March 21, 1997 / Vol. 46 / No. 11


MORBIDITY AND MORTALITY WEEKLY REPORT

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## Salmonella Serotype Montevideo Infections Associated with Chicks Idaho, Washington, and Oregon, Spring 1995 and 1996

During 1995 and 1996, public health laboratories in Idaho, Washington, and Oregon identified clusters of infections with Salmonella serotype Montevideo. Epidemiologic investigations, including enhanced surveillance, of these clusters indicated association with exposure to chicks. This report summarizes the findings of these investigations, which suggest that handling chicks is a health risk, especially for children; consequently, thorough handwashing is recommended after handling of chicks.

## Idaho and Washington

During April 1-May 31, 1995, the public health laboratories of the Idaho Department of Health and Welfare (IDHW) and the Washington Department of Health (WDH) identified three and nine S. Montevideo isolates, respectively, compared with annual averages of <1 and 20 during 1984-1994. In April and May 1996, a total of 11 S. Montevideo isolates were reported in Washington. For this investigation, a case was defined as culture-confirmed $S$. Montevideo infection in an Idaho or Washington resident with onset of illness during April 1-May 31 in 1995 or 1996; illness in all 23 persons met the case definition. Of the 23 case-patients, 12 ( $52 \%$ ) were aged $\leq 2$ years; of these, five ( $42 \%$ ) were aged $\leq 6$ months. An isolate obtained from a child aged 14 months was cultured from blood, indicating invasive disease. Three (13\%) case-patients were hospitalized.

To identify exposures associated with illness, IDHW and WDH conducted a casecontrol study in 1995 and 1996. Twenty-two of the 23 persons with illness meeting the case definition were included in the study. Two controls (i.e., persons reporting no diarrheal illness during the referent period) were matched to each case-patient by age and neighborhood. Of 22 case-patients, 17 ( $77 \%$ ) had exposure to chicks during the week before illness onset, compared with four (9\%) of 44 controls (matched odds ratio=29.3; 95\% confidence interval [CI]=4.6-1243.2).

The chicks associated with the 17 case-patients who reported such exposure were purchased in at least four different counties in 1995 and at least six different counties in 1996. No common hatchery, place of purchase, or feed sources were identified. Fecal samples were obtained from two chicks associated with two geographically separated case-patients; S. Montevideo was isolated from each.

Salmonella Montevideo Infections - Continued
Isolates from the seven Washington patients who had chick exposure in 1995 and from the seven Washington patients who had chick exposure in 1996 and two chicks were subtyped by pulsed-field gel electrophoresis (PFGE). The patterns differed in 1995 and 1996. However, for the 1995 isolates, the patterns from five isolates were indistinguishable, and for the 1996 isolates, the patterns from five of the human isolates and the two chick isolates were indistinguishable.

## Oregon

During March-June 1996, the Oregon State Public Health Laboratory identified 16 cases of $S$. Montevideo, compared with an annual average of nine cases during 1984-1995. For this investigation, a case was defined as culture-confirmed S. Montevideo infection in an Oregon resident with illness onset during April 1-June 30. IIIness in all 16 persons met the case definition. The median age of case-patients was 32 years (range: 5 months-81 years); three (19\%) were aged $\leq 2$ years; of these, two ( $67 \%$ ) were aged $\leq 6$ months. Two ( $13 \%$ ) case-patients were hospitalized.

To identify exposures associated with illness, the State Health Division, Oregon Department of Human Resources, began a case-control study by reviewing salmonellosis case-report forms. Eleven of the 16 case-patients were included in the study. Controls were selected from among culture- confirmed cases of Salmonella infection other than $S$. Montevideo identified during the same period from counties reporting S. Montevideo cases. Nineteen controls were selected with a median age of 22 years (range: 9 months-80 years). Seven ( $64 \%$ ) of 11 persons with $S$. Montevideo infection compared with one (5\%) of 19 persons with other Salmonella infections had handled live poultry (chicks, hens, or roosters) during the 5 days before illness onset (odds ratio $=31.5 ; 95 \% \mathrm{Cl}=2.5-1494.5)$. Fecal samples were obtained from five poultry, including two chicks, associated with two case-patients; S. Montevideo was isolated from the two chicks obtained from one of the case-patients. No common hatchery, place of purchase, or feed sources were identified among poultry associated with different case-patients.
S. Montevideo isolates were available from five of the seven patients who reported handling live poultry. Among these five isolates, two PFGE patterns were identified. The pattern for four of these isolates and the two chick isolates were indistinguishable; this pattern also was indistinguishable from the pattern identified in the five human and two chick isolates in Washington in 1996. The two culture-positive chicks in Oregon had been purchased from the same hatchery as one of the culture-positive chicks in Washington.
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Editorial Note: Salmonella infections occur in an estimated 2-4 million persons each year in the United States; of these, approximately 40,000 are culture-confirmed and reported to CDC by state health departments (1). Most human Salmonella infections are foodborne, but when contact with pets has been implicated, reptiles have been a common source ( 2,3 ). Molecular subtyping techniques (e.g., PFGE) are valuable tools

## Salmonella Montevideo Infections - Continued

in epidemiologic investigations because they can link geographically dispersed cases and small clusters of cases to a common source.

The proportion of all salmonellosis cases associated with exposure to chicks and ducklings is unknown; however, previous reports document transmission of Salmonella from these small fowl to humans (4-7). Many of these outbreaks have occurred during the spring, particularly around Easter. Children may be at greater risk for salmonellosis from these pet or farmyard fowl because of more frequent receipt of fowl as gifts, less frequent handwashing after handling, and more frequent hand-to-mouth contact. In addition, infants with salmonellosis may be at greater risk for developing invasive disease (8).

Previous reports of chick- and duckling-associated salmonellosis have resulted in statewide legislation restricting the sale of these baby fowl as pets, such as in Maryland in 1967 (9). However, these regulations are difficult to enforce and the effectiveness of such legislation is unknown. Interstate transport and sale of pet baby turtles were banned in 1975 by the Food and Drug Administration to prevent turtleassociated salmonellosis (10). The likelihood of transmission of Salmonella from pet or farmyard chicks and ducklings can be reduced by avoiding contact with feces from these animals and carefully washing hands with soap and water after handling either chicks, ducklings, or anything that has had contact with these fowl. In addition, persons who, if infected with Salmonella, may be at increased risk for illness (e.g., infants, immunocompromised persons, or the elderly) should consider limiting their exposure to these fowl. Chicks and ducklings may not be appropriate pets for children. During investigations of Salmonella infections, especially during the spring and Easter seasons, health-care workers and public health personnel should consider contact with chicks and ducklings as a potential risk factor for salmonellosis.

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Postmarketing Surveillance for Angiotensin-Converting Enzyme Inhibitor Use During the First Trimester of Pregnancy United States, Canada, and Israel, 1987-1995

Angiotensin-converting enzyme inhibitors (ACEIs) are effective antihypertensive drugs, but use of ACEIs during the second and third trimesters of pregnancy has been associated with a pattern of defects known as ACEI fetopathy. The predominant feature of the fetopathy is renal tubular dysplasia. Other associated conditions include hypocalvaria, intrauterine growth retardation (IUGR), and patent ductus arteriosus (PDA). These features may be related to fetal hypotension secondary to ACEI-induced decreases in fetal angiotensin or increased bradykinin (1,2). Although no adverse fetal effects have been linked to first trimester use of ACEls, there has been no systematic evaluation of births to women with such exposures. To determine whether features of ACEI fetopathy occurred after first trimester exposure, in 1992 the Organization of Teratology Information Services (OTIS) in North America initiated the ACEI Registry; two members of the European Network of Teratology Information Services agreed to participate. This report presents findings from the ACEI Registry, which indicate that the infants of 66 women who self-reported first trimester only exposure to ACEI showed no evidence of renal tubular dysplasia.

Teratology information services (TISs) are used by pregnant women or physicians to inquire about potentially teratogenic effects of prenatal exposures. The ACEI Registry included women who directly or indirectly through physicians contacted one of seven TISs during their pregnancy about first trimester exposure to an ACEI. These women conceived during 1986-1994. All participating TISs used a standard form to report exposure details, delivery outcomes, and specific fetal or infant features associated with ACEI fetopathy. Renal function, growth retardation, and skull ossification defects were assessed.

Of 79 women enrolled, 66 ( $84 \%$ ) had ACEI exposure limited to the first trimester of pregnancy ( $\leq 14$ weeks' gestation, as measured since the time of their last menstrual periods). These women had 48 live births from 1987 through 1995 (Table 1). The rate of spontaneous abortion among these women was $23 \%$.

TABLE 1. Pregnancy outcome based on timing of exposure to angiotensin-converting enzyme inhibitors (ACEIs), by week of last exposure* - United States, Canada, and Israel, 1987-1995

|  | Week of last exposure |  |  |
| :--- | :---: | :---: | :---: |
| Pregnancy outcome | $\leq 14$ | $>14$ | Total |
| Live-born infants | $48^{\dagger}$ | 13 | $\mathbf{6 1}$ |
| Major malformations | $1^{\S}$ | 2 | 15 |
| Spontaneous abortions | 15 | 0 | 5 |
| Induced abortions | 5 | 0 | $\mathbf{7 9}$ |
| Total (mothers) | $\mathbf{6 6}$ | 13 |  |

*Based on weeks following the beginning of last menstrual period.
$\dagger$ Includes two sets of twins.
§Patent ductus arteriosus.
${ }^{\top}$ Renal tubular dysplasia.
Source: ACEI Registry.

## Angiotensin-Converting Enzyme Inhibitor - Continued

Among the 48 live births, three cases of IUGR were documented. One infant with IUGR was from twins delivered at 36 weeks' gestation; the other two were full-term. Another child had a PDA that required surgical ligation at age 18 months. That infant was born at 40 weeks' gestation to a woman who discontinued therapy with an ACEI at $71 / 2$ weeks' gestation. She also was treated with digoxin throughout her pregnancy and with warfarin sodium for the first 5 weeks followed by heparin throughout the remainder of her pregnancy. There were no children with renal tubular dysplasia who had been exposed to ACEls exclusively during the first trimester.
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Editorial Note: ACEls increased in popularity during the 1980s and have been promoted as first-line therapy for some persons with chronic hypertension and for the prevention of diabetic nephropathy, thus creating the potential for frequent ACEI exposure among women of childbearing age (1,3). In 1992, the Food and Drug Administration warned physicians against prescribing ACEls to women in their second or third trimester of pregnancy. Because only case reports exist for ACEI exposure during pregnancy, the degree of risk for ACEI fetopathy is unknown.

The findings in this report document no evidence of renal tubular dysplasia or hypocalvaria among the 48 infants born to women with exposure to ACEIs ending at $\leq 14$ weeks. However, the number of exposures reported thus far to the registry is too small to determine conclusively that exposure to an ACEI exclusively during the first trimester is not associated with the features of ACEI fetopathy. Whenever possible, pregnant women who are using ACEls should be changed to another antihypertensive medication to maintain normal blood pressure.

It is unknown whether first trimester exposure to ACEls was associated with the development of IUGR in the three infants in this study because other known risk factors (i.e., multiple gestation or maternal hypertension) for IUGR were present. In addition, because no controls were included in this study, the rate of IUGR or spontaneous abortion ( $23 \%$ ) among infants in the ACEI Registry could not be compared systematically with the rate in an unexposed cohort. Approximately $15 \%$ of all recognized pregnancies in the United States end with fetal loss, but the distinctive risk factors of women in the ACEI Registry limit comparisons to the U.S. population (4).

In previous reports of seven infants with PDAs who were exposed prenatally to ACEls during the second and third trimester, a definite cause-and-effect relation was not established (1). Based on the possible effect of ACEls on the fetal bradykininprostaglandin system, prenatal exposure to ACEls might inhibit ductal closure. Although this may explain inhibition of ductal closure in infants whose mothers continue using the drug into the third trimester of pregnancy, it is an unlikely mechanism to explain PDA in the child reported to the ACEI Registry.

Because ascertainment of exposures among pregnant women by TIS is voluntary, data may be affected by selection bias, thus limiting the generalizability of these and other registry data. However, ongoing collection of detailed prospective exposure information combined with collection of clinical outcome data through these services

## Angiotensin-Converting Enzyme Inhibitor - Continued

can be an effective method for providing early warning of the potential teratogenic effects of drugs.

Another method of postmarketing surveillance involves using collaborating birth defect registries for case-control studies of associations between specific outcomes and drug exposures (5). This approach allows for collection of information about a wider range of exposures. CDC, in collaboration with several state-based birth defects programs, has initiated the Birth Defects Risk Factor Surveillance Program, an ongoing case-control study of a variety of birth defects and exposures. A third approach, established by the International Clearinghouse for Birth Defects Monitoring Systems (6), is a retrospective, case-only evaluation of drug exposures and birth defects (7).

OTIS member-information services operate in 24 states* and the District of Columbia. Local TIS telephone numbers for reports and consultation about ACEI and other pregnancy exposures are available on the World-Wide Web at http:// orpheus.ucsd.edu/ctis/index.html, or by contacting the OTIS Information/Pregnancy RiskLine, telephone (801) 328-2229.

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## Measles — United States, 1996, and the Interruption of Indigenous Transmission

As of December 30, 1996 (week 52), local and state health departments had reported a provisional total of 488 confirmed cases of measles to CDC for 1996, and the Commonwealth of Puerto Rico had reported eight cases. In addition, indigenous transmission of measles in the United States was interrrupted for a prolonged period beginning in late 1996. This report summarizes measles surveillance data for 1996, which indicate a substantial proportion of cases were associated with continued international importations of measles and outbreaks among school-aged children who were not required to receive a second dose of measles-containing vaccine (MCV) to attend school.

## Measles - Continued

## Case Classification

Of the 488 provisional cases, 355 ( $73 \%$ ) were indigenous to the United States, including 332 ( $68 \%$ ) cases acquired in the state reporting the case and $23(5 \%)$ cases resulting from spread from another state. International importations accounted for 47 ( $10 \%$ ) cases of measles, and an additional 86 (18\%) cases were epidemiologically linked to imported cases. Importations originated from or occurred among persons who had traveled in Germany (seven cases); Greece and Japan (five each); Austria, India, and Philippines (three each); China, Italy, and Russia (two each); and England, Kenya, Liberia, Nepal, Somalia, Tahiti, and Turkey (one each). For eight of the imported cases, the exact source was unknown because the patient had traveled in more than one country outside the United States during the exposure period. None of the imported cases were acquired in countries in the Americas.

## Age and Vaccination Status

Of the 465 measles patients for whom age was known, 117 ( $25 \%$ ) were aged $<5$ years, including 37 ( $8 \%$ ) aged $<12$ months and 25 (5\%) aged 12-15 months. A total of 195 ( $42 \%$ ) measles patients were aged 5-19 years, and 153 ( $33 \%$ ) were aged $\geq 20$ years.

Vaccination status was reported for 354 patients. Of the 226 ( $64 \%$ ) who were not vaccinated, 170 ( $75 \%$ ) were eligible to be vaccinated (i.e., aged $>12$ months and born after 1956). Vaccination status varied by age group: all 32 patients aged $<1$ year were unvaccinated, compared with 44 ( $71 \%$ ) of 62 patients aged $1-4$ years, 65 ( $48 \%$ ) of 136 patients aged $5-19$ years, and 85 ( $69 \%$ ) of 124 patients aged $\geq 20$ years. Of the 77 patients for whom dates of vaccination were available, 51 ( $66 \%$ ) had received at least one dose of MCV after their first birthday and $\geq 14$ days before rash onset. Five cases of measles were reported among persons who had received two doses of MCV after their first birthday, and one case was reported in a person who had received three doses of MCV.

## Outbreaks

Twenty-three outbreaks (i.e., clusters of three or more epidemiologically linked cases) were reported by 15 states, accounting for $76 \%$ of all cases. The number of cases associated with outbreaks ranged from three to 121 (median: five cases). Transmission of measles occurred in school settings in seven outbreaks, and these outbreaks accounted for $55 \%$ of all cases reported in 1996. In four outbreaks (Alaska, Texas, Utah, and Washington), cases among school-aged children occurred primarily in those who had received only one dose of MCV; in two other outbreaks (Massachusetts and Minnesota), cases occurred among school-aged children who had religious or philosophic exemptions to vaccination. In Hawaii, an outbreak occurred in a college without a prematriculation vaccination requirement.

In outbreaks related to vaccine failure among school-aged children, the age distribution of cases reflected the type of second-dose policy implemented in the state. In Utah, which had the largest outbreak in the country in 1996 ( 121 cases, including cases resulting from spread to other states), a requirement for a second dose of measles-mumps-rubella vaccine (MMR) at kindergarten entrance has existed since 1992; at the time of the outbreak, children aged 5-9 years should have received a second dose of MMR. In this outbreak, 75 cases occurred among persons aged 1019 years, and two cases occurred among children aged 5-9 years. Similarly, in Texas

## Measles - Continued

and Washington, which both require a second dose of MMR at middle school entry, outbreak-associated cases occurred among either primary school students, or among high school juniors or seniors who entered secondary school before the policy was implemented. In Alaska, which had not implemented a requirement for a second dose of MMR at the time of the outbreak*, the 63 total cases occurred among elementary school students (17 cases), middle school students (17), and high school students (six) (1).

The source case for six outbreaks (California, Hawaii, Massachusetts, New York, Pennsylvania, and Washington) was traced to an international importation. Genomic sequences from measles virus isolates from four outbreaks without an identified source case (Alaska, Massachusetts [a different outbreak from the outbreak listed above in Massachusetts], Minnesota, and Utah) were similar to sequences from viruses that were identified as importations from Europe and Southeast Asia, suggesting that an additional 205 ( $42 \%$ ) of the 488 provisional cases reported for 1996 were related to international importations.

With the exception of an outbreak of measles in Hawaii (which was linked both by case investigation and molecular epidemiology to international importations of measles virus), indigenous transmission of measles in the United States appears to have been interrupted in late 1996. From October 18, 1996, to February 10, 1997 (16 weeks), only one case of measles (with rash onset on December 16) not linked to an international importation was reported in the United States. An indigenous case with rash onset in February is still under investigation.
Reported by: State and local health depts. Measles Virus Section, Respiratory and Enterovirus Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Child Vaccine Preventable Diseases Br, Epidemiology and Surveillance Div, National Immunization Program, CDC.
Editorial Note: Since the resurgence of measles in the United States during 1989-1991 (when approximately 55,000 cases of measles were reported), the annual numbers of reported cases of measles have steadily declined. However, measles among international travelers and outbreaks in schools continue to occur.

Despite coverage levels with MCV of $>95 \%$ among schoolchildren, most outbreaks during 1985-1988 occurred in schools among children who had been appropriately vaccinated ( 2,3 ). This prompted the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Pediatrics to recommend that all children receive a second dose of MCV (preferably MMR) at either age 4-6 years or 11-12 years (4). By 1995, a total of 41 states and the District of Columbia had implemented requirements for a second dose of MMR at either kindergarten or middle school entry (CDC, unpublished data, 1996). In 1996, patterns of outbreaks in schools indicated that gaps in coverage persist and that complete second-dose coverage of all cohorts of school-aged children is necessary to eliminate outbreaks of measles among these children. In addition, further implementation of college prematriculation vaccination requirements for a second dose of MCV should reduce the risk for measles transmission in colleges and universities (5).

ACIP guidelines recommend that, during outbreaks in school settings, affected schools initiate a program of revaccination and consider revaccinating children in unaffected schools that may be at risk for transmission of measles (4). The findings of

[^1]
## Measles - Continued

a study of revaccination of schoolchildren during a measles outbreak in Albuquerque (6) indicated that no measles cases occurred 28 days after revaccination in schools without measles cases in school districts where cases had been reported. The decision to revaccinate children in unaffected schools is difficult and should be based on the likelihood of spread to such schools and the availablity of personnel to conduct vaccination clinics. In these circumstances, CDC can provide vaccine to state health departments to prevent the spread of outbreaks. The ACIP is revising its guidelines to recommend that all school-aged children receive a second dose of MCV by the year 2001; during the interim, to limit the spread of measles transmission and to prevent future outbreaks, public health officials should consider revaccinating schoolchildren in unaffected schools in counties where measles cases have occurred.

Of the provisional measles cases reported for 1996, $69 \%$ had international sources: $133(27 \%)$ cases were identified as international importations or were linked to international importations by routine case investigation, and 205 ( $42 \%$ ) cases were linked to international importations by molecular epidemiology. Both surveillance and molecular epidemiologic data indicate that the sources of international importations have been predominantly European or Asian; no known cases of measles have been imported from the Americas in 1996. Recent progress by the Pan American Health Organization (PAHO) toward the goal of eliminating measles from the Western Hemisphere has resulted in decreases in the incidence of measles in the hemisphere and in the numbers of cases imported into the United States from other countries in the Americas (7,8). At an international meeting sponsored by PAHO and the World Health Organization in Atlanta in July 1996, participants agreed that global measles eradication is technically feasible with currently available vaccines and that a goal of global eradication should be established (9).

The strategy to eliminate indigenous transmission of measles in the United States includes 1) achieving high population immunity among both preschool children (with one dose of MMR) and school-aged children (with two doses of MMR), 2) improving the sensitivity of surveillance for and increasing laboratory confirmation of measles cases, 3) rapidly implementing outbreak-control measures, and 4) supporting international efforts to eliminate measles. In particular, patterns of transmission of measles cases in 1996 highlight the importance of achieving high levels of second-dose coverage in all cohorts of schoolchildren as well as college students and assisting in global efforts to control measles.

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## Tobacco Tax Initiative - Oregon, 1996

In 1995, tobacco use contributed to the deaths of 6274 persons in Oregon (1995 population: $3,132,000$ ) as reported by physicians on death certificates; annual costs in Oregon for the direct and indirect consequences of tobacco use were approximately $\$ 1$ billion (State Health Division, Oregon Department of Human Resources, unpublished data, 1997). In response to the health burden associated with tobacco use in Oregon, in late 1995 a statewide coalition of health-care and tobacco-use prevention interests began a petition-driven citizen initiative, "Measure 44," to increase the tax on each pack of cigarettes from $38 \phi$ to $68 \phi$ and the tax on noncigarette tobacco products from $35 \%$ to $65 \%$ of wholesale price beginning February 1, 1997. This report presents findings of surveys conducted before and after the measure was approved by voters; in both surveys, respondents indicated that support for such an initiative was increased by dedicating a portion of the new revenue to tobacco-use prevention and education and to expanded insurance coverage under the Oregon Health Plan (OHP) for medically underserved persons.

The measure presented to voters on November 5, 1996, authorized 10\% of the new tobacco tax revenue to be used to develop and implement statewide tobacco-use prevention and education programs managed by the State Health Division, Oregon Department of Human Resources, and $90 \%$ to be used to expand health-care coverage under the OHP. The initiative was approved by $56 \%$ to $44 \%$. The coalition of healthcare and tobacco-use prevention interests reported spending $\$ 650,000$ to promote the initiative, compared with $\$ 4.8$ million spent almost exclusively by the tobacco industry to oppose the initiative (1). Voter turnout was $71 \%$, similar to turnouts in previous presidential election years; $97 \%$ of those voting cast a vote on this issue.

## Pre-Election Survey

From September 18 through October 11, 1994, a population-based, random-digit-dialed telephone survey of persons aged $\geq 18$ years in Oregon was conducted on tobacco excise tax policies (2). Respondents were asked about increasing the state tobacco excise tax with the revenue to be used to help pay for 1) a greater share of the OHP, 2) programs to reduce or prevent smoking, 3) other health programs in addition to those aimed at reducing or preventing cigarette smoking, and 4) any government purpose, not just health, health insurance, or smoking prevention. Respondents were asked whether they currently smoke every day or some days and whether they use pipes or cigars, chew tobacco, or use snuff regularly. Persons who currently used any tobacco product were classified as "tobacco users." Of the 1538 telephone numbers in the sample, 813 households were contacted; one person aged $\geq 18$ years was

## Tobacco Tax - Continued

randomly selected in each household for interview. A total of 631 sampled telephone numbers were excluded because they were not residences or were not in service; residential status could not be determined for 94 . Completed surveys were obtained from 594 (73\%) households.

Overall, 68\% (95\% confidence interval $[\mathrm{CI}]= \pm 4.0 \%$ ) of respondents favored an increase in tobacco taxes, including $76 \%$ ( $95 \% \mathrm{Cl}= \pm 4.5 \%$ ) of respondents who reported no current tobacco use and $44 \%$ ( $95 \% \mathrm{Cl}= \pm 8.5 \%$ ) of respondents who reported current tobacco use. However, $89 \%$ ( $95 \% \mathrm{Cl}= \pm 2.6 \%$ ) of respondents favored an increase if the funds were used for the OHP; $67 \%$ ( $95 \% \mathrm{Cl}= \pm 4.0 \%$ ), if the funds were used for tobacco-use prevention; 67\%, if the funds were used for other health programs; and $20 \%$ ( $95 \% \mathrm{Cl}= \pm 3.5 \%$ ), if the funds were added to state general funds.

## Post-Election Survey

A 1996 post-election survey of Oregon households was conducted by the Program for Governmental Research and Education of Oregon State University to assess reasons respondents voted on items on the ballot, including Measure 44 (3). A sample of 1800 addresses were randomly selected from telephone directory listings that included current mailing addresses of all Oregon households with telephones. In the initial mailing, 430 addresses identified as invalid were excluded from the sample. Households that did not reply by mail were contacted by telephone. Completed surveys were obtained from 699 ( $51 \%$ ) of 1370 households.

Overall, $61 \%$ ( $95 \% \mathrm{Cl}= \pm 3.6 \%$ ) of respondents reported voting for the measure, and $38 \%$ ( $95 \% \mathrm{Cl}= \pm 3.6 \%$ ) reported voting against it. Reasons cited by voters who supported the initiative were consistent with goals promoted by the coalition supporting the initiative: the primary reason for $66 \%(95 \% \mathrm{Cl}= \pm 4.5 \%)$ was "to discourage tobacco consumption," and for $27 \%$ ( $95 \% \mathrm{Cl}= \pm 4.2 \%$ ), "to expand the health plan." Of respondents voting against the initiative, $47 \%(95 \% \mathrm{Cl}= \pm 5.9 \%)$ reported that the primary reason was "tobacco users should not be forced to pay a disproportionate share of health costs," and $36 \%$ ( $95 \% \mathrm{Cl}= \pm 5.7 \%$ ) reported that it would "lead to wasteful spending by the government"; both issues were emphasized in the "No on 44" campaign (3).
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Editorial Note: The findings in this report suggest that, in Oregon, support for the increase in tobacco excise taxes was increased by explicit dedication of new revenue from the tax for both a new statewide tobacco-use prevention and education program and expanded insurance coverage under the OHP. Oregon is the fourth state since 1988 to pass a citizen initiative to raise tobacco taxes and dedicate a portion of the new tax revenue to prevention and education programs; others were California (in 1988), Massachusetts (1992), and Arizona (1994). Similar initiatives failed in Montana (1990) and Colorado (1992). Michigan passed a citizen initiative to increase the tobacco excise tax from $25 \phi$ to $50 \phi$ in March 1994 as part of a multifaceted ballot initiative to replace property tax funding of schools with other taxes. In 34 other states since 1988, legislatures have increased tobacco excise taxes (e.g., Washington [from 56.5申 to $81.5 \phi$ in 1994]) (4). Data from the surveys described in this report suggest that a desire

## Tobacco Tax - Continued

to reduce tobacco use was prevalent among adults before the election and was a primary factor considered by voters. As in other states (e.g., Michigan), the dedication of funds to a public service objective (e.g., expanding the OHP) was viewed positively (5).

Although increasing excise taxes on cigarettes has been suggested as one of the most cost-effective short-term strategies to reduce tobacco consumption among adults and prevent youth initiation of tobacco use (6), a tax increase combined with an antismoking campaign can be more effective in sustaining the reduction in per capita consumption than a tax increase alone (7). With the implementation of a statewide program, both California and Massachusetts have sustained greater declines in per capita tobacco use than the rest of the nation; from 1992 through 1996, per capita consumption declined $19.7 \%$ in Massachusetts and $15.8 \%$ in California but only 6.1\% in the remaining 48 states and the District of Columbia combined (7). Although youth smoking rates have increased in both states, recent analyses suggest that the rates would have increased more rapidly in the absence of the excise tax increases and tobacco-control programs (8).

The State Health Division, with technical assistance from CDC, is developing and implementing a comprehensive tobacco-use prevention and education program incorporating components that have been effective in past research and other statewide demonstration efforts. Based on projections for 1997-1998, the program will receive approximately $\$ 17$ million per biennium. The funds raised through this tax initiative will be used for 1) active community coalitions coordinated through local health departments; 2) prevention programs targeted toward youths that incorporate comprehensive school-based programs linked to community efforts; 3) public education through paid advertising and promotional activities; 4) cessation services for adults and youths that are integrated into the existing health-care delivery systems; 5) grants for special populations, a quitter's hotline, and innovative programs and training; and 6) an evaluation system to measure program effectiveness.

## References

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4. The Tobacco Institute. The tax burden on tobacco. Vol 30. Washington, DC: The Tobacco Institute, 1995.
5. Public Opinion Research Institute. Cigarette taxes and the 1992 state elections: the public voices its desire for new faces in the legislature and its support for an increase in the cigarette tax. Lansing, Michigan: Public Sector Consultants/American Lung Association-Michigan, 1992.
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7. CDC. Cigarette smoking before and after an excise tax increase and an antismoking campaignMassachusetts, 1990-1996. MMWR 1996;45:966-70.
8. Chaloupka FJ, Grossman M. Price, tobacco control policies, and youth smoking. Cambridge, Massachusetts: National Bureau of Economic Research, September 1996 (National Bureau of Economic Research Working Paper Series, no. 5740).

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending March 15, 1997, with historical data - United States

*Ratio of current 4-week total to mean of 154 -week totals (from previous, comparable, and subsequent 4 -week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary - provisional cases of selected notifiable diseases, United States, cumulative, week ending March 15, 1997 (11th Week)

|  | Cum. 1997 |  | Cum. 1997 |
| :---: | :---: | :---: | :---: |
| Anthrax | - | Plague | - |
| Brucellosis | 5 | Poliomyelitis, paralytic | - |
| Cholera | 0 | Psittacosis | 7 |
| Congenital rubella syndrome | 1 | Rabies, human | 1 |
| Cryptosporidiosis* | 204 | Rocky Mountain spotted fever (RMSF) | 16 |
| Diphtheria | - | Streptococcal disease, invasive Group A | 150 |
| Encephalitis: California* | 1 | Streptococcal toxic-shock syndrome* | 5 |
| eastern equine* | - | Syphilis, congenital ${ }^{\text {I }}$ | - |
| St. Louis* | - | Tetanus | 6 |
| western equine* | $\stackrel{-}{-}$ | Toxic-shock syndrome | 19 |
| Hansen Disease | 22 | Trichinosis | 2 |
| Hantavirus pulmonary syndrome* ${ }^{+\dagger}$ | 1 | Typhoid fever | 56 |
| Hemolytic uremic syndrome, post-diarrheal* HIV infection, pediatric*s | 9 19 | Yellow fever | - |

## -:no reported cases

*Not notifiable in all states.
${ }^{\dagger}$ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
${ }^{5}$ Updated monthly to the Division of HIV/AIDS Prevention-Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update January 28, 1997.
${ }^{4}$ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 1997, and March 16, 1996 (11th Week)

| Reporting Area | AIDS* |  | Chlamydia |  | $\begin{gathered} \text { Escherichia } \\ \text { coli 0157:H7 } \end{gathered}$ |  | Gonorrhea |  | Hepatitis C/NA,NB |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | NETSS ${ }^{\dagger}$ | PHLIS ${ }^{\text {§ }}$ |  |  |  |  |
|  | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { Cum. } \\ 1996 \\ \hline \end{gathered}$ |  |  | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{gathered} \hline \text { Cum. } \\ 1996 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Cum. } \\ 1997 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Cum. } \\ 1996 \end{gathered}$ |
| UNITED STATES | 5,109 | 11,907 | 61,612 | 78,876 | 194 | 73 | 42,814 | 65,491 | 587 | 585 |
| NEW ENGLAND | 134 | 613 | 3,054 | 3,899 | 16 | 7 | 1,207 | 1,613 | 2 | 15 |
| Maine | 13 | 8 | 49 | 3,89 | 1 | - | 3 | 10 |  |  |
| N.H. | 1 | 14 | 102 | 119 | - | - | 33 | 26 | 1 | 2 |
| Vt. | 7 | 5 | 80 | 104 | 1 | 1 | 13 | 16 | - | 7 |
| Mass. | 62 | 386 | 1,536 | 1,373 | 12 | 6 | 500 | 529 | 1 | 5 |
| R.I. | 19 | 17 | 443 | 491 | 1 | - | 118 | 127 | - | 1 |
| Conn. | 32 | 183 | 844 | 1,812 | 1 | - | 540 | 905 | - | - |
| MID. ATLANTIC | 1,921 | 3,033 | 4,064 | 9,948 | 12 | 3 | 2,594 | 5,902 | 51 | 40 |
| Upstate N.Y. | 113 | 390 | N | N | 6 | 3 | 319 | 5 | 35 | 35 |
| N.Y. City | 1,039 | 1,628 | - | 4,121 | 4 | - | - | 2,608 | - | 1 |
| N.J. | 468 | 646 | 945 | 1,558 | 2 | - | 687 | 959 | - | - |
| Pa . | 301 | 369 | 3,119 | 4,269 | N | - | 1,588 | 2,330 | 16 | 4 |
| E.N. CENTRAL | 242 | 906 | 11,475 | 19,311 | 29 | 11 | 7,584 | 12,893 | 122 | 92 |
| Ohio | 57 | 249 | 2,697 | 4,474 | 14 | 7 | 1,869 | 3,467 | 5 | 2 |
| Ind. | 25 | 90 | 1,674 | 1,790 | 6 | - | 1,201 | 1,404 | 1 | 2 |
| III. | 115 | 321 | 2,370 | 5,642 | - | - | 1,243 | 3,649 | - | 19 |
| Mich. | 29 | 191 | 3,414 | 4,994 | 9 | 2 | 2,627 | 3,295 | 116 | 69 |
| Wis. | 16 | 55 | 1,320 | 2,411 | N | 2 | 644 | 1,078 | - | - |
| W.N. CENTRAL | 127 | 248 | 4,230 | 6,930 | 29 | 15 | 1,963 | 2,808 | 28 | 15 |
| Minn. | 17 | 57 | - | 999 | 16 | 10 | U | - | - |  |
| Iowa | 38 | 22 | 1,040 | 549 | 7 | 2 | 263 | 183 | 13 | 3 |
| Mo. | 54 | 90 | 2,036 | 3,356 | 1 | - | 1,316 | 1,943 | 3 | 9 |
| N. Dak. | 2 | - | 81 | 219 | 3 | 2 | 5 | 8 | 2 | - |
| S. Dak. | - | 3 | 216 | 219 | - | - | 28 | 34 | - | - |
| Nebr. | 15 | 22 | 212 | 571 | 1 | - | 79 | 107 | - | 2 |
| Kans. | 1 | 54 | 645 | 1,017 | 1 | 1 | 272 | 533 | 10 | 1 |
| S. ATLANTIC | 1,239 | 2,883 | 15,159 | 10,927 | 33 | 5 | 17,177 | 23,535 | 51 | 28 |
| Del. | 20 | 72 | - | - | 1 | 1 | 228 | 331 | - | - |
| Md. | 166 | 196 | 1,318 | 1,149 | 2 | 1 | 2,686 | 2,902 | 4 | - |
| D.C. | 55 | 127 | N | N |  | - | 938 | 966 | - | - |
| Va . | 130 | 127 | 2,456 | 2,288 | N | - | 1,988 | 2,279 | 4 | 1 |
| W. Va. | 14 | 19 | 2, | 2,288 | N | - | 114 | 99 | 1 | 4 |
| N.C. | 59 | 35 | 3,656 | U | 4 | 3 | 3,255 | 4,382 | 16 | 8 |
| S.C. | 104 | 91 | 2,142 | U | - | - | 2,504 | 2,619 | 12 | 4 |
| Ga . | 183 | 447 | 1,455 | 2,597 | 13 | - | 2,348 | 5,811 | U | - |
| Fla. | 508 | 1,769 | 4,132 | 4,893 | 13 | - | 3,116 | 4,146 | 14 | 11 |
| E.S. CENTRAL | 134 | 391 | 5,316 | 5,814 | 17 | 4 | 5,231 | 6,447 | 65 | 109 |
| Ky. | 23 | 67 | 1,365 | 1,493 | 5 | - | 835 | 884 | 3 | 5 |
| Tenn. | 59 | 167 | 2,434 | 2,512 | 10 | 4 | 2,164 | 2,266 | 29 | 103 |
| Ala. | 37 | 91 | 1,250 | 1,748 |  | - | 1,907 | 2,846 | 4 | 1 |
| Miss. | 15 | 66 | 267 | 61 | 2 | - | 325 | 451 | 29 | - |
| W.S. CENTRAL | 420 | 1,037 | 2,844 | 4,323 | 3 | 1 | 2,711 | 5,459 | 48 | 54 |
| Ark. | 18 | 69 | 228 | 313 | 2 | - | 440 | 906 | 2 | 1 |
| La. | 64 | 289 | 1,326 | - | 1 | 1 | 1,326 | 1,739 | 33 | 13 |
| Okla. | 32 | 26 | 1,290 | 1,577 | - | - | 945 | 986 | - | 25 |
| Tex. | 306 | 653 | 1, | 2,433 | - | - | - | 1,828 | 13 | 15 |
| MOUNTAIN | 122 | 325 | 4,008 | 2,593 | 22 | 16 | 1,457 | 1,739 | 70 | 147 |
| Mont. | 7 | 3 | 137 | , | - | - | 10 | 4 | 3 | 6 |
| Idaho | 2 | 4 | 318 | 314 | 1 | - | 23 | 16 | 13 | 34 |
| Wyo. | 1 | - | 100 | 149 | - | $\overline{7}$ | 12 | 9 | 23 | 41 |
| Colo. | 24 | 86 | 101 | 6 | 13 | 7 | 359 | 423 | 13 | 13 |
| N. Mex. | 5 | 20 | 877 | 808 | 4 | 1 | 317 | 198 | 10 | 24 |
| Ariz. | 30 | 94 | 1,704 | 375 | N | 6 | 564 | 866 | 5 | 19 |
| Utah | 10 | 39 | 292 | 338 | 1 | - | 36 | 57 | 1 | 6 |
| Nev. | 43 | 79 | 479 | 603 | 3 | 2 | 136 | 166 | 2 | 4 |
| PACIFIC | 770 | 2,471 | 11,462 | 15,131 | 33 | 9 | 2,890 | 5,095 | 150 | 85 |
| Wash. | 45 | 140 | 1,907 | 2,112 | 4 | - | 459 | 539 | 5 | 17 |
| Oreg. | 30 | 133 | 530 | 1,112 | 8 | 7 | 77 | 78 | 3 | 2 |
| Calif. | 682 | 2,173 | 8,460 | 11,415 | 18 | 2 | 2,156 | 4,277 | 106 | 32 |
| Alaska | 10 | 3 | 269 | 89 | 3 | - | 115 | 91 | - | 2 |
| Hawaii | 3 | 22 | 296 | 403 | N | - | 83 | 110 | 36 | 32 |
| Guam | - | 3 | - | 81 | N | - | - | 20 | - | - |
| P.R. | 144 | 416 | N | N | 4 | U | 175 | 28 | 8 | 12 |
| V.I. | 4 | 1 | N | N | N | U |  | - | - | - |
| Amer. Samoa |  |  | , | - | N | U | - | - | - | - |
| C.N.M.I. | - | - | N | N | N | U | 7 | 11 | 2 | - |
| N : Not notifiable | U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands |  |  |  |  |  |  |  |  |  |
| *Updated monthly to the Division of HIV/AIDS Prevention-Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update January 28, 1997. <br> ${ }_{\S}^{\dagger}$ National Electronic Telecommunications System for Surveillance. <br> ${ }^{\text {§ Public Health Laboratory Information System. }}$ |  |  |  |  |  |  |  |  |  |  |

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States,
weeks ending March 15, 1997, and March 16, 1996 (11th Week)

| Reporting Area | Legionellosis |  | Lyme Disease |  | Malaria |  | Syphilis(Primary \& Secondary) |  | Tuberculosis |  | Rabies, <br> Animal <br> Cum. <br> 1997 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \end{aligned}$ | $\begin{gathered} \text { Cum. } \\ 1997 \end{gathered}$ | $\begin{aligned} & \text { Cum. } \\ & 1996 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{gathered} \text { Cum. } \\ 1996 \end{gathered}$ | $\begin{aligned} & \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1996 \end{aligned}$ |  |
| UNITED STATES | 170 | 140 | 445 | 868 | 231 | 200 | 1,422 | 2,574 | 2,278 | 2,851 | 1,120 |
| NEW ENGLAND | 13 | 4 | 41 | 65 | 5 | 4 | 32 | 41 | 68 | 77 | 174 |
| Maine | 1 | 1 | - | - | - | 1 |  | - |  | 3 | 36 |
| N.H. | 3 | - | 2 | 1 | - | - | - | 1 | 2 | 2 | 6 |
| V t. | 2 | - | 1 | - | - | 1 | - | - |  | - | 25 |
| Mass. | 4 | 1 | 23 | 7 | 4 | 2 | 15 | 17 | 36 | 28 | 37 |
| R.I. | - | 2 | 15 | 18 | 1 | - | - | - | 5 | 11 | 1 |
| Conn. | 3 | N | - | 39 | - | - | 17 | 23 | 25 | 33 | 69 |
| MID. ATLANTIC | 29 | 33 | 337 | 734 | 52 | 56 | 22 | 79 | 435 | 440 | 241 |
| Upstate N.Y. | 7 | 7 | 25 | 190 | 9 | 11 | 4 | 7 | 43 | 51 | 175 |
| N.Y. City | - | 1 | 2 | 209 | 27 | 26 | - | 31 | 229 | 217 | - |
| N.J. | 3 | 5 | 66 | 66 | 13 | 16 | 2 | 18 | 94 | 102 | 17 |
| Pa . | 19 | 20 | 244 | 269 | 3 | 3 | 16 | 23 | 69 | 70 | 49 |
| E.N. CENTRAL | 67 | 53 | 8 | 4 | 11 | 24 | 145 | 415 | 348 | 400 | 2 |
| Ohio | 39 | 18 | 7 | 2 | 1 | 4 | 53 | 166 | 87 | 65 | 1 |
| Ind. | 7 | 12 | 1 | 2 | 1 | 1 | 31 | 57 | 21 | 31 | 1 |
| III. | - | 5 | - | - | - | 8 | 16 | 103 | 187 | 255 | - |
| Mich. | 21 | 14 | - | - | 9 | 7 | 22 | 38 | 33 | 39 | - |
| Wis. | - | 4 | U | U | - | 4 | 23 | 51 | 20 | 10 | - |
| W.N. CENTRAL | 10 | 8 | 1 | 13 | 4 | 3 | 34 | 126 | 76 | 81 | 72 |
| Minn. | - | - | - | - | 1 | - | - | 33 | 24 | 22 | 10 |
| lowa | - | - | - | 1 | 1 | 1 | 10 | 4 | 10 | 10 | 37 |
| Mo. | 4 | 3 | - | 4 | 2 | 1 | 14 | 79 | 30 | 31 | 7 |
| N. Dak. | 1 | - | - | - | - | - | - | - | 2 | 1 | 9 |
| S. Dak. | 1 | 1 | - | - | - | - | - | - | 2 | 6 | 3 |
| Nebr. | 4 | 4 | 1 | - | - | - | - | 5 | - | - | - |
| Kans. | - | - | - | 8 | - | 1 | 10 | 5 | 8 | 11 | 6 |
| S. ATLANTIC | 23 | 12 | 35 | 34 | 65 | 31 | 659 | 825 | 376 | 428 | 520 |
| Del. | 2 | 1 | - | 6 | 2 | 2 | 4 | 10 | - | 9 | 2 |
| Md. | 13 | 2 | 23 | 19 | 18 | 11 | 142 | 122 | 33 | 48 | 99 |
| D.C. | 1 | 1 | 4 | - | 4 | 1 | 30 | 34 | 16 | 14 | 1 |
| Va. | 1 | 2 | - | - | 13 | 5 | 61 | 100 | 16 | 25 | 92 |
| W. Va. | - | 1 | - | 2 | - | - | - | 1 | 9 | 17 | 12 |
| N.C. | 3 | 3 | 2 | 4 | 3 | 4 | 166 | 215 | 54 | 40 | 174 |
| S.C. | 1 | 1 | 1 | 1 | 3 | 1 | 96 | 95 | 58 | 61 | 21 |
| Ga . | - | - | 1 | - | 9 | 2 | 107 | 189 | 76 | 101 | 57 |
| Fla. | 2 | 1 | 4 | 2 | 13 | 5 | 53 | 59 | 114 | 113 | 62 |
| E.S. CENTRAL | 6 | 10 | 14 | 6 | 6 | 3 | 322 | 651 | 148 | 253 | 54 |
| Ky. |  | 3 | 1 | 3 | 1 | 1 | 30 | 37 | 26 | 41 | 8 |
| Tenn. | 2 | 4 | 2 | 3 | 1 | 1 | 171 | 201 | 9 | 75 | 37 |
| Ala. | 1 | - | - | - | 1 | 1 | 85 | 136 | 79 | 86 | 9 |
| Miss. | 3 | 3 | 11 | - | 3 | - | 36 | 277 | 34 | 51 | - |
| W.S. CENTRAL | - | 1 | 1 | 1 | 3 | 8 | 151 | 289 | 36 | 193 | 22 |
| Ark. | - | - | - | 1 | 1 | - | 16 | 71 | 23 | 20 | 6 |
| La. | - | - | - | - | 2 | - | 106 | 115 | - | - | - |
| Okla. | - | 1 | - | - | - | - | 29 | 29 | 13 | 30 | 16 |
| Tex. | - | - | 1 | - | - | 8 | - | 74 | - | 143 | - |
| MOUNTAIN | 13 | 8 | - | - | 14 | 15 | 29 | 31 | 81 | 101 | 5 |
| Mont. | - | - | - | - | 1 | - | - | - | 2 | - | 1 |
| Idaho | - | - | - | - | - | - | - | 1 | - | 2 | - |
| Wyo. | 1 | - | - | - | 1 | 2 | - | 1 | 1 | - | - |
| Colo. | 4 | 4 | - | - | 7 | 8 | - | 11 | 18 | 24 | - |
| N. Mex. | - | - | - | - | 2 | 1 | - | - | 4 | 7 | 1 |
| Ariz. | 3 | 1 | - | - | - | 1 | 24 | 15 | 37 | 53 | 3 |
| Utah | 4 | - | - | - | - | 2 | 1 |  | 1 |  | - |
| Nev. | 1 | 3 | - | - | 3 | 1 | 4 | 3 | 18 | 15 | - |
| PACIFIC | 9 | 11 | 8 | 11 | 71 | 56 | 28 | 117 | 710 | 878 | 30 |
| Wash. | 1 | - | - | - | - | - | 3 | - | 38 | 44 | - |
| Oreg. | - | - | 2 | 4 | 5 | 4 | 1 | 1 | 24 | 38 | 1 |
| Calif. | 7 | 11 | 6 | 6 | 66 | 49 | 23 | 115 | 587 | 747 | 27 |
| Alaska | - | - | - | - | - | - | - | 11 | 20 | 17 | 2 |
| Hawaii | 1 | - | - | 1 | - | 3 | 1 | 1 | 41 | 32 | - |
| Guam | - | - | - | - | - | - | - | 2 | - | 26 | - |
| P.R. | - | - | - | - | 1 | - | 58 | 28 | - | - | 10 |
| V.I. | - | - | - | - | - | - |  |  | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | - | - | - | - | - |
| C.N.M.I. | - | - | - | - | - | - | 1 | 1 | - | - | - |
| N : Not notifiable | U: U | ailable | -: no | orted c |  |  |  |  |  |  |  |

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 15, 1997, and March 16, 1996 (11th Week)

| Reporting Area | H. influenzae, invasive |  | Hepatitis (Viral), by type |  |  |  | Measles (Rubeola) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | A |  | B |  | Indigenous |  | Imported ${ }^{\dagger}$ |  | Total |  |
|  | $\begin{aligned} & \hline \text { Cum. } \\ & \text { 1997* } \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { Cum. } \\ 1996 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Cum. } \\ 1997 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Cum. } \\ 1996 \\ \hline \end{gathered}$ | 1997 | $\begin{gathered} \hline \text { Cum. } \\ 1997 \\ \hline \end{gathered}$ | 1997 | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \end{aligned}$ | $\begin{gathered} \hline \text { Cum. } \\ 1997 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \\ & \hline \end{aligned}$ |
| UNITED STATES | 255 | 258 | 4,831 | 5,494 | 1,410 | 1,730 | 2 | 7 | - | 4 | 11 | 46 |
| NEW ENGLAND | 8 | 7 | 81 | 54 | 22 | 32 | - | - | - | - | - | 6 |
| Maine | 2 | - | 3 | 8 | 3 | 2 | - | - | - | - | - | - |
| N.H. | 1 | 5 | 6 | 3 | 2 | 1 | - | - | - | - | - | - |
| Vt. | - | - | 4 | - | 1 | 2 | - | - | - | - | - | 1 |
| Mass. | 4 | 2 | 31 | 22 | 12 | 5 | - | - | - | - | - | 4 |
| R.I. | 1 | - | 4 | 2 | 2 | 1 | - | - | - | - | - | - |
| Conn. | - | - | 33 | 19 | 2 | 21 | - | - | - | - | - | 1 |
| MID. ATLANTIC | 27 | 36 | 283 | 388 | 205 | 280 | - | 1 | - | 1 | 2 | 3 |
| Upstate N.Y. | 1 | 3 | 26 | 52 | 33 | 54 | - | 1 | - | 1 | 2 | 1 |
| N.Y. City | 11 | 4 | 116 | 195 | 72 | 133 | - | - | - | - |  | 2 |
| N.J. | 11 | 15 | 62 | 78 | 51 | 52 | - | - | - | - | - | - |
| Pa. | 4 | 14 | 79 | 63 | 49 | 41 | - | - | - | - | - | - |
| E.N. CENTRAL | 28 | 50 | 349 | 518 | 151 | 220 | 2 | 3 | - | 1 | 4 | - |
| Ohio | 20 | 31 | 106 | 212 | 20 | 25 | - | - | - | - |  | - |
| Ind. | 4 | 1 | 53 | 83 | 10 | 21 | - | - | - | - | - | - |
| III. | - | 14 | - | 120 | - | 58 | 2 | 3 | - | - | 3 | - |
| Mich. | 4 | 2 | 160 | 62 | 119 | 89 | - | - | - | 1 | 1 | - |
| Wis. | - | 2 | 30 | 41 | 2 | 27 | - | - | - | - | - | - |
| W.N. CENTRAL | 7 | 8 | 344 | 438 | 75 | 96 | - | - | - | - | - | - |
| Minn. | 2 | 1 | 6 | 11 | 2 | 2 | - | - | - | - | - | - |
| Iowa | 2 | 3 | 51 | 116 | 32 | 10 | - | - | - | - | - | - |
| Mo. | 1 | 4 | 192 | 211 | 28 | 63 | - | - | - | - | - | - |
| N. Dak. | - | - | 4 | 5 | - | - | - | - | - | - | - | - |
| S. Dak. | 1 | - | 5 | 24 | - | $\overline{7}$ | - | - | - | - | - | - |
| Nebr. | - | - | 28 | 41 | 3 | 7 | - | - | - | - | - | - |
| Kans. | 1 | - | 58 | 30 | 10 | 14 | - | - | - | - | - | - |
| S. ATLANTIC | 67 | 40 | 339 | 173 | 190 | 256 | - | - | - | - | - | 2 |
| Del. | - | - | 7 | 3 | 1 | - | - | - | - | - | - | 1 |
| Md. | 21 | 14 | 86 | 41 | 37 | 67 | - | - | - | - | - | - |
| D.C. | 2 | - | 10 | 6 | 13 | 3 | - | - | - | - | - | - |
| Va . | 2 | 2 | 39 | 29 | 16 | 29 | - | - | - | - | - | - |
| W. Va. | 1 | - | 3 | 5 | 4 | 8 | - | - | - | - | - | - |
| N.C. | 7 | 6 | 51 | 25 | 47 | 81 | - | - | - | - | - | - |
| S.C. | 4 | 2 | 21 | 16 | 11 | 17 | - | - | - | - | - | - |
| Ga . | 15 | 15 | 38 |  | 13 | - | - | - | - | - | - | - |
| Fla. | 15 | 1 | 84 | 48 | 48 | 51 | - | - | - | - | - | 1 |
| E.S. CENTRAL | 11 | 8 | 129 | 414 | 147 | 137 | - | - | - | - | - | - |
| Ky. | 1 | 2 | 19 | 6 | 4 | 18 | - | - | - | - | - | - |
| Tenn. | 10 | 2 | 58 | 308 | 86 | 108 | - | - | - | - | - | - |
| Ala. | - | 3 | 30 | 60 | 15 | 11 | - | - | - | - | - | - |
| Miss. | - | 1 | 22 | 40 | 42 | U | - | - | - | - | - | - |
| W.S. CENTRAL | 9 | 8 | 848 | 844 | 103 | 124 | - | - | - | - | - | - |
| Ark. | 1 | - | 60 | 114 | 15 | 18 | - | - | - | - | - | - |
| La. | $\overline{7}$ | 8 | 44 | 14 | 16 | 11 | - | - | - | - | - | - |
| Okla. | 7 | 8 | 359 | 415 | 3 | 13 | - | - | - | - | - | - |
| Tex. | 1 | - | 385 | 301 | 69 | 82 | - | - | - | - | - | - |
| MOUNTAIN | 22 | 19 | 862 | 797 | 191 | 218 | - | - | - | - | - | 3 |
| Mont. |  |  | 30 | 16 | 1 |  | - | - | - | - | - | - |
| Idaho | - | 1 | 37 | 97 | 9 | 23 | - | - | - | - | - | - |
| Wyo. | $\overline{-}$ | - | 10 | 6 | 7 | 5 | - | - | - | - | - | - |
| Colo. | 2 | 3 | 109 | 78 | 46 | 35 | - | - | - | - | - | - |
| N. Mex. | 1 | 6 | 62 | 117 | 64 | 86 | - | - | - | - | - | - |
| Ariz. | 9 | 5 | 357 | 225 | 32 | 28 | - | - | - | - | - | - |
| Utah | 2 | 3 | 190 | 196 | 19 | 29 | - | - | - | - | - | - |
| Nev. | 8 | 1 | 67 | 62 | 13 | 12 | - | - | - | - | - | 3 |
| PACIFIC | 76 | 82 | 1,596 | 1,868 | 326 | 367 | - | 3 | - | 2 | 5 | 32 |
| Wash. | - | - | 106 | 110 | 11 | 18 | - | - | - | - |  | 4 |
| Oreg. | 11 | 10 | 97 | 282 | 33 | 32 | - | - | - | - | - | - |
| Calif. | 62 | 70 | 1,349 | 1,442 | 273 | 314 | - | - | - | 2 | 2 | 1 |
| Alaska | 1 |  | 8 | 13 | 5 | 1 | - | - | - | - |  | 26 |
| Hawaii | 2 | 2 | 36 | 21 | 4 | 2 | - | 3 | - | - | 3 | 1 |
| Guam | - | - | - | 2 | - | - | U | - | U | - | - | - |
| P.R. | - | - | 70 | 14 | 122 | 33 | - | - | - | - | - | - |
| V.I. | - | - | - | - | - | - | U | - | U | - | - | - |
| Amer. Samoa | - | , | - | - | - | - | U |  | U | - | - | - |
| C.N.M.I. | 2 | 10 | 1 | 1 | 11 | 5 | U | 1 | U | - | 1 | - |
| N : Not notifiable | U: Un | ailable | -: no | orted cas |  |  |  |  |  |  |  |  |

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 15, 1997, and March 16, 1996 (11th Week)

| Reporting Area | Meningococcal Disease |  | Mumps |  |  | Pertussis |  |  | Rubella |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \\ & \hline \end{aligned}$ | 1997 | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \\ & \hline \end{aligned}$ | 1997 | $\begin{gathered} \hline \text { Cum. } \\ 1997 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \\ & \hline \end{aligned}$ | 1997 | $\begin{aligned} & \hline \text { Cum. } \\ & 1997 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1996 \end{aligned}$ |
| UNITED STATES | 821 | 858 | 23 | 110 | 125 | 67 | 883 | 491 | 1 | 5 | 34 |
| NEW ENGLAND | 50 | 34 | 3 | 5 | - | 3 | 239 | 118 | - | - | 2 |
| Maine | 6 | 6 | - | - | - | - | 6 | 3 | - | - | - |
| N.H. | 5 | 1 | - | - | - | - | 35 | 13 | - | - | - |
| Vt. | 2 | 1 | - | - | - | 3 | 86 | 6 | - | - | - |
| Mass. | 30 | 10 | - | - | - | - | 102 | 93 | - | - | - |
| R.I. | 1 | 5 | 3 | 4 | - | - | 9 | - | - | - | - |
| Conn. | 6 | 11 | - | 1 | - | - | 1 | 3 | - | - | 2 |
| MID. ATLANTIC | 64 | 86 | 3 | 10 | 19 | 10 | 49 | 53 | - | 2 | 4 |
| Upstate N.Y. | 20 | 16 | - | - | 5 | 3 | 24 | 29 | - | 1 | 2 |
| N.Y. City | 12 | 11 | - | - | 3 | - | 5 | 9 | - | 1 | 1 |
| N.J. | 15 | 18 | - | ${ }^{-}$ | 2 | $\overline{7}$ | - | 3 | - | - | 1 |
| Pa . | 17 | 41 | 3 | 10 | 9 | 7 | 20 | 12 | - | - | - |
| E.N. CENTRAL | 70 | 116 | 5 | 14 | 33 | 12 | 97 | 99 | - | 2 | 1 |
| Ohio | 44 | 45 | - | 3 | 14 | 3 | 45 | 41 | - | - | - |
| Ind. | 11 | 10 | 1 | 3 | 5 | 6 | 8 | 6 | - | - | - |
| III. | - | 35 | 3 | 5 | 8 | 3 | 15 | 19 | - | - | 1 |
| Mich. | 7 | 8 | 1 | 3 | 6 | - | 17 | 8 | - | - | - |
| Wis. | 8 | 18 | - | - | - | - | 12 | 25 | - | 2 | - |
| W.N. CENTRAL | 67 | 78 |  | 5 | 2 | 6 | 44 | 8 | - | - | - |
| Minn. | 2 | 3 | 1 | 3 | - | 6 | 31 | 1 | - | - | - |
| Iowa | 17 | 12 | - | 2 | - | - | 9 | 2 | - | - | - |
| Mo. | 32 | 41 | - | - | - | - | - | 3 | - | - | - |
| N. Dak. | - | 1 | - | - | 2 | - | 1 | - | - | - | - |
| S. Dak. | 3 | 2 | - | - | - | - | 1 | - | - | - | - |
| Nebr. | 4 | 8 | - | - | - | - | 2 | 1 | - | - | - |
| Kans. | 9 | 11 | - | - | - | - | - | 1 | - | - | - |
| S. ATLANTIC | 175 | 116 | 6 | 19 | 15 | 4 | 77 | 36 | - | - | - |
| Del. | 3 | 2 | - | - | - | - | - | 5 | - | - | - |
| Md. | 18 | 15 | 1 | 2 | 8 | - | 32 | 21 | - | - | - |
| D.C. | 1 | 2 | - | 2 | 8 | - | 2 |  | - | - | - |
| Va . | 10 | 14 | - | 1 | 2 | - | 13 | - | - | - | - |
| W. Va. | 1 | 4 | - | - | - | - | 3 | - | - | - | - |
| N.C. | 36 | 22 | 1 | 5 | - | 1 | 13 | - | - | - | - |
| S.C. | 32 | 17 | - | 1 | 3 | - | 3 | - | - | - | - |
| Ga. | 29 | 32 | - | 2 | 1 | - | 3 | 1 | - | - | - |
| Fla. | 45 | 8 | 4 | 8 | 1 | 3 | 8 | 9 | - | - | - |
| E.S. CENTRAL | 67 | 72 | 1 | 9 | 6 | - | 21 | 14 | - | - | - |
| Ky. | 14 | 8 | - | - | - | - | 1 | 6 | - | - | - |
| Tenn. | 27 | 22 | - | 3 | 1 | - | 7 | 5 | - | - | - |
| Ala. | 19 | 23 | 1 | 3 | 3 | - | 7 | 1 | - | - | - |
| Miss. | 7 | 19 | - | 3 | 2 | - | 6 | 2 | - | - | N |
| W.S. CENTRAL | 68 | 97 | 3 | 12 | 3 | - | 10 | 6 | - | - | - |
| Ark. | 16 | 9 | - | - | - | - | 3 | 2 | - | - | - |
| La. | 14 | 18 | 2 | 2 | 3 | - | 2 | 2 | - | - | - |
| Okla. | 8 | 5 | - | - | - | - | - | 1 | - | - | - |
| Tex. | 30 | 65 | 1 | 10 | - | - | 5 | 1 | - | - | - |
| MOUNTAIN | 54 | 56 | - | 4 | 6 | 9 | 167 | 56 | - | - | - |
| Mont. | 4 | 1 | - | - | - | 3 | 3 | 2 | - | - | - |
| Idaho | 4 | 7 | - | 1 | - | 6 | 102 | 8 | - | - | - |
| Wyo. | - | 3 | - | - | - | - | 3 | - | - | - | - |
| Colo. | 12 | 7 | - | 2 | - | - | 47 | 10 | - | - | - |
| N. Mex. | 11 | 12 | N | N | N | - | 7 | 15 | - | - | - |
| Ariz. | 12 | 16 | - | - | 1 | - | 5 | 3 | - | - | - |
| Utah | 8 | 4 | - | 1 | - | - | - | 1 | - | - | - |
| Nev. | 3 | 6 | - | - | 5 | - | - | 17 | - | - | - |
| PACIFIC | 206 | 203 | 1 | 32 | 41 | 23 | 179 | 101 | 1 | 1 | 27 |
| Wash. | 21 | 18 | - | 3 | 3 | 16 | 58 | 23 | - | - | 1 |
| Oreg. | 53 | 32 | - | - | - | 2 | 6 | 18 | - | - |  |
| Calif. | 131 | 148 | - | 23 | 31 | 5 | 110 | 55 | 1 | 1 | 24 |
| Alaska | , | 3 | 1 | 1 | 1 |  | 1 | - | - | - |  |
| Hawaii | 1 | 2 | - | 5 | 6 | - | 4 | 5 | - | - | 2 |
| Guam | - | 1 | U | - | 1 | U | - | - | U | - | - |
| P.R. | 2 | - | - | - | 1 | - | - | - | - | - | - |
| V.I. | - | - | U | - | - | U | - | - | U | - | - |
| Amer. Samoa | - | - | U | - | - | U | - | - | U | - | - |
| C.N.M.I. | - | - | U | - | - | U | - | - | U | - | - |
| N : Not notifiable | U: Un | ble | no rep | d cases |  |  |  |  |  |  |  |

TABLE IV. Deaths in 122 U.S. cities,* week ending March 15, 1997 (11th Week)

| Reporting Area | All Causes, By Age (Years) |  |  |  |  |  | $\begin{aligned} & \text { P\&I }{ }^{\dagger} \\ & \text { Total } \end{aligned}$ | Reporting Area | All Causes, By Age (Years) |  |  |  |  |  | $\begin{aligned} & \text { P\&I }{ }^{\dagger} \\ & \text { Total } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { All } \\ \text { Ages } \end{gathered}$ | >65 | 45-64 | 25-44 | 1-24 | <1 |  |  | $\begin{aligned} & \text { All } \\ & \text { Ages } \end{aligned}$ | >65 | 45-64 | 25-44 | 1-24 | <1 |  |
| NEW ENGLAND | 566 | 413 | 89 | 43 | 13 | 8 | 47 | S. ATLANTIC | 1,380 | 891 | 280 | 119 | 60 | 29 | 79 |
| Boston, Mass. | 165 | 108 | 37 | 8 | 8 | 8 | 15 | Atlanta, Ga. | U | U | U | U | U | U | U |
| Bridgeport, Conn. | 50 | 36 | 10 | 4 |  | - | 4 | Baltimore, Md. | 244 | 153 | 50 | 22 | 14 | 5 | 25 |
| Cambridge, Mass. | 25 | 20 | 1 | 4 |  |  |  | Charlotte, N.C. | 85 | 52 | 23 | 6 | 2 | 2 | 7 |
| Fall River, Mass. | 35 | 27 | 5 | 3 |  |  | 2 | Jacksonville, Fla. | 168 | 104 | 41 | 14 | 4 | 5 | 6 |
| Hartford, Conn. | U | U | U | U | U | U | U | Miami, Fla. | 106 | 64 | 22 | 10 | 7 | 2 | - |
| Lowell, Mass. | 24 | 20 | 3 | 1 |  |  | 3 | Norfolk, Va. | 56 | 44 | 6 | 3 | 1 | 2 | 3 |
| Lynn, Mass. | 15 | 11 | 4 | - |  |  |  | Richmond, Va. | 94 | 55 | 27 | 10 | 2 | - | 7 |
| New Bedford, Mass. | 20 | 18 | 2 |  |  |  | 4 | Savannah, Ga. | 48 | 30 | 12 | 1 | 3 | 2 | 3 |
| New Haven, Conn. | 32 | 23 | 3 | 5 |  | , | 4 | St. Petersburg, Fla. | 76 | 61 | 6 | 4 | 2 | 3 | 7 |
| Providence, R.I. | 65 | 48 | 5 | 8 | 2 | 2 | - | Tampa, Fla. | 183 | 139 | 25 | 12 | 4 | 3 | 15 |
| Somerville, Mass. | 3 | 3 | , | - |  | - | $\overline{-}$ | Washington, D.C. | 303 | 182 | 68 | 32 | 16 | 5 | 6 |
| Springfield, Mass. | 40 | 25 | 11 | 4 |  | - | 3 | Wilmington, Del. | 17 | 7 | - | 5 | 5 | - | - |
| Waterbury, Conn. | 34 | 29 | 3 | 2 |  |  | 3 |  |  |  |  |  |  |  |  |
| Worcester, Mass. | 58 | 45 | 5 | 4 | 3 | 1 | 9 | E.S. CENTRAL Birmingham, Ala. | $\begin{array}{r} 628 \\ \square \end{array}$ | 441 | $\begin{array}{r} 116 \\ \cup \end{array}$ | $45$ | $\stackrel{12}{\cup}$ | 14 | 66 |
| MID. ATLANTIC | 2,284 | 1,569 | 453 | 206 | 33 | 23 | 157 | Chattanooga, Tenn. | 73 | 52 | 14 | 6 |  | 1 | 11 |
| Albany, N.Y. | 36 | 27 | 7 | 2 |  | - | 3 | Knoxville, Tenn. | 91 | 65 | 20 | 4 | 1 | 1 | 11 |
| Allentown, Pa. | 27 | 22 | 5 |  |  |  | 3 | Lexington, Ky. | 73 | 52 | 11 | 7 | 2 | 1 | 13 |
| Buffalo, N.Y. | U | U | U | U | U | U | U | Memphis, Tenn. | 131 | 90 | 26 | 8 | 3 | 4 | 13 |
| Camden, N.J. | U | U | U | U | U | U | U | Mobile, Ala. | 50 | 31 | 13 | 4 | 1 | 1 | 3 |
| Elizabeth, N.J. | 21 | 13 | 5 | 2 |  | 1 | - | Montgomery, Ala. | 64 | 49 | 10 | 4 | - | 1 | 7 |
| Erie, Pa.§ | 28 | 25 | 3 | - |  | - | 3 | Nashville, Tenn. | 146 | 102 | 22 | 12 | 5 | 5 | 8 |
| Jersey City, N.J. | 46 | 22 | 13 | 8 | 1 | 2 | 1 |  |  |  |  |  |  |  |  |
| New York City, N.Y. | 1,274 | 847 | 277 | 117 | 18 | 15 | 61 | W.S. CENTRAL | 1,640 | 1,093 | 314 | 146 | 47 | 40 | 118 |
| Newark, N.J. | 93 | 43 | 25 | 20 | 5 | , | 7 | Austin, Tex. Baton Rouge, La. | 73 | 47 | 12 | 7 | 3 | 4 | 7 |
| Paterson, N.J. | U | U | U | U | U | U | U | Baton Rouge, Corpus Christi, Tex. | 48 | 33 44 | 10 | 4 5 | 1 | 1 | 1 |
| Philadelphia, Pa. | 399 | 284 | 74 | 32 | 7 | 2 | 38 | Dallas, Tex. | 208 | 117 | 45 | 25 | 15 | 6 | 4 |
| Pittsburgh, Pa.§ Reading, Pa. | 46 | 41 | 1 | - | - | - | 7 | El Paso, Tex. | 104 | 79 | 13 | 8 | 2 | 2 | 11 |
| Rochester, N.Y. | 144 | 108 | 19 | 15 | 1 | 1 | 11 | Ft. Worth, Tex. | 116 | 87 | 16 | 10 | - | 3 | 11 |
| Schenectady, N.Y. | U | U | U | U | U | U | U | Houston, Tex. | 415 | 271 | 79 | 46 | 8 | 11 | 35 |
| Scranton, Pa.§ | 36 | 29 | 6 | 1 | - | - | 4 | Little Rock, Ark. | 79 | 48 | 18 | 7 | 5 | 1 | 7 |
| Syracuse, N.Y. | 71 | 58 | 5 | 6 | - | 2 | 9 | New Orleans, La. | 104 | 66 | 16 | 13 | 6 | 3 |  |
| Trenton, N.J. | 36 | 26 | 6 | 3 | 1 | - | 8 | San Antonio, Tex. | 247 | 174 | 50 | 14 | 3 | 6 | 14 |
| Utica, N.Y. | 22 | 20 | 2 |  |  |  | 2 | Shreveport, La. | 59 | 40 | 13 | 3 | 1 | 2 | 5 |
| Yonkers, N.Y. | U | U | U | U | U | U | U | Tulsa, Okla. | 122 | 87 | 28 | 4 | 2 | 1 | 18 |
| E.N. CENTRAL | 2,116 | 1,486 | 380 | 149 | 51 | 47 | 154 | MOUNTAIN | 995 | 723 | 163 | 54 | 27 | 28 | 104 |
| Akron, Ohio | 48 | 35 | 9 |  | 2 | 2 |  | Albuquerque, N.M. | 97 | 73 | 13 | 5 | 2 | 4 | 5 |
| Canton, Ohio | 38 | 29 | 5 | 3 |  | 1 | 6 | Boise, Idaho | 47 | 36 | 5 | 2 | 2 | 2 | 6 |
| Chicago, III. | 466 | 282 | 101 | 54 | 17 | 9 | 33 | Colo. Springs, Colo. | 58 | 46 | 6 | 3 | 1 | 2 | 6 |
| Cincinnati, Ohio | 101 | 75 | 17 | 4 | 1 | 4 | 9 | Denver, Colo. | 111 | 77 | 20 | 7 | 5 | 2 | 13 |
| Cleveland, Ohio | 152 | 101 | 39 | 7 | 3 | 2 | 3 | Las Vegas, Nev. | 193 | 138 | 36 | 9 | 7 | 3 | 16 |
| Columbus, Ohio | 205 | 151 | 29 | 11 | 6 | 8 | 26 | Ogden, Utah | 23 | 19 | 1 | 1 | 1 | 1 | 7 |
| Dayton, Ohio | 135 | 99 | 25 | 3 | 5 | 3 | 15 | Phoenix, Ariz. | 158 | 107 | 34 | 10 | - | 7 | 17 |
| Detroit, Mich. | 204 | 117 | 42 | 29 | 10 | 6 | 6 | Pueblo, Colo. | 36 | 27 | 4 | 2 | 2 | 1 | 6 |
| Evansville, Ind. | 36 | 30 | 5 | 1 |  | - | 3 | Salt Lake City, Utah | 101 | 71 | 15 | $1{ }^{5}$ | 6 | 4 | 8 |
| Fort Wayne, Ind. | 55 | 47 | 4 | 4 |  | - | 5 | Tucson, Ariz. | 171 | 129 | 29 | 10 | 1 | 2 | 26 |
| Gary, Ind. | U | U | U | U | U | U | U | PACIFIC | 1,953 | 1,371 | 336 | 157 | 47 | 41 | 169 |
| Grand Rapids, Mich. | 68 | 52 | 12 | 4 | 3 | 2 | 6 | Berkeley, Calif. | 23 | 19 | 3 | - |  | 1 | 1 |
| Indianapolis, Ind. | 160 37 | 111 30 | 32 | 12 | 3 | 2 | 9 | Fresno, Calif. | 98 | 63 | 19 | 8 | 2 | 6 | 7 |
| Lansing, Mich. | 37 133 | 30 107 | 5 | 2 | 1 | 5 | 12 |  | 31 | 24 | 5 | 2 |  |  | 3 |
| Milwaukee, Wis. | 133 39 | 107 34 | 18 | 2 | 1 | 5 | 12 | Honolulu, Hawaii | 107 | 82 | 15 | 7 | 1 | 2 | 6 |
| Peoria, III. | 39 | 34 | 2 | 3 | 1 | 2 | 4 | Long Beach, Calif. | 87 | 61 | 17 | 6 | 2 |  | 11 |
| South Bend, Ind. | 44 | 35 | 3 | 4 | 1 | 1 | 2 | Los Angeles, Calif. Pasadena, Calif. | 543 34 | 374 23 | 89 | 45 1 | 16 | 9 | 35 4 |
| Toledo, Ohio | 95 | 77 | 16 | 1 | - | 1 | 13 | Portland, Oreg. | 152 | 117 | 21 | 9 | 5 | - | 12 |
| Youngstown, Ohio | 61 | 44 | 10 | 6 | - | 1 | 1 | Sacramento, Calif. | U | U | U | U | U | U | U |
| W.N. CENTRAL | 698 | 485 | 110 | 50 | 13 | 18 | 48 | San Diego, Calif. | 185 | 121 | 30 | 18 | 8 | 8 | 26 |
| Des Moines, lowa | U | U | U | U | U | U | U | San Francisco, Calif. | 135 | 78 | 33 | 18 | 4 | 2 | 12 |
| Duluth, Minn. | 37 | 29 | 6 | 1 | 1 | U | 6 | San Jose, Calif. | 222 | 166 | 37 | 12 | 2 | 5 | 23 |
| Kansas City, Kans. | 24 | 13 | 5 | 6 | - | - |  | Santa Cruz, Calif. | 41 | 33 | 5 | 1 | - | 1 | 10 |
| Kansas City, Mo. | 102 | 60 | 10 | 8 | - | 2 | 6 | Seattle, Wash. | 147 | 99 | 24 | 19 | 2 | 3 | 4 |
| Lincoln, Nebr. | 49 | 40 | 5 | 3 | 1 | - | 2 | Spokane, Wash. | 65 | 52 | 8 | 4 |  | - |  |
| Minneapolis, Minn. | 188 | 143 | 31 | 9 | 3 | 2 | 17 | Tacoma, Wash. | 83 | 59 | 12 | 7 | 3 | 2 | 8 |
| Omaha, Nebr. | 64 | 45 | 12 | 2 | 2 | 3 | 5 | TOTAL | 12,260 ${ }^{\text {¢ }}$ | 8,472 | 2,241 | 969 | 303 | 248 | 942 |
| St. Louis, Mo. | 97 | 58 | 16 | 11 | 4 | 8 | 5 |  |  |  |  |  |  |  |  |
| St. Paul, Minn. | 73 | 56 | 12 | 2 | 1 | 2 | 4 |  |  |  |  |  |  |  |  |
| Wichita, Kans. | 64 | 41 | 13 | 8 | 1 | 1 | 3 |  |  |  |  |  |  |  |  |

U: Unavailable -: no reported cases
*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.
${ }^{\dagger}$ Pneumonia and influenza.
${ }^{\S}$ 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.
TTotal includes unknown ages.

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[^0]:    ${ }^{*}$ Alabama, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New York, North Carolina, North Dakota, Pennsylvania, Texas, Utah, Vermont, Washington, and Wisconsin.

[^1]:    *Alaska's requirement for a second dose of MMR at kindergarten and first-grade entry became effective beginning with the 1996-97 school year.

