September 15, 1995 / Vol. 44 / No. 36


MORBIDITY AND MORTALITY WEEKLY REPORT

657 Measles Outbreak - Guam, 1994
660 Agricultural Auger-Related Injuries and Fatalities Minnesota, 1992-1994
663 State-Specific Changes in Physical Inactivity Among Persons Aged $\geq 65$ Years United States, 1987-1992

Measles Outbreak - Guam, 1994
One of the largest outbreaks of measles in the United States and its territories since 1992 occurred in Guam during 1994. From February 8 through June 25, 1994, a total of 280 suspected, probable, or confirmed cases of measles were reported to the Guam Department of Public Health and Social Services (GDPH). Of these cases, 228 were considered confirmed, including 47 serologically confirmed cases (Figure 1). This report summarizes findings from the investigation of these 228 cases.

FIGURE 1. Number of measles cases,* by week of rash onset - Guam, 1994


* $n=228$.
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / Public Health Service


## Measles Outbreak - Continued

The index case occurred in an 8-month-old child who developed a rash on February 7,1994 . This case could not be epidemiologically linked to a previous measles outbreak in Guam (22 cases) that occurred during October 20-December 26, 1993; that outbreak was initiated by an imported case from the Republic of Palau. In addition, genetic sequencing of viral isolates indicated that viruses that had circulated in Palau and in Guam were different. The outbreak peaked in April, when 104 cases were reported.

The incidence of confirmed cases was 17 per 10,000 population. Patients ranged in age from 2 months to 57 years (median: 16 months), and $70 \%$ of cases occurred among preschool-aged children. The age-specific incidence was highest for children aged $<1$ year ( 318.0 per 10,000 population), and was higher for children aged 1-4 years (57.9) and $10-19$ years (20.1) than for children aged 5-9 years (7.8) and persons aged $\geq 20$ years (4.8).

Of the 228 cases, 133 ( $58 \%$ ) occurred among patients who were Chamorros (an ethnic group native to Guam), 45 ( $20 \%$ ) occurred among persons from the Chuuk State of the Federated States of Micronesia (FSM), and 29 (13\%) among Filipinos. The highest ethnicity-specific attack rate was among persons from FSM (91 per 10,000 population). The incidence among U.S. military personnel and dependents was three per 10,000 population.

Of the 138 ( $61 \%$ ) patients aged $\geq 12$ months, measles vaccination history was known for 84 ( $61 \%$ ). A history of receipt of at least one dose of measles-containing vaccine (MCV) was reported for 52 ( $62 \%$ ) persons, and 14 (17\%) had documentation of measles vaccination on or after their first birthday and at least 14 days before rash onset. Appropriate vaccination was documented for $7 \%$ of those aged $1-4$ years and $25 \%$ of those aged 5-19 years. No cases were reported among persons who had received two doses of MCV.

Twenty-three (10\%) patients were hospitalized, and three died (case-fatality rate $=1.3 \%$ ). The three fatal cases occurred among patients aged 9 months, 17 months, and 22 years who were immigrants or children of immigrants from the Chuuk State, FSM. The hospitalization rate was highest among children aged <6 months (four [22\%] of 18).

Outbreak-control measures focused on vaccinating preschool-aged children and immigrants. Routine vaccination clinic hours were extended, and outreach clinics were provided in shopping centers, villages, and housing areas with large immigrant populations. On April 8, GDPH lowered the age for measles vacciration from 12 months to 6 months. In May, GDPH implemented a mass vaccination campaign and encouraged families to take all children aged 6 months- 5 years to vaccination clinics for measles vaccination, regardless of previous vaccination history; children with documentation of two doses of MCV after age 12 months were not revaccinated. During March-June, approximately 12,000 doses of MCV were administered, 4000 of which were given to children aged $<5$ years. This was the first measles vaccination for $70 \%$ of the children who participated in the campaign. The campaign is estimated to have increased measles vaccination coverage among children aged $<5$ years to approximately $74 \%$.

Other outbreak-control efforts included improving passive surveillance by providing outbreak information to health-care providers and active surveillance through periodic phone calls to the civilian hospital and private clinics, instituting triage and

## Measles Outbreak - Continued

isolation for patients with rash illness in medical settings, exclusion of persons with cases from day care centers and schools and vaccination of their contacts, and disseminating public education messages about measles and measles vaccination.

Since June 25, when two cases imported from the Philippines were reported, no additional cases are known to have occurred.
Reported by: K Cruz, MPH, E Dolor, MD, K Leonhardt, MD, L Duenas, MPH, A Mathew, MD, R Wilson, MS, L Espaldon, MD, R Haddock, DVM, Territorial Epidemiologist, Guam Dept of Public Health and Social Svcs; A Cabanero, MD, Guam Memorial Hospital Authority. Measles Virus Section, Respiratory and Enteric Viruses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; National Immunization Program, CDC.
Editorial Note: The mass vaccination campaign in Guam appeared to be an effective strategy for controlling measles outbreaks among island populations. Although the campaign was initiated late in the course of the outbreak, the decline of the outbreak may have been accelerated by efforts to encourage all preschool-aged children to receive a dose of MCV, regardless of prior receipt of one dose of vaccine. Most of the preschool-aged children who participated in the campaign received their first dose of MCV during the campaign; among children who had already received a dose, the campaign also effectively lowered the age at which many children received a second dose of vaccine.*

Lowering the age for primary vaccination also was an important control strategy in Guam because the risk was highest among infants. Many of these infants lacked maternal antibody because they had been born to mothers who had received a maximum of one dose of measles vaccine and who had not had natural measles infection (e.g., children of immigrant mothers from islands where previous outbreaks occurred $>20$ years ago) (1,2). The Advisory Committee on Immunization Practices (ACIP) recommends that measles vaccine be administered at age 6 months if exposure of children aged <1 year is likely (3). Children vaccinated before age 12 months should be revaccinated after their first birthday and should be given another dose of MCV before entering school.

The outbreak in Guam was especially a consequence of the large number of unvaccinated, preschool-aged children. A retrospective survey in 1991 of the vaccination records of children entering school for the first time documented that only $55 \%$ of children on Guam had received a dose of MCV by age 2 years. Audits of records from public and private clinics in 1993 and 1994 indicated that coverage among 2-year-old children with one dose of MCV ranged from $53 \%$ to $90 \%$ depending on the site.

Reasons for higher morbidity and mortality in the Chuukese population than in other ethnic groups are unclear. Possible explanations include low levels of immunity because of low vaccination coverage levels; the lower likelihood of exposure to measles (the last outbreak in Chuuk was in 1968); limited access to health care; and large family size, resulting in increased exposure to measles.

Other factors associated with increased risk for measles importation and transmission on islands such as Guam include tourism and the high mobility of the local population. These factors underscore the importance of the need to achieve and maintain high vaccination coverage levels. Approaches to maintaining high vaccination

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## Measles Outbreak - Continued

coverage levels among preschool-aged children should include establishing walk-in service to provide vaccinations on a routine basis, extending clinic hours, offering door-to-door vaccination in areas with hard-to-reach populations (e.g., immigrants), educating providers and parents about contraindications to vaccinations, and taking advantage of all opportunities to vaccinate children during health-care visits, as is recommended in the United States. Optimal levels of immunity may be achieved in school children through the establishment and enforcement of requirements for receipt of two doses of vaccine.

## References

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3. CDC. Measles prevention: supplementary statement. MMWR 1989;38:11-4.

## Agricultural Auger-Related Injuries and Fatalities Minnesota, 1992-1994

Agriculture remains one of the most hazardous industries in the United States: in 1992, approximately 37 fatalities occurred per 100,000 agricultural workers and an estimated 140,000 disabling injuries to farm workers (1). Recent surveillance for agricultural injuries and fatalities in Minnesota has helped characterize problems associated with the use of one type of implement-agricultural augers (large, corkscrewlike devices used to move dry materials [e.g., grains, animal feeds, and granular fertilizers]). This report presents surveillance findings for auger-related injuries during 1992-1994, summarizes the investigations of four selected auger-related injuries that occurred in the state, and provides recommendations to prevent injuries to farmers who use these devices.

Since 1992, the Minnesota Department of Health has collected surveillance data about agricultural injuries and fatalities through three programs sponsored by CDC's National Institute for Occupational Safety and Health (NIOSH): the Fatality Assessment and Control Evaluation Program (FACE), which conducts on-site investigations of selected categories of occupational fatalities (e.g., falls and machinery-related and logging-related deaths); the Sentinel Event Notification System for Occupational Risks (SENSOR), which conducts surveillance for occupational amputation injuries; and the Occupational Health Nurses in Agricultural Communities Program (OHNAC), which identifies and investigates farm-related injuries and illnesses.* Case ascertainment employs a combination of surveillance methods, including reviews of medical re-

[^1]
## Auger-Related Injuries - Continued

cords, articles from newspaper clipping services, death certificates, hospital records, and Minnesota Occupational Safety and Health Administration (M-OSHA) program records. In addition, the Minnesota Extension Service independently records agricultural injuries and deaths reported by extension agents and newspaper clipping services.

## Surveillance for Auger-Related Injuries

During 1992-1994, augers were associated with two fatal and 25 nonfatal injuries in Minnesota. From $1993^{\dagger}$ through 1994, FACE received reports of two auger-related deaths, and SENSOR was notified of seven auger-related amputations. During 19921994, OHNAC was notified of 18 auger-related injuries, of which six (33\%) were among children aged <18 years; three of these resulted in amputations.

During 1984-1994, the Minnesota Extension Service received reports of 14 augerrelated deaths, which were attributed to entanglement or crushing (eight) and electrocution (six). Although cases reported to OHNAC and SENSOR were not duplicated, duplication of fatalities reported to the Extension Service and to FACE could not be excluded.

## Case Reports

Incident 1. On April 14, 1992, a 13-year-old boy was cleaning inside an oxygenlimiting silo while a sweep auger was in operation. The unguarded auger swept slowly around the silo floor, pivoting about a central axis. As the boy stepped over the moving equipment, the hem of his pants caught in the auger, and his leg was traumatically amputated below the knee as it became entangled. He required multiple surgical procedures and had been hospitalized for $21 / 2$ months at the time of the OHNAC interview.

Incident 2. On January 16, 1993, a 70 -year-old farm laborer was cleaning a grain auger that had been shut off, but the machine's electric power supply had not been disconnected (the controls for switching the auger on and off were located in a different building). The auger was inadvertently activated by a co-worker, and the laborer's left hand was traumatically amputated above the wrist. He was subsequently hospitalized and had not resumed work at the time of the SENSOR interview 2 months later.

Incident 3. On January 8, 1994, a 21-year-old farm laborer was using an auger to unload a silo. While attempting to step over the machine, he stepped on a metal shield that covered the bottom of the auger. The shield broke, and he fell into the auger, sustaining a traumatic below-the-knee amputation. He subsequently was hospitalized and had not resumed work at the time of the SENSOR interview 3 months later.

Incident 4. On June 22, 1994, a 46-year-old farmer died after becoming entangled in an unshielded auger system that was being used to move feed down the length of a feed bunk in a cattle feed lot. While the system was in operation, the farmer entered the feed bunk, and his leg became entangled when he either slipped or attempted to step over the auger. The electric motor driving the system stopped after the fuse blew. Although he freed himself from the auger and climbed out of the feed bunk, he died a short distance from the feed lot as a result of massive hemorrhage. This incident was unwitnessed, and data were compiled by FACE investigators based on a review of sheriff's reports and photographs of the incident site.
Reported by: DJ Boyle, DVM, DL Parker, MD, C Lexau, MPH, G Wahl, MS, Minnesota Dept of Health; J Shutske, PhD, Biosystems and Agricultural Engineering Dept, Univ of Minnesota, St.
† Both FACE and SENSOR in Minnesota were initiated in 1993.

## Auger-Related Injuries - Continued

Paul. Div of Safety Research, and Div of Surveillance, Hazard Evaluations, and Field Studies, National Institute for Occupational Safety and Health, CDC.
Editorial Note: An agricultural auger consists of a continuous corkscrew blade attached to a long metal shaft and a round metal tube into which the blade is inserted. The metal tube contains the material as it is moved from the intake at one end of the auger to the discharge at the other end and protects the operator from contact with the rotating blade. ${ }^{\S}$ Augers vary in size, generally ranging from 4 to 15 inches in diameter and from several feet to 100 feet or more in length (2). An auger can be independent and movable or it can be integrated with another piece of machinery or a grain storage system (e.g., as a fixed component of a combine, grain dryer, grain wagon, storage bin system, or silo unloader). In addition, augers can be self-powered (by an electric motor or a gasoline- or diesel-fueled engine) or driven by power transferred from a second piece of equipment through a power take-off shaft (PTO) or a series of gears, chains, belts, and/or pulleys. Auger-related injuries result from 1) contact with the exposed auger blade; 2 ) entanglement in a belt drive or PTO conveying power to the blade; 3) electrocution when an auger contacts overhead power lines (e.g., while it is being moved or positioned in an upright configuration); or 4) contact with a spinning crank, which is used to position the auger (3).

Although auger-related injuries are preventable, they remain a public health concern among farmers. On a per-hour-of-use basis, augers are one of the most dangerous types of farming equipment (4); severe injuries have resulted from entanglement and electrocution (2). The occupational injury surveillance and investigation data from Minnesota underscore the risks augers pose for both disabling and fatal injuries among farmers. In particular, the Minnesota data emphasize the risk for traumatic amputation resulting from entanglement of extremeties.

NIOSH recommends the following precautions to substantially reduce the risks for hazards related to auger use:

1. Barriers (e.g., fences) should be used to prevent persons not involved in the operation of an auger from entering the area adjacent to the auger.
2. Children aged $<18$ years should not operate augers and should not enter the area near an auger. ${ }^{\text {I }}$
3. Before starting an auger, the operator should ensure that all protective shields, as supplied by the manufacturer, are in place and in good condition. The federal OSHA standard for safety of farm equipment requires placement of guards on augers consistent with their designed use (5).
4. Before service or repair, power should be shut off and the auger power source "locked-out" and "tagged." (Locking out prevents power from being restored while maintenance is in progress, and tagging the switch indicates that power is disabled and the reason).
[^2]
## Auger-Related Injuries - Continued

5. To prevent entanglement, persons wearing loose clothing or jewelry or persons with long, untied hair should not operate augers.
6. Workers should not step or jump on or over an auger while it is in operation.
7. Grain augers always should be lowered to a horizontal position before being moved from one location to another. Workers always should observe the presence and location of power lines before raising an auger into position.
8. Whenever possible, operators should ensure good footing while working around augers. Portable augers should be placed on dry, level ground or a gravel pad. Spilled grain should be removed between loads, after the equipment has been turned off.
9. Operators should never use their hands or feet to redirect the flow of grain or other materials into the auger.
10. All farm workers and auger operators should be educated about safe operating procedures and hazards associated with augers.
11. Augers should be clearly labeled as posing a hazard for entanglement and subsequent serious injury.

## References

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2. NIOSH. Preventing grain auger electrocutions. Cincinnati, Ohio: US Department of Health and Human Services, Public Health Service, CDC, 1986; DHHS publication no. (NIOSH)86-119.
3. Linn R. Auger and elevator accident victim rescue. Bozeman, Montana: Montana State University, Montguide Cooperative Extension Service, February 1987.
4. Aherin RA, Schultz L. Safe storage and handling of grain. St. Paul, Minnesota: Minnesota Extension Service Bulletin, 1981; publication no. AG-FO-568.
5. Office of the Federal Register. Code of federal regulations: occupational safety and health standards. Subpart D: safety for agricultural equipment. Washington, DC: Office of the Federal Register, National Archives and Records Administration, 1994. (29 CFR § 1928.57[b]).

## State-Specific Changes in Physical Inactivity Among Persons Aged $\geq 65$ Years - United States, 1987-1992

Regular physical activity can provide important health benefits, even when such activities are initiated later in life ( 1,2 ). Despite these benefits, most older persons in the United States have sedentary lifestyles (3). One of the national health objectives for the year 2000 is to reduce to $22 \%$ the proportion of adults aged $\geq 65$ years who engage in no leisure-time physical activity (objective 1.5a) (4). This report uses data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) to summarize state-specific trends during 1987-1992 in the prevalence of physical inactivity during leisure time among persons aged $\geq 65$ years and projects state-specific prevalences for 1997.

The BRFSS is a population-based, random-digit-dialed telephone survey of the noninstitutionalized U.S. population. Data were available for 83,858 persons aged $\geq 65$ years residing in 49 states and the District of Columbia who participated in the BRFSS during 1987-1992. Of the 50 reporting areas, 32 states and the District of Columbia collected information about physical activity for the entire study period. Respondents were asked specific questions about physical activity, including the type, frequency, and duration of the two leisure-time physical activities in which they participated most frequently during the preceding month. Persons who reported

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending September 9, 1995, with historical data - United States


* The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline.
${ }^{\dagger}$ 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 - cases of specified notifiable diseases, United States, cumulative, week ending September 9, 1995 (36th Week)

|  | Cum. 1995 |  | Cum. 1995 |
| :---: | :---: | :---: | :---: |
| Anthrax |  | Psittacosis | 48 |
| Brucellosis | 64 | Rabies, human | 1 |
| Cholera | 11 | Rocky Mountain Spotted Fever | 375 |
| Congenital rubella syndrome | 4 | Syphilis, congenital, age <1 year ${ }^{\dagger}$ | 132 |
| Diphtheria |  | Tetanus | 19 |
| Haemophilus influenzae* | 829 | Toxic shock syndrome | 127 |
| Hansen Disease | 89 | Trichinosis | 24 |
| Plague | 6 | Typhoid fever | 207 |
| Poliomyelitis, Paralytic | - |  |  |

*Of 809 cases of known age, 192 ( $24 \%$ ) were reported among children less than 5 years of age.
${ }^{\dagger}$ Updated quarterly from reports to the Division of STD Prevention, National Center for Prevention Services. This total through first quarter 1995.
-: no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending September 9, 1995, and September 10, 1994 (36th Week)

| Reporting Area | AIDS* <br> Cum. <br> 1995 | Gonorrhea |  | Hepatitis (Viral), by type |  |  |  |  |  | Legionellosis |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | A |  | B |  | C/NA,NB |  |  |  |
|  |  | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ |
| UNITED STATES | 47,385 | 237,353 | 274,367 | 18,263 | 16,342 | 6,795 | 7,918 | 2,942 | 2,864 | 853 | 1,082 |
| NEW ENGLAND | 2,412 | 3,624 | 5,478 | 188 | 207 | 155 | 243 | 79 | 106 | 23 | 41 |
| Maine | 74 | 58 | 64 | 19 | 20 | 7 | 11 | - | - | 5 | 4 |
| N.H. | 72 | 77 | 77 | 7 | 16 | 16 | 16 | 11 | 8 | 4 | - |
| Vt. | 23 | 39 | 21 | 4 | 6 | 1 | 6 | 1 | 7 | - | $\stackrel{-}{-}$ |
| Mass. | 1,014 | 1,951 | 2,152 | 78 | 82 | 57 | 145 | 63 | 71 | 11 | 25 |
| R.I. | 184 | 348 | 324 | 24 | 18 | 8 | 6 | 4 | 20 | 3 | 12 |
| Conn. | 1,045 | 1,151 | 2,840 | 56 | 65 | 66 | 59 | - | - | N | N |
| MID. ATLANTIC | 12,777 | 22,975 | 30,968 | 1,068 | 1,164 | 825 | 1,035 | 272 | 338 | 123 | 167 |
| Upstate N.Y. | 1,634 | 3,846 | 7,397 | 268 | 410 | 274 | 277 | 153 | 161 | 33 | 38 |
| N.Y. City | 6,547 | 7,375 | 11,689 | 520 | 434 | 256 | 222 | 1 | 1 | 3 | 4 |
| N.J. | 2,983 | 3,162 | 3,512 | 132 | 216 | 166 | 275 | 90 | 147 | 17 | 31 |
| Pa. | 1,613 | 8,592 | 8,370 | 148 | 104 | 129 | 261 | 28 | 29 | 70 | 94 |
| E.N. CENTRAL | 3,613 | 51,929 | 55,292 | 2,008 | 1,601 | 671 | 817 | 190 | 238 | 225 | 313 |
| Ohio | 733 | 15,659 | 14,647 | 1,287 | 578 | 82 | 118 | 8 | 17 | 115 | 148 |
| Ind. | 383 | 5,727 | 6,066 | 118 | 263 | 165 | 148 | 5 | 8 | 53 | 34 |
| III. | 1,525 | 14,024 | 17,090 | 217 | 404 | 94 | 221 | 33 | 63 | 13 | 29 |
| Mich. | 721 | 12,539 | 12,217 | 260 | 190 | 290 | 263 | 144 | 150 | 23 | 56 |
| Wis. | 251 | 3,980 | 5,272 | 126 | 166 | 40 | 67 | - | - | 21 | 46 |
| W.N. CENTRAL | 1,091 | 13,476 | 15,425 | 1,296 | 801 | 433 | 456 | 84 | 62 | 83 | 74 |
| Minn. | 243 | 1,933 | 2,265 | 125 | 163 | 37 | 43 | 2 | 14 | 2 | 2 |
| lowa | 55 | 983 | 1,008 | 50 | 37 | 32 | 22 | 11 | 7 | 17 | 27 |
| Mo. | 476 | 7,734 | 8,521 | 935 | 390 | 311 | 340 | 48 | 15 | 43 | 23 |
| N. Dak. | 5 | 20 | 28 | 23 | 4 | 4 | - | 7 | 1 | 4 | 4 |
| S. Dak. | 11 | 123 | 140 | 37 | 24 | 2 | - | 1 | - | 1 | 1 |
| Nebr. | 80 | 697 | 958 | 34 | 102 | 22 | 24 | 6 | 10 | 9 | 12 |
| Kans. | 221 | 1,986 | 2,505 | 92 | 81 | 25 | 27 | 9 | 15 | 7 | 5 |
| S. ATLANTIC | 12,200 | 69,840 | 73,077 | 871 | 832 | 984 | 1,468 | 229 | 318 | 159 | 264 |
| Del. | 220 | 1,502 | 1,323 | 7 | 19 | 2 | 11 | 1 | 1 | 2 | 31 |
| Md. | 1,635 | 7,471 | 12,907 | 154 | 116 | 179 | 236 | 3 | 17 | 25 | 58 |
| D.C. | 738 | 3,121 | 5,028 | 17 | 16 | 15 | 36 | - | - | 4 | 5 |
| Va. | 965 | 7,422 | 9,178 | 142 | 118 | 81 | 89 | 10 | 20 | 15 | 5 |
| W. Va. | 77 | 471 | 545 | 17 | 11 | 40 | 29 | 41 | 23 | 3 | 3 |
| N.C. | 712 | 16,430 | 18,528 | 80 | 91 | 203 | 194 | 43 | 47 | 29 | 18 |
| S.C. | 671 | 8,333 | 9,056 | 35 | 30 | 37 | 23 | 17 | 7 | 29 | 9 |
| Ga . | 1,628 | 10,893 | U | 55 | 25 | 63 | 505 | 15 | 165 | 23 | 95 |
| Fla. | 5,554 | 14,197 | 16,512 | 364 | 406 | 364 | 345 | 99 | 38 | 29 | 40 |
| E.S. CENTRAL | 1,551 | 28,964 | 32,018 | 1,068 | 414 | 590 | 841 | 721 | 655 | 37 | 67 |
| Ky. | 197 | 3,377 | 3,437 | 30 | 119 | 45 | 61 | 15 | 21 | 7 | 8 |
| Tenn. | 638 | 9,343 | 10,295 | 863 | 170 | 468 | 725 | 704 | 621 | 21 | 33 |
| Ala. | 411 | 11,637 | 10,849 | 63 | 68 | 77 | 55 | 2 | 13 | 6 | 11 |
| Miss. | 305 | 4,607 | 7,437 | 112 | 57 | 7 |  | - | - | 3 | 15 |
| W.S. CENTRAL | 4,178 | 22,444 | 32,318 | 2,586 | 2,128 | 1,142 | 813 | 496 | 212 | 11 | 33 |
| Ark. | 186 | 2,080 | 4,735 | 343 | 143 | 36 | 20 | 4 | 6 | 1 | 6 |
| La. | 715 | 7,863 | 8,489 | 82 | 111 | 148 | 125 | 129 | 124 | 2 | 10 |
| Okla. | 196 | 1,496 | 3,482 | 662 | 208 | 376 | 95 | 323 | 42 | 3 | 11 |
| Tex. | 3,081 | 11,005 | 15,612 | 1,499 | 1,666 | 582 | 573 | 40 | 40 | 5 | 6 |
| MOUNTAIN | 1,466 | 6,113 | 6,894 | 2,784 | 3,161 | 544 | 463 | 310 | 311 | 89 | 70 |
| Mont. | 16 | 6, 47 | 6,86 | 2,75 | 17 | 19 | 17 | 11 | 6 | 4 | 14 |
| Idaho | 37 | 91 | 61 | 229 | 242 | 61 | 65 | 40 | 63 | 2 | 1 |
| Wyo. | 10 | 38 | 55 | 86 | 20 | 16 | 19 | 129 | 107 | 7 | 3 |
| Colo. | 491 | 1,980 | 2,352 | 360 | 340 | 81 | 75 | 42 | 54 | 37 | 15 |
| N. Mex. | 123 | 716 | 694 | 594 | 786 | 212 | 145 | 37 | 41 | 4 | 3 |
| Ariz. | 392 | 2,334 | 2,251 | 819 | 1,242 | 82 | 48 | 29 | 14 | 7 | 8 |
| Utah | 98 | 131 | 186 | 510 | 349 | 48 | 54 | 8 | 13 | 13 | 6 |
| Nev. | 299 | 776 | 1,229 | 111 | 165 | 25 | 40 | 14 | 13 | 15 | 20 |
| PACIFIC | 8,097 | 17,988 | 22,897 | 6,394 | 6,034 | 1,451 | 1,782 | 561 | 624 | 103 | 53 |
| Wash. | 667 | 1,771 | 2,044 | 551 | 775 | 128 | 164 | 147 | 187 | 18 | 10 |
| Oreg. | 285 | 212 | 716 | 1,361 | 670 | 60 | 100 | 29 | 26 | - | - |
| Calif. | 6,910 | 15,123 | 18,995 | 4,333 | 4,390 | 1,242 | 1,483 | 357 | 407 | 80 | 41 |
| Alaska | 53 | 485 | 629 | 31 | 161 | 9 | 11 | 1 | - | - | - |
| Hawaii | 182 | 397 | 513 | 118 | 38 | 12 | 24 | 27 | 4 | 5 | 2 |
| Guam | - | 51 | 87 | 2 | 18 | 1 | 4 | - | - | 1 | 1 |
| P.R. | 1,851 | 351 | 344 | 80 | 45 | 523 | 238 | 239 | 128 | - | - |
| V.I. | 27 | 6 | 20 | - | 2 | 2 | 6 | - | 1 | - | - |
| Amer. Samoa | - | 18 | 21 | 5 | 8 | - | - | - | - | - | - |
| C.N.M.I. | - | 23 | 34 | 15 | 5 | 7 | 1 | - | - | - | - |

N : Not notifiable U: Unavailable $\quad$ : no reported cases
*Updated monthly to the Division of HIV/AIDS Prevention, National Center for Prevention Services, last update August 31, 1995.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending September 9, 1995, and September 10, 1994 (36th Week)

| Reporting Area | Lyme Disease |  | Malaria |  | Measles (Rubeola) |  |  |  |  |  | Meningococcal Infections |  | Mumps |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Indigenous | Imported* |  | Total |  |  |  |  |  |
|  | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ |  |  | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \end{aligned}$ | 1995 | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | 1995 | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Cum. } \\ \hline \end{array}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ |
| UNITED STATES | 5,345 | 8,253 | 784 | 725 | - | 218 | - | 21 | 239 | 837 | 2,156 | 1,968 | 577 | 1,033 |
| NEW ENGLAND | 1,395 | 2,011 | 35 | 54 | - | 6 | - | 1 | 7 | 27 | 100 | 90 | 10 | 17 |
| Maine | 16 | 17 | 4 | 4 | - | - | - | - | - | 5 | 7 | 18 | 4 | 3 |
| N.H. | 18 | 15 | 2 | 3 | - | - | - | - | - | 1 | 19 | 8 | 1 | 4 |
| Vt. | 8 | 12 | 1 | 3 | - | - | - | - | - | 3 | 6 | 2 | - | - |
| Mass. | 121 | 126 | 10 | 27 | - | 1 | - | 1 | 2 | 7 | 36 | 40 | 2 | 2 |
| R.I. | 240 | 307 | 4 | 5 | - | 5 | - | - | 5 | 7 | - | - | 1 | 2 |
| Conn. | 992 | 1,534 | 14 | 12 | - | - | - | - | - | 4 | 32 | 22 | 2 | 6 |
| MID. ATLANTIC | 3,186 | 4,880 | 194 | 140 | - | 6 | - | 4 | 10 | 211 | 257 | 210 | 83 | 86 |
| Upstate N.Y. | 1,746 | 3,155 | 45 | 38 | - | 1 | - | - | 1 | 17 | 80 | 65 | 23 | 25 |
| N.Y. City | 115 | 11 | 101 | 48 | - | 2 | - | 3 | 5 | 13 | 34 | 26 | 13 | 4 |
| N.J. | 581 | 1,020 | 34 | 32 | - | 3 | - | 1 | 4 | 173 | 72 | 47 | 6 | 13 |
| Pa . | 744 | 694 | 14 | 22 | - | - | - | - | - | 8 | 71 | 72 | 41 | 44 |
| E.N. CENTRAL | 59 | 449 | 77 | 74 | - | 7 | - | 3 | 10 | 102 | 290 | 288 | 99 | 169 |
| Ohio | 40 | 31 | 9 | 8 | - | 1 | - | - | 1 | 17 | 89 | 82 | 32 | 42 |
| Ind. | 11 | 14 | 14 | 11 | - | - | - | - | - | 1 | 41 | 38 | 3 | 7 |
| III. | 3 | 22 | 32 | 35 | - | - | - | 2 | 2 | 56 | 71 | 96 | 30 | 79 |
| Mich. | 5 | 5 | 13 | 18 | - | 4 | - | 1 | 5 | 25 | 55 | 41 | 34 | 33 |
| Wis. | - | 377 | 9 | 2 | - | 2 | - | - | 2 | 3 | 34 | 31 | - | 8 |
| W.N. CENTRAL | 98 | 152 | 17 | 32 | - | 2 | - | - | 2 | 170 | 142 | 127 | 38 | 52 |
| Minn. | 42 | 58 | 3 | 10 | - | - | - | - | - | - | 22 | 12 | 2 | 4 |
| lowa | 8 | 13 | 1 | 4 | - | - | - | - | - | 7 | 26 | 16 | 9 | 12 |
| Mo. | 30 | 70 | 6 | 11 | - | 1 | - | - | 1 | 160 | 58 | 62 | 22 | 33 |
| N. Dak. | - | - | 1 | 1 | - | - | - | - | - | - | 1 | 1 | 1 | 2 |
| S. Dak. | - | - | 1 | - | - | - | - | - | - | - | 5 | 7 | - | - |
| Nebr. | 1 | 3 | 3 | 4 | - | - | - | - | - | 2 | 12 | 9 | 4 | 1 |
| Kans. | 17 | 8 | 2 | 2 | - | 1 | - | - | 1 | 1 | 18 | 20 | - | - |
| S. ATLANTIC | 410 | 570 | 169 | 139 | - | 10 | - | 1 | 11 | 53 | 394 | 291 | 85 | 151 |
| Del. | 7 | 78 | 1 | 3 | - | - | - | - | - | - | 6 | 5 | - | , |
| Md. | 267 | 179 | 43 | 49 | - | - | - | 1 | 1 | 4 | 28 | 26 | 20 | 42 |
| D.C. | 1 | 4 | 15 | 11 | - | - | - | - | - | - | 3 | 3 | - | - |
| Va . | 38 | 113 | 35 | 20 | - | - | - | - | - | 2 | 47 | 53 | 17 | 35 |
| W. Va. | 21 | 13 | 2 | - | - | - | - | - | - | 37 | 8 | 11 | - | 3 |
| N.C. | 44 | 63 | 14 | 7 | - | - | - | - | - | 3 | 62 | 42 | 16 | 35 |
| S.C. | 12 | 7 | 1 | 4 | - | - | - | - | - | - | 52 | 19 | 9 | 7 |
| Ga . | 12 | 102 | 22 | 22 | - | 2 | - | - | 2 | 2 | 80 | 65 | 8 | 8 |
| Fla. | 8 | 11 | 36 | 23 | - | 8 | - | - | 8 | 5 | 108 | 67 | 15 | 21 |
| E.S. CENTRAL | 33 | 36 | 17 | 27 | - | - | - | - | - | 28 | 133 | 144 | 13 | 18 |
| Ky. | 5 | 21 | 1 | 8 | - | - | - | - | - | - | 46 | 33 | - | - |
| Tenn. | 19 | 9 | 7 | 9 | U | - | U | - | - | 28 | 35 | 26 | - | 6 |
| Ala. | 7 | 6 | 6 | 9 | - | - | - | - | - | - | 29 | 56 | 4 | 5 |
| Miss. | 2 | - | 3 | 1 | - | - | - | - | - | - | 23 | 29 | 9 | 7 |
| W.S. CENTRAL | 82 | 86 | 33 | 36 | - | 19 | - | 3 | 22 | 16 | 268 | 232 | 35 | 182 |
| Ark. | 5 | 7 | 3 | 3 | - | 2 | - | - | 2 | 1 | 22 | 37 | 3 | 5 |
| La. | 3 | 1 | 3 | 6 | - | 17 | - | 1 | 18 | 1 | 39 | 31 | 8 | 22 |
| Okla. | 36 | 48 | 1 | 4 | - | - | - | - | - | - | 26 | 24 | - | 23 |
| Tex. | 38 | 30 | 26 | 23 | - | - | - | 2 | 2 | 14 | 181 | 140 | 24 | 132 |
| MOUNTAIN | 7 | 11 | 41 | 25 | - | 49 | - | 1 | 50 | 163 | 151 | 136 | 24 | 128 |
| Mont. | - | - | 3 | - | - | - | - | - | - | - | 2 | 6 | 1 |  |
| Idaho | - | 3 | 1 | 2 | - | - | - | - | - | - | 6 | 15 | 2 | 7 |
| Wyo. | 3 | 3 | $-$ | 1 | - |  | - | - | - | , | 7 | 5 | - | 2 |
| Colo. | 1 | 1 | 17 | 11 | - | 8 | - | - | 8 | 19 | 37 | 25 | 2 | 3 |
| N. Mex. | 1 | 2 | 4 | 3 | - | 30 | - | 1 | 31 | - | 31 | 13 | N | N |
| Ariz. | - |  | 7 | 2 | - | 10 | - | - | 10 | 1 | 48 | 47 | 2 | 91 |
| Utah | - | 1 | 5 | 4 | - | - | - | - | - | 134 | 13 | 18 | 11 | 14 |
| Nev. | 2 | 1 | 4 | 2 | - | 1 | - | - | 1 | 9 | 7 | 7 | 6 | 11 |
| PACIFIC | 75 | 58 | 201 | 198 | - | 119 | - | 8 | 127 | 67 | 421 | 450 | 190 | 230 |
| Wash. | 8 | 1 | 16 | 21 | - | 16 | - | 4 | 20 | 3 | 71 | 70 | 10 | 14 |
| Oreg. | 4 | 6 | 9 | 12 | - | 1 | - | - | 1 | 2 | 66 | 99 | N | N |
| Calif. | 63 | 51 | 165 | 152 | - | 102 | - | 3 | 105 | 53 | 273 | 274 | 162 | 198 |
| Alaska | - | - | 1 | 1 | - | - | - | - | - | 5 | 7 | 2 | 13 | 2 |
| Hawaii | - | - | 10 | 12 | - | - | - | 1 | 1 | 4 | 4 | 5 | 5 | 16 |
| Guam | - | - | - | - | U | - | U | - | - | 228 | 3 | - | 3 | 6 |
| P.R. | - | - | 1 | 3 | - | 11 | - | - | 11 | 11 | 14 | 6 | - | 2 |
| V.I. | - | - | - | - | U | - | U | - | - | - | - | - | 2 | 3 |
| Amer. Samoa | - | - | - | - | - | - | - | - | - | $\stackrel{-}{-}$ | - | - | - | 2 |
| C.N.M.I. | - | - | 1 | 1 | U | - | U | - | - | 29 | - | - | - | 2 |

*For imported measles, cases include only those resulting from importation from other countries.
N : Not notifiable
U: Unavailable
$-:$ no reported cases

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending September 9, 1995, and September 10, 1994 (36th Week)

| Reporting Area | Pertussis |  |  | Rubella |  |  | Syphilis (Primary \& Secondary) |  | Tuberculosis |  | Rabies, <br> Animal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ | 1995 | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ |
| UNITED STATES | 86 | 2,418 | 2,584 | 1 | 114 | 205 | 10,303 | 14,791 | 13,278 | 15,141 | 4,867 | 5,228 |
| NEW ENGLAND | 7 | 312 | 266 | - | 34 | 128 | 120 | 158 | 341 | 331 | 1,106 | 1,296 |
| Maine | 2 | 24 | 9 | - | 1 | - | 2 | 4 | 12 | 8 | 22 |  |
| N.H. | 3 | 25 | 52 | - | 1 | - | 1 | 3 | 9 | 13 | 113 | 116 |
| Vt. | 1 | 44 | 32 | - | - | - | - | - | 3 | 5 | 134 | 102 |
| Mass. | - | 205 | 149 | - | 7 | 124 | 43 | 66 | 190 | 174 | 335 | 485 |
| R.I. | 1 | 2 | 5 | - | - | 2 | 3 | 12 | 33 | 32 | 237 | 26 |
| Conn. | - | 12 | 19 | - | 25 | 2 | 71 | 73 | 94 | 99 | 265 | 567 |
| MID. ATLANTIC | 9 | 196 | 406 | - | 11 | 6 | 572 | 981 | 2,753 | 3,114 | 943 | 1,365 |
| Upstate N.Y. | 9 | 107 | 172 | - | 4 | 5 | 43 | 127 | 317 | 382 | 379 | 1,001 |
| N.Y. City | - | 21 | 80 | - | 7 | - | 261 | 437 | 1,470 | 1,835 | - | -- |
| N.J. | - | 5 | 12 | - | - | 1 | 120 | 151 | 522 | 527 | 257 | 203 |
| Pa . | - | 63 | 142 | - | - | - | 148 | 266 | 444 | 370 | 307 | 161 |
| E.N. CENTRAL | 16 | 241 | 402 | - | 4 | 9 | 1,770 | 2,213 | 1,225 | 1,393 | 61 | 44 |
| Ohio | 5 | 96 | 106 | - | - | - | 614 | 863 | 184 | 231 | 9 | 2 |
| Ind. | 1 | 15 | 47 | - | - | - | 176 | 175 | 56 | 122 | 10 | 12 |
| III. | 8 | 61 | 83 | - | 1 | 1 | 659 | 741 | 668 | 697 | 3 | 13 |
| Mich. | 2 | 57 | 39 | - | 3 | 8 | 197 | 203 | 269 | 302 | 32 | 10 |
| Wis. | - | 12 | 127 | - | - | - | 124 | 231 | 48 | 41 | 7 | 7 |
| W.N. CENTRAL | 1 | 135 | 118 | - | - | 2 | 542 | 871 | 416 | 389 | 221 | 157 |
| Minn. | - | 43 | 51 | - | - | - | 28 | 33 | 94 | 95 | 8 | 14 |
| lowa | 1 | 7 | 8 | - | - | - | 34 | 43 | 48 | 40 | 88 | 67 |
| Mo. | - | 40 | 31 | - | - | 2 | 462 | 742 | 162 | 167 | 19 | 15 |
| N. Dak. | - | 8 | 4 | - | - | - | - | 1 | 3 | 7 | 23 | 9 |
| S. Dak. | - | 10 | 7 | - | - | - | - | 1 | 15 | 17 | 49 | 25 |
| Nebr. | - | 7 | 7 | - | - | - | 9 | 11 | 17 | 16 | 5 | - |
| Kans. | - | 20 | 10 | - | - | - | 9 | 40 | 77 | 47 | 29 | 27 |
| S. ATLANTIC | 5 | 228 | 245 | - | 26 | 15 | 2,642 | 3,807 | 2,334 | 2,727 | 1,473 | 1,416 |
| Del. | - | 9 | 2 | - | - | - | 10 | 21 | 12 | 28 | 74 | 42 |
| Md. | - | 18 | 57 | - | - | - | 137 | 202 | 241 | 226 | 265 | 390 |
| D.C. | - | 4 | 5 | - | - | - | 77 | 161 | 70 | 90 | 11 | 2 |
| Va . | - | 15 | 28 | - | - | - | 435 | 548 | 167 | 212 | 287 | 279 |
| W. Va. | - | - | 3 | - | - | - | 8 | 8 | 54 | 60 | 82 | 58 |
| N.C. | - | 84 | 58 | - | 1 | - | 796 | 1,183 | 303 | 344 | 344 | 115 |
| S.C. | 2 | 20 | 12 | - | 1 | - | 412 | 560 | 222 | 252 | 97 | 132 |
| Ga . | 3 | 22 | 24 | - | 1 | 2 | 504 | 575 | 323 | 516 | 189 | 273 |
| Fla. | - | 56 | 56 | - | 23 | 13 | 263 | 549 | 942 | 999 | 124 | 125 |
| E.S. CENTRAL | 2 | 249 | 117 | - | - | - | 2,683 | 2,662 | 998 | 1,041 | 193 | 141 |
| Ky. | 2 | 11 | 58 | - | - | - | 145 | 145 | 204 | 231 | 22 | 15 |
| Tenn. | U | 202 | 18 | U | - | - | 592 | 731 | 294 | 347 | 56 | 34 |
| Ala. | - | 34 | 29 | - | - | - | 460 | 467 | 283 | 285 | 108 | 88 |
| Miss. | - | 2 | 12 | N | N | N | 1,486 | 1,319 | 217 | 178 | 7 | 4 |
| W.S. CENTRAL | 10 | 208 | 105 | - | 7 | 12 | 1,367 | 3,211 | 1,708 | 1,917 | 527 | 467 |
| Ark. | - | 28 | 18 | - | - | - | 82 | 360 | 113 | 188 | 21 | 23 |
| La. | - | 11 | 10 | - | - | - | 715 | 1,253 | 6 | 11 | 25 | 55 |
| Okla. | 1 | 24 | 22 | - | - | 4 | 54 | 114 | 146 | 178 | 31 | 25 |
| Tex. | 9 | 145 | 55 | - | 7 | 8 | 516 | 1,484 | 1,443 | 1,540 | 450 | 364 |
| MOUNTAIN | 12 | 365 | 355 | - | 4 | 4 | 189 | 199 | 410 | 377 | 111 | 112 |
| Mont. | - | 3 | 4 | - | - | - | 4 | 2 | 10 | 9 | 34 | 13 |
| Idaho | 2 | 79 | 42 | - | - | - | - | 1 | 10 | 11 | 2 | 3 |
| Wyo. | - | 1 | - | - | - | - | 4 | - | 1 | 7 | 21 | 16 |
| Colo. | - | 34 | 173 | - | - | - | 87 | 101 | 22 | 47 | - | 9 |
| N. Mex. | 6 | 78 | 20 | - | - | - | 32 | 18 | 60 | 43 | 5 | 6 |
| Ariz. | 4 | 147 | 95 | - | 3 | - | 30 | 39 | 209 | 146 | 34 | 48 |
| Utah | - | 18 | 19 | - | 1 | 3 | 4 | 10 | 19 | 29 | 9 | 10 |
| Nev. | - | 5 | 2 | - | - | 1 | 28 | 28 | 79 | 85 | 6 | 7 |
| PACIFIC | 24 | 484 | 570 | 1 | 28 | 29 | 418 | 689 | 3,093 | 3,852 | 232 | 230 |
| Wash. | 5 | 118 | 84 | - | 2 | - | 11 | 28 | 180 | 191 | 5 | 11 |
| Oreg. | 4 | 26 | 83 | - | 1 | 4 | 6 | 28 | 25 | 90 | - | 9 |
| Calif. | 14 | 300 | 388 | 1 | 22 | 21 | 400 | 627 | 2,726 | 3,349 | 223 | 179 |
| Alaska |  | - |  | - |  |  | 1 | 3 | 47 | 48 | 4 | 31 |
| Hawaii | 1 | 40 | 15 | - | 3 | 4 | - | 3 | 115 | 174 | - | - |
| Guam | U | - | 2 | U | - | 1 | 3 | 3 | 33 | 62 | ${ }^{-}$ | - |
| P.R. | - | 6 | 2 | - | - | - | 172 | 218 | 123 | 116 | 27 | 62 |
| V.I. | U | - | - | U | - | - | 2 | 23 | - | - | - | - |
| Amer. Samoa | - | - | 1 | - | - | - | - | 1 | 3 | 4 | - | - |
| C.N.M.I. | U | - | - | U | - | - | 4 | 1 | 13 | 25 | - | - |

[^3]TABLE III. Deaths in 121 U.S. cities,* week ending
September 9, 1995 (36th Week)

| Reporting Area | All Causes, By Age (Years) |  |  |  |  |  | P\&I ${ }^{\dagger}$ <br> Total | Reporting Area | All Causes, By Age (Years) |  |  |  |  |  | P\& ${ }^{\dagger}$ <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { All } \\ \text { Ages } \end{gathered}$ | $\geq 65$ | 45-64 | 25-44 | 1-24 | <1 |  |  | All Ages | $\geq 65$ | 45-64 | 25-44 | 1-24 | <1 |  |
| NEW ENGLAND | 558 | 370 | 112 | 49 | 14 | 11 | 38 | S. ATLANTIC | 1,204 | 713 | 270 | 151 | 43 | 27 | 62 |
| Boston, Mass. | 183 | 102 | 48 | 19 |  | 6 | 22 | Atlanta, Ga. | 117 | 67 | 29 | 17 | 3 | 1 | , |
| Bridgeport, Conn. | 29 | 19 | 7 | 2 | 1 |  | 1 | Baltimore, Md. | 164 | 90 | 37 | 24 | 9 | 4 | 19 |
| Cambridge, Mass. | 20 | 12 | 6 | 2 |  |  | 1 | Charlotte, N.C. | 154 | 103 | 27 | 16 | 2 | 6 | 2 |
| Fall River, Mass. | 16 | 15 | 1 | - |  |  | - | Jacksonville, Fla. | 123 | 80 | 24 | 13 | 3 | 3 | 8 |
| Hartford, Conn. | 59 | 36 | 16 | 5 | 2 |  |  | Miami, Fla. | 118 | 70 | 26 | 19 | 3 |  | 2 |
| Lowell, Mass. | 16 | 11 |  | 4 | 1 |  |  | Norfolk, Va. | 43 | 26 | 8 | 4 | 3 | 2 | 4 |
| Lynn, Mass. | 14 | 8 | 2 | 2 |  |  | 1 | Richmond, Va. | 77 | 40 | 25 | 8 | 3 | 1 |  |
| New Bedford, Mass. | 24 | 23 | 1 | - |  |  |  | Savannah, Ga. | 61 | 34 | 15 | 8 | 3 | 1 | 8 |
| New Haven, Conn. | 30 | 21 | 4 | 4 |  | 1 | 1 | St. Petersburg, Fla. | 35 | 25 | 5 | 4 |  | 1 | 3 |
| Providence, R.I. | 44 | 28 | 11 | 3 |  | 2 | 4 | Tampa, Fla. | 137 | 91 | 34 | 6 | 2 | 4 | 12 |
| Somerville, Mass. | 1 | 1 | - | - |  | - | - | Washington, D.C. | 164 | 82 | 40 | 27 | 11 | 4 | 3 |
| Springfield, Mass. | 42 | 33 | 5 | 3 | 1 |  | 4 | Wilmington, Del. | 11 | 5 | - | 5 | 1 |  |  |
| Waterbury, Conn. | 33 | 24 | 6 |  | 1 | $\bar{\square}$ | 3 |  |  |  |  |  |  |  |  |
| Worcester, Mass. | 47 | 37 | 5 | 3 |  | 2 | 1 | E.S. CENTRAL <br> Birmingham, Ala. | 656 107 | 437 | 136 15 | 10 | 18 2 | 10 | 38 4 |
| MID. ATLANTIC | 2,037 | 1,322 | 404 | 212 | 55 | 44 | 68 | Chattanooga, Tenn. | 62 | 43 | 10 | 5 | 3 | 1 | 6 |
| Albany, N.Y. | 42 | 36 | 2 | 3 | 1 | - | 4 | Knoxville, Tenn. | 81 | 53 | 21 | 4 | 2 | 1 | 11 |
| Allentown, Pa. | 27 | 21 | 5 | 1 |  |  | - | Lexington, Ky. | 36 | 23 | 8 | 1 | 1 | 3 | 1 |
| Buffalo, N.Y. | 99 | 76 | 11 | 7 | 4 | 1 |  | Memphis, Tenn. | 156 | 103 | 36 | 8 | 5 | 4 | 8 |
| Camden, N.J. | 34 | 20 | 4 | 5 | 3 |  | 2 | Mobile, Ala. | 91 | 64 | 16 | 7 | 3 | 1 | 5 |
| Elizabeth, N.J. | 13 | 7 | 1 | 1 | 1 | 3 | - | Montgomery, Ala. | 41 | 27 | 12 | 2 | - |  | - |
| Erie, Pa.§ | 32 | 23 | 6 | 3 |  | - | 1 | Nashville, Tenn. | 82 | 54 | 18 | 6 | 2 | 2 | 3 |
| Jersey City, N.J. | 36 | 24 | 7 | 3 |  | 2 |  |  |  |  |  |  |  |  |  |
| New York City, N.Y. | 1,149 | 711 | 242 | 139 | 31 | 26 | 32 | Wustin, Tex. | 1,112 45 | 686 23 | 214 | 138 9 | 4 | 29 | 55 4 |
| Newark, N.J. Paterson, N.J. | 75 24 | 34 17 | 16 | 19 | 3 4 | 3 | 2 | Austin, Tex. Baton Rouge, La. | 45 | 23 34 | 10 8 | 9 3 | 2 | 1 | 4 |
| Paterson, N.J. Philadelphia, Pa. | 24 | 17 133 | 1 46 | 17 | 4 | 2 | 10 | Corpus Christi, Tex. | 46 47 | 34 31 | $\begin{array}{r}8 \\ 5 \\ \hline\end{array}$ | 8 | , | 1 <br> 2 |  |
| Pittsburgh, Pa.s | 50 | 35 | 9 | 1 | 4 | 2 | 5 | Dallas, Tex. | 140 | 80 | 27 | 26 | 4 | 3 | 6 |
| Reading, Pa. | 11 | 10 | 1 |  |  | - | 1 | El Paso, Tex. | 32 | 25 | 3 | 2 | 2 |  | 3 |
| Rochester, N.Y. | 99 | 68 | 23 | 8 |  | - | 5 | Ft. Worth, Tex. | 72 | 49 | 10 | 6 | 6 | 1 | 3 |
| Schenectady, N.Y. | 19 | 16 | 2 | - | 1 | - |  | Houston, Tex. | 299 | 157 | 71 | 46 | 13 | 12 | 18 |
| Scranton, Pa.§ | 26 | 19 | 6 | 1 |  | - | 2 | Little Rock, Ark. | 45 | 31 | 5 | 4 | 5 | 5 | 3 |
| Syracuse, N.Y. | 27 | 21 | 4 | - |  | 2 | 1 | New Orleans, La. | 71 161 | 117 | 12 | 12 | 4 | 2 | 12 |
| Trenton, N.J. | 28 | 17 | 10 | - |  | 1 | 1 | San Antonio, Tex. | 161 | 117 42 | 15 | 1 | 1 | 2 | 12 |
| Utica, N.Y. | 22 | 18 | 4 |  |  | - |  | Shreveport, La. | 99 | 42 | 15 |  | 1 | 2 | 3 2 |
| Yonkers, N.Y. | 24 | 16 | 4 | 3 | 1 | - | - | Tulsa, Okla. | 95 | 59 | 20 | 11 | 3 | 2 | 2 |
| E.N. CENTRAL | 1,812 | 1,181 | 360 | 160 | 34 | 53 | 120 | MOUNTAIN | 678 | 423 | 143 | 74 | 22 | 15 | 41 |
| Akron, Ohio | 54 | 42 | 9 | 2 |  | 1 |  | Albuquerque, N.M. | 70 | 50 | 11 | 6 | 3 |  | 3 |
| Canton, Ohio | 31 | 25 | 3 | 1 | 1 | 1 | 2 | Colo. Springs, Colo. | 49 | 27 | 11 | 8 | 2 | 1 | 6 |
| Chicago, III. | 423 | 249 | 101 | 47 | 7 | 16 | 38 | Denver, Colo. | 65 | 40 | 15 | 7 | - | 3 | 3 |
| Cincinnati, Ohio | 75 | 35 | 12 | 6 |  | 1 | 11 | Las Vegas, Nev. | 131 | 78 | 37 | 14 |  | 1 | 7 |
| Cleveland, Ohio | 120 | 85 | 20 | 10 | 3 | 2 | 1 | Ogden, Utah | 22 | 14 | 3 | 3 | 2 | - | 3 |
| Columbus, Ohio | 127 | 80 | 29 | 7 | 4 | 7 | 12 | Phoenix, Ariz. | 133 | 72 | 30 | 17 | 8 | 5 | 7 |
| Dayton, Ohio | 108 | 82 | 19 | 5 | 1 | 1 | 7 | Pueblo, Colo. | 22 | 19 | 2 | 1 | - | - | 4 |
| Detroit, Mich. | 174 | 104 | 43 | 15 | 6 | 6 | 4 | Salt Lake City, Utah | 86 | 54 | 20 | 8 |  | 1 | 6 |
| Evansville, Ind. | 43 | 36 | 5 | 2 |  |  | 3 | Tucson, Ariz. | 100 | 69 | 14 | 10 | 3 | 4 | 2 |
| Fort Wayne, Ind. | 39 | 32 | 3 | 1 | 1 | 2 | 1 | PACIFIC | 1,528 | 989 | 290 | 158 | 51 | 35 | 103 |
| Gary, Ind. | 17 | 9 | 2 | 6 |  | - |  | Berkeley, Calif. | +13 | 10 | 1 | 2 | - |  |  |
| Grand Rapids, Mich. | 66 | 44 | 11 | 6 | 2 | 3 | 3 | Fresno, Calif. | 71 | 44 | 15 | 4 | 4 | 4 | 3 |
| Indianapolis, Ind. | 146 | 88 | 35 | 18 | 3 | 2 | 13 | Glendale, Calif. | 15 | 10 | 2 | 3 | - | - | 2 |
| Madison, Wis. | U | U | U | U | U | U | U | Honolulu, Hawaii | 96 | 73 | 11 | 5 | 5 | 2 | 5 |
| Milwaukee, Wis. | 118 | 78 | 21 | 13 | 2 | 4 | 9 | Long Beach, Calif. | U | U | U | U | U | U | U |
| Peoria, III. | 28 | 23 | 2 | 2 | 1 | - |  | Los Angeles, Calif. | 414 | 248 | 81 | 56 | 16 | 9 | 10 |
| Rockford, III. | 50 | 30 | 9 | 8 |  | 3 | - | Pasadena, Calif. | 27 | 19 | 5 | 1 | 1 | 1 | 4 |
| South Bend, Ind. | 38 | 28 | 7 | 2 | 1 | 1 | 5 | Portland, Oreg. | 110 | 75 | 23 | 7 | 1 | 4 | 5 |
| Toledo, Ohio | 99 | 69 | 19 | 7 | 1 | 3 | 6 | Sacramento, Calif. | 106 | 74 | 20 | 7 | 2 | 3 | 5 |
| Youngstown, Ohio | 56 | 42 | 10 | 2 | 2 | - | 3 | San Diego, Calif. | 128 | 80 | 22 | 20 | 3 | 2 | 23 |
| W.N. CENTRAL | 673 | 466 | 99 | 62 | 21 | 15 | 34 | San Francisco, Calif | 142 | 80 | 34 | 21 | 5 | 2 | 16 |
| Des Moines, lowa | 17 | 14 | 1 | 1 | 1 |  |  | San Jose, Calif. | 159 | 105 | 32 | 13 | 7 | 2 | 15 |
| Duluth, Minn. | 15 | 12 | 3 |  |  |  | 1 | Santa Cruz, Calif. | 20 | 17 | 21 | 11 | - | 4 | 3 |
| Kansas City, Kans. | 47 | 33 | 6 | 6 | 8 | 3 | 1 | Seattle, Wash. | 97 50 | 58 | 21 | 13 | 1 | 4 | 4 |
| Kansas City, Mo. | 110 | 64 | 15 | 10 | 8 | 3 |  | Spokane, Wash. | 50 80 | 44 52 | 4 17 | 2 | 6 | 2 | 4 |
| Lincoln, Nebr. | 26 | 20 | 4 | 2 |  |  |  | Tacoma, Wash. | 80 | 52 | 17 | 3 | 6 | 2 |  |
| Minneapolis, Minn. Omaha, Nebr. | 152 77 | 111 53 | 20 15 | 16 3 | 5 3 | 3 |  | TOTAL | 10,258 ${ }^{\text {T }}$ | 6,587 | 2,028 | 1,047 | 303 | 251 | 559 |
| St. Louis, Mo. | 99 | 68 | 13 | 13 | 2 | 3 |  |  |  |  |  |  |  |  |  |
| St. Paul, Minn. | 47 | 33 | 5 | 8 |  |  |  |  |  |  |  |  |  |  |  |
| Wichita, Kans. | 83 | 58 | 17 | 3 | 1 | 4 | 5 |  |  |  |  |  |  |  |  |
| *Mortality data in th more. A death is included. | is tabl reporte | are v | olunta pla | ily rep of it | rted f occu | $\begin{aligned} & \text { om } 1 \\ & \text { rence } \end{aligned}$ | 21 citi and | in the United States the week that the | most eath ce | f whi rtifica | hav was | popu filed. | tions <br> tal | $\begin{aligned} & \text { of } 100 \\ & \text { aths } \end{aligned}$ | ,000 <br> are |
| ${ }^{\S}$ 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. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TTotal includes unkn U: Unavailable | nown a no repo | es. |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Physical Inactivity - Continued

engaging in no physical activity during leisure time were categorized as inactive. Confidence intervals and prevalence estimates were calculated using SUDAAN (5).

For the 33 reporting areas that participated in the BRFSS each year during 19871992, the median prevalence of no reported leisure-time physical activity among persons aged $\geq 65$ years declined from $43.2 \%$ in 1987 to $38.5 \%$ in 1992. Consistent decreases (i.e., a decrease from the previous year in at least 4 years) occurred in three states (Maryland, New Mexico, and New York) and the District of Columbia; no state reported consistent increases (i.e., an increase over the previous year in at least 4 years) in physical inactivity (Table 1). The largest overall declines in prevalence of inactivity over the 6-year period were reported from Rhode Island (21.5\%), Massachusetts (15.0\%), Ohio (14.1\%), New Mexico (12.7\%) and Maryland (10.1\%). The largest overall increases in prevalence were reported from Montana (7.2\%), West Virginia (4.3\%), Maine (3.9\%), and Georgia (2.9\%).

Two methods, a state-specific method and an aggregate method, were used to project the prevalence of physical inactivity in 1997. The analysis using the state-specific method was limited to data from the 33 reporting areas that collected physical activity information from 1987 through 1992. For each of these reporting areas, the 5-year change (i.e., the 1992 value minus the 1987 value) in the percentage of respondents participating in no leisure-time physical activity was added to that state's 1992 value to project the 1997 prevalence. The analysis using the aggregate method employed the median 5 -year change in the prevalence of no leisure-time physical activity during 1987-1992 from the 33 areas reporting throughout the interval. The median 5 -year change was then added to the 1992 prevalence for each of the 49 participating states and the District of Columbia to project the 1997 prevalence.

The projected median prevalence of no leisure-time physical activity for 1997 was $35.9 \%$ based on the state-specific method and $37.1 \%$ based on the aggregate method. Using the state-specific method, three states (Massachusetts, Rhode Island, and Minnesota) are projected in 1997 to meet the year 2000 objective to reduce physical inactivity. Using the aggregate method, the lowest projected prevalence is $24.8 \%$ for Washington, followed by $25.3 \%$ for Colorado.
Reported by the following BRFSS coordinators: J Durham, Alabama; P Owen, Alaska; B Bender, Arizona; J Senner, PhD, Arkansas; B Davis, PhD, California; M Leff, MSPH, Colorado; M Adams, MPH, Connecticut; F Breukelman, Delaware; C Mitchell, District of Columbia; D McTague, MS, Florida; E Pledger, MPA, Georgia; F Newfield, MPH, Hawaii; C Johnson, MPH, Idaho; B Steiner, MS, Illinois; N Costello, MPA, Indiana; P Busick, lowa; M Perry, Kansas; K Bramblett, Kentucky; D Hargrove-Roberson, MSW, Louisiana; D Maines, Maine; A Weinstein, MA, Maryland; R Lederman, MPH, Massachusetts; H McGee, MPH, Michigan; N Salem, PhD, Minnesota; E Jones, MS, Mississippi; J Jackson-Thompson, PhD, Missouri; P Smith, Montana; S Huffman, Nebraska; E DeJan, Nevada; K Zaso, MPH, New Hampshire; G Boeselager, MS, New Jersey; P Jaramillo, MPA, New Mexico; C Maylahn, MPH, New York; G Lengerich, VMD, North Carolina; D Young, MS, North Dakota; E Capwell, PhD, Ohio; N Hann, MPH, Oklahoma; J Grant-Worley, MS, Oregon; L Mann, Pennsylvania; J Hesser, PhD, Rhode Island; J Ferguson, DrPH, South Carolina; B Miller, South Dakota; D Ridings, Tennessee; R Diamond, MPH, Texas; R Giles, Utah; R Mclntyre, PhD, Vermont; S Carswell, MA, Virginia; K Holm, MPH, Washington; F King, West Virginia; E Cautley, MS, Wisconsin. Statistics Br, and Cardiovascular Health Studies Br, Div of Chronic Disease Control and Community Intervention, National Center for Chronic Disease Prevention and Health Promotion, CDC.
Editorial Note: The findings in this report indicate that in 19 (58\%) of the 33 states for which complete data were available, the prevalence of physical inactivity among persons aged $\geq 65$ years declined moderately during 1987-1992. This analysis extends

TABLE 1. Prevalence of leisure-time physical inactivity among persons aged $\geq 65$ years, by state — United States, Behavioral Risk Factor Surveillance System, 1987-1992

| State | 1987* |  | $1988{ }^{\dagger}$ |  | $1989{ }^{\text {§ }}$ |  | $1990{ }^{\text {¹ }}$ |  | 1991** |  | $1992{ }^{\text {tt }}$ |  | Change in prevalence 1987-1992 ${ }^{\text {§§ }}$ | Projected 1997 prevalence based on state-specific methodIIII | Projected 1997 prevalence based on aggregate method*** |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | (95\% C ${ }^{\dagger+\dagger}$ ) | \% | (95\% CI) | \% | (95\% CI) | \% | (95\% CI) | \% | (95\% CI) | \% | (95\% CI) |  |  |  |
| Alabama | 42.7 | $( \pm 7.1)$ | 45.7 | ( $\pm$ 6.7) | 45.6 | $( \pm 5.7)$ | 43.6 | ( $\pm 5.1$ ) | 47.1 | ( $\pm$ 5.7) | 44.1 | ( $\pm 5.3)$ | 1.4 | 45.5 | 42.2 |
| Alaska | $N A^{\text {§§§ }}$ |  | NA |  | NA |  | NA |  | 48.8 | $( \pm 12.9)$ | 30.2 | $( \pm 12.5)$ | NA | NA | 28.3 |
| Arizona | 32.9 | $( \pm 6.5)$ | 28.3 | $( \pm 6.3)$ | 26.8 | $( \pm 5.7)$ | 23.4 | $( \pm 5.3)$ | 31.0 | ( $\pm 5.9$ ) | 34.4 | $( \pm 5.9)$ | 1.5 | 35.9 | 32.5 |
| Arkansas | NA |  | NA |  | NA |  | NA |  | 48.9 | ( $\pm$ 6.3) | NA |  | NA | NA | NA |
| California | 27.8 | $( \pm 5.7)$ | 29.1 | $( \pm 5.3)$ | 31.5 | $( \pm 6.5)$ | 30.0 | $( \pm 4.9)$ | 26.7 | ( $\pm 4.3$ ) | 29.3 | $( \pm 4.1)$ | 1.5 | 30.8 | 27.4 |
| Colorado | NA |  | NA |  | NA |  | 30.4 | $( \pm 6.3)$ | 26.4 | ( $\pm$ 5.3) | 27.2 | ( $\pm$ 6.1) | NA | NA | 25.3 |
| Connecticut | NA |  | 53.1 | $( \pm 7.4)$ | 42.7 | $( \pm 7.6)$ | 36.8 | $( \pm 5.9)$ | 42.8 | ( $\pm$ 5.9) | 40.9 | $( \pm 5.5)$ | NA | NA | 39.0 |
| Delaware | NA |  | NA |  | NA |  | 39.3 | $( \pm 6.1)$ | 47.9 | $( \pm 6.9)$ | 44.8 | $( \pm 6.1)$ | NA | NA | 42.9 |
| District of Columbia | 59.0 | ( $\pm 8.2$ ) | 71.2 | ( $\pm 7.4)$ | 63.8 | $( \pm 6.1)$ | 62.1 | ( $\pm 7.1$ ) | 56.6 | $( \pm 6.7)$ | 50.2 | $( \pm 6.9)$ | - 8.8 | 41.4 | 48.3 |
| Florida | 39.1 | $( \pm 6.1)$ | 30.5 | ( $\pm 4.9)$ | 29.7 | $( \pm 4.5)$ | 39.1 | $( \pm 4.5)$ | 30.8 | ( $\pm 4.5$ ) | 32.0 | $( \pm 3.7)$ | - 7.1 | 24.9 | 30.1 |
| Georgia | 49.6 | $( \pm 6.9)$ | 54.2 | $( \pm 14.5)$ | 53.6 | $( \pm 7.1)$ | 51.2 | $( \pm 6.9)$ | 53.9 | $( \pm 6.9)$ | 52.5 | ( $\pm$ 6.3) | 2.9 | 55.4 | 50.6 |
| Hawaii | 31.5 | $( \pm 7.6)$ | 36.0 | $( \pm 6.9)$ | 32.6 | $( \pm 6.5)$ | 29.0 | $( \pm 6.3)$ | 23.3 | ( $\pm$ 5.3) | 32.6 | $( \pm 6.9)$ | 1.1 | 33.7 | 30.7 |
| Idaho | 32.9 | $( \pm 5.1)$ | 33.4 | ( $\pm 5.1$ ) | 43.1 | $( \pm 5.5)$ | 40.8 | $( \pm 5.7)$ | 33.7 | ( $\pm$ 4.9) | 30.0 | $( \pm 5.1)$ | - 2.9 | 27.1 | 28.1 |
| Illinois | 44.5 | $( \pm 5.9)$ | 40.7 | ( $\pm 5.9)$ | 42.3 | $( \pm 6.1)$ | 44.6 | ( $\pm 6.3$ ) | 49.0 | ( $\pm$ 5.5) | 44.1 | $( \pm 4.9)$ | - 0.4 | 43.7 | 42.2 |
| Indiana | 40.4 | $( \pm 5.3)$ | 48.7 | ( $\pm 5.1$ ) | 47.8 | $( \pm 5.1)$ | 35.7 | $( \pm 4.9)$ | 39.3 | ( $\pm 4.9)$ | 38.5 | ( $\pm 24.9$ ) | - 1.9 | 36.6 | 36.6 |
| lowa | NA |  | 45.7 | $( \pm 7.8)$ | 43.7 | $( \pm 5.7)$ | 46.4 | $( \pm 5.9)$ | 40.1 | $( \pm 5.5)$ | 42.4 | $( \pm 5.1)$ | NA | NA | 40.5 |
| Kansas | NA |  | NA |  | NA |  | NA |  | NA |  | 38.2 | $( \pm 6.1)$ | NA | NA | 36.3 |
| Kentucky | 56.4 | $( \pm 5.3)$ | 54.9 | $( \pm 5.3)$ | 54.3 | $( \pm 5.7)$ | 55.3 | $( \pm 5.3)$ | 56.0 | $( \pm 5.5)$ | 56.5 | $( \pm 5.3)$ | 0.1 | 56.6 | 54.6 |
| Lousianna | NA |  | NA |  | NA |  | 44.3 | $( \pm 9.4)$ | 45.5 | ( $\pm$ 6.7) | 48.7 | $( \pm 6.3)$ | NA | NA | 46.8 |
| Maine | 42.4 | $( \pm 6.7)$ | 44.9 | $( \pm 6.3)$ | 60.0 | $( \pm 7.4)$ | 53.1 | ( $\pm 7.4$ ) | 42.8 | ( $\pm$ 6.7) | 46.3 | $( \pm 6.9)$ | 3.9 | 50.2 | 44.4 |
| Maryland | 52.0 | ( $\pm 8.6$ ) | 50.7 | ( $\pm$ 7.3) | 49.2 | $( \pm 6.3)$ | 43.5 | $( \pm 6.7)$ | 42.3 | ( $\pm$ 6.5) | 41.9 | $( \pm 5.5)$ | -10.1 | 31.8 | 40.0 |
| Massachusetts | 44.4 | $( \pm 6.9)$ | 48.5 | ( $\pm 6.5$ ) | 47.3 | $( \pm 7.1)$ | 36.4 | ( $\pm 7.4$ ) | 39.9 | ( $\pm$ 7.1) | 29.4 | ( $\pm 6.1$ ) | -15.0 | 14.4 | 27.5 |
| Michigan | NA |  | 42.8 | ( $\pm$ 8.4) | 44.2 | $( \pm 5.3)$ | 46.6 | ( $\pm 5.1$ ) | 39.8 | ( $\pm 5.1$ ) | 35.6 | $( \pm 4.7)$ | NA | NA | 33.7 |
| Minnesota | 38.6 | $( \pm 4.1)$ | 37.2 | $( \pm 4.1)$ | 44.5 | $( \pm 4.1)$ | 36.4 | $( \pm 3.9)$ | 36.7 | ( $\pm 4.1$ ) | 29.6 | $( \pm 3.7)$ | - 9.0 | 20.6 | 27.7 |
| Mississippi | NA |  | NA |  | NA |  | 50.7 | ( $\pm 6.1$ ) | 55.3 | ( $\pm$ 6.3) | 62.5 | $( \pm 6.3)$ | NA | NA | 60.6 |
| Missouri | 46.3 | $( \pm 6.7)$ | 45.5 | ( $\pm 6.1$ ) | 45.5 | $( \pm 6.7)$ | 38.8 | $( \pm 6.3)$ | 47.8 | ( $\pm 5.9)$ | 44.0 | $( \pm 5.7)$ | - 2.3 | 41.7 | 42.1 |
| Montana | 28.3 | $( \pm 5.5)$ | 30.7 | ( $\pm 5.9)$ | 28.9 | $( \pm 5.5)$ | 33.1 | $( \pm 6.3)$ | 32.1 | $( \pm 6.1)$ | 35.5 | $( \pm 6.5)$ | 7.2 | 42.7 | 33.6 |
| Nebraska | 43.2 | $( \pm 6.5)$ | 47.0 | ( $\pm 5.9)$ | 48.6 | $( \pm 5.7)$ | 36.9 | $( \pm 5.1)$ | 40.6 | ( $\pm$ 5.7) | 39.2 | $( \pm 5.3)$ | - 4.0 | 35.2 | 37.3 |
| Nevada | NA |  | NA |  | NA |  | NA |  | NA |  | 37.3 | ( $\pm$ 6.3) | NA | NA | 35.4 |
| New Hampshire | 40.5 | $( \pm 7.6)$ | 42.2 | $( \pm 8.0)$ | 35.5 | $( \pm 6.9)$ | 29.0 | $( \pm 6.3)$ | 35.5 | ( $\pm$ 6.9) | 32.0 | ( $\pm$ 6.3) | - 8.5 | 23.5 | 30.1 |
| New Jersey | NA |  | NA |  | NA |  | NA |  | 45.6 | $( \pm 6.5)$ | 45.1 | $( \pm 6.9)$ | NA | NA | 43.2 |
| New Mexico | 51.7 | $( \pm 7.6)$ | 43.4 | $( \pm 8.2)$ | 40.8 | $( \pm 7.4)$ | 37.2 | $( \pm 7.6)$ | 42.4 | ( $\pm$ 8.8) | 39.0 | ( $\pm 7.1$ ) | -12.7 | 26.3 | 37.1 |
| New York | 57.2 | $( \pm 6.9)$ | 53.7 | ( $\pm$ 7.3) | 48.1 | $( \pm 7.3)$ | 40.6 | $( \pm 6.9)$ | 49.8 | $( \pm 6.1)$ | 47.4 | $( \pm 5.5)$ | - 9.8 | 37.6 | 45.5 |
| North Carolina | 45.4 | $( \pm 5.5)$ | 52.0 | $( \pm 5.7)$ | 46.6 | $( \pm 5.9)$ | 50.8 | $( \pm 5.5)$ | 47.4 | $( \pm 5.5)$ | 46.7 | $( \pm 5.1)$ | 1.3 | 48.0 | 44.8 |



* Sample sizes for individual states ranged from 169 to 644 persons aged $\geq 65$ years.

Sample sizes for individual states ranged from 62 to 636 persons aged $\geq 65$ years.
${ }^{5}$ Sample sizes for individual states ranged from 199 to 652 persons aged $\geq 65$ years.
${ }^{4}$ Sample sizes for individual states ranged from 147 to 643 persons aged $\geq 65$ years.
** Sample sizes for individual states ranged from 123 to 665 persons aged $\geq 65$ years.
${ }_{\S \S}^{\dagger \dagger}$ Sample sizes for individual states ranged from 122 to 699 persons aged $\geq 65$ years.
§§ 1992 percentage minus 1987 percentage.
IfI For this analysis, for each of the 33 participating reporting areas, the 5 -year change (i.e., the 1992 value minus the 1987 value) in the percentage of respondents participating in no leisure-time physical activity was added to that state's 1992 value to project the 1997 prevalence.
**This analysis employed the median 5 -year change (1.9\% decrease) in the prevalence of no leisure-time physical activity during $1987-1992$ from the 33 areas reporting throughout the interval. The median 5 -year change was then added to the 1992 prevalence for each of the 49 participating states and the District of Columbia to project the 1997 prevalence.
$\$$ Confidence interval.
${ }^{5 s}$ Not available.

## Physical Inactivity - Continued

findings from a previous analysis of BRFSS data for 1986-1990 (6). However, based on analysis of the data for 1987-1992 by the state-specific and aggregate trends methods, the median prevalence in 1997 is projected to be approximately $36 \%-37 \%$; if the decline continues at the projected rate, it will be insufficient to achieve the year 2000 objective.

Factors that may be associated with variations among the states in physical inactivity include differences in the age distribution of persons aged $\geq 65$ years, perceptions among both health-care providers and the public about the benefits and need for physical activity in older adults, variations in climate, and differences in communitylevel resources for physical activity (e.g., state funding of facilities and programs to promote physical activity). Community efforts have targeted barriers to participation in physical activity for older adults (e.g., lack of access to age-appropriate activities) by providing transportation to safe and accessible facilities, such as local malls to attend walking programs or to senior centers for low-impact stretching and exercise programs in conjunction with congregate meals.

The findings in this report are subject to at least three limitations. First, because BRFSS data are self-reported, activity levels cannot be validated; however, the categorization of only those persons who report no leisure-time activities as inactive probably reduced the degree of misclassification. Second, some respondents may have been active for other reasons (e.g., occupation or housework) but were misclassified as inactive. Third, the sensitivity of questions to ascertain leisure-time physical activity may vary in relation to the age of respondents.

The health benefits of regular physical activity for persons aged $\geq 65$ years include reducing the risks for coronary heart disease and noninsulin-dependent diabetes, preventing osteoporosis, promoting weight loss and weight maintenance, preserving functional capacity, and fostering psychologic well-being (1,2). In 1993, CDC and the American College of Sports Medicine recommended that all adults in the United States participate in $\geq 30$ minutes of moderate-intensity physical activity on most, if not all, days of the week (7). Persons who report no leisure-time physical activity are the target population with the greatest potential gain in health benefits as they increase their level of activity (8). Although increases in longevity are diminished compared with younger persons, older adults who begin to participate in regular physical activity can decrease their risks for death and disability and improve their quality of life (9).

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[^0]:    * The second dose of measles vaccine is routinely recommended at entry to primary or secondary school but may be given at earlier ages provided it is administered at least 30 days after the first dose, and both doses are given after age 12 months.

[^1]:    * FACE, SENSOR, and OHNAC are cooperative agreements between NIOSH and various state health departments and are intended to develop models for state-based occupational health surveillance and intervention. FACE was developed to more accurately identify and evaluate work-related fatalities; 14 states currently have FACE programs. Fourteen states have been awarded SENSOR cooperative agreements to develop systems for surveillance of 12 occupational conditions. OHNAC is a national surveillance system that has placed public health nurses in 10 states. Surveillance data compiled by these programs ultimately are used to reduce work-related injury and illness.

[^2]:    ${ }^{\S}$ An auger also may consist of only an exposed spiral corkscrew. A "sweep" auger, referred to in incident 1, is typically an exposed auger used to move material such as grain to a central discharge point inside a large storage structure. A sweep auger usually extends from the center of a round structure to its outside wall, is powered by a drive system that contacts the bin or silo wall, and slowly rotates (i.e., sweeps) around a pivot point at the center of the structure. The auger rests directly in the grain (or similar material), and the excess grain alongside the auger acts to confine the grain that is in contact with the auger.
     ment (including agricultural augers). However, family members working on family farms are exempt from these provisions.

[^3]:    U: Unavailable -: no reported cases

