that coverage remains high and that surveillance is strong. In addition, because of the continued threat of imported measles, the experts encouraged strengthened support for global measles control and eradication of measles.

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<sup>§</sup> Experts included representatives from the American Academy of Family Physicians, the American Academy of Pediatrics, the Advisory Committee on Immunization Practices, the Council of State and Territorial Epidemiologists, and the National Vaccine Advisory Committee.

### **Compliance With Physical Activity Recommendations by Walking for Exercise — Michigan, 1996 and 1998**

Physical inactivity is an important modifiable risk factor for many diseases, including cardiovascular disease, cancer, diabetes, and osteoporosis. The 1996 Surgeon General's report (1) recommended that persons of all ages obtain "a minimum of 30 minutes of physical activity of moderate intensity (e.g., brisk walking) on most, if not all, days of the week." Walking is encouraged as one of the most accessible ways to be physically active (2), is the most commonly reported leisure-time physical activity (LTPA) in the United States, and is relatively common among groups that are typically inactive (e.g., the elderly and low-income groups) (3). To determine whether exercise characteristics (i.e., duration, frequency, and speed of walking) of Michigan adults met the Surgeon General's recommendations, the Michigan Department of Community Health analyzed data from the 1996 and 1998 Michigan Behavioral Risk Factor Surveillance System (BRFSS) for

*Physical Activity Recommendations — Continued*

those who reported walking as their only LTPA. This report summarizes the results of this analysis, which indicate that most walkers need to increase the frequency and perhaps the speed of their walking to comply with recommendations.

BRFSS is a random-digit-dialed telephone survey of the civilian, noninstitutionalized U.S. population aged  $\geq 18$  years that includes questions about LTPA. In 1996 and 1998, respondents were asked "During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" Information on the type, distance, frequency, and duration of respondents' two predominant LTPAs was collected. Data from the 1996 and 1998 Michigan BRFSS were combined for this analysis ( $n=7602$ ). Walking speed was calculated by dividing the reported distance by duration. Brisk walking was defined as walking at  $\geq 3.5$  mph (4). Data were weighted, and descriptive analyses (prevalence and standard errors) and univariate logistic regressions were performed using SUDAAN (5). In this analysis, comparisons with  $p \leq 0.05$  were considered statistically significant. Estimates for racial/ethnic groups other than white and black are not presented because the sample sizes were too small for meaningful analysis.

Overall, approximately 76% of Michigan adults engaged in LTPA. The prevalence of walking as their only LTPA (i.e., only-walking) was 21%, the prevalence of walking plus another LTPA (i.e., walking-plus) was 21%, and the prevalence of engaging in any other type of LTPA (i.e., other-LTPA) was 35% (Table 1). The prevalence of only-walking was associated significantly with age, sex, and education and income levels. The prevalence of only-walking significantly increased with age up to ages 55–64 years, was significantly higher among women than men, was similar between blacks and whites, but was lower among persons in the highest education and income categories.

Most (78%) only-walkers usually walked at least 30 minutes at a time (Table 2). The proportion walking for at least 30 minutes was not related significantly to any demographic characteristic. Thirty-four percent of only-walkers walked four or more times per week; this proportion increased with increasing age, was higher among men and blacks, and showed an inverse relation with income. Twenty-six percent of only-walkers walked briskly; this proportion was significantly higher among men than women and increased with education and income levels.

Six percent of only-walkers met the health-related recommendations (1) by walking at least 30 minutes per session, four or more times per week, at  $\geq 3.5$  mph (Table 2). This proportion was associated significantly with education and income and was higher among higher education and income groups.

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**Editorial Note:** The findings from this study indicate that walking was the most common form of LTPA and that most only-walkers (78%) were walking for at least 30 minutes at a time. However, many only-walkers did not walk frequently enough or fast enough to comply with recommendations (1); 34% walked at least four times a week, and 26% walked briskly enough to achieve a moderate-intensity level.

Race is not a risk factor for lack of LTPA but may be a marker for other factors that may be predictive of a higher prevalence of physical inactivity during leisure time. Findings from this study indicate that the prevalence of any LTPA during the previous month

## Physical Activity Recommendations — Continued

**TABLE 1. Prevalence of only-walking,\* walking-plus,<sup>†</sup> and other leisure time physical activity (LTPA)<sup>§</sup> among Michigan adults — Behavioral Risk Factor Surveillance System, Michigan, 1996 and 1998**

Characteristic	No. <sup>¶</sup>	Only-walking		Walking-plus		Other-LTPA	
		%	(95% CI)**	%	(95% CI)	%	(95% CI)
<b>Age group (yrs)</b>							
18–34	2312	17.6	(15.8–19.4)	18.6	(16.8–20.4)	46.2	(43.8–48.6)
35–44	1772	19.1	(17.0–21.2)	21.8	(19.6–24.0)	36.7	(34.1–39.3)
45–54	1368	22.9	(20.3–25.5)	23.1	(20.5–25.7)	30.1	(27.2–33.0)
55–64	835	27.7	(24.2–31.2)	22.7	(19.3–26.1)	24.9	(21.4–28.4)
≥65	1236	23.6	(20.9–26.3)	20.2	(17.4–23.0)	19.7	(17.1–22.3)
<b>Sex</b>							
Men	3138	15.2	(13.7–16.7)	16.7	(15.2–18.2)	47.0	(45.0–49.0)
Women	4423	26.3	(24.8–27.8)	24.3	(22.8–25.8)	23.3	(21.8–24.8)
<b>Race<sup>††</sup></b>							
White	6332	20.8	(19.7–21.9)	22.0	(20.8–23.2)	34.7	(33.3–36.1)
Black	832	22.3	(19.0–25.6)	14.5	(11.7–17.3)	33.3	(29.3–37.3)
<b>Education level</b>							
<High school	784	22.8	(19.4–26.2)	10.9	( 8.2–13.6)	25.2	(21.4–29.0)
High school graduate	2498	22.0	(20.2–23.8)	18.7	(16.9–20.5)	29.1	(27.0–31.2)
Some college	2259	22.2	(20.2–24.2)	20.2	(18.3–22.1)	38.3	(35.9–40.7)
College graduate	1952	17.2	(15.3–19.1)	28.9	(26.5–31.3)	41.6	(39.0–44.2)
<b>Household income</b>							
<\$20,000	1372	23.4	(20.8–26.0)	15.7	(13.4–18.0)	22.6	(19.9–25.3)
\$20,000–34,999	1969	22.3	(20.2–24.4)	18.0	(16.0–20.0)	32.7	(30.2–35.2)
\$35,000–49,999	1286	20.8	(18.3–23.3)	21.6	(19.0–24.2)	37.4	(34.3–40.5)
≥\$50,000	2128	18.1	(16.2–20.0)	25.0	(22.9–27.1)	42.2	(39.8–44.6)
<b>Total</b>	<b>7602</b>	<b>21.1</b>	<b>(20.0–22.2)</b>	<b>20.7</b>	<b>(19.6–21.8)</b>	<b>34.5</b>	<b>(33.2–35.8)</b>

\* Percentage for whom walking was their only leisure time physical activity (LTPA) during the previous month. Only-walking was associated with age, sex, and education ( $p < 0.001$ , Wald F univariate logistic regression models); and household income ( $p < 0.01$ , Wald F).

<sup>†</sup> Percentage who walked plus engaged in another LTPA during the previous month. Walking-plus was associated with age ( $p < 0.05$ , Wald F), sex, race, education, and household income ( $p < 0.001$ , Wald F).

<sup>§</sup> Percentage who did not walk but engaged in another LTPA during the previous month. Other-LTPA was associated with age, sex, education, and household income ( $p < 0.001$ , Wald F).

<sup>¶</sup> Unweighted total sample size and sample sizes for demographic subgroups.

\*\*Confidence interval.

<sup>††</sup> Estimates for racial/ethnic groups other than white and black are not presented because the sample sizes were too small for meaningful analysis.

was somewhat lower among blacks (70.1%) than whites (77.5%). However, the prevalence of only-walking was similar among the two racial groups, supporting the accessibility of walking for exercise across groups.

Although walking at 3.5 mph (approximately 17 minutes per mile) is a moderate-intensity activity for most persons, other circumstances and physical conditions exist (e.g., being unconditioned, elderly, overweight, or having a disabling condition) that influence activity level. Some persons may have chosen to only walk because of their physical fitness level or ability, and in such cases, a slower pace might be considered a moderate or appropriate level. The Surgeon General's report recognizes a continuum of intensity and duration for physical activity and suggests that sedentary persons start

**TABLE 2. Proportion of persons whose only leisure-time physical activity was walking (only-walkers) and who were in compliance with physical activity recommendations — Behavioral Risk Factor Surveillance System, Michigan, 1996 and 1998**

Characteristic	No. **	Walk $\geq 30$ minutes*		Walk $\geq 4$ times/week <sup>†</sup>		Walk $\geq 3.5$ mph <sup>§</sup>		In compliance <sup>¶</sup>	
		%	(95% CI) <sup>††</sup>	%	(95% CI)	%	(95% CI)	%	(95% CI)
<b>Age group (yrs)</b>									
18–34	401	81.8	(77.5–86.1)	25.3	(20.4–30.2)	22.5	(17.6–27.4)	4.4	(1.9– 6.9)
35–44	347	81.2	(76.7–85.7)	27.7	(22.2–33.2)	25.9	(20.4–31.4)	5.8	(2.9– 8.7)
45–54	312	74.7	(69.2–80.2)	33.4	(27.3–39.5)	29.7	(23.6–35.8)	7.1	(3.6–10.6)
55–64	239	76.6	(69.9–83.3)	37.5	(30.2–44.8)	30.0	(22.9–37.1)	8.9	(4.2–13.6)
$\geq 65$	307	73.1	(67.4–78.8)	51.5	(45.0–58.0)	20.9	(15.2–26.6)	7.5	(3.4–11.6)
<b>Sex</b>									
Men	473	77.1	(72.8–81.4)	38.1	(33.0–43.2)	29.6	(24.7–34.5)	8.1	(5.0–11.2)
Women	1148	78.4	(75.7–81.1)	31.5	(28.4–34.6)	23.5	(20.6–26.4)	5.5	(3.9– 7.1)
<b>Race<sup>§§</sup></b>									
White	1333	78.0	(75.5–80.5)	32.3	(29.4–35.2)	26.6	(23.9–29.3)	7.0	(5.2– 8.8)
Black	208	78.8	(71.9–85.7)	41.9	(33.7–50.1)	19.2	(12.1–26.3)	2.2	(0.0– 5.3)
<b>Education level</b>									
<High school	185	75.5	(68.2–82.8)	42.8	(34.4–51.2)	19.0	(12.3–25.7)	6.1	(1.8–10.4)
High school graduate	580	78.2	(74.3–82.1)	32.6	(28.1–37.1)	22.3	(18.2–26.4)	4.2	(2.0– 6.4)
Some college	491	77.2	(72.9–81.5)	33.6	(28.7–38.5)	25.2	(20.7–29.7)	5.3	(2.9– 7.7)
College graduate	340	80.8	(76.1–85.5)	30.5	(24.8–36.2)	35.5	(29.2–41.8)	11.4	(6.9–15.9)
<b>Household income</b>									
<\$20,000	337	78.8	(73.7–83.9)	41.6	(35.5–47.7)	15.7	(10.8–20.6)	2.5	(0.3– 4.7)
\$20,000–34,999	445	80.2	(76.1–84.3)	35.0	(29.9–40.1)	20.2	(15.9–24.5)	5.1	(2.7– 7.5)
\$35,000–49,999	270	75.9	(70.0–81.8)	31.6	(25.1–38.1)	24.2	(18.3–30.1)	6.6	(3.1–10.1)
$\geq$ \$50,000	373	79.4	(74.9–83.9)	26.9	(21.6–32.2)	37.1	(31.2–43.0)	9.5	(5.6–13.4)
<b>Total</b>	<b>1633</b>	<b>78.1</b>	<b>(75.7–80.5)</b>	<b>33.9</b>	<b>(31.2–36.6)</b>	<b>25.6</b>	<b>(23.1–28.1)</b>	<b>6.4</b>	<b>(4.8– 8.0)</b>

\* Percentage of only-walkers who walked  $\geq 30$  minutes/session (4.8% missing values). Walking  $\geq 30$  minutes/session was not associated with any of the demographic variables at the  $p=0.05$  level when a univariate logistic regression model was used.

<sup>†</sup> Percentage of only-walkers who walked  $\geq 4$  times/week (2.3% missing values). Walking  $\geq 4$  times/week was associated with age ( $p<0.001$ , Wald F); sex and race ( $p<0.05$ , Wald F); and household income ( $p<0.01$ , Wald F).

<sup>§</sup> Percentage of only-walkers who walked at  $\geq 3.5$  mph (12.6% missing values). Walking  $\geq 3.5$  mph was associated with sex ( $p<0.05$ , Wald F); and education and household income ( $p<0.001$ , Wald F).

<sup>¶</sup> Percentage of only-walkers who walked  $\geq 30$  minutes/session,  $\geq 4$  times/week, at  $\geq 3.5$  mph (13.3% missing values). Compliance was associated with education and household income ( $p<0.05$ , Wald F).

\*\* Unweighted number of respondents who reported walking as their only leisure-time physical activity.

<sup>††</sup> Confidence interval.

<sup>§§</sup> Estimates for racial/ethnic groups other than white and black are not presented because the sample sizes were too small for meaningful analysis.

*Physical Activity Recommendations — Continued*

with short durations of a moderate-intensity activity and gradually increasing the duration and/or intensity (1). Although a person's health may benefit from walking at lower intensities (e.g., 2.0–2.9 mph) (6), persons should increase intensity as the body adapts.

The findings in this report are subject to at least four limitations. First, BRFSS data are self-reported and include measurement error, especially related to respondents' recall of time and distance walked, which may be difficult for some respondents to estimate. Second, these data do not include information on non-LTPAs; therefore, total activity and total walking may be underestimated. Third, information on only two LTPAs was available within BRFSS, which may result in an underestimate of the percentage of Michigan adults who walk plus engage in another LTPA. Finally, these data include errors related to noncoverage and nonresponse.

This report also is limited by the method used to calculate the intensity of physical activity. Obtaining an estimate of intensity from BRFSS data required dividing the estimates of average distance walked by the estimated time. If respondents did not know the distance, they may have guessed or reported that they did not know. The amount of missing data concerning distance (13%) and the unknown proportion of respondents who guessed incorrectly may have affected the accuracy of these results. Since 1997, questions that measure relative intensity directly (7) have been used in national surveys, and most epidemiologic studies that have documented beneficial health effects of moderate-intensity activity (including brisk walking) used duration or self-identified intensity rather than calculated intensity estimates (6,8). The national health objectives for 2010 (9) propose that public health professionals use relative-intensity data to track moderate and vigorous activity. BRFSS will incorporate these direct measures of moderate and vigorous physical activity starting with the 2001 surveys.

Despite methodologic concerns, these results suggest that most persons who walk for physical activity would benefit from walking more regularly and perhaps faster. Public health efforts should focus on increasing the frequency of walking because once a person reaches 30–45 minutes of walking on most days of the week, most of this activity probably will be at moderate intensity relative to individual fitness levels. Because walking is the only LTPA used by 20% of Michigan adults, a public health campaign encouraging them to walk more frequently could have important health effects.

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*Physical Activity Recommendations — Continued*

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### **Outbreak of Gastroenteritis Associated With an Interactive Water Fountain at a Beachside Park — Florida, 1999**

Since 1989, approximately 170 outbreaks associated with recreational water venues (e.g., swimming pools, waterparks, fountains, hot tubs and spas, lakes, rivers, and oceans) have been reported, with almost half resulting in gastrointestinal illness (1–5). This report summarizes the investigation of an outbreak of gastroenteritis in Florida during 1999. The findings indicated that *Shigella sonnei* and *Cryptosporidium parvum* infections caused illness in persons exposed to an “interactive” water fountain\* at a beachside park.

During August 23–27, the Volusia County Health Department (VCHD) received reports of three children with *S. sonnei* infection whose common exposure was play in an interactive water fountain at a beachside park that had opened August 7. To determine risk factors for gastrointestinal illness, VCHD and the Florida Department of Health (FDH) conducted a case-control study among a convenience sample of park attendees, including 34 members of a teenage group that had attended a beach party near the park on August 14 and 52 family members of persons who had reported illness to VCHD. A case of gastrointestinal illness was defined as abdominal cramps or diarrhea (three or more loose stools within a 24-hour period) in a person who visited the park during August 7–27, with illness onset <12 days after the visit. Study participants were contacted by telephone and interviewed using a standard questionnaire.

Of 86 park visitors interviewed, 38 (44%) had illness that met the case definition. Onsets of illness occurred during August 15–September 2 (Figure 1). The median age of ill persons was 8 years (range: 2–65 years); the median age of well persons was 15 years (range: 5–47 years). Twenty-five (66%) ill persons were male. The most common symptoms reported included diarrhea (97%), abdominal cramps (90%), fever (82%), vomiting (66%), and bloody diarrhea (13%). *S. sonnei* was isolated by culture of stool specimens from five (36%) of 14 ill persons tested. *C. parvum* oocysts were identified in stool specimens from two persons by light microscopy using an acid-fast stain. All 38 ill persons, compared with 32 (67%) well persons, had entered the fountain (odds ratio [OR]=undefined; 95% confidence interval [CI]=4.1–undefined). Other associated risk factors for illness included fountain water ingestion (OR=52.5; 95% CI=9.8–377.0) and consumption of food or drink at the interactive fountain (OR=4.7; 95% CI=1.6–14.3). As all ill persons entered the fountain, and all but two ingested fountain water, the independence of these exposures was not established.

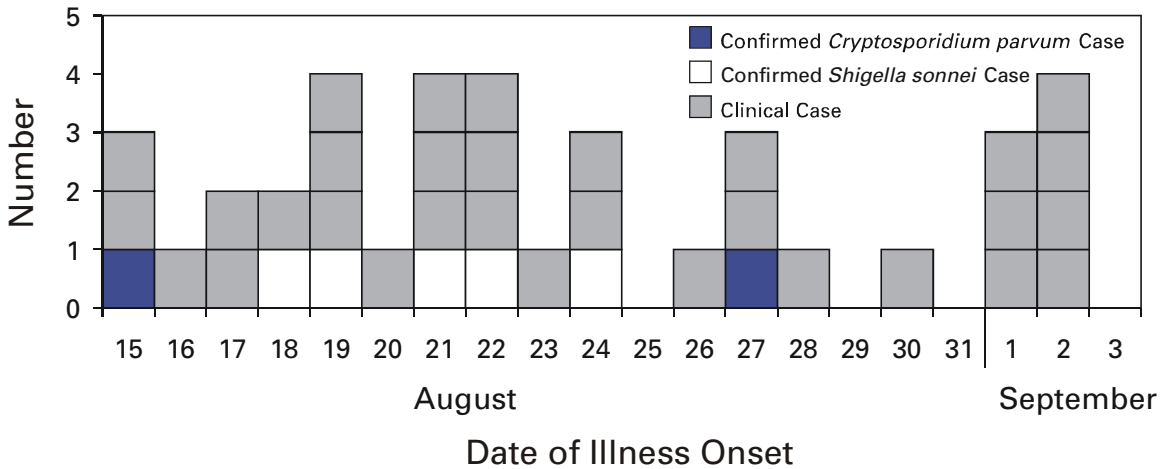
On August 27, investigators conducted an environmental assessment of the park, a paved area of approximately 2–3 acres adjacent to the beach in Daytona Beach, which

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\*Fountains intended for recreational use, often located at waterparks, as opposed to noninteractive ornamental fountains intended for public display, not recreational use, often located in front of buildings and monuments.

*Outbreak of Gastroenteritis — Continued*

**FIGURE 1. Reported number of gastroenteritis cases associated with an interactive water fountain, by date of illness onset — Florida, 1999\***



\*n=38.

included bathrooms, outdoor showers, vending machines, and the interactive water fountain. The fountain used recirculated water that drained from the wet deck/play area floor (no standing water) into an underground reservoir. The volume of recirculated water was 3380 gallons, and the minimum flow rate through the recirculation system was 115 gallons per minute; the turnover rate was 30 minutes, as required by state code for interactive water features. The recirculated water passed through a hypochlorite tablet chlorination system before being pumped back to the reservoir and then to several high-pressure fountain nozzles at ground level throughout the play area. No filtration system had been installed. Investigators identified several potential opportunities for water contamination. The fountain was popular with diaper- and toddler-aged children who frequently stood directly over the nozzles. Chlorine levels were not monitored, and the hypochlorite tablets that deplete after 7–10 days of use had not been replaced after the park opened August 7.

An estimated 4800 persons attended the park during August 7–27, when the fountain was closed by VCHD. The fountain reopened December 12 after several control measures were implemented. First, a cartridge filtration system was installed, and a chlorine monitor was installed to halt fountain operation automatically when residual chlorine levels fall below 3 ppm. Second, a sign was posted advising visitors to shower before entering the fountain and to avoid fountain water consumption. Third, children in diapers were excluded from entering the fountain. No further illness has been associated with the fountain.

*Reported by: P Minshew, Volusia County Health Dept, Daytona Beach; K Ward, MSEH, Z Mulla, MSPH, R Hammond, PhD, D Johnson, MD, S Heber, DrPH, R Hopkins, MD, State Epidemiologist, Florida Dept of Health. Div of Bacterial and Mycotic Diseases and Div of Parasitic Diseases, National Center for Infectious Diseases; Div of Applied Public Health Training, Epidemiology Program Office; and an EIS Officer, CDC.*

*Outbreak of Gastroenteritis — Continued*

**Editorial Note:** This report documents the second recorded outbreak of gastroenteritis associated with an interactive water fountain (1) and highlights the risk for transmitting diarrheal illness in recreational water activities other than a traditional water-filled pool. Outbreaks of gastroenteritis associated with recreational water exposure are recognized with increased frequency (1). Interactive fountains using recirculating water are new to traditional waterpark amusements (i.e., slides and wave pools). Because these fountains are attractive to diaper- and toddler-aged children, recreational water may be at high risk for contamination by enteric pathogens through overt fecal accidents or rinsing of contaminated bodies in the water.

In this outbreak, *S. sonnei* and *C. parvum* were identified in stool specimens from ill persons. Both pathogens have a low infectious dose (6,7), and *C. parvum* is resistant to chlorine (7); however, removal of pathogens may be enhanced by filtration of fecal material from recirculated water. The recirculated fountain water described in this report was unfiltered and inadequately chlorinated, increasing the risk for contamination and disease transmission. The association between illness with *S. sonnei* and ingestion of recreational water has been described previously (8,9). The association between illness and consumption of food or drink at the fountain may represent contamination of food and drink by fountain water, or the potential for increased fountain water ingestion among those consuming foods and beverages at the fountain.

Most bacterial outbreaks in recreational water could be prevented if pool and interactive fountain operators maintained mandated chlorine levels at all times and monitored levels more frequently during times of heavy patronage. Although effective chlorination should reduce the risk for *S. sonnei* transmission, disinfection is not instantaneous, as pathogens may be temporarily sheltered from chlorine when presented as a large bolus of fecal material, resulting in transient contamination. The prevention measures instituted by FDH underscore that water treatment alone does not guarantee illness prevention. The public also should be informed that swimming or playing at recreational water venues is communal bathing and can lead to diarrheal disease transmission when the water becomes contaminated and is swallowed.

To reduce risk for contamination and disease transmission, persons visiting recreational water venues should 1) avoid entering a traditional pool or playing in an interactive fountain if they have diarrhea; 2) avoid swallowing pool or fountain water; 3) practice good hygiene by taking a soap and water shower at home or at the pool, especially after a bowel movement and before entering the water; 4) escort young children to the toilet frequently and clean their bottoms thoroughly before allowing them to resume play; 5) avoid sitting on or over fountain jets because this can increase the risk for water contamination; and 6) take precautions not to contaminate foods or beverages consumed in or near the bathing area with pool or fountain water. Parents should be aware that no diaper (including swim diapers or swim pants) completely prevents stool leakage. If diapered children are to play in waterparks, diapers should be changed immediately after a bowel movement in restrooms where hands and bottoms can be washed thoroughly with soap and water.

Although interactive fountains may not require health department review in some states, waterpark or water attraction operators should recognize that the lack of a pool in these attractions does not necessarily reduce the risk for waterborne disease transmission. States should examine existing regulations for all public recreational water venues and for fountains not intended for interactive water play (10), and should ensure that all

*Outbreak of Gastroenteritis — Continued*

public recreational venues and fountains using recirculated water receive appropriate oversight by public health officials. Additional information for bathers, parents, and pool operators on recreational water safety can be obtained on the World-Wide Web at <http://www.cdc.gov/ncidod/dpd/parasiticpathways/swimming.htm>.

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### **Progress Toward Poliomyelitis Eradication — South-East Asia Region, 1998–1999**

In 1988, the World Health Assembly resolved to eradicate poliomyelitis by the end of 2000 (1). To achieve this goal, the 10 member countries\* of the World Health Organization (WHO) South-East Asia Region (SEAR) began implementing polio eradication strategies in 1994. In 1999, most polio cases worldwide were reported in SEAR (i.e., 48% of reported polio cases and 62% of cases with wild poliovirus isolation) (2,3). This report summarizes progress in achieving high routine and supplemental vaccination coverage, the surveillance of cases of acute flaccid paralysis (AFP), and the impact of these activities on polio eradication in the region during 1998–1999.

#### **Routine Vaccination**

In 1998, four countries reported coverage of >80% with three doses of oral poliovirus vaccine (OPV3); five countries reported coverage of 73% to 78%. In 1999, seven countries reported coverage of >90%. However, in India during 1997–1998, surveys indicated that OPV3 coverage varied markedly at the state and city level; coverage in many areas was <50% (4).

\*Bangladesh, Bhutan, Democratic People's Republic of Korea (DPR Korea), India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, and Thailand.

*Poliomyelitis Eradication — Continued***Supplementary Vaccination**

In 1999, all SEAR countries conducted supplemental OPV vaccination activity. On the basis of recommendations from the Technical Consultative Group on Poliomyelitis Eradication (5), India conducted four rounds of National Immunization Days (NIDs)<sup>†</sup> from October 1999 to January 2000 and two rounds of Subnational Immunization Days (SNIDs)<sup>§</sup> during February–March 2000 in eight high-risk northern states. In 1999, the largest public health campaign ever conducted in one country took place in India, where one NID round reached 147 million children aged <5 years. Bangladesh, Bhutan, DPR Korea, Maldives, Myanmar, Nepal, Sri Lanka, and Thailand held two rounds of NIDs. Bangladesh completed NIDs during November–December 1999, and conducted SNIDs. Indonesia and Myanmar conducted mopping-up<sup>¶</sup> campaigns, and India and Bangladesh added a house-to-house component to their NIDs and Nepal to its SNIDs. Synchronizing with India, Nepal held its NIDs during November–December 1999 and its SNIDs during January–February 2000.

**AFP Surveillance**

AFP surveillance is conducted to identify the remaining infected areas, to target supplemental vaccination, and to monitor progress toward eradication through a network of reporting units dispersed throughout a country. WHO recommends immediately reporting and investigating every AFP case in children aged <15 years within 48 hours after notification, and collecting two stool samples for analysis in a WHO-accredited laboratory (6). AFP surveillance is evaluated by the sensitivity of reporting (i.e., nonpolio AFP rate of at least one case per 100,000 children aged <15 years) and the completeness of specimen collection (i.e., two adequate stool specimens from at least 80% of persons with AFP).

In SEAR countries where polio is endemic, AFP surveillance was strengthened using surveillance medical officers (SMOs) who receive special training and are responsible for a defined area. From 1998 to 1999, the number of SMOs increased in Bangladesh from zero to 16, in India from 59 to 108, and in Nepal from four to six. Since 1999, AFP surveillance in Bangladesh, India, and Nepal also has been supported through the use of Stop the Transmission of Polio (STOP) teams<sup>\*\*</sup>. With the addition of SMOs and STOP teams, the number of reported AFP cases increased in Bangladesh from 467 in 1998 to 763 in 1999, and in Nepal from 69 in 1998 to 234 in 1999 (Table 1). In 1999, India, Sri Lanka, and Thailand had nonpolio AFP rates of >1.0, and Nepal had a nonpolio AFP rate of >1.0 for the first time. In Indonesia, nonpolio AFP rates decreased from 1.15 in 1998 to 0.95 in 1999. AFP surveillance in DPR Korea started in 1999, and 14 AFP cases were reported. In 1998 and 1999, the proportion of AFP cases with adequate stool specimens

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<sup>†</sup> Nationwide, mass campaigns over a short period (days to weeks) in which two doses of OPV are administered to all children, usually aged <5 years, regardless of vaccination history, with an interval of 4–6 weeks between doses.

<sup>§</sup> Subnational Immunization Days (SNIDs) follow the same procedure as NIDs but on a regional level.

<sup>¶</sup> Focal mass campaigns in high-risk areas over a short period (days to weeks) in which two doses of OPV are administered during house-to-house and boat-to-boat visits to all children aged <5 years, regardless of vaccination history, with an interval of 4–6 weeks between doses.

<sup>\*\*</sup> Groups of international health professionals deployed to a district for 3 months to assist ministry of health staff with polio eradication activities.

*Poliomyelitis Eradication — Continued***TABLE 1. Number of reported cases of acute flaccid paralysis (AFP), nonpolio AFP rates, percentage of AFP cases with adequate specimens, and confirmed poliomyelitis cases, by country — South-East Asia Region, 1998–1999**

Country	No. AFP cases reported		Nonpolio AFP rate*		% AFP cases with adequate specimens <sup>†</sup>		Confirmed polio cases (Wild virus)	
	1998	1999	1998	1999	1998	1999	1998	1999
Bangladesh	467	763	0.33	0.72	49	48	299 ( 8)	397 ( 28)
Bhutan	2	0	0.00	0.00	100	0	2 ( 0)	0 ( 0)
DPR Korea	0	14	0.00	0.00	0	36	0 ( 0)	0 ( 0)
India	9465	9581	1.45	1.84	59	72	4322 (1934)	2810 (1126)
Indonesia	798	676	1.15	0.95	79	84	49 ( 0)	51 ( 0)
Maldives	0	0	0.00	0.00	0	0	0 ( 0)	0 ( 0)
Myanmar	182	183	0.91	0.83	71	66	41 ( 0)	46 ( 4)
Nepal	69	234	0.41	2.00	35	76	31 ( 0)	41 ( 2)
Sri Lanka	95	105	1.75	1.86	82	88	0 ( 0)	0 ( 0)
Thailand	274	337	1.40	1.90	79	85	31 ( 0)	21 ( 0)
<b>Total</b>	<b>11,352</b>	<b>11,893</b>	<b>1.25</b>	<b>1.57</b>	<b>60</b>	<b>71</b>	<b>4775 (1942)</b>	<b>3366 (1160)</b>

\* Per 100,000 children aged <15 years. Rate does not include AFP cases pending classification, which would inflate the estimate.

† Two stool specimens collected within 14 days of paralysis onset.

was 82% and 88% in Sri Lanka, 79% and 85% in Thailand, 79% and 84% in Indonesia, 35% and 76% in Nepal, 59% and 72% in India, 71% and 66% in Myanmar, 49% and 48% in Bangladesh, and 0% and 36% in DPR Korea, respectively.

### Polio Laboratory Network

In 1999, 14 of 17 network laboratories performing primary virus isolation from stool specimens were fully WHO-accredited. One laboratory in Jakarta, Indonesia, was accredited provisionally and the two remaining laboratories (Dhaka, Bangladesh; and Pyongyang, DPR Korea) are being strengthened for accreditation review. Four network laboratories are regional reference laboratories and perform intratypic differentiation (wild poliovirus versus vaccine-derived virus) of isolated polioviruses. The overall number of stool specimens processed by these laboratories increased from 3376 in 1997 to 22,657 in 1999.

### Polio Incidence

In India, the overall number of reported polio cases decreased from 4322 (1934 virus-confirmed) in 1998 to 2810 (1126 virus-confirmed) in 1999 (Table 1). Most of the decrease in virus-confirmed cases occurred in central and southern Indian states; no substantial decrease was reported in the high-risk northern states of Bihar, Delhi, Uttar Pradesh, or West Bengal. Of 1138 wild polioviruses isolated in India in 1999, 730 (64%) were poliovirus type 3 and 397 (35%) were poliovirus type 1. India, the only country reporting poliovirus type 2 in 1999, indicated a decrease from 83 cases in 1998 to 11 in 1999 (10 in Uttar Pradesh and one in West Bengal). The overall number of polio cases reported from Bangladesh increased from 299 (eight virus-confirmed) in 1998 to 397 (28 virus-confirmed) in 1999.

*Poliomyelitis Eradication — Continued*

Myanmar and Nepal reported no cases of wild poliovirus during 1998. However, wild poliovirus was reported from both countries in 1999; Nepal reported two cases from its border with India (Uttar Pradesh) (7), and Myanmar reported four cases from its border with Bangladesh (8). The Myanmar cases represent virus importation from Bangladesh because the cases were found close to the border, and the isolated virus showed more genetic similarity with virus isolated in Bangladesh than with indigenous Myanmar virus. In 1999, Bhutan, DPR Korea, Maldives, and Sri Lanka reported no polio cases. Indonesia and Thailand reported clinically confirmed cases but no virologically confirmed wild poliovirus cases.

*Reported by: Vaccines and Biologicals Dept, World Health Organization, Regional Office for South-East Asia, New Delhi, India. Vaccines and Biologicals Dept, World Health Organization, Geneva, Switzerland. Respiratory and Enterovirus Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Vaccine Preventable Disease Eradication Div, National Immunization Program, CDC.*

**Editorial Note:** Approximately 25% of the world's population live in SEAR countries, most in India, the largest country where polio is endemic (population: 1 billion). Progress in this region is critical for the success of global polio eradication. Although large numbers of polioviruses 1 and 3 circulated in 1999, transmission occurred mainly in four states in northern India, with focal transmission of poliovirus 2 limited to two of these states. Transmission of virus in southern India decreased substantially from 1998 to 1999.

Virologically confirmed wild poliovirus cases found in border districts in Myanmar and Nepal highlight the importance of border regions in the transmission of wild poliovirus and the need for cooperation of neighboring countries in surveillance and planning of NIDs. In 1999, a cross-border collaboration meeting was held between Bangladesh, India, and Nepal. Surveillance in Bangladesh and Nepal improved when additional SMOs and STOP teams were assigned to the program. Surveillance in DPR Korea needs improvement.

India accounts for 40% of confirmed polio cases and 60% of wild poliovirus isolates worldwide. During 2000, four, three, and two extra NIDs rounds will be conducted in the high-risk, medium-risk, and low-risk states, respectively. Aggressive mopping-up activities also will be carried out. Bangladesh and Nepal plan to conduct extra NIDs rounds with an increased proportion of vaccine to be delivered house-to-house. If these supplemental activities reach a high proportion of the target population in Bangladesh, India, and Nepal (the remaining countries of the region where polio is endemic) poliovirus transmission could be interrupted in these countries by the end of 2000 or soon after.

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*Poliomyelitis Eradication — Continued*

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Notice to Readers**Publication of Surgeon General's Report on Oral Health**

On May 25, 2000, the Surgeon General issued *Oral Health in America: A Report of the Surgeon General*. The report identifies the essential role of oral health in overall health and well-being. Although oral health has improved since 1950, disparities in oral health status and access to care affect many persons, including those with low income and members of racial/ethnic minority groups. Safe and effective measures for preventing oral disease such as the use of fluoridated water or dental sealants are underutilized. Actions called for by the report include increasing awareness of the importance of oral health as part of general health; accelerating the building of the science base and applying it more effectively to improve oral health; strengthening the local, state, and federal capacity to perform core public health functions; removing barriers between people and receipt of oral health services; and using public-private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases.

Additional information, a copy of the report, and ordering information are available on the World-Wide Web at <http://www.surgeongeneral.gov>. Additional information is available on the Web at <http://www.cdc.gov/nccdphp/oh/>, or by telephone at (887) 232-2020.

**Erratum: Vol. 49, No. 24**

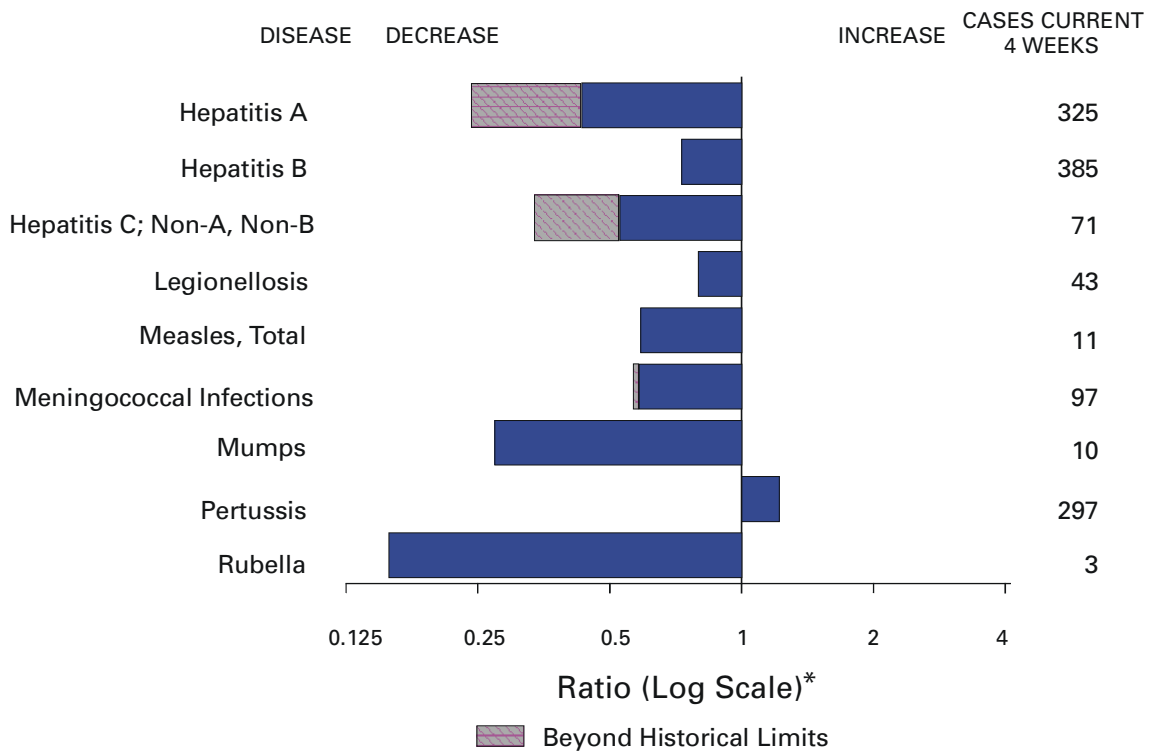
In the article, "Laboratory-Acquired Human Glanders—Maryland, May 2000" on page 533, a name was misspelled in the "Reported by" section: L Karenfil, Johns Hopkins Medical Institutes, should be L Karanfil. Also, M Barrera-Oro, MD, should be M Barrera-Oro, PhD, and a credit was missing: J Dick, PhD, Johns Hopkins Medical Institutes.







**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending June 24, 2000, with historical data**



\*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 of provisional cases of selected notifiable diseases, United States, cumulative, week ending June 24, 2000 (25th Week)**

	Cum. 2000		Cum. 2000
Anthrax	-	HIV infection, pediatric* <sup>§</sup>	98
Brucellosis*	25	Plague	4
Cholera	-	Poliomyelitis, paralytic	-
Congenital rubella syndrome	4	Psittacosis*	8
Cyclosporiasis*	12	Rabies, human	-
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	105
Encephalitis: California serogroup viral*	2	Streptococcal disease, invasive, group A	1,563
eastern equine*	-	Streptococcal toxic-shock syndrome*	54
St. Louis*	-	Syphilis, congenital <sup>¶</sup>	61
western equine*	-	Tetanus	12
Ehrlichiosis human granulocytic (HGE)*	36	Toxic-shock syndrome	73
human monocytic (HME)*	14	Trichinosis	4
Hansen disease (leprosy)*	22	Typhoid fever	146
Hantavirus pulmonary syndrome** <sup>†</sup>	9	Yellow fever	-
Hemolytic uremic syndrome, postdiarrheal*	41		

-: No reported cases.

\*Not notifiable in all states.

<sup>†</sup> Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

<sup>§</sup> 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 May 28, 2000.

<sup>¶</sup> Updated from reports to the Division of STD Prevention, NCHSTP.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 24, 2000, and June 26, 1999 (25th Week)**

Reporting Area	AIDS		Chlamydia <sup>†</sup>		Cryptosporidiosis		Escherichia coli O157:H7*			
	Cum. 2000 <sup>‡</sup>	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	NETSS		PHLIS	
							Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	16,820	21,173	272,389	322,884	565	829	949	721	556	690
NEW ENGLAND	1,003	1,109	10,006	10,092	32	40	99	102	87	95
Maine	16	29	635	442	9	9	6	6	6	-
N.H.	13	30	487	487	2	5	7	12	9	14
Vt.	2	6	248	236	13	6	3	10	3	5
Mass.	681	702	4,748	4,268	6	17	47	46	35	45
R.I.	41	63	1,170	1,129	2	-	6	6	5	6
Conn.	250	279	2,718	3,530	-	3	30	22	29	25
MID. ATLANTIC	4,030	5,452	17,838	32,479	61	175	112	50	64	50
Upstate N.Y.	213	723	N	N	37	52	94	34	43	4
N.Y. City	2,325	2,761	4,702	13,688	7	101	4	3	-	-
N.J.	885	1,080	2,932	5,924	6	14	14	13	13	45
Pa.	607	888	10,204	12,867	11	8	N	N	8	1
E.N. CENTRAL	1,641	1,451	45,004	55,978	116	137	160	137	67	119
Ohio	218	227	10,880	13,242	22	18	34	48	26	37
Ind.	149	167	5,732	5,713	11	9	28	17	9	16
Ill.	1,012	676	12,753	15,235	7	25	43	48	-	33
Mich.	190	307	11,345	10,358	25	20	34	24	19	17
Wis.	72	74	4,294	11,430	51	65	21	N	13	16
W.N. CENTRAL	376	521	15,945	18,064	54	45	160	123	104	151
Minn.	79	82	3,108	3,662	11	13	52	32	41	48
Iowa	38	46	2,046	2,095	14	9	28	19	10	14
Mo.	164	259	5,745	6,484	10	6	43	12	30	17
N. Dak.	-	4	282	427	5	4	8	3	6	3
S. Dak.	3	11	838	764	5	3	7	5	3	13
Nebr.	25	33	1,524	1,649	7	9	13	40	9	55
Kans.	67	86	2,402	2,983	2	1	9	12	5	1
S. ATLANTIC	4,484	5,819	57,900	67,310	105	153	82	89	45	61
Del.	78	72	1,402	1,346	4	-	-	3	-	-
Md.	459	720	5,720	6,179	7	6	10	7	1	-
D.C.	315	210	1,592	N	5	6	-	-	U	U
Va.	327	335	7,241	7,258	4	9	16	25	15	21
W. Va.	29	25	753	855	3	-	3	4	3	2
N.C.	279	393	10,481	11,066	10	4	16	21	6	20
S.C.	326	521	4,870	8,611	-	-	6	11	2	6
Ga.	430	829	11,094	17,112	54	81	13	5	9	U
Fla.	2,241	2,714	14,747	14,883	18	47	18	13	9	12
E.S. CENTRAL	805	960	21,688	21,008	21	10	41	53	25	38
Ky.	99	150	3,826	3,733	1	2	15	13	11	10
Tenn.	337	337	6,243	6,702	4	4	15	24	12	15
Ala.	213	254	7,009	4,802	9	2	5	11	-	11
Miss.	156	219	4,610	5,771	7	2	6	5	2	2
W.S. CENTRAL	1,511	2,438	42,894	43,016	24	40	49	37	55	45
Ark.	94	88	2,430	2,829	1	-	30	5	3	5
La.	281	445	9,047	7,279	5	21	-	4	18	6
Okla.	110	55	3,861	3,755	3	2	7	7	6	5
Tex.	1,026	1,850	27,556	29,153	15	17	12	21	28	29
MOUNTAIN	582	772	17,402	22,796	37	38	97	52	37	46
Mont.	7	4	752	654	6	7	12	4	-	-
Idaho	11	12	344	824	1	2	4	1	-	5
Wyo.	2	3	326	360	3	-	5	3	2	5
Colo.	130	170	5,338	4,050	11	4	43	21	18	12
N. Mex.	58	46	2,210	2,552	2	15	4	3	3	1
Ariz.	193	352	5,851	11,874	3	7	23	8	13	6
Utah	61	71	1,218	1,001	9	N	5	10	1	12
Nev.	120	114	1,363	1,481	2	3	1	2	-	5
PACIFIC	2,388	2,651	43,712	52,141	115	191	149	78	72	85
Wash.	247	151	6,202	5,615	N	N	47	26	43	31
Oreg.	86	63	2,398	3,032	7	73	21	17	23	17
Calif.	1,987	2,379	33,124	41,086	108	118	73	31	-	34
Alaska	5	12	1,140	889	-	-	1	-	-	-
Hawaii	63	46	848	1,519	-	-	7	4	6	3
Guam	13	5	-	218	-	-	N	N	U	U
P.R.	431	711	142	U	-	-	4	10	U	U
V.I.	18	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 can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

<sup>†</sup> Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

<sup>‡</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update May 28, 2000.

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending June 24, 2000, and June 26, 1999 (25th Week)**

Reporting Area	Gonorrhea		Hepatitis C; Non-A, Non-B		Legionellosis		Lyme Disease	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	141,742	170,354	1,174	1,823	321	414	2,141	3,446
NEW ENGLAND	2,690	3,057	25	9	22	25	378	1,010
Maine	34	23	1	1	2	3	-	1
N.H.	51	42	-	-	2	3	35	-
Vt.	29	28	3	3	1	4	1	1
Mass.	1,227	1,191	18	2	9	6	216	277
R.I.	297	289	3	3	3	3	26	77
Conn.	1,052	1,484	-	-	5	6	100	654
MID. ATLANTIC	11,328	18,713	31	66	62	106	1,346	1,734
Upstate N.Y.	2,972	2,929	31	32	27	26	570	696
N.Y. City	1,930	6,353	-	-	-	13	4	49
N.J.	1,568	3,508	-	-	2	10	239	352
Pa.	4,858	5,923	-	34	33	57	533	637
E.N. CENTRAL	27,734	33,338	104	1,015	80	135	29	227
Ohio	6,396	8,177	3	-	36	41	20	18
Ind.	2,618	3,086	1	1	16	18	6	13
Ill.	8,952	10,262	7	27	8	17	1	8
Mich.	8,140	7,170	93	398	14	34	-	1
Wis.	1,628	4,643	-	589	6	25	2	187
W.N. CENTRAL	6,838	7,556	329	83	23	19	65	60
Minn.	1,252	1,338	4	2	1	1	15	13
Iowa	413	460	1	-	3	6	4	6
Mo.	3,463	3,690	299	79	15	9	14	27
N. Dak.	6	39	-	-	-	-	-	1
S. Dak.	124	73	-	-	1	1	-	-
Nebr.	559	743	3	2	-	2	-	7
Kans.	1,021	1,213	22	-	3	-	32	6
S. ATLANTIC	41,978	49,949	51	106	73	48	265	307
Del.	794	799	-	-	4	4	32	18
Md.	3,900	5,548	6	29	23	6	163	223
D.C.	1,129	2,932	1	-	1	-	1	1
Va.	4,650	4,700	1	10	8	13	37	18
W. Va.	227	288	5	13	N	N	8	8
N.C.	8,484	9,425	13	23	8	8	9	32
S.C.	5,729	4,703	1	12	2	7	2	3
Ga.	6,819	11,104	1	1	4	-	-	-
Fla.	10,246	10,450	23	18	23	10	13	4
E.S. CENTRAL	15,518	16,247	194	143	8	21	9	34
Ky.	1,601	1,617	17	9	5	10	2	5
Tenn.	4,811	5,219	43	43	1	9	4	14
Ala.	5,485	4,287	7	1	2	2	2	6
Miss.	3,621	5,124	127	90	-	-	1	9
W.S. CENTRAL	22,255	24,276	272	242	10	1	1	9
Ark.	1,289	1,389	3	13	-	-	-	1
La.	6,359	5,987	169	169	8	1	1	3
Okla.	1,670	1,914	2	5	1	-	-	2
Tex.	12,937	14,986	98	55	1	-	-	3
MOUNTAIN	4,680	6,717	98	93	16	25	3	4
Mont.	26	21	2	4	-	-	-	-
Idaho	12	40	-	4	1	-	-	-
Wyo.	28	12	60	34	1	-	1	1
Colo.	1,507	1,142	13	14	7	4	1	-
N. Mex.	490	472	8	15	1	1	-	1
Ariz.	1,920	4,343	11	17	2	4	-	-
Utah	122	95	-	2	4	10	-	-
Nev.	575	592	4	3	-	6	1	2
PACIFIC	8,721	10,501	70	66	27	34	45	61
Wash.	1,086	989	9	8	9	9	-	2
Oreg.	304	445	16	8	N	N	3	6
Calif.	7,061	8,712	45	50	18	24	42	53
Alaska	151	148	-	-	-	1	-	-
Hawaii	119	207	-	-	-	-	N	N
Guam	-	29	-	-	-	-	-	-
P.R.	275	164	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 June 24, 2000, and June 26, 1999 (25th Week)**

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	NETSS		PHLIS	
					Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	454	568	2,459	2,810	12,521	13,736	8,940	13,032
NEW ENGLAND	19	23	325	402	784	833	728	862
Maine	4	2	69	73	59	56	38	41
N.H.	1	-	4	25	56	42	50	48
Vt.	2	1	34	59	51	32	55	37
Mass.	6	10	110	88	448	478	388	484
R.I.	4	2	21	49	32	49	49	67
Conn.	2	8	87	108	138	176	148	185
MID. ATLANTIC	72	157	457	523	1,655	1,900	1,621	1,748
Upstate N.Y.	26	34	315	357	476	442	468	472
N.Y. City	22	75	U	U	353	549	515	580
N.J.	8	31	72	101	425	429	259	427
Pa.	16	17	70	65	401	480	379	269
E.N. CENTRAL	50	72	27	36	1,898	2,090	1,169	1,870
Ohio	8	9	6	11	506	396	409	385
Ind.	3	8	-	-	233	180	208	176
Ill.	19	32	1	-	559	707	1	690
Mich.	15	17	20	25	386	426	416	417
Wis.	5	6	-	-	214	381	135	202
W.N. CENTRAL	21	21	243	385	919	859	921	1,004
Minn.	7	5	38	51	201	218	254	289
Iowa	1	5	37	60	133	86	94	78
Mo.	3	9	10	13	321	280	350	378
N. Dak.	2	-	74	84	27	15	35	30
S. Dak.	-	-	40	113	34	44	37	59
Nebr.	2	-	-	3	63	87	44	81
Kans.	6	2	44	61	140	129	107	89
S. ATLANTIC	129	139	1,065	1,001	2,412	2,722	1,593	2,404
Del.	3	1	20	30	39	52	43	58
Md.	40	45	208	215	342	326	315	372
D.C.	8	10	-	-	26	40	U	U
Va.	26	26	257	249	352	491	302	439
W. Va.	-	1	56	57	61	43	59	51
N.C.	11	10	276	208	337	434	237	465
S.C.	1	1	61	79	213	149	156	146
Ga.	4	12	123	86	392	424	435	627
Fla.	36	33	64	77	650	763	46	246
E.S. CENTRAL	19	12	84	133	608	730	428	522
Ky.	5	2	12	22	146	171	107	122
Tenn.	5	5	42	47	135	185	194	203
Ala.	8	4	30	64	197	198	111	169
Miss.	1	1	-	-	130	176	16	28
W.S. CENTRAL	6	11	35	61	981	1,155	1,203	1,058
Ark.	1	2	-	-	174	148	105	76
La.	2	8	-	-	105	212	177	238
Okla.	3	1	35	61	138	148	97	102
Tex.	-	-	-	-	564	647	824	642
MOUNTAIN	21	21	106	94	1,136	1,225	782	1,182
Mont.	1	3	32	35	53	27	-	1
Idaho	-	1	-	-	22	40	-	41
Wyo.	-	1	26	28	22	17	14	21
Colo.	11	9	-	1	357	376	329	377
N. Mex.	-	2	8	3	92	160	83	152
Ariz.	2	2	37	27	308	328	220	288
Utah	3	2	2	-	168	195	136	212
Nev.	4	1	1	-	114	82	-	90
PACIFIC	117	112	117	175	2,128	2,222	495	2,382
Wash.	11	7	-	-	198	205	237	349
Oreg.	22	13	-	1	151	171	181	243
Calif.	82	86	98	168	1,666	1,642	-	1,634
Alaska	-	-	19	6	26	20	18	12
Hawaii	2	6	-	-	87	184	59	144
Guam	-	-	-	-	-	20	U	U
P.R.	-	-	27	43	99	261	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 can 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 June 24, 2000, and June 26, 1999 (25th Week)**

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS		Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999†
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999				
UNITED STATES	7,684	6,217	3,851	3,553	2,807	3,259	4,760	6,861
NEW ENGLAND	143	157	110	139	37	29	177	170
Maine	5	2	-	-	-	-	2	9
N.H.	1	7	6	6	-	-	3	3
Vt.	1	4	-	3	-	2	-	-
Mass.	101	102	67	91	30	18	113	90
R.I.	10	14	12	9	3	1	17	19
Conn.	25	28	25	30	4	8	42	49
MID. ATLANTIC	953	428	621	252	106	143	1,087	1,101
Upstate N.Y.	407	104	145	33	7	12	118	134
N.Y. City	354	143	324	115	38	64	604	578
N.J.	113	116	76	90	20	30	246	231
Pa.	79	65	76	14	41	37	119	158
E.N. CENTRAL	1,652	1,086	480	548	573	550	552	677
Ohio	126	255	86	53	35	45	130	81
Ind.	686	52	33	17	215	179	27	48
Ill.	372	429	2	348	167	207	289	363
Mich.	360	157	326	108	136	95	67	138
Wis.	108	193	33	22	20	24	39	47
W.N. CENTRAL	819	531	592	350	37	69	216	235
Minn.	189	81	201	89	3	7	75	89
Iowa	212	7	131	11	10	5	19	26
Mo.	320	383	213	208	19	49	83	85
N. Dak.	4	2	3	2	-	-	2	2
S. Dak.	2	8	1	5	-	-	9	3
Nebr.	25	28	9	19	2	4	9	10
Kans.	67	22	34	16	3	4	19	20
S. ATLANTIC	1,056	1,052	292	265	943	1,058	1,026	1,348
Del.	7	8	6	3	5	4	-	12
Md.	53	59	15	18	137	213	119	121
D.C.	14	30	U	U	29	39	7	25
Va.	159	39	111	16	63	83	108	121
W. Va.	3	5	3	3	1	2	15	22
N.C.	69	113	26	54	281	241	143	204
S.C.	59	50	46	23	97	132	41	165
Ga.	111	100	36	37	159	191	181	281
Fla.	591	648	49	111	171	153	412	397
E.S. CENTRAL	381	626	256	408	411	573	319	443
Ky.	96	114	42	77	48	47	55	79
Tenn.	181	407	200	300	250	316	123	133
Ala.	23	55	11	30	56	130	141	143
Miss.	81	50	3	1	57	80	-	88
W.S. CENTRAL	888	1,083	973	452	394	489	140	994
Ark.	103	46	24	21	46	33	82	78
La.	69	85	72	53	95	129	1	U
Okla.	56	279	16	80	72	103	57	59
Tex.	660	673	861	298	181	224	-	857
MOUNTAIN	431	316	179	209	102	187	206	206
Mont.	4	6	-	-	-	-	6	5
Idaho	12	5	-	4	-	1	-	-
Wyo.	1	2	2	1	1	-	1	1
Colo.	78	51	36	38	2	1	24	U
N. Mex.	51	39	22	26	12	6	27	24
Ariz.	179	165	83	105	85	174	88	107
Utah	35	25	36	26	-	2	22	18
Nev.	71	23	-	9	2	3	38	51
PACIFIC	1,361	938	348	930	204	161	1,037	1,687
Wash.	313	50	279	52	35	35	95	78
Oreg.	92	34	55	30	4	3	8	56
Calif.	928	832	-	828	164	121	832	1,445
Alaska	7	-	3	-	-	1	40	29
Hawaii	21	22	11	20	1	1	62	79
Guam	-	7	U	U	-	1	-	-
P.R.	1	51	U	U	65	83	-	103
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 can 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 June 24, 2000, and June 26, 1999 (25th Week)**

Reporting Area	<i>H. influenzae</i> , Invasive		Hepatitis (Viral), By Type				Measles (Rubeola)					
	Cum. 2000 <sup>†</sup>	Cum. 1999	A		B		Indigenous		Imported*		Total	
			Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	597	597	5,111	9,167	2,974	3,271	2	21	1	9	30	56
NEW ENGLAND	39	41	118	108	35	73	-	-	-	2	2	9
Maine	1	5	7	4	5	-	-	-	-	-	-	-
N.H.	8	6	13	7	10	8	-	-	-	-	-	1
Vt.	2	4	3	1	4	1	-	-	-	2	2	-
Mass.	21	17	54	38	7	27	-	-	-	-	-	6
R.I.	1	-	7	9	9	15	-	-	-	-	-	-
Conn.	6	9	34	49	-	22	-	-	-	-	-	2
MID. ATLANTIC	91	102	249	583	285	460	1	1	-	1	2	5
Upstate N.Y.	46	42	105	120	63	100	1	1	-	-	1	2
N.Y. City	18	33	144	150	191	139	-	-	-	-	-	3
N.J.	20	25	-	73	31	67	-	-	-	-	-	-
Pa.	7	2	-	240	-	154	-	-	-	1	1	-
E.N. CENTRAL	77	97	646	1,564	318	310	1	6	-	-	6	1
Ohio	32	35	138	361	60	46	-	2	-	-	2	-
Ind.	11	14	30	56	26	27	-	-	-	-	-	1
Ill.	29	40	234	317	48	-	1	3	-	-	3	-
Mich.	5	8	231	788	183	216	-	1	-	-	1	-
Wis.	-	-	13	42	1	21	-	-	-	-	-	-
W.N. CENTRAL	33	26	570	360	426	135	-	2	-	1	3	-
Minn.	16	13	120	33	16	19	-	-	-	1	1	-
Iowa	-	1	49	72	21	22	-	1	-	-	1	-
Mo.	5	3	276	211	346	79	-	-	-	-	-	-
N. Dak.	1	-	2	1	2	-	-	-	-	-	-	-
S. Dak.	-	2	-	8	-	1	-	-	-	-	-	-
Nebr.	4	3	18	26	18	11	-	-	-	-	-	-
Kans.	7	4	105	9	23	3	-	1	-	-	1	-
S. ATLANTIC	165	128	616	877	556	516	-	-	-	-	-	4
Del.	-	-	-	2	-	-	-	-	-	-	-	-
Md.	42	31	80	158	64	92	-	-	-	-	-	-
D.C.	-	4	11	33	16	11	-	-	-	-	-	-
Va.	28	12	70	76	75	49	-	-	-	-	-	3
W. Va.	5	4	39	17	6	13	-	-	-	-	-	-
N.C.	15	21	89	63	123	117	-	-	-	-	-	-
S.C.	8	2	23	18	5	37	-	-	-	-	-	-
Ga.	45	35	80	253	84	57	-	-	-	-	-	-
Fla.	22	19	224	257	183	140	-	-	-	-	-	1
E.S. CENTRAL	30	42	216	227	202	226	-	-	-	-	-	2
Ky.	11	6	26	42	41	17	-	-	-	-	-	2
Tenn.	14	21	80	95	85	103	U	-	U	-	-	-
Ala.	4	13	30	35	27	50	-	-	-	-	-	-
Miss.	1	2	80	55	49	56	-	-	-	-	-	-
W.S. CENTRAL	33	40	869	2,690	337	557	-	1	-	-	1	3
Ark.	-	1	85	23	51	41	-	1	-	-	1	-
La.	7	11	28	81	50	106	-	-	-	-	-	-
Okla.	24	26	145	284	69	65	-	-	-	-	-	-
Tex.	2	2	611	2,302	167	345	-	-	-	-	-	3
MOUNTAIN	66	56	429	699	228	299	-	9	-	1	10	1
Mont.	-	1	2	12	3	15	-	-	-	-	-	-
Idaho	1	1	5	27	3	16	-	-	-	-	-	-
Wyo.	1	1	6	4	2	6	-	-	-	-	-	-
Colo.	11	9	92	129	49	45	-	1	-	1	2	-
N. Mex.	14	13	39	28	54	95	-	-	-	-	-	-
Ariz.	33	27	220	405	83	76	-	-	-	-	-	1
Utah	5	2	33	27	13	16	-	3	-	-	3	-
Nev.	1	2	32	67	21	30	-	5	-	-	5	-
PACIFIC	63	65	1,398	2,059	587	695	-	2	1	4	6	31
Wash.	3	2	137	148	38	32	-	-	-	-	-	5
Oreg.	18	23	113	140	48	59	-	-	-	-	-	10
Calif.	24	33	1,141	1,755	492	586	-	1	-	2	3	15
Alaska	2	5	7	4	4	10	-	1	-	-	1	-
Hawaii	16	2	-	12	5	8	-	-	1	2	2	1
Guam	-	-	-	2	-	2	U	-	U	-	-	1
P.R.	1	2	54	172	50	130	U	-	U	-	-	-
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.

<sup>†</sup>Of 128 cases among children aged <5 years, serotype was reported for 56 and of those, 14 were type b.



**TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending June 24, 2000, and June 26, 1999 (25th 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	1,153	1,346	2	187	194	73	2,356	2,819	-	54	143
NEW ENGLAND	68	65	-	2	4	5	568	296	-	5	7
Maine	5	4	-	-	-	-	14	-	-	-	-
N.H.	7	9	-	-	1	1	62	53	-	1	-
Vt.	2	4	-	-	-	4	123	13	-	-	-
Mass.	42	39	-	-	3	-	332	213	-	3	7
R.I.	5	2	-	1	-	-	8	8	-	-	-
Conn.	7	7	-	1	-	-	29	9	-	1	-
MID. ATLANTIC	113	134	-	9	25	9	183	573	-	2	19
Upstate N.Y.	34	35	-	6	5	9	109	492	-	2	13
N.Y. City	24	40	-	-	6	-	-	14	-	-	2
N.J.	24	27	-	-	1	-	-	16	-	-	1
Pa.	31	32	-	3	13	-	74	51	-	-	3
E.N. CENTRAL	205	234	-	23	26	4	266	221	-	-	1
Ohio	47	88	-	7	7	1	163	107	-	-	-
Ind.	27	31	-	-	3	2	27	14	-	-	1
Ill.	48	61	-	5	7	-	21	47	-	-	-
Mich.	64	30	-	11	8	1	24	20	-	-	-
Wis.	19	24	-	-	1	-	31	33	-	-	-
W.N. CENTRAL	102	138	-	12	8	5	124	93	-	1	74
Minn.	7	29	-	-	1	3	60	25	-	-	-
Iowa	19	26	-	5	3	-	21	20	-	-	21
Mo.	59	50	-	1	1	1	23	22	-	-	2
N. Dak.	2	3	-	-	-	-	1	-	-	-	-
S. Dak.	5	8	-	-	-	-	3	4	-	-	-
Nebr.	5	8	-	2	-	-	3	3	-	-	51
Kans.	5	14	-	4	3	1	13	19	-	1	-
S. ATLANTIC	190	208	-	32	34	2	181	139	-	32	17
Del.	-	3	-	-	-	-	4	-	-	-	-
Md.	16	33	-	7	4	1	42	43	-	-	1
D.C.	-	1	-	-	2	-	1	-	-	-	-
Va.	31	26	-	5	8	-	20	13	-	-	-
W. Va.	7	4	-	-	-	-	-	1	-	-	-
N.C.	30	26	-	4	8	-	49	35	-	23	16
S.C.	15	28	-	10	3	1	17	8	-	7	-
Ga.	32	39	-	2	1	-	20	16	-	-	-
Fla.	59	48	-	4	8	-	28	23	-	2	-
E.S. CENTRAL	81	103	-	6	3	-	36	53	-	4	2
Ky.	17	19	-	-	-	-	17	12	-	1	-
Tenn.	35	38	U	2	-	U	9	26	U	-	-
Ala.	24	27	-	2	1	-	9	13	-	3	2
Miss.	5	19	-	2	2	-	1	2	-	-	-
W.S. CENTRAL	86	134	-	20	23	10	111	75	-	4	4
Ark.	8	24	-	1	-	-	10	6	-	-	-
La.	27	46	-	3	4	-	3	4	-	-	-
Okla.	21	19	-	-	1	-	6	8	-	-	-
Tex.	30	45	-	16	18	10	92	57	-	4	4
MOUNTAIN	60	85	-	14	9	11	456	344	-	1	15
Mont.	1	2	-	1	-	1	8	2	-	-	-
Idaho	2	8	-	-	1	2	108	94	-	-	-
Wyo.	-	3	-	1	-	-	1	2	-	-	-
Colo.	22	21	-	1	3	6	216	126	-	1	-
N. Mex.	7	11	-	1	N	-	68	27	-	-	-
Ariz.	18	28	-	3	-	-	40	60	-	-	13
Utah	7	7	-	4	2	-	9	31	-	-	1
Nev.	3	5	-	3	3	2	6	2	-	-	1
PACIFIC	248	245	2	69	62	27	431	1,025	-	5	4
Wash.	30	37	-	3	2	25	174	498	-	-	-
Oreg.	33	43	N	N	N	2	46	19	-	-	-
Calif.	175	155	-	57	54	-	197	484	-	5	4
Alaska	4	6	2	6	1	-	8	3	-	-	-
Hawaii	6	4	-	3	5	-	6	21	-	-	-
Guam	-	1	U	-	1	U	-	1	U	-	-
P.R.	4	11	-	-	-	-	-	9	-	-	-
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  
June 24, 2000 (25th Week)**

Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total	Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	557	370	110	52	17	8	50	S. ATLANTIC	999	625	201	109	45	18	59
Boston, Mass.	164	98	35	18	10	3	20	Atlanta, Ga.	U	U	U	U	U	U	U
Bridgeport, Conn.	28	23	3	2	-	-	2	Baltimore, Md.	173	88	39	32	12	2	10
Cambridge, Mass.	12	8	2	2	-	-	1	Charlotte, N.C.	95	68	11	10	5	1	10
Fall River, Mass.	35	31	4	-	-	-	4	Jacksonville, Fla.	145	95	29	8	11	2	7
Hartford, Conn.	54	30	16	5	2	1	5	Miami, Fla.	99	68	18	8	3	2	12
Lowell, Mass.	11	7	3	1	-	-	2	Norfolk, Va.	51	31	12	2	2	4	1
Lynn, Mass.	12	9	1	1	-	1	-	Richmond, Va.	50	28	11	7	3	1	2
New Bedford, Mass.	21	17	2	1	1	-	1	Savannah, Ga.	34	21	8	3	2	-	3
New Haven, Conn.	26	14	5	6	-	1	1	St. Petersburg, Fla.	68	49	12	4	-	3	1
Providence, R.I.	67	44	12	8	1	2	-	Tampa, Fla.	159	111	34	10	2	2	9
Somerville, Mass.	4	3	1	-	-	-	1	Washington, D.C.	100	53	27	13	5	1	4
Springfield, Mass.	30	20	8	1	1	-	4	Wilmington, Del.	25	13	-	12	-	-	-
Waterbury, Conn.	28	22	4	1	1	-	1	E.S. CENTRAL	872	589	167	81	13	22	57
Worcester, Mass.	65	44	14	6	1	-	9	Birmingham, Ala.	183	127	36	14	4	2	12
MID. ATLANTIC	2,088	1,456	400	147	39	46	83	Chattanooga, Tenn.	43	33	7	1	-	2	2
Albany, N.Y.	57	43	7	4	2	1	4	Knoxville, Tenn.	78	51	14	11	1	1	4
Allentown, Pa.	U	U	U	U	U	U	U	Lexington, Ky.	71	48	13	6	2	2	9
Buffalo, N.Y.	92	70	9	6	4	3	8	Memphis, Tenn.	226	163	38	14	3	8	12
Camden, N.J.	33	21	6	6	-	-	3	Mobile, Ala.	110	64	28	12	3	3	5
Elizabeth, N.J.	19	14	5	-	-	-	-	Montgomery, Ala.	30	20	7	3	-	-	7
Erie, Pa.‡	37	23	14	-	-	-	2	Nashville, Tenn.	131	83	24	20	-	4	6
Jersey City, N.J.	43	33	3	5	1	1	-	W.S. CENTRAL	1,422	935	281	122	49	35	94
New York City, N.Y.	1,007	696	206	74	13	18	30	Austin, Tex.	96	57	23	10	5	1	9
Newark, N.J.	65	33	19	10	3	-	5	Baton Rouge, La.	71	45	18	4	2	2	2
Paterson, N.J.	27	14	6	4	1	2	3	Corpus Christi, Tex.	41	25	10	1	3	2	5
Philadelphia, Pa.	335	233	64	22	7	9	8	Dallas, Tex.	189	110	35	24	6	14	15
Pittsburgh, Pa.‡	67	47	11	6	1	2	6	El Paso, Tex.	82	53	18	7	4	-	4
Reading, Pa.	26	22	2	1	-	1	2	Ft. Worth, Tex.	121	85	19	11	2	4	10
Rochester, N.Y.	125	87	22	5	5	6	6	Houston, Tex.	344	223	78	25	15	3	29
Schenectady, N.Y.	34	29	4	-	1	-	-	Little Rock, Ark.	70	46	15	8	1	-	2
Scranton, Pa.‡	28	26	2	-	-	-	-	New Orleans, La.	U	U	U	U	U	U	U
Syracuse, N.Y.	55	39	10	3	1	2	5	San Antonio, Tex.	230	162	41	18	6	3	5
Trenton, N.J.	16	8	6	1	-	1	1	Shreveport, La.	59	43	5	6	3	2	6
Utica, N.Y.	22	18	4	-	-	-	-	Tulsa, Okla.	119	86	19	8	2	4	7
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	926	619	175	73	36	23	58
E.N. CENTRAL	1,971	1,348	378	150	46	47	134	Albuquerque, N.M.	101	72	15	9	3	2	4
Akron, Ohio	61	42	9	9	-	1	3	Boise, Idaho	51	35	8	2	4	2	4
Canton, Ohio	33	24	5	2	1	1	2	Colo. Springs, Colo.	45	31	5	4	3	2	5
Chicago, Ill.	404	242	94	47	12	7	45	Denver, Colo.	105	71	21	2	7	4	10
Cincinnati, Ohio	112	80	20	10	1	1	9	Las Vegas, Nev.	205	139	39	18	6	3	12
Cleveland, Ohio	136	88	31	11	4	2	6	Ogden, Utah	23	18	3	-	1	1	2
Columbus, Ohio	187	131	34	11	6	5	9	Phoenix, Ariz.	138	81	33	17	4	3	10
Dayton, Ohio	98	75	18	2	2	1	6	Pueblo, Colo.	37	23	13	1	-	-	1
Detroit, Mich.	170	93	44	19	5	9	7	Salt Lake City, Utah	85	53	13	9	4	6	6
Evansville, Ind.	40	36	3	-	-	1	2	Tucson, Ariz.	136	96	25	11	4	-	4
Fort Wayne, Ind.	55	37	12	4	2	-	-	PACIFIC	906	659	162	48	19	18	78
Gary, Ind.	19	8	9	2	-	-	1	Berkeley, Calif.	17	14	2	-	-	1	1
Grand Rapids, Mich.	47	32	6	2	4	3	5	Fresno, Calif.	70	47	17	2	3	1	5
Indianapolis, Ind.	173	126	30	8	3	6	12	Glendale, Calif.	U	U	U	U	U	U	U
Lansing, Mich.	50	35	12	2	1	-	6	Honolulu, Hawaii	66	44	15	5	2	-	8
Milwaukee, Wis.	101	78	12	10	-	1	6	Long Beach, Calif.	68	51	10	4	-	3	9
Peoria, Ill.	44	38	1	3	2	-	6	Los Angeles, Calif.	U	U	U	U	U	U	U
Rockford, Ill.	57	39	11	3	-	4	1	Pasadena, Calif.	26	22	4	-	-	-	4
South Bend, Ind.	37	27	5	1	1	3	-	Portland, Oreg.	75	53	13	4	3	2	7
Toledo, Ohio	97	78	12	3	2	2	6	Sacramento, Calif.	U	U	U	U	U	U	U
Youngstown, Ohio	50	39	10	1	-	-	2	San Diego, Calif.	152	110	28	9	4	1	13
W.N. CENTRAL	765	508	152	57	30	18	42	San Francisco, Calif.	U	U	U	U	U	U	U
Des Moines, Iowa	65	46	13	2	3	1	7	San Jose, Calif.	175	122	37	8	1	7	17
Duluth, Minn.	23	13	7	1	-	2	-	Santa Cruz, Calif.	19	13	4	-	1	1	2
Kansas City, Kans.	54	33	10	7	4	-	6	Seattle, Wash.	87	71	7	7	2	-	5
Kansas City, Mo.	92	64	18	8	1	1	5	Spokane, Wash.	53	40	8	4	-	1	3
Lincoln, Nebr.	19	13	4	2	-	-	2	Tacoma, Wash.	98	72	17	5	3	1	4
Minneapolis, Minn.	153	112	25	10	4	2	9	TOTAL	10,506 <sup>†</sup>	7,109	2,026	839	294	235	655
Omaha, Nebr.	76	43	19	7	3	4	1								
St. Louis, Mo.	91	51	23	8	3	6	-								
St. Paul, Minn.	85	67	10	4	4	-	5								
Wichita, Kans.	107	66	23	8	8	2	7								

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. 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.

<sup>†</sup>Pneumonia and influenza.

<sup>‡</sup>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.

<sup>†</sup>Total includes unknown ages.

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The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to [listserv@listserv.cdc.gov](mailto:listserv@listserv.cdc.gov). The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/> or from CDC's file transfer protocol server at <ftp.cdc.gov>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800.

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