



#### MORBIDITY AND MORTALITY WEEKLY REPORT

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# Shigella sonnei Outbreak Associated with Contaminated Drinking Water — Island Park, Idaho, August 1995

On August 20, 1995, the District 7 Health Department requested the Idaho Department of Health to assist in investigating reports of diarrheal illness among visitors to a resort in Island Park in eastern Idaho; *Shigella sonnei* had been isolated from stool cultures of some cases. This report summarizes the findings of the investigation, which implicated contaminated drinking water as the cause of the outbreak.

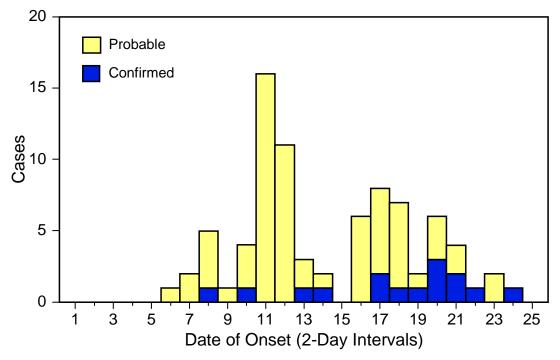
The resort is located in an area frequented by tourists because of its recreational waters and proximity to a large national park. Facilities include a 36-room motel, conference room, two hot tubs, and 10 hook-ups for recreational vehicles. The resort does not have a restaurant but offers catered meals to groups. To determine the source and extent of the outbreak, persons who had either stayed overnight or eaten at the resort during August 1–21 were telephoned and interviewed; resort staff also were interviewed. Names of visitors were obtained from the resort's records and from interviews with other guests. A probable case was defined as onset of diarrhea (two or more loose stools during a 24-hour period) with either fever or bloody stools while at the resort or within 11 days of leaving the resort. A confirmed case additionally required *Shigella sonnei* isolated from stool.

Approximately 810 persons stayed or ate at the resort during August 1–21; of these, 222 were contacted, and 221 (99%) agreed to be interviewed. A total of 82 cases (attack rate: 35%) were identified, including 67 probable and 15 confirmed. The median age of case-patients was 31 years (range: 3 months–81 years), and 42 (51%) were male. Onset of illness occurred during August 6–24 (Figure 1). The average duration from time of arrival until onset of diarrhea was 4 days (range: 1–11 days). Fifteen patients (18%) had bloody diarrhea, eight sought treatment in local emergency departments, and five were admitted to local hospitals.

Risk for illness was higher among persons who had drunk tap water or had used ice from the ice machines at the resort than among those who did not (80 [46%] of 175 versus one [3%] of 39; relative risk=17.6; 95% confidence interval=2.5–123.0). Increased risk for illness was not associated with eating or drinking any resort food or beverages (other than water), swimming or fishing in the area recreational waters, using a hot tub, or dining in any local restaurants in Island Park. At least 14 of the case-patients stayed only one night at the resort and had drunk tap water obtained in their rooms but had not eaten food prepared at the resort.

Shigella sonnei — Continued

FIGURE 1. Number of confirmed and probable cases of *Shigella sonnei\**, by date of onset — Idaho, August 6-August 24, 1995



<sup>\*</sup>A probable case was defined as onset of diarrhea (two or more loose stools during a 24-hour period) with either fever or bloody stools while at the resort or within 11 days of leaving the resort. A confirmed case additionally required *Shigella sonnei* isolated from stool. A total of 82 cases were identified, including 67 probable and 15 confirmed.

After receiving reports of diarrheal illness among guests at the resort, the District 7 Health Department recommended several prevention measures before initiating the investigation. On August 17, the resort posted warning signs at water taps cautioning against drinking water; on August 19, food service was terminated; and on August 21, bottled water was placed in every room. Resort water is supplied by one well, which was dug in 1993. Samples of water obtained from the well on August 23 were positive for fecal coliform bacteria; however, cultures were negative for *Shigella*.

During the outbreak investigation, residents in some houses in a new subdivision adjacent to the resort reported acute diarrheal illness. Each house either had a private well or shared a well with a neighbor. *S. sonnei* was isolated from stool samples from six persons who resided in three of these homes. All six persons denied direct contact with other neighbors or visiting the resort. Fecal coliform bacteria were identified in samples obtained from six of 10 neighborhood wells during August 21–23. However, cultures of water samples from two of these wells were negative for *S. sonnei*.

The water table in the area was substantially higher than normal because of high rainfall levels during the spring. Initial inspection of a sewer line that had been placed from the subdivision and the resort by a private developer indicated that sewage was draining improperly, although no breaks were identified in selected sections that were excavated for inspection.

Shigella sonnei — Continued

Plasmid profiles were performed on *Shigella* isolates from 15 ill resort visitors, two ill staff members, and five of six ill residents of the neighboring houses; all 22 isolates shared seven identical plasmids. *S. sonnei* isolates obtained from patients elsewhere in Idaho did not match this pattern.

The District 7 Health Department required that the resort provide bottled or boiled water to visitors and recommended that persons residing in the area have their well water tested and boil all drinking water. Since the investigation, the resort has drilled a new and deeper well.

Reported by: B Arnell, District 7; J Bennett, Southeast District; R Chehey, State Bur of Laboratories; J Greenblatt, MD, State Epidemiologist; Idaho State Dept of Health. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; Div of Field Epidemiology, Epidemiology Program Office, CDC.

**Editorial Note**: *S. sonnei* is a well-recognized cause of gastrointestinal illness and the most common cause of bacillary dysentery in the United States. In addition to diarrhea, common manifestations of shigellosis include fever, abdominal pain, and blood or mucus in the stool. Although most outbreaks of shigellosis have been attributed to person-to-person transmission (1), foodborne (2–4), waterborne (5), and swimming-related (6,7) outbreaks have been reported. Waterborne outbreaks commonly are associated with wells that have been fecally contaminated. However, because *Shigella* organisms rarely are isolated from water sources, the identification of a waterborne source usually is based on epidemiologic evidence.

The findings of this investigation indicate possible transmission from multiple wells in the same area, suggesting possible contamination and spread of viable *Shigella* organisms through the groundwater. Plasmid profile analysis confirmed that the outbreak isolates were the same strain that caused illness among persons in the neighboring community. Although investigation of the sewer line continues, the source of the contamination of the well water has not yet been determined.

Routine water-quality testing, including testing for fecal coliform (thermotolerant) bacteria, is the most practical indicator of possible bacterial contamination of drinking water from both community and private water supplies. However, many privately owned wells never are tested for fecal coliform bacteria. In addition, timely testing, reporting, and follow-up in cases of contaminated public water systems often are constrained because of limited resources available to local health departments.

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## Rabies Postexposure Prophylaxis — Connecticut, 1990–1994

In Connecticut, the first case of animal rabies associated with the ongoing raccoon rabies epizootic was identified in March 1991; since then, cases of animal rabies have been confirmed in all eight counties of the state. Because of heightened awareness of the potential for rabies and the nearly always fatal outcome of this disease, the numbers of persons in Connecticut receiving rabies postexposure prophylaxis (PEP) was suspected to have increased substantially during 1990–1994. In Connecticut, PEP is administered with pharmaceuticals obtained through retail channels. In 1994, the Connecticut Department of Public Health surveyed Connecticut hospitals and the two pharmaceutical manufacturers that produce human rabies immunoglobulin (HRIG) to estimate the number of persons receiving PEP during 1990–1994\* and the costs associated with treatment. This report summarizes the survey findings, which suggest an increasing trend in the administration of PEP in Connecticut corresponding with the statewide spread of raccoon rabies.

In October 1994, a questionnaire was mailed to the pharmacy director at each of the 33 acute-care hospitals in Connecticut. The questionnaire asked about rabies vaccine and HRIG, including the number of vials used each year during 1990–1994 and the amount charged for each vial. Questionnaires were returned from 32 (97%) of the 33 hospitals. Because of limitations in the maintenance of inventory records, only 9–15 (28%–47%) hospitals were able to provide information about the amount of HRIG used for any period before 1994.

At the time of the survey, all 32 hospitals reported stocking vaccine, and 31 (97%) also stocked HRIG. Charges to patients for these products varied widely (Table 1). In 1994, the median estimated cost for HRIG and rabies vaccine for a person weighing 165 lbs (i.e., 10 mL HRIG and five vaccine doses) was \$1498 (range: \$787–\$4548) and

TABLE 1. Hospital charges for human rabies immunoglobulin (HRIG), rabies vaccine, and postexposure prophylaxis\* (PEP), by product — Connecticut, 1994

	No. hospitals reporting	Hospital c	harge to patient
Product	(n=32)	Median	(Range)
Rabies vaccine	19	\$ 189	(\$ 80-\$ 594)
HRIG			
2 mL	17	\$ 136	(\$ 67-\$ 400)
10 mL	17	\$ 504	(\$268-\$1577)
PEP			
For persons weighing 33 lbs <sup>†</sup>	14	\$1127	(\$481–\$3371)
For persons weighing 132 lbs§	16	\$1430	(\$709–\$4233)
For persons weighing 165 lbs¶	16	\$1498	(\$787–\$4548)

<sup>\*</sup>PEP consists of doses of rabies vaccine and HRIG based on the patient's weight.

<sup>\*</sup>For 1994, data were reported for January-September.

<sup>&</sup>lt;sup>†</sup>2 mL HRIG and five vaccine doses.

<sup>§8</sup> mL HRIG and five vaccine doses.

<sup>¶10</sup> mL HRIG and five vaccine doses.

Rabies — Continued

for a child weighing 33 lbs (i.e., 2 mL HRIG and five vaccine doses) was \$1127 (\$481–\$3371).

Because most hospital pharmacies do not monitor the number of patients who receive rabies PEP, the amount of HRIG dispensed by the hospital pharmacies was used as a surrogate measure of the number of treatments initiated. During 1990–1993, the mean number of milliliters used by each hospital annually (based on 9–15 hospitals each year) increased from 10 mL to 203 mL (Table 2). Because most hospitals also do not monitor the characteristics (e.g., age and weight) of persons who receive rabies PEP, the average volume of HRIG administered to each patient was estimated to be 8 mL—a dosage appropriate for a 132-lb person. To estimate the total number of doses of HRIG administered, the mean number of milliliters dispensed was divided by 8 mL. Based on these data, the estimated number of persons treated at Connecticut hospitals increased from 41 in 1990 to 887 during the first 9 months of 1994 (Table 2).

Complete sales data for HRIG sold in Connecticut were available from both manufacturers only for 1993. HRIG sufficient for an estimated 1879 doses (based on an 8-mL dose per patient) was sold to Connecticut health-care providers. Based on these data, in 1993, PEP was administered to 1879 persons in Connecticut.

Reported by: RS Nelson, DVM, GH Cooper, Jr, ML Cartter, MD, JL Hadler, MD, State Epidemiologist, Connecticut Dept of Public Health. Viral and Rickettsial Zoonoses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

**Editorial Note**: Since the 1950s, cases of human rabies in the United States have steadily declined. During 1980–1995, only 18 indigenously acquired cases occurred, and no human deaths were attributed to the raccoon rabies virus variant associated with the epizootic (1–3). In Connecticut, a bat-associated case in 1995 was the first human case to be reported since 1932 (4). The decline in human rabies cases, in part, reflects the availability of an effective treatment for humans following exposure to a rabid animal and widespread use of canine rabies vaccination. The Advisory Committee on Immunization Practices (ACIP) periodically revises recommendations to guide decisions regarding treatment following exposure (5). Adherence to these guidelines

TABLE 2. Number of milliliters of human rabies immunoglobulin (HRIG) dispensed at hospitals and estimated total doses administered,\* by year — Connecticut, 1990–1994<sup>†</sup>

	No. hospitals reporting		dispensed spital (mL)	Total HRIG	Estimated total doses
Year	(n=32)	Mean	(Range)	(mL)	administered
1990	9	10	( 0- 36)	90	41
1991	9	63	( 0-343)	565	260
1992	11	163	(12-470)	1790	672
1993	15	203	(10-490)	3050	837
1994§	28	215	(26–548)	6016	887

<sup>\*</sup>Because most hospitals do not monitor the characteristics (e.g., age and wight) of persons who receive rabies postexposure prophylaxis, the average volume of HRIG administered to each patient was estimated to be 8 mL—a dosage appropriate for a 132-lb person. To estimate the total number of doses of HRIG administered, the mean number of milliliters dispensed was divided by 8 mL.

<sup>&</sup>lt;sup>†</sup>Because most hospital pharmacies do not monitor the number of patients who receive rabies postexposure prophylaxis, the amount of HRIG dispensed by the hospital pharmacies was used as a surrogate measure of the number of treatments initiated.

<sup>§</sup>Reported for January-September.

#### Rabies — Continued

should reduce the number of unnecessary administrations of PEP, associated costs, and potential risks for adverse reactions.

The findings in this report are subject to at least three limitations. First, because data from the hospital pharmacies for 1990–1993 were incomplete, the findings for those years may not be respresentative of all hospital pharmacies in Connecticut. Second, the amount of HRIG dispensed by hospital pharmacies was used as a surrogate measure of the number of treatments administered and did not account for unused HRIG; therefore, these findings may overestimate the number of persons receiving rabies PEP in Connecticut. Third, because of the use of an estimate for the average bodyweight of persons receiving rabies PEP in Connecticut, the estimate of PEP usage may not be precise.

Despite limitations in the precision of the estimates of the number of administrations of rabies PEP in Connecticut, estimates such as those presented in this report are one important measure of the cost associated with rabies prevention. PEP usage also may reflect changes in the epizootiology of rabies in specific areas, as illustrated by the increased numbers of persons who received PEP in areas affected by raccoon rabies (6).

The findings in this report indicate an increasing trend in the administration of rabies PEP that corresponded with the statewide spread of racoon rabies in Connecticut. Similarly, administration of PEP increased in two counties in New Jersey during 1988–1990 and in New York state during 1992–1993 as the raccoon rabies epizootic progressed in those states (6,7).

One of the national health objectives for the year 2000 is to reduce the number of rabies PEP administrations in the United States to no more than 9000 per year (objective 20.12) (8). Although national PEP usage has not been estimated since 1980–1981, the findings in Connecticut and other states (6,7) suggest this objective is unlikely to be achieved.

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# Abortion Surveillance: Preliminary Data — United States, 1993

For 1993, CDC received data about legal induced abortions from 52 reporting areas (the 50 states, New York City, and the District of Columbia). This report presents preliminary data for 1993.

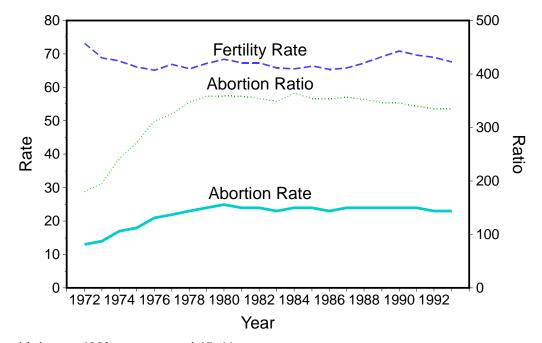
In 1993, a total of 1,330,414 legal induced abortions were reported to CDC (Table 1), a decrease of 2.1% from the number reported for 1992 (1), and the number of live births decreased by 1.6% (2). The number of reported abortions declined in 39 of 52 reporting areas. The national abortion ratio (number of legal abortions per 1000 live births) decreased from 335 in 1992 to 334 in 1993 (Figure 1). The national abortion rate was 23 legal abortions per 1000 women aged 15–44 years, unchanged from 1992. Consistent with previous years, approximately 92% of women who had a legal abortion were residents of the state in which the procedure was performed.

Women who obtained legal abortions in 1993 were predominately aged <25 years, white, and unmarried. In 1993, 20% of women who obtained a legal abortion were adolescents (aged ≤19 years), unchanged from 1992. Curettage (suction and sharp) remained the primary abortion procedure (99% of all procedures). As in previous years, approximately 52% of legal abortions were performed during the first 8 weeks of gestation and approximately 89% were performed during the first 12 weeks of pregnancy.

Reported by: Statistics and Computer Resources Br, Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

**Editorial Note**: Since 1980, the annual number of legal induced abortions reported in the United States has remained stable, varying each year by ≤5% (Table 1). However,

FIGURE 1. Fertility rate\* and abortion ratio<sup>†</sup> and rate<sup>§</sup>, by year — United States, 1972–1993



<sup>\*</sup>Live births per 1000 women aged 15-44 years.

<sup>&</sup>lt;sup>†</sup>Number of legal induced abortions per 1000 live births.

<sup>§</sup>Number of legal induced abortions per 1000 women aged 15-44 years.

Characteristic	1972	1976	1980	1985	1988	1990	1991	1992	1993§	Abortion -
Reported no. legal induced abortions Abortion ratios	586,760 180	988,267 312	1,297,606 359	1,328,570 354	1,371,285 352	1,429,577 345	1,388,937 339	1,359,145 335	1,330,414 334	– Con
Abortion rates	13	21	25	24	24	24	24	23	23	Continued
				Percei	ntage distrib	ution¶				bé
Residence										Ī
In-state	56.2	90.0	92.6	92.4	91.4	91.8	91.6	92.0	91.9	
Out-of-state	43.8	10.0	7.4	7.6	8.6	8.2	8.4	8.0	8.1	
Age (yrs)										
≤19	32.6	32.1	29.2	26.3	25.3	22.4	21.0	20.1	20.0	
20–24	32.5	33.3	35.5	34.7	32.8	33.2	34.4	34.5	34.4	
≥25	34.9	34.6	35.3	39.0	41.9	44.4	44.6	45.4	45.6	
Race										
White	77.0	66.6	69.9	66.6	64.4	64.8	63.8	61.5	62.0	
Black	23.0	33.4	30.1	29.8	31.1	31.8	32.5	33.9	34.1	
Other**	_	_	_	3.5	4.5	3.4	3.7	4.6	3.9	
Ethnicity										
Hispanic	_	_	_	_	_	9.8	13.5	15.2	14.5	
Non-Hispanic	_	_	_	_	_	90.2	86.5	84.8	85.5	
Marital status										
Married	29.7	24.6	23.1	19.3	20.3	21.7	21.4	20.8	20.6	
Unmarried	70.3	75.4	76.9	80.7	79.7	78.3	78.6	79.2	79.4	
No. live births <sup>††</sup>										
0	49.4	47.7	58.4	56.3	52.4	49.2	47.8	45.9	46.8	
1	18.2	20.7	19.4	21.6	23.4	24.4	25.3	25.9	25.9	
2	13.3	15.4	13.7	14.5	16.0	16.9	17.5	18.0	17.6	
3	8.7	8.3	5.3	5.1	5.6	6.1	6.4	6.7	6.5	
≥4	10.4	7.9	3.2	2.5	2.6	3.4	3.0	3.5	3.2	
Type of procedure										
Curettage	88.6	92.8	95.5	97.5	98.6	98.8	98.9	98.9	99.0	
Suction	65.2	82.6	89.8	94.6	95.1	96.0	97.3	97.0	98.1	
Sharp	23.4	10.2	5.7	2.9	3.5	2.8	1.6	1.9	0.9	
Intrauterine instillation	10.4	6.0	3.1	1.7	1.1	8.0	0.7	0.7	0.6	
Other <sup>§§</sup>	1.0	1.2	1.4	0.8	0.3	0.4	0.4	0.4	0.4	

**Abortion** 

Continued

52.2

14.3\*\*\*

16.1\*\*\*

20.9\*\*\*

24.6

11.8

6.1

4.0

1.3

52.1

14.1¶

15.4¶¶

21.9¶¶

24.2 12.0

6.0

4.2

1.5

_	

*Per	1000	live	births.
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<sup>&</sup>lt;sup>†</sup> Per 1000 women aged 15-44 years.

§ Preliminary data.

Weeks' gestation

≤8

9-10

11-12

13–15

16-20

≥21

≤6 7

8

50.3

26.6

12.5

5.9

3.9

8.0

48.7

26.4

12.7

6.6

4.5

1.1

51.6

25.3

11.7

6.4

4.0

1.0

52.3

25.1

11.5

6.1

3.9

1.1

\*\*Reported as "other race."

34.0

30.7

17.5

8.4

8.2

1.2

47.0

28.1

14.4

4.5

5.1

0.9

51.7

26.2

12.2

5.1

3.9

0.9

<sup>¶</sup>Excludes unknown values. The number of areas reporting a given characteristic varied. For 1993, the number of areas reporting residence was 40; age, 43; race, 35; ethnicity, 23; marital status, 37; number of live births, 39; type of procedure, 40; and weeks' gestation, 39.

<sup>&</sup>lt;sup>††</sup> For 1972–1976, data indicate number of living children.

<sup>§§</sup> Includes hysterotomy and hysterectomy.

<sup>¶</sup> Data are for 36 reporting areas only.

<sup>\*\*\*</sup>Data are for 37 reporting areas only.

#### Abortion — Continued

since 1990 (the year in which the number was highest), the number of reported abortions has decreased each year. From 1972 through 1980, the national abortion rate increased each year; since 1980, the rate has remained stable, fluctuating between 23 and 24 (Figure 1).

In 1993, the national ratio of abortions to live births (334 abortions per 1000 live births) was lower than for any year since 1977 (325 abortions per 1000 live births), indicating that a smaller proportion of pregnancies ended in an abortion (3). Factors that could have contributed to this recent change include reduced access to abortion services, changes in contraceptive practices, attitudinal changes concerning the decision to have an abortion or to carry a pregnancy to term, and a possible decline in the number of unintended pregnancies (4–6).

The number of live births and the national fertility rate (number of live births per 1000 women of reproductive age [i.e., aged 15–44 years]) peaked in 1990 (Figure 1). Subsequent declines in the annual number of abortions and live births indicate decreases in the numbers of pregnancies each year in the United States. Although the actual number of women of reproductive age has increased by 11% since 1980, the age distribution in this population has shifted and a higher proportion of women are now in later reproductive years (aged 35–44 years); among these women, fertility is lower when compared with younger women (2). For example, in 1980, approximately 58% of women of reproductive age were aged <30 years (the age with highest fertility), compared with 47% in 1992 (Unpublished data, Bureau of the Census). In addition, in 1980, women aged 35–44 years accounted for 25% of reproductive-aged women, compared with 34% in 1992.

Many states emphasize the prevention of unintended pregnancy, particularly among teenagers. During 1993, the total number of legal induced abortions was available for all 52 reporting areas; however, approximately 26% of abortions were reported from states without centralized reporting, and these states could not provide information about the characteristics of women obtaining abortions. To assist efforts to prevent unintended pregnancy, an accurate assessment of abortion (including the number and characteristics of women obtaining legal abortions in all states) is needed on an ongoing basis.

Additional statistical and epidemiologic information on legal induced abortions is available from CDC's automated Reproductive Health Information line at (404) 330-1230, which provides information by fax, by voice recordings, or through the mail.

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#### Notice to Readers

#### **National Public Health Week**

April 1–7, 1996, has been designated as National Public Health Week. During this week, federal, state, and local public health agencies will collaborate with private and educational organizations to promote healthy lifestyles, encourage communitywide health-protecting actions, and highlight the unique and essential services of the public health system. This year's theme, "Celebrating Success," focuses on the approximately 25 years of average life expectancy that have been added during the 1900s through population-based or public health efforts.

Additional information about National Public Health Week is available from local and state health departments or the national offices of the American Public Health Association, telephone (202) 789-5600; the Association of State and Territorial Health Officials, telephone (202) 546-5400; the National Association of County and City Health Officials, telephone (202) 783-5550; the National Association of Local Boards of Health, telephone (419) 353-7714; or CDC's Office of Communications (404) 639-3286.

#### Notice to Readers

# Establishment of VARIVAX® Pregnancy Registry

VARIVAX<sup>®\*</sup> (Merck & Co., Inc. [West Point, Pennsylvania]), a live attenuated virus vaccine for preventing chickenpox, recently has been licensed for children aged ≥12 months. Adults without a reliable history of chickenpox also can receive the vaccine. However, because no data exist about the effects of VARIVAX<sup>®</sup> on fetal development and because natural varicella infection can cause a complex of congenital anomalies (i.e., congenital varicella syndrome), the package circular states that VARIVAX<sup>®</sup> should not be administered during pregnancy and that pregnancy should be avoided for at least 3 months after vaccination.

Merck & Co., Inc., in collaboration with CDC, has established a registry to follow the outcomes of pregnancy when women are vaccinated within 3 months before pregnancy or at any time during pregnancy. Patients and health-care providers should report any vaccinations with VARIVAX® during this period to the registry, telephone (800) 986-8999; mailing address, Merck Research Labs, Worldwide Product Safety & Epidemiology, BLA-31, West Point, PA 19486. Questions regarding the registry should be directed to Dr. Jeanne Manson at this address; telephone (610) 397-7290 (collect); or fax (610) 397-2328. An annual report will be sent to health-care providers participating in the registry.

<sup>\*</sup>Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

## Notice to Readers

# **Epidemiology in Action Course**

CDC and Emory University will cosponsor a course designed for practicing state and local health department professionals. This course, "Epidemiology in Action," will be held at CDC, April 29–May 10, 1996. The course emphasizes the practical application of epidemiology to public health problems and will consist of lectures, workshops, classroom exercises (including actual epidemiologic problems), roundtable discussions, and an on-site community survey. Topics covered include descriptive epidemiology and biostatistics, analytic epidemiology, epidemic investigations, public health surveillance, surveys and sampling, computers and Epi Info software, and discussions of selected prevalent diseases. There is a tuition charge.

Additional information and applications are available from Emory University, Rollins School of Public Health, 7th Floor, 1518 Clifton Rd., NE, Atlanta GA 30322; telephone (404) 727-3485 or 727-0199; fax (404) 727-4590.

## Notice to Readers

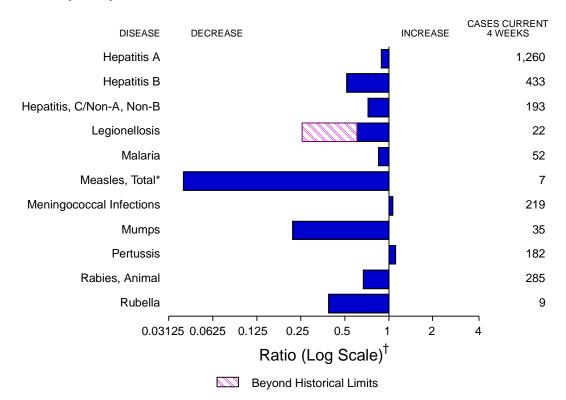
## 1997 CDC and ATSDR Symposium on Statistical Methods

CDC and the Agency for Toxic Substances and Disease Registry (ATSDR) will cosponsor a statistical methods symposium, "Statistical Bases for Public Health Decision Making: From Exploration to Modeling," January 29–30, 1997, in Atlanta. A short course on Exploratory Data Analysis will be offered January 28, 1997, in conjunction with the symposium. The symposium and course are open to the public.

Scientists are encouraged to submit abstracts in one of the following areas: 1) the influence of statistical methods on development/implementation of public health policy; 2) statistical approaches to assessing the effectiveness and economic impact of preventive interventions and technologies; 3) exploratory data analysis, robust methods; and 4) miscellaneous modeling applications.

Abstracts should be postmarked no later than July 1, 1996. Authors of papers accepted for presentation or posters will be notified by September 30, 1996. Registration and abstract information and additional information regarding scientific content of the symposium is available from the CDC/ATSDR Symposium on Statistical Methods, 1600 Clifton Rd., NE, Mailstop C-08, Atlanta, GA 30333; telephone (404) 639-3806; internet address bgm4@epo.em.cdc.gov.

FIGURE I. Selected notifiable disease reports, comparison of 4-week totals ending March 16, 1996, with historical data — United States



<sup>\*</sup>The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline.

TABLE I. Summary — cases of selected notifiable diseases, United States, cumulative, week ending March 16, 1996 (11th Week)

	Cum. 1996		Cum. 1996
Anthrax Brucellosis Cholera Congenital rubella syndrome Cryptosporidiosis* Diphtheria Encephalitis: California* eastern equine* St. Louis* western equine* Hansen Disease Hantavirus pulmonary syndrome*	229 1 - 1 - 20 1	HIV infection, pediatric*§ Plague Poliomyelitis, paralytic¶ Psittacosis Rabies, human Rocky Mountain spotted fever (RMSF) Streptococcal toxic-shock syndrome* Syphilis, congenital** Tetanus Toxic-shock syndrome Trichinosis Typhoid fever	49 - - 3 16 8 - 2 25 6 39

<sup>\*</sup>Not notifiable in all states.

<sup>&</sup>lt;sup>†</sup>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.

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

§ Updated monthly to the Division of HIV/AIDS Prevention, National Center for Prevention Services (NCPS), last update February 27, 1996.

No suspected cases of polio reported for 1996.

<sup>\*\*</sup>Updated quarterly from reports to the Division of STD Prevention, NCPS. First quarter 1996 is not yet available.

<sup>-:</sup> no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending March 16, 1996, and March 18, 1995 (11th Week)

	AIE	OS*	Chlamydia	Esche coli O NETSS <sup>†</sup>	richia 157:H7 PHLIS <sup>§</sup>	Gono	rrhea	Hepa C/N/		Legion	ellosis
Reporting Area	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
UNITED STATES	10,058	15,846	42,360	125	42	57,565	81,911	618	857	122	221
NEW ENGLAND	454	795	2,022	16	3	1,578	1,172	15	19	3	3
Maine N.H.	8 14	15 11	128	2 1	1	9 27	12 23	-	1	1	-
Vt.	5	6	-	3	2	17	6	9	1	-	-
Mass. R.I.	250 17	447 55	1,388 506	6 2	-	483 137	674 130	5 1	17 -	1 1	2 1
Conn.	160	261	-	2	-	905	327	-	-	Ň	Ň
MID. ATLANTIC	2,863	3,913	6,189	19	9	4,890	9,289	58	75	28	26
Upstate N.Y. N.Y. City	324 1,615	276 2,301	N 765	11	6	875 1,012	1,923 3,176	53 1	28 1	8	6 1
N.J.	554	888	1,155	5	-	673	763	-	37	2	7
Pa.	370	448	4,269	N	3	2,330	3,427	4	9	18	12
E.N. CENTRAL Ohio	822 250	1,358 378	9,339 1,667	18 14	2	9,876 894	17,422 5,869	73 2	66 2	44 19	82 35
Ind.	91	103	1,926	2	-	1,576	1,721	3	-	11	15
III. Mich.	315 108	533 270	4,994	2	1 1	3,649 3,295	4,345 4,027	7 61	25 39	1 12	12 10
Wis.	58	74	752	N	-	462	1,460	-	-	1	10
W.N. CENTRAL	254	386	4,469	13	12	3,470	4,599	73	19	8	26
Minn. Iowa	56 23	91 15	549	1 4	8 1	874 197	657 310	- 47	2	2	4
Mo.	93	146	2,416	1	-	1,779	2,695	25	12	1	21
N. Dak. S. Dak.	3	1	222	1	1 -	34	7 37	-	1	1	-
Nebr.	22	38	388	1	-	57	238	-	2	4	-
Kans.	57	95	894	5	2	529	655	1	2	-	1
S. ATLANTIC Del.	2,485 72	3,999 69	10,740	10	1 -	23,318 332	23,878 451	28	57 -	11 -	40
Md.	198	626	1,149	N	-	2,902	2,948	-	2	2	9
D.C. Va.	125 129	236 326	N 2,288	N	1	966 2,184	1,302 2,417	1	-	1 2	3 2
W. Va.	19	19	-	N	-	99	141	4	14	1	3
N.C. S.C.	34 93	245 167	-	4 1	-	4,382 2,619	5,499 2,547	8 4	16 1	3 1	7 5
Ga.	446	450	2,597	2	-	5,811	4,097	-	9	-	5
Fla.	1,369	1,861	4,706	-	-	4,023	4,476	11	15	1	6
E.S. CENTRAL Ky.	360 66	491 39	2,067	5	1	5,860 884	9,467 1,073	87 4	349 7	11 2	8 2
Tenn.	141	220	2,026	N	1	1,964	2,711	82	341	4	3
Ala. Miss.	90 63	157 75	- 41	2	-	2,845 167	3,793 1,890	1	1	- 5	2 1
W.S. CENTRAL	956	1,352	1,581	6	1	3,318	7,550	60	35	-	3
Ark.	45	63	-	4	-	592	873	1	-	-	-
La. Okla.	225 28	267 83	- 1,581	N 1	1	1,739 987	2,658 553	13 33	13 19	-	1 2
Tex.	658	939	-	i	-	-	3,466	13	3	-	-
MOUNTAIN	254	556	3,527	16	6	1,409	1,960	129	89	5	21
Mont. Idaho	3 4	8 16	302	6	4	4 14	24 28	6 31	4 12	-	2 1
Wyo.	-	4	149	-	-	9	11	41	32	-	-
Colo. N. Mex.	85 20	214 42	-	5	2	427 176	657 246	4 24	19 14	4	12 1
Ariz.	96	135	2,259	N	-	573	638	15	4	-	1
Utah Nev.	39 7	37 100	254 563	3 2	-	49 157	39 317	6 2	3 1	1	2 2
PACIFIC	1,610	2,996	2,426	22	7	3,846	6,574	95	148	12	12
Wash.	141	282	2,096	4	4	536	584	17	34	-	-
Oreg. Calif.	103 1,340	93 2,514	-	8 7	-	78 3,059	100 5,554	2 42	6 99	12	9
Alaska	3	29	N	-	-	87	201	2	1	-	-
Hawaii	23	78	318	N	3	86	135	32	8	-	3
Guam P.R.	3 255	638	- N	N N	Ū	- 85	20 131	35	31	-	-
V.I.	1	14	N	N	U	-	8	-	-	-	-
Amer. Samoa C.N.M.I.	-	-	- N	N N	U U	- 8	8 5	-	-	-	-
J., 1,1,1,1,1,1		-	11	14		<u> </u>					

N: Not notifiable

U: Unavailable

-: no reported cases

C.N.M.I.: Commonwealth of Northern Mariana Islands

<sup>\*</sup>Updated monthly to the Division of HIV/AIDS Prevention, National Center for Prevention Services, last update February 27, 1996.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending March 16, 1996, and March 18, 1995 (11th Week)

	Ly: Dise	me ease	Mal	aria	Mening Dise		Ѕур	hilis Secondary)	Tubero	ulosis	Rabies,	Animal
Reporting Area	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
UNITED STATES	643	801	173	200	771	743	2,083	3,417	2,487	2,846	745	1,272
NEW ENGLAND	34	41	4	8	19	46	41	47	79	54	93	336
Maine N.H.	-	1 3	1	1	7 1	3 8	1	- 1	4 2	1	13	48
Vt.	-	1	1	-	1	5	-	-	-	-	20	45
Mass. R.I.	11 18	6	2	2	10	13	17 -	17 -	29 11	23 7	23 10	154 14
Conn.	5	30	-	5	-	17	23	29	33	23	27	75
MID. ATLANTIC Upstate N.Y.	546 191	608 230	43 12	46 8	59 17	74 27	72 3	221 22	386 51	556 52	125 55	355 175
N.Y. City	128	28	20	22	6	8	28	123	191	315	-	-
N.J. Pa.	15 212	99 251	8	12 4	18 18	24 15	18 23	40 36	103 41	98 91	32 38	59 121
E.N. CENTRAL	7	8	20	26	101	114	386	567	409	332	5	2
Ohio	5	4	4	1	46	30	152	185	65	52	2	1
Ind. III.	2	3 1	2 4	2 19	8 29	19 34	58 103	49 224	31 250	13 183	-	1
Mich.	-	-	7	2	7	17	43	65	53	76	-	-
Wis. W.N. CENTRAL	20	18	3	2 6	11 65	14 37	30 111	44 186	10 71	8 88	3 60	54
Minn. Iowa	- 11	-	1	3	3 16	6 7	26 4	13 14	14 10	16 15	3 31	5 13
Mo.	-	8	1	3	25	14	78	155	31	37	6	8
N. Dak. S. Dak.	-	-	-	-	1 2	-	-	-	1 6	-	5 10	6 13
Nebr.	-	-	-	-	8	4	3	4	-	5	1	-
Kans.	9	10 94	1	-	10	6 120	700	-	9	15 450	4	9
S. ATLANTIC Del.	25 1	94	27 2	48 1	135 2	130 1	709 10	920 5	304	450 10	380 10	366 17
Md. D.C.	17	68	12 1	15 3	16 2	4 1	112 34	84 34	52 14	93 20	106 2	86 1
Va.	-	2	5	9	14	17	98	136	25	6	83	68
W. Va. N.C.	2 4	5 6	4	4	4 22	2 23	1 215	1 238	17 40	18 25	12 89	20 77
S.C.	1	4	1	-	18	16	95	160	40	60	8	26
Ga. Fla.	-	-	2	6 10	37 20	37 29	68 76	164 98	116	77 141	54 16	62 9
E.S. CENTRAL	-	7	2	2	55	45	547	799	239	214	14	45
Ky. Tenn.	-	1 4	- 1	-	8	16 8	37 160	53 175	49 44	39 82	2	5 23
Ala.	-	-	i	2	23	13	136	129	86	92	12	16
Miss.	-	2	-	-	21	8	214	442	60	1	-	1
W.S. CENTRAL Ark.	1 1	9	6	2 1	92 10	79 7	193 45	494 102	101 20	272 31	3	29 15
La.	-	-	-	-	18	10	115	237	18	32	3	9 5
Okla. Tex.	-	9 -	6	1	4 60	10 52	33	33 122	63	209	- -	5 -
MOUNTAIN Mont.	-	1	16	12 1	54 1	58 1	23	56 3	86	90	12	11 6
Idaho	-	-	1	-	6	3	1	-	3	3	-	-
Wyo. Colo.	-	-	2 8	6	3 7	1 13	1 11	32	15	5	8	-
N. Mex.	-	-	1	3	12	15	-	1	7	18	1	-
Ariz. Utah	-	-	1 2	1 1	17 3	21 2	7	11 2	48	56 7	2	5 -
Nev.	-	1	1	-	5	2	3	7	13	1	1	-
PACIFIC Wash.	10	15 -	52 -	50 5	191 18	160 17	1 -	127 4	812 46	790 48	53 -	74 -
Oreg. Calif.	4 5	1 14	4 45	4 37	32 136	33 109	1	4 119	21 703	9 680	- 47	- 71
Alaska	-	-	-	1	3	-	-	-	15	17	6	3
Hawaii	1	-	3	3	2	1	-	-	27	36	-	-
Guam P.R.	-	-	-	-	1	1 10	38	1 66	-	4	8	12
V.I. Amer. Samoa	-	-	-	-	-	-	-	-	-	2	-	-
C.N.M.I.	-	-	-	-	-		-	-		9	-	

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE III. Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 16, 1996, and March 18, 1995 (11th Week)

New	Office	H. influ			Hepatitis (vi	al), by type	i iviai cii	10, I.	Measles		a)
New					4	В		Indi	igenous	lmp	orted <sup>†</sup>
NEW ENGLAND Maine	Reporting Area							1996		1996	Cum. 1996
Maine	UNITED STATES	277	291	4,441	5,017	1,312	1,747	2	17	-	1
N.H.			13					1		-	-
Vt.										-	-
R.I 7	Vt.	-	1	-	2		1			-	-
Conn.										-	-
Upstate NY, Pa		-	7					1	1	-	-
NY. City 2 4 152 107 119 31 - 1 - N. N.J. 13 6 17 46 19 35 Pa.   B. 10 27 40 19 35 Pa.   B. 10 27 407 19 35 Pa.   B. 10 27 447 25 21 Pa.   B. 10 31 31 212 447 25 21 Pa.   B. 10 31 31 212 447 25 21 Pa.   B. 10 31 31 212 447 25 21 Pa.   B. 10 31 31 35 93 83 85 90   B. 10 3 83 85 90   B. 10 3 83 85 90   B. 10 3 85 90   B. 10 3 85 90 93 83 85 90   B. 10 3 93 85 90 93 93 85 90 93 93 93 85 90 93 93 93 93 93 93 93 93 93 93 93 93 93								-		-	-
Pa. B. S. CENTRAL.  A7 57 400 786 146 249 Ohio 31 31 31 212 447 25 21		2	4	152	107		31	-		-	-
EN. CENTRAL Ohio Ohio Ohio Ohio Ohio Ohio Ohio Ohio								-		-	-
Ohio         31         31         212         447         25         21         -         -           Ind.         1         5         79         37         19         52         -         -           Ill.         12         18         35         162         12         71         -         -           Wis.         1         -         18         55         9         15         -         -           Wis.         1         -         18         57         5         15         -         -           Wis.         1         -         18         57         5         15         -         -           Wis.         1         1         13         395         218         109         130         -         -           Mon.         4         8         171         11         12         2         5         97         -								_	-	-	-
III. 12 18 35 162 12 771	Ohio	31	31	212	447	25	21	-	-	-	-
Mich.         2         3         59         83         85         90         -         -         -           Wis.         1         -         18         57         5         15         -         -         -           W.N. CENTRAL         11         13         395         218         109         130         -         -         -           John         4         1         1         3         111         122         2         5         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>								-	-	-	-
W.N. CENTRAL	Mich.	2	3	59	83	85	90	-	-	-	-
Minn, 1 3 11 12 2 2 5								-	-	-	-
Mo.         4         8         171         157         45         97         -         -         -         S. Dak.         -								-	-	-	-
N. Dak. S. Dak								-	-	-	-
Nebr.	N. Dak.			5	2			-	-	-	-
Kans.		-	-					-	-	-	-
Del.         -         -         3         3         -         1         1         1         -           Md.         14         26         41         45         62         56         -         1         -           Va.         2         10         28         41         29         17         -         -         -           Va.         2         10         28         41         29         17         -         -         -           V.C.         6         11         25         23         81         71         -         -         -           S.C.         2         -         17         5         17         7         -		-						-	-	-	-
Md.         14         26         41         45         62         56         -         1         -           D.C.         -         6         2         3         8         -         -         -           Va.         2         10         28         41         29         17         -         -         -           W.Va.         -         1         5         7         8         14         - <td></td> <td>53</td> <td>72</td> <td></td> <td></td> <td>230</td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td>		53	72			230				-	-
D.C.         -         -         6         2         3         8         -         -         -           Va.         2         10         28         41         29         17         -         -           N.C.         6         11         25         23         81         71         -         -           S.C.         2         -         17         5         17         7         -         -           Ga.         29         10         -         32         -         19         -         -           Ga.         29         10         -         32         -         19         -         -           Ga.         29         10         -         32         -         19         -         -           Fla.         -         14         46         64         30         43         -         -           E.S. CENTRAL         6         3         151         301         31         228         -         -         -           Miss.         1         -         66         19         -         -         -         -           Ms. S. CENTR						62		1 -		-	-
W.Va.         -         1         5         7         8         14         -         -         -         N.C.         -	D.C.	-	-	6	2	3	8	-	-	-	-
S.C. 29 10 - 17 5 17 7								-	-	-	-
Ga.         29         10         -         32         -         19         - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>								-	-	-	-
E.S. CENTRAL 6 3 151 301 31 228 Ky. 2 1 6 18 14 23	Ga.		10	-	32	-	19	-	-	-	-
Ky.         2         1         6         18         14         23         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>								-	-	-	-
Ténn.         -         -         19         233         6         177         -								-	-	-	-
Miss.         1         -         66         19         - </td <td>Tenn.</td> <td>-</td> <td>-</td> <td>19</td> <td>233</td> <td>6</td> <td>177</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>	Tenn.	-	-	19	233	6	177	-	-	-	-
W.S. CENTRAL         8         11         676         371         87         100         -         -         -           Ark.         -         1         125         14         12         1         -         -         -           La.         -         -         14         11         11         12         -         -         -           Okla.         8         8         340         114         19         19         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>								-	-	-	-
La.       -       -       14       11       11       12       -        -       -       -       -       -       -       -       -       -       -       -       -       -       -       -        -		8	11			87	100	-	-	-	-
Okla.         8         8         340         114         19         19         - <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td>-</td><td>-</td></th<>								-	-	-	-
MOUNTAIN         35         30         662         889         172         118         -         3         -           Mont.         -         -         16         14         -         4         -         -         -           Idaho         1         1         93         110         22         18         -         -         -           Wyo.         16         1         6         27         5         2         -         -         -         -           Colo.         3         4         22         124         8         22         -<			8	340	114	19	19	-	-	-	-
Mont. Idaho         -         -         16         14         -         4         -         <								-		-	-
Idaho         1         1         93         110         22         18         -         -         -           Wyo.         16         1         6         27         5         2         -         -         -           Colo.         3         4         22         124         8         22         -         -         -           N. Mex.         6         5         118         193         87         40         -         -         -         -           Ariz.         4         8         179         170         14         14         - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td>-</td>								-		-	-
Colo.         3         4         22         124         8         22         -         -         -           N. Mex.         6         5         118         193         87         40         -         -         -           Ariz.         4         8         179         170         14         14         -         -         -           Utah         3         3         191         220         26         11         -         -         -           Nev.         2         8         37         31         10         7         -         3         -           PACIFIC         78         64         1,678         1,950         309         443         -         6         -           Wash.         -         4         110         94         18         28         -         4         -           Oreg.         10         8         220         371         20         26         -         -         -         -           Calif.         66         50         1,308         1,438         268         382         -         1         -           Alaska	Idaho			93	110	22	18	-	-	-	-
Ariz.       4       8       179       170       14       14       - <td< td=""><td></td><td>3</td><td></td><td>6 22</td><td></td><td>5 8</td><td></td><td>-</td><td></td><td></td><td>-</td></td<>		3		6 22		5 8		-			-
Utah         3         3         191         220         26         11         -         -         -           Nev.         2         8         37         31         10         7         -         3         -           PACIFIC         78         64         1,678         1,950         309         443         -         6         -           Wash.         -         4         110         94         18         28         -         4         -           Oreg.         10         8         220         371         20         26         -         -         -           Calif.         66         50         1,308         1,438         268         382         -         1         -           Alaska         -         -         19         14         2         2         -         1         -           Hawaii         2         2         21         33         1         5         -         -         -	N. Mex.	6	5	118	193	87		-	-	-	-
PACIFIC         78         64         1,678         1,950         309         443         -         6         -           Wash.         -         4         110         94         18         28         -         4         -           Oreg.         10         8         220         371         20         26         -         -         -           Calif.         66         50         1,308         1,438         268         382         -         1         -           Alaska         -         -         19         14         2         2         -         1         -           Hawaii         2         2         21         33         1         5         -         -         -				191				-	-	-	-
Wash.       -       4       110       94       18       28       -       4       -         Oreg.       10       8       220       371       20       26       -       -       -         Calif.       66       50       1,308       1,438       268       382       -       1       -         Alaska       -       -       19       14       2       2       -       1       -         Hawaii       2       2       21       33       1       5       -       -       -	Nev.		8	37	31	10		-		-	-
Oreg.       10       8       220       371       20       26       -       -       -         Calif.       66       50       1,308       1,438       268       382       -       1       -         Alaska       -       -       19       14       2       2       -       1       -         Hawaii       2       2       21       33       1       5       -       -       -					1,950 9 <i>4</i>	309 18		-		-	1
Alaska 19 14 2 2 - 1 - Hawaii 2 2 21 33 1 5	Oreg.	10	8	220	371	20	26	-	-	-	-
Hawaii 2 2 21 33 1 5			50 -					-		-	-
Comment of the commen		2	2	21	33			-		-	1
	Guam	-	- 2		-	-	-	U		U	-
V.I 1 U - U	V.I.	-	3 -	Z I -	-	129		U	-		-
Amer. Samoa 4 U - U C.N.M.I. 10 - 1 8 3 - U - U		- 10	-	- 1		- 2	-		-		-

<sup>\*</sup>Of 62 cases among children aged <5 years, serotype was reported for 15 and of those, 3 were type B.

<sup>&</sup>lt;sup>†</sup>For imported measles, cases include only those resulting from importation from other countries.

N: Not notifiable

TABLE III. (Cont'd.) Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 16, 1996, and March 18, 1995 (11th Week)

	Measles (Rub			Name			Dautusai			Rubella	
Reporting Area	Cum. 1996	Cum. 1995	1996	Mump Cum. 1996	Cum. 1995	1996	Pertussi Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995
UNITED STATES	18	132	7	115	171	55	380	565	2	33	15
NEW ENGLAND	5	3	_	_	3	14	78	81	2	2	2
Maine N.H.	-	-	-	-	2	3	2 13	8 5	-	-	- 1
Vt.	1	-	-	-	-	-	6	2	-	-	-
Mass. R.I.	3	1 2	-	-	-	8	54	62	-	-	1 -
Conn.	1	-	-	-	1	3	3	4	2	2	-
MID. ATLANTIC	1	1	2	17 5	25 7	4	52 31	45 26	-	3 2	1
Upstate N.Y. N.Y. City	1	-	-	3	2	1	9	9	-	1	1
N.J. Pa.	-	1	2	- 9	4 12	3	- 12	4 6	-	-	-
E.N. CENTRAL		_	1	29	24	11	58	63			_
Ohio	-	-	-	14	11	6	41	29	-	-	-
Ind. III.	-	-	-	5 -	4	3	6	6	-	-	-
Mich.	-	-	1	10	9	2	9	24	-	-	-
Wis.	-	-	-	-	-	-	2	4	-	-	-
W.N. CENTRAL Minn.	-	1 -	-	2	10 -	-	3 1	25 -	-	-	-
lowa	-	-	-	-	1	-	2	1	-	-	-
Mo. N. Dak.	-	1 -	-	2	7 -	-	-	7 5	-	-	-
S. Dak. Nebr.	-	-	-	-	2	-	-	4 1	-	-	-
Kans.	-	-	-	-	-	-	-	7	-	-	-
S. ATLANTIC	2	-	-	13	30	10	34	59	-	-	1
Del. Md.	1 1	-	-	- 7	- 5	3 2	3 20	3	-	-	-
D.C.	-	-	-	-	-	-	-	1	-	-	-
Va. W. Va.	-	-	-	2	7	-	-	-	-	-	-
N.C.	-	-	-	-	14	-	-	46	-	-	-
S.C. Ga.	-	-	-	3 1	1 -	-	2 1	7	-	-	-
Fla.	-	-	-	-	3	5	8	2	-	-	1
E.S. CENTRAL	-	-	-	5	6	-	8 5	14	-	-	-
Ky. Tenn.	-	-	-	-	-	-	-	2	-	-	-
Ala. Miss.	-	-	-	3 2	2 4	-	1 2	12 -	- N	- N	- N
W.S. CENTRAL	_	2	-	3	12	1	4	13	-	-	1
Ark.	-	2	-	-	3	-	2	-	-	-	-
La. Okla.	-	-	-	3	2	1 -	2	-	-	-	-
Tex.	-	-	-	-	7	-	-	13	-	-	1
MOUNTAIN	3	53	-	9	9	2	45	167	-	-	2
Mont. Idaho	-	-	-	-	1	-	2 13	2 48	-	-	-
Wyo. Colo.	-	- 17	-	-	-	2	- 6	32	-	-	-
N. Mex.	-	27	N	N	N	-	13	5	-	-	-
Ariz. Utah	-	8	-	1	1 1	-	2 1	77 2	-	-	2
Nev.	3	1	-	8	6	-	8	1	-	-	-
PACIFIC	7	72	4	37	52	13	98	98	-	28	8
Wash. Oreg.	4	1	1 N	3 N	3 N	13	23 16	11 2	-	1 -	1
Calif.	1	70	3	26	42	-	55	83	-	26	7
Alaska Hawaii	1 1	1	-	1 7	6 1	-	4	2	-	1	-
Guam	-	-	U	-	-	U	-	-	U	-	-
P.R.	-	-	Ū	1	1	Ū	-	3	Ū	-	-
V.I. Amer. Samoa	-	-	U	-	1 -	U	-	-	U	-	-
C.N.M.I.	-	-	U	-	-	U	-	-	U	-	-

N: Not notifiable

TABLE IV. Deaths in 121 U.S. cities,\* week ending March 16, 1996 (11th Week)

	A	All Cau	ıses, Bı	/ Age (Y	ears)		DC I <sup>†</sup>			All Cau	ıses, B\	/ Age (Y	ears)		DC 1 <sup>†</sup>
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&l <sup>†</sup> Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn.	628 130 36 15 31 61 34 17 53 64 9 9	449 85 22 13 25 47 28 14 19 39 47 8 31	30 9 2 4 7 5 2 7 8 8 1 16	42 11 2 - 2 6 1 1 1 4 6 - 5	8 -1 	11 4 2 - 1 - - 1	559 ' 5 1 2 2 5 ' 4 3 3 6 5	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D.C. Wilmington, Del.	1,674 162 514 133 139 137 60 74 54 68 223 98 12	1,062 84 311 88 91 74 35 51 37 53 166 66 6	349 42 113 27 25 32 16 14 10 9 38 17 6	190 31 68 13 13 22 5 8 2 3 13	42 4 10 1 5 6 2 1 5 2 3 3	27 1 9 3 5 3 2 - 1 3	96 1 47 8 6 3 2 5 4 18 2
Waterbury, Comi. Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa.§ Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa.§ Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa.§ Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	72 2,350 49 26 85 29 17 47 43	1,590 1,590 22 69 13 38 844 32 18 1322 35 6 110 24 73 22 21 21	14 461 4 11 4 2 7 11 274 15 3 43 16 2 21 1 15 7	3 227 5 - 4 5 2 1 1 139 10 7 2 0 7 - 8 2 - 4 4 139 2 10 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	30 1 1 - 18 4 1 1 2 1	1 42 	10 131 4 1 3 3 5 1 5 4 9 4 1 1 1 2 6 1 1 3 4 1 2 2 1 2 2 1 2 2 4 1 2 2 2 4 1 2 2 2 4 2 2 4 2 2 4 2 4	E.S. CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Ala. Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La. Corpus Christi, Tex. Dallas, Tex. EI Paso, Tex. Ft. Worth, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La. San Antonio, Tex. Shreveport, La. Tulsa, Okla.	99 75 134 101 70 151 1,503 81 42 53 186 87 126 434 77 60 193 64	593 114 655 73 53 76 688 47 97 55 36 35 118 56 85 268 50 32 144 42 76	197 46 17 14 14 35 21 16 34 281 11 4 13 29 16 20 103 19 8 27 12 19	70 17 7 7 2 11 8 5 13 145 10 3 29 11 10 42 5 10 16 7 2	30 8 2 3 3 7 3 4 4 41 3 1 2 6 2 6 10 6 3	25 8 1 2 3 5 1 1 2 3 3 9 2 1 1 3 4 2 5 1 1 3 3 1 1 1 3 1 1 3 1 1 1 3 1 1 1 3 1 1 1 1 3 1	65 7 6 10 7 11 8 8 8 8 8 9 2 4 5 8 24 - 11 14 4
E.N. CENTRAL Akron, Ohio Canton, Ohio Canton, Ohio Chicago, Ill. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Grand Rapids, Mich Indianapolis, Ind. Madison, Wis. Milwaukee, Wis. Peoria, Ill. Rockford, Ill. South Bend, Ind. Toledo, Ohio Youngstown, Ohio W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans. Kansas City, Kans. Kansas City, Mo. Lincoln, Nebr. Minneapolis, Minn. Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	255 50 122 45 50 46 98 56 857 83 13 49 98 37	1,490 45 33 243 100 92 107 80 132 31 46 13 37 90 33 36 32 78 41 614 64 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	6 799 308 326 47 13 9 4 8 49 5 21 7 10 7 12 12 4 8 14 10 36 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	174 1 49 5 9 16 9 25 3 1 1 23 6 5 4 4 4 5 9 6 1 8 1 9 6 1 8 1 9 6 1 8 1 9 6 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1	49 11 15 32 81 21 13 11 31 22 21 22 83 22	51 2 3 4 4 4 4 - 6 1 1 1 1 2 2 9 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	156 31 153 140 10 12 13 68 50 17 53 73 64 13 22 9 17 86 34	MOUNTAIN Albuquerque, N.M. Colo. Springs, Colo Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, Utah Tucson, Ariz.  PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawaii Long Beach, Calif. Pasadena, Calif. Pasadena, Calif. Portland, Oreg. Sacramento, Calif. San Diego, Calif. San Francisco, Calif. San Francisco, Calif. San Sacramento, Calif. San Francisco, Calif. San Francisco, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash.	144 161 29 212 35 90 117 2,082 22 73 44 91 70 634 24 143 163	659 91 43 93 106 138 28 54 42 1,428 14 45 37 57 46 440 19 102 103 148 81 137 20 86 31 62 8,882	165 17 9 27 30 2 42 3 14 21 359 4 12 6 20 9 117 3 323 27 31 26 7 19 8 12 2,508	91 13 - 18 19 3 24 27 5 209 4 11 7 8 56 1 17 21 27 19 3 14 25 5 1,206	35 42 44 5 5 86 46 4 10 13 6 5 2 2 1 4 3 3 3 3 3 3	19 2 2 2 3 3 5 3 3 3 8 5 5 3 3 1 1 2 2 2 3 3 2 2 6 5	79 11 4 13 18 16 2 5 9 183 2 7 3 8 10 3 3 2 17 2 6 6 7 6 7 6 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10

<sup>\*</sup>Mortality data in this table are voluntarily reported from 121 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 these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

Total includes unknown ages.
U: Unavailable -: no reported cases

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