## National Arthritis Month — May 1995

May is National Arthritis Month. During this month, nationwide educational activities are planned to increase awareness of arthritis. Additional information about arthritis and addresses of local chapters are available from the Arthritis Foundation, P.O. Box 7669, Atlanta, GA 30357; telephone (800) 283-7800 or (404) 872-7100.

## Prevalence and Impact of Arthritis Among Women United States, 1989-1991

Arthritis and other rheumatic conditions are among the most prevalent chronic conditions in the United States, affecting approximately 38 million persons (1). The self-reported prevalence of arthritis is greater among women than among men, and for women aged $>45$ years, arthritis is the leading cause of activity limitation (1,2). This report uses data from the National Health Interview Survey (NHIS) to provide estimates of the prevalence and impact of arthritis among women aged $\geq 15$ years during 1989-1991, compares the prevalence estimates of arthritis to other chronic conditions affecting women during 1989-1991, and projects the prevalence of arthritis among women in 2020.

## Prevalence and Impact Estimates

The NHIS is an annual national probability sample of the U.S. civilian, noninstitutionalized population (3). Estimates of the prevalence of arthritis were based on a one-sixth random sample of women aged $\geq 15$ years during 1989-1991 ( $\mathrm{n}=24,201$ of 145,832 ) who answered questions about the presence of any musculoskeletal condition during the preceding 12 months and details about these conditions. Each condition was assigned a code from the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). This analysis used the definition of arthritis, which included arthritis and other rheumatic conditions,* developed by the

[^0]TABLE 1. Estimated average annual prevalence of self-reported arthritis and activity limitation attributed to arthritis among women aged $\geq 15$ years, by selected characteristics - National Health Interview Survey (NHIS), United States, 1989-1991


| Annual household income |  |  |  |  |  |  |  |  |  |  | ミ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| <\$10,000 | 3,866 | 32.8 | $( \pm 2.1)$ | 28.3 | $( \pm 1.7)$ | 1,221 | 10.3 | $( \pm 1.2)$ | 8.7 | $( \pm 0.4)$ | ¢ |
| \$10,000-\$19,999 | 4,730 | 27.9 | $( \pm 1.6)$ | 25.0 | $( \pm 1.3)$ | 1,064 | 6.4 | $( \pm 0.9)$ | 5.3 | ( $\pm 0.3$ ) |  |
| \$20,000-\$34,999 | 4,224 | 19.9 | $( \pm 1.1)$ | 21.0 | $( \pm 1.1)$ | 697 | 3.3 | $( \pm 0.5)$ | 3.6 | $( \pm 0.2)$ |  |
| \$35,000-\$49,999 | 2,445 | 16.7 | $( \pm 1.4)$ | 19.8 | $( \pm 1.3)$ | 321 | 2.2 | $( \pm 0.5)$ | 3.1 | ( $\pm 0.3$ ) | $\bigcirc$ |
| $\geq$ 50,000 | 2,931 | 17.0 | $( \pm 1.2)$ | 20.2 | $( \pm 1.4)$ | 343 | 1.9 | $( \pm 0.4)$ | 2.7 | $( \pm 0.3)$ | $\stackrel{3}{*}$ |
| Unknown | 4,559 | 25.1 | $( \pm 1.4)$ | 19.1 | $( \pm 1.1)$ | 952 | 5.3 | ( $\pm 0.8$ ) | 3.8 | $( \pm 0.2)$ | S |
| Total | 22,755 | 22.7 | $( \pm 0.6)$ | 21.9 | $( \pm 0.5)$ | 4,597 | 4.6 | $( \pm 0.3)$ | 4.4 | $( \pm 0.1)$ | $\stackrel{\odot}{2}$ |

* Average annual rate in percentages in the 1989-1991 U.S. civilian, noninstitutionalized population. Age-adjusted rates use the eight listed age categories to adjust to the same population.
${ }^{\dagger}$ In thousands. To generate national estimates, NHIS rates were applied to the U.S. civilian, noninstitutionalized population for age, race, education, and annual household income.
${ }^{\S}$ Confidence interval.
TIncludes persons of unknown or multiple races.
** Calculated for women aged $\geq 18$ years only.


## Arthritis - Continued

National Arthritis Data Workgroup (1). These data were weighted to provide average annual prevalence estimates.

Arthritis impact, defined as activity limitation caused by arthritis, was estimated using all women aged $\geq 15$ years participating in NHIS. Respondents were asked whether they were limited in working, housekeeping, or performing other activities as a result of health condition(s) and the condition(s) they considered to be responsible for these activity limitations. Data from women who attributed their activity limitation to arthritis were weighted to provide average annual prevalence estimates of the impact of arthritis among women aged $\geq 15$ years during 1989-1991.

An estimated 22.8 million ( $22.7 \%$ ) women self-reported arthritis during 1989-1991 (Table 1). The prevalence of self-reported arthritis increased directly with age and was $8.6 \%$ for women aged $15-44$ years, $33.5 \%$ for women aged $45-64$ years, and $55.8 \%$ for women aged $\geq 65$ years. Rates were higher for women who were overweight (body mass index [BMI] $\geq 27.3$ [28.9\%]), had $\leq 11$ years of education ( $30.0 \%$ ), and resided in households with an annual income <\$20,000 (29.9\%).

An estimated 4.6 million (4.6\%) women reported arthritis as a major or contributing cause of activity limitation during 1989-1991 (Table 1). Activity limitation associated with arthritis increased directly with age and was $1.0 \%$ for women aged 15-44 years, $6.4 \%$ for women aged $45-64$ years, and $14.2 \%$ for women aged $\geq 65$ years. Ageadjusted rates of activity limitation were higher for blacks ( $6.5 \%$ ) and American Indians/Alaskan Natives (6.9\%) than for whites (4.2\%). Age-adjusted rates of activity limitation for women who were overweight were nearly twofold greater than for those who were not, and nearly threefold greater for women who resided in a household with an annual income $<\$ 10,000$ per year than for those who resided in a household with an annual income $\geq \$ 35,000$.

## Comparison With Other Chronic Conditions Affecting Women

Average annual prevalence estimates of other chronic conditions affecting women were based on a one-sixth random sample of women who answered questions, on separate condition lists, regarding the presence of impairments; respiratory conditions; circulatory conditions; and selected conditions of the genitourinary, endocrine, and nervous systems. These data were weighted to provide average annual prevalence estimates of other chronic conditions among women aged $\geq 15$ years during 1989-1991. Average annual prevalence estimates of activity limitation caused by these chronic conditions were determined as they were for arthritis.

Arthritis was the most common self-reported chronic condition affecting women (Table 2), ranking ahead of self-reported hypertension ( 8.1 million), ischemic heart disease ( 3.7 million), and other chronic conditions, including breast cancer and malignancy of the female reproductive tract (e.g., ovarian, endometrial, and cervical cancer). Among the conditions reported responsible for activity limitations, women most frequently mentioned arthritis ( 4.6 million), followed by orthopedic deformity ( 3.0 million) and ischemic heart disease ( 1.3 million).

## Projections for 2020

Arthritis among women aged $\geq 15$ years was projected to 2020 by applying the average annual arthritis prevalence rate for 1989-1991, stratified by age and race to the relevant U.S. population projected by the Bureau of the Census (4).

## Arthritis - Continued

TABLE 2. Estimated average annual prevalence of self-reported chronic conditions and activity limitations among women aged $\geq 15$ years, by condition - National Health Interview Survey (NHIS), United States, 1989-1991

| Condition | Overall no.* | No. with <br> activity limitation* |
| :--- | :---: | :---: |
| Arthritis | 22,755 | 4,597 |
| Orthopedic deformity | 8,365 | 3,025 |
| Chronic sinusitis | 8,323 | 21 |
| Hypertension | 8,061 | 677 |
| "Hay fever," rhinitis | 6,438 | 71 |
| Ischemic heart disease | 3,694 | 1,270 |
| Hearing impairment | 3,322 | 238 |
| Other selected | 4,286 | 1,220 |
| conditions ${ }^{\dagger}$ |  |  |

*In thousands. To generate national estimates, NHIS rates were applied to the U.S. civilian, noninstitutionalized population.
${ }^{\dagger}$ Diabetes, thyroid disorder, bladder disorder, cerebrovascular disease, breast neoplasm, and female reproductive malignancy.

From 1989-1991 to 2020, the prevalence of self-reported arthritis among women aged $\geq 15$ years is projected to increase from 22.8 million ( $22.7 \%$ ) to 35.9 million (26.7\%).

Reported by: Statistics Br, and Aging 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 during 1989-1991, arthritis was the most common self-reported chronic condition and cause of activity limitation among women aged $\geq 15$ years. By 2020, an estimated 36 million women may be affected by arthritis-primarily reflecting the increasing average age of the U.S. population.

The analysis in this report also documents higher prevalences of self-reported arthritis and related activity limitation among older women, overweight women, and women with lower income and education levels. Older age and overweight are commonly recognized risk factors for arthritis. The cross-sectional analysis in this report precluded determination of whether overweight precedes or results from arthritis; however, overweight has been established as a risk factor for osteoarthritis of the knee (5). In addition, low socioeconomic status, for which income and education may be markers, has been associated with increased prevalence, mortality, and disability among persons with arthritis and other rheumatic conditions ( 6,7 ). Although prevalence rates for self-reported arthritis among blacks and American Indians/Alaskan Natives were similar to those among whites, activity limitation was more prevalent among both of these groups. Reasons for the increased activity limitation among blacks and American Indians/Alaskan Natives have not been determined but might reflect sociocultural differences or access to health care.

Diseases considered to have particularly important public health ramifications for women include those that affect only women (e.g., endometrial, ovarian, and cervical cancers); are more prevalent among women (e.g., breast cancer and osteoporosis); are more prevalent overall (e.g., hypertension, diabetes, and cardiovascular disease); have different risk factors for women (e.g., menopause and cardiovascular disease or

## Arthritis - Continued

smoking and pregnancy); or require different interventions for women (e.g., infertility) (8). Although the prevalence of arthritis is approximately $60 \%$ greater among women than men (1), the public health importance of arthritis among women has not been emphasized previously.

The NHIS data enables a more accurate estimate of the prevalence and impact of arthritis than alternative data sources (e.g., Medicare, health maintenance organization databases, and hospital discharge data) because many persons with arthritis do not visit physicians for their condition. However, these self-reported conditions and the ICD-9-CM codes assigned to them have not been validated.

In addition to limitations in understanding the epidemiology of self-reported arthritis among women, the relation of arthritis to other chronic conditions among women has not been well characterized. To assist in reducing the public health impact of arthritis among women, priorities in the assessment of this problem include determining frequencies of the different types of arthritis and their natural histories among women, estimating more accurately the economic and societal burden of this condition in women, and evaluating the effectiveness of interventions, including supervised exercise programs, weight loss, and self-education courses ( $5,9,10$ ). Additional strategies public health agencies and health-care providers can consider to reduce the impact of arthritis among women include 1) promoting primary prevention of arthritis through weight reduction and prevention of sports- or occupational-related joint injury and 2 ) encouraging early detection and appropriate management of women with arthritis through use of medical and physical therapy, exercise, and established educational programs such as the Arthritis Self-Management Course $(9,10)$.

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## Trends in Length of Stay for Hospital Deliveries United States, 1970-1992

Obstetric delivery is the most frequent cause of hospital admission in the United States, reflecting the approximately 4 million births in this country each year (1). Because of steadily increasing hospital costs, overall lengths of hospital stay have declined. To assess national trends in length of stay for hospital deliveries, data were analyzed from CDC's National Hospital Discharge Survey (NHDS) from 1970 through 1992, by method of delivery. This report summarizes the results of the analysis.

Since 1965, the NHDS has collected data from U.S. nonfederal, short-stay hospitals. Each year, approximately 200,000 inpatient records are selected from approximately 400 hospitals; data are weighted to represent all hospitalizations nationally ( 2,3 ). Selected patient information (e.g., medical diagnoses and surgical procedures) is abstracted from each record. For this analysis, the NHDS provided information about mother's age and race/ethnicity; method of payment; and the hospital's ownership, size, and location. Estimates for average length of stay were derived from the 20,00033,000 deliveries each year among all records sampled. Hospital stays of $<24$ hours were recoded as 0 days; these hospitalizations accounted for $<1 \%$ of all deliveries and were relatively constant by year (i.e., $0.3 \%$ in 1970 to $0.7 \%$ in 1992). The proportion of all deliveries that occurred outside of hospitals also was stable from 1975 (0.9\%) to 1990 (1.1\%) (4).

In 1970, the average length of stay for all hospital deliveries was 4.1 days (median: 4 days). By 1992, the average had decreased by $37 \%$ to 2.6 days (median: 2.0 days). The average length of stay for women who gave birth vaginally decreased by $46 \%$ (from 3.9 to 2.1 days) and for those who gave birth by cesarean section by $49 \%$ (from 7.8 to 4.0 days) (Figure 1). The decrease in the average length of stay for all deliveries was smaller than that for either method because the percentage of deliveries by cesarean section increased from $5.5 \%$ to $23.5 \%$ during this period (5).

FIGURE 1. Average length of stay for hospital deliveries, by delivery method - United States, 1970-1992


## Hospital Deliveries - Continued

The average length of stay also was analyzed by mother's age (<20, 20-29, 30-39, and >39 years), race (white or black)*, hospital location (Northeast, Midwest, South, or West regions), hospital ownership (proprietary, government, or nonprofit), and hospital size (<100, 100-299, 300-499, and >499 beds). From 1970 through 1992, the average length of stay decreased similarly for all these groups; decreases ranged from $39 \%$ to $52 \%$ for vaginal deliveries and from $38 \%$ to $53 \%$ for cesarean deliveries. NHDS began collecting information about method of payment (i.e., Blue Cross/Blue Shield ${ }^{\dagger}$, other private insurance, Medicaid, and self-paying) in 1977. From 1977 through 1992, the average length of stay decreased for these payment groups; decreases ranged from $35 \%$ to $38 \%$ for vaginal deliveries and from $32 \%$ to $47 \%$ for cesarean deliveries.

Reported by: Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion; Prevention Effectiveness Activity, Epidemiology Program Office, CDC.
Editorial Note: The length of stay associated with hospital deliveries steadily decreased during 1970-1992. Early hospital discharge results in reduced health-care costs and enables mothers to return home sooner with their newborns. However, careful postpartum follow-up is necessary to ensure prompt diagnosis and treatment of any maternal or neonatal complications. Early discharge should not preclude efforts traditionally conducted during postpartum hospitalization to educate women about breastfeeding, family planning, care of their newborn, and other topics important for new mothers.

The optimal length of stay for uncomplicated deliveries reflects several factors, including the presence of others in the home who can support the mother after discharge, the mother's awareness of complications, and access to health-care services. Guidelines published by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists suggest that, when there have been no complications, the duration of postpartum hospital stays range from an average of 48 hours for vaginal delivery to an average of 96 hours for cesarean birth (excluding the day of delivery) (6). In addition, specific criteria should be met for a woman to be discharged early, especially within 24 hours of delivery.

One potential limitation of the analysis in this report is that data from the NHDS on length of stay does not distinguish the postpartum period from the rest of the hospitalization. Therefore, this analysis could not determine whether the decrease in the average length of stay resulted from a shorter antepartum stay or postpartum stay. However, since 1970, most of the efforts to decrease length of stay for hospital deliveries has been directed toward the postpartum period.

Since 1970, the rate of health-care costs has increased more rapidly than that of general inflation; efforts to decrease hospital health-care costs by reducing length of stay will probably intensify. Most studies have not detected an increased rate of morbidity in association with early postpartum discharge (7-9). However, these studies-which were conducted among carefully selected women at low risk for postpartum complications-documented rates of complications of up to $14 \%$ among women and $11 \%$ among their infants ( 7 ). In addition, home visits by nurse practitioners after discharge (a practice not routinely used by health-care providers) ensured

[^1]
## Hospital Deliveries - Continued

prompt diagnosis and treatment of postpartum complications. These findings underscore the need to ensure adequate follow-up care for women and infants and to maintain the educational activities traditionally provided during postpartum hospitalization. The prevalence of complications also should be monitored to accurately determine the costs and benefits of early postpartum discharge.

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## Deaths from Melanoma — United States, 1973-1992

Approximately three fourths of all skin cancer-associated deaths are caused by melanoma. During 1973-1991, the incidence of melanoma increased approximately $4 \%$ each year ( 1 ). In addition, the incidence of melanoma is increasing faster than that of any other cancer (2). To characterize the distribution of deaths from melanoma in the United States, CDC analyzed national mortality data for 1973 through 1992. This report summarizes the results of that analysis.

Decedents for whom the underlying cause of death was melanoma (International Classification of Diseases, Adapted, Ninth Revision, codes 172.0-172.9) were identified from public-use, mortality data tapes from 1973 through 1992 (3). The denominators for rate calculations were derived from U.S. census population estimates $(4,5)$. Rates were directly standardized to the age distribution of the 1970 U.S. population and were analyzed by state, age group, sex, year, and race. To increase the precision of the rates presented, race was characterized as white and all other races because approximately $98 \%$ of deaths from melanoma occurred among whites.

From 1973 through 1992, the overall percentage increase in the rate of deaths from melanoma (34.1\%) was the third highest of all cancers; for males, the percentage

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending April 29, 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 April 29, 1995 (17th Week)

|  | Cum. 1995 |  | Cum. $\mathbf{1 9 9 5}$ |
| :--- | ---: | :--- | :---: |
| Anthrax | - | Psittacosis | 16 |
| Brucellosis | 14 | Rabies, human <br> Cholera | 1 |
| Rocky Mountain Spotted Fever | 1 |  |  |
| Congenital rubella syndrome | 3 | Syphilis, congenital, age $<1$ year |  |
| Diphtheria | - | Tetanus | - |
| Haemophilus influenzae* | 450 | Toxic shock syndrome | - |
| Hansen Disease | 40 | Trichinosis | 8 |
| Plague | - | Typhoid fever | 63 |
| Poliomyelitis, Paralytic | - |  | 18 |

*Of 437 cases of known age, 105 ( $24 \%$ ) were reported among children less than 5 years of age.
${ }^{\dagger}$ Updated quarterly from reports to the Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services. First quarter data not yet available.
-: no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending April 29, 1995, and April 30, 1994 (17th Week)

| Reporting Area | AIDS* | Gonorrhea |  | Hepatitis (Viral), by type |  |  |  |  |  | Legionellosis |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | A |  | B |  | C/NA,NB |  |  |  |
|  | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & \hline 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \end{aligned}$ |
| UNITED STATES | 19,652 | 117,266 | 126,300 | 7,792 | 6,934 | 2,809 | 3,972 | 1,290 | 1,432 | 410 | 472 |
| NEW ENGLAND | 842 | 1,771 | 2,656 | 56 | 105 | 62 | 137 | 31 | 48 | 5 | 5 |
| Maine | 23 | 23 | 21 | 11 | 11 | 2 | 4 | - | - | - | - |
| N.H. | 38 | 36 | 24 | 2 | 3 | 7 | 8 | 3 | 5 | - | - |
| Vt . | 7 | 15 | 9 | - | $-$ | 1 | 4 |  | 6 |  | - |
| Mass. | 457 | 978 | 975 | 20 | 47 | 19 | 94 | 27 | 27 | 4 | 1 |
| R.I. | 59 | 178 | 143 | 9 | 12 | 7 | 3 | 1 | 10 | 1 | 4 |
| Conn. | 258 | 541 | 1,484 | 14 | 32 | 26 | 24 | - | - | N | N |
| MID. ATLANTIC | 4,550 | 12,412 | 15,194 | 371 | 479 | 293 | 460 | 110 | 177 | 44 | 55 |
| Upstate N.Y. | 521 | 2,640 | 3,431 | 107 | 157 | 105 | 123 | 61 | 79 | 11 | 14 |
| N.Y. City | 2,342 | 3,932 | 5,850 | 155 | 166 | 63 | 97 | 1 | 1 | - | - |
| N.J. | 1,112 | 1,181 | 1,769 | 54 | 109 | 73 | 127 | 37 | 84 | 7 | 10 |
| Pa. | 575 | 4,659 | 4,144 | 55 | 47 | 52 | 113 | 11 | 13 | 26 | 31 |
| E.N. CENTRAL | 1,622 | 25,462 | 23,008 | 1,052 | 642 | 298 | 472 | 86 | 131 | 107 | 167 |
| Ohio | 409 | 8,137 | 7,882 | 688 | 179 | 33 | 65 | 4 | 4 | 54 | 63 |
| Ind. | 106 | 2,350 | 2,545 | 50 | 116 | 69 | 77 | - | 3 | 24 | 53 |
| III. | 737 | 7,151 | 4,817 | 138 | 200 | 54 | 116 | 15 | 38 | 7 | 10 |
| Mich. | 278 | 6,442 | 5,528 | 129 | 86 | 132 | 123 | 67 | 86 | 14 | 28 |
| Wis. | 92 | 1,382 | 2,236 | 47 | 61 | 10 | 91 | - | - | 8 | 13 |
| W.N. CENTRAL | 427 | 6,193 | 6,888 | 364 | 318 | 180 | 211 | 32 | 24 | 42 | 32 |
| Minn. | 93 | 951 | 1,068 | 39 | 61 | 13 | 18 | 1 | 5 | - | - |
| lowa | 20 | 516 | 437 | 21 | 10 | 13 | 11 | 3 | 6 | 8 | 20 |
| Mo. | 148 | 3,692 | 3,692 | 246 | 156 | 128 | 158 | 20 | 4 | 27 | 6 |
| N. Dak. | 1 | 10 | 10 | 10 | 1 | 2 | - | - | - | 3 | 2 |
| S. Dak. | 1 | 65 | 61 | 6 | 14 | 1 | - | 1 |  | - | - |
| Nebr. | 43 | - | 332 | 9 | 40 | 8 | 12 | 3 | 4 | 2 | 3 |
| Kans. | 121 | 959 | 1,288 | 33 | 36 | 15 | 12 | 4 | 5 | 2 | 1 |
| S. ATLANTIC | 5,708 | 34,417 | 32,736 | 353 | 414 | 422 | 876 | 97 | 276 | 64 | 121 |
| Del. | 113 | 660 | 597 | 5 | 12 | 2 | 3 | 1 | 1 | - | - |
| Md. | 978 | 4,257 | 6,174 | 69 | 55 | 79 | 118 | 3 | 13 | 13 | 26 |
| D.C. | 373 | 1,636 | 2,137 | 2 | 9 | 9 | 16 | - | - | 3 | 2 |
| Va. | 374 | 3,566 | 4,167 | 65 | 39 | 31 | 33 | 2 | 15 | 3 | 2 |
| W. Va. | 21 | 223 | 228 | 10 | 3 | 21 | 9 | 20 | 10 | 3 | 1 |
| N.C. | 248 | 8,009 | 7,994 | 43 | 35 | 106 | 101 | 23 | 24 | 11 | 8 |
| S.C. | 280 | 3,751 | 3,984 | 11 | 11 | 19 | 14 | 2 | 1 | 14 | 2 |
| Ga . | 594 | 5,645 | U | 37 | 21 | 41 | 367 | 10 | 145 | 8 | 62 |
| Fla. | 2,727 | 6,670 | 7,455 | 111 | 229 | 114 | 215 | 36 | 67 | 9 | 18 |
| E.S. CENTRAL | 612 | 16,421 | 11,082 | 404 | 144 | 229 | 410 | 375 | 281 | 8 | 21 |
| Ky. | 63 | 2,832 | 1,436 | 13 | 75 | 21 | 38 | 6 | 9 | 1 | 3 |
| Tenn. | 269 | 4,133 | 4,358 | 323 | 49 | 167 | 348 | 367 | 269 | 4 | 13 |
| Ala. | 159 | 6,465 | 5,288 | 44 | 20 | 41 | 24 | 2 | 3 | 2 | 5 |
| Miss. | 121 | 2,991 | U | 24 | U | - | U | - | U | 1 | U |
| W.S. CENTRAL | 1,404 | 10,983 | 14,130 | 835 | 881 | 390 | 366 | 165 | 113 | 3 | 11 |
| Ark. | 64 | 1,347 | 2,258 | 57 | 36 | 6 | 9 | 1 | 3 | - | 4 |
| La. | 299 | 3,945 | 4,142 | 27 | 32 | 53 | 43 | 43 | 27 | 1 | - |
| Okla. | 84 | 669 | 1,361 | 150 | 75 | 121 | 116 | 113 | 60 | 2 | 7 |
| Tex. | 957 | 5,022 | 6,369 | 601 | 738 | 210 | 198 | 8 | 23 | - | - |
| MOUNTAIN | 637 | 2,625 | 9,365 | 1,439 | 1,351 | 242 | 190 | 158 | 130 | 87 | 31 |
| Mont. | 8 | 30 | 29 | 19 | 10 | 7 | 6 | 7 | 2 | 2 | 10 |
| Idaho | 17 | 44 | 27 | 149 | 116 | 28 | 29 | 19 | 39 | 1 | - |
| Wyo. | 4 | 18 | 32 | 60 | 6 | 6 | 6 | 65 | 31 | 2 | 1 |
| Colo. | 214 | 1,002 | 1,081 | 186 | 154 | 46 | 36 | 28 | 21 | 26 | 4 |
| N. Mex. | 69 | 285 | 332 | 263 | 349 | 80 | 66 | 17 | 20 | 2 | 1 |
| Ariz. | 133 | 995 | 7,198 | 398 | 509 | 41 | 18 | 14 | 4 | 43 | 1 |
| Utah | 37 | 39 | 109 | 316 | 133 | 24 | 11 | 3 | 9 | 2 | 1 |
| Nev. | 155 | 212 | 557 | 48 | 74 | 10 | 18 | 5 | 4 | 9 | 13 |
| PACIFIC | 3,850 | 6,982 | 11,241 | 2,918 | 2,600 | 693 | 850 | 236 | 252 | 50 | 29 |
| Wash. | 360 | 842 | 986 | 189 | 383 | 53 | 81 | 67 | 83 | 3 | 7 |
| Oreg. | 122 | 18 | 328 | 518 | 125 | 32 | 23 | 12 | 2 | - | - |
| Calif. | 3,261 | 5,636 | 9,410 | 2,138 | 2,003 | 599 | 720 | 147 | 164 | 42 | 20 |
| Alaska | 29 | 278 | 283 | 15 | 75 | 4 | 6 | 1 | - | - | - |
| Hawaii | 78 | 208 | 234 | 58 | 14 | 5 | 20 | 9 | 3 | 5 | 2 |
| Guam | - | 23 | 46 | 1 | 3 | - | - | - | - | - | 2 |
| P.R. | 649 | 180 | 176 | 16 | 25 | 229 | 123 | 164 | 47 | - | - |
| V.I. | 14 | 4 | 8 | - | - | 1 | 1 | - | - | - | - |
| Amer. Samoa |  | 8 | 12 | 5 | 4 | - | - | - | - | - | - |
| C.N.M.I. | - | 4 | 19 | 7 | 2 | 1 | - | - | - | - | - |

N : Not notifiable U: Unavailable $\quad-:$ no reported cases $\quad$ C.N.M.I.: Commonwealth of Northern Mariana Islands
*Updated monthly to the Division of HIV/AIDS, National Center for Infectious Diseases; last update March 30, 1995.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending April 29, 1995, and April 30, 1994 (17th Week)

| Reporting Area | LymeDisease |  | Malaria |  | Measles (Rubeola) |  |  |  |  |  | Meningococcal Infections |  | Mumps |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Indigenous | Imported* |  | Total |  |  |  |  |  |
|  | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & \hline \end{aligned}$ | 1995 | $\begin{aligned} & \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | 1995 | $\begin{aligned} & \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ |
| UNITED STATES | 1,189 | 1,309 | 267 | 324 | - | 142 | 1 | 5 | 147 | 345 | 1,108 | 1,099 | 253 | 495 |
| NEW ENGLAND | 111 | 141 | 15 | 23 | - | 2 | - | 1 | 3 | 11 | 64 | 52 | 3 | 10 |
| Maine | 1 | - | 1 | 1 | - | - | - | - | - | - | 3 | 10 | 2 | 3 |
| N.H. | 8 | 5 | 1 | 3 | - | - | - | - | - | - | 13 | 4 | - | 4 |
| Vt. | 1 | 1 | - | 1 | - | - | - | - | - | 1 | 6 | 1 | - | - |
| Mass. | 37 | 23 | 4 | 8 | - | - | - | 1 | 1 | 2 | 22 | 21 | - | - |
| R.I. | 10 | 17 | 2 | 4 | - | 2 | - | - | 2 | 5 | - | - |  | 1 |
| Conn. | 54 | 95 | 7 | 6 | - | - | - | - | - | 3 | 20 | 16 | 1 | 2 |
| MID. ATLANTIC | 869 | 933 | 55 | 50 | - | 1 | - | - | 1 | 129 | 110 | 109 | 32 | 45 |
| Upstate N.Y. | 497 | 764 | 12 | 15 | - | - | - | - | - | 7 | 42 | 38 | 10 | 10 |
| N.Y. City | 3 | 1 | 22 | 12 | - | 1 | - | - | 1 | 1 | 10 | 15 | 4 |  |
| N.J. | 76 | 107 | 13 | 14 | - | - | - | - | - | 119 | 22 | 26 | - | 9 |
| Pa. | 293 | 61 | 8 | 9 | - | - | - | - | - | 2 | 36 | 30 | 18 | 26 |
| E.N. CENTRAL | 16 | 13 | 20 | 40 | - | - | - | - | - | 24 | 141 | 175 | 38 | 130 |
| Ohio | 13 | 6 | 1 | 5 | - | - | - | - | - | 10 | 45 | 41 | 16 | 19 |
| Ind. | 2 | 1 | 2 | 9 | - | - | - | - | - | 1 | 25 | 36 | 1 | 5 |
| III. | - | 5 | 14 | 15 | - | - | - | - | - | 7 | 40 | 59 | 5 | 82 |
| Mich. | 1 | 1 | 2 | 10 | - | - | - | - | - | 3 | 27 | 17 | 16 | 21 |
| Wis. | - |  | 1 | 1 | - | - | - | - | - | 3 | 4 | 22 | - | 3 |
| W.N. CENTRAL | 18 | 27 | 7 | 17 | - | 1 | - | - | 1 | 43 | 67 | 77 | 17 | 22 |
| Minn. | - | 7 | 3 | 4 | - | - | - | - | - | - | 13 | 7 | 2 | 4 |
| lowa | 1 | 1 | - | 3 | - | - | - | - | - | - | 13 | 6 | 3 | 4 |
| Mo. | 4 | 16 | 3 | 7 | - | 1 | - | - | 1 | 42 | 23 | 40 | 10 | 12 |
| N. Dak. | - | - | - |  | - | - | - | - | - | - | - | - | - | 1 |
| S. Dak. | - | - | - | - | - | - | - | - | - | - | 3 | 6 | - | - |
| Nebr. | - | - | 1 | 2 | U | - | U | - | - | 1 | 6 | 7 | 2 | 1 |
| Kans. | 13 | 3 | - | 1 | - | - | - | - | - | - | 9 | 11 | - | - |
| S. ATLANTIC | 125 | 146 | 66 | 69 | - | - | - | - | - | 4 | 204 | 171 | 35 | 76 |
| Del. | 7 | 14 | 1 | 2 | - | - | - | - | - | - | 2 | 2 | - |  |
| Md. | 89 | 48 | 19 | 29 | - | - | - | - | - | - | 12 | 10 | - | 20 |
| D.C. |  | 1 | 6 | 7 | - | - | - | - | - | - | 1 | 1 | - | - |
| Va . | 3 | 13 | 11 | 8 | - | - | - | - | - | 1 | 26 | 25 | 10 | 18 |
| W. Va. | 7 | 3 | - | - | - | - | - | - | - | - | 3 | 8 | - | 3 |
| N.C. | 9 | 19 | 6 | 2 | - | - | - | - | - | - | 37 | 30 | 16 | 23 |
| S.C. | 5 | - | - | 2 | - | - | - | - | - | - | 26 | 6 | 3 | 5 |
| Ga. | 4 | 44 | 10 | 10 | - | - | - | - | - | - | 53 | 33 | - | 3 |
| Fla. | 1 | 4 | 13 | 9 | - | - | - | - | - | 3 | 44 | 56 | 6 | 4 |
| E.S. CENTRAL | 7 | 10 | 6 | 7 | - | - | - | - | - | 28 | 63 | 69 | 13 | - |
| Ky. | 1 | 7 | - | 2 | - | - | - | - | - | - | 25 | 15 | - | - |
| Tenn. | 3 | 2 | 1 | 4 | - | - | - | - | - | 28 | 9 | 20 | 4 | - |
| Ala. | 1 | 1 | 5 | 1 | - | - | - | - | - |  | 16 | 34 | 3 | - |
| Miss. | 2 | U | - | U | - | - | - | - | - | U | 13 | U | 6 | U |
| W.S. CENTRAL | 22 | 18 | 6 | 7 | - | 2 | - | - | 2 | 11 | 139 | 129 | 12 | 107 |
| Ark. | 1 | - | 2 | - | - | 2 | - | - | 2 | - | 12 | 21 | 1 | 3 |
| La. | , | $\overline{-}$ | 1 | , | - | - | - | - | - | 1 | 20 | 20 | 3 | 9 |
| Okla. | 12 | 10 | - | 2 | - | - | - | - | - | - | 13 | 10 | - | 21 |
| Tex. | 9 | 8 | 3 | 5 | - | - | - | - | - | 10 | 94 | 78 | 8 | 74 |
| MOUNTAIN | 2 | 1 | 21 | 12 | - | 40 | 1 | 1 | 41 | 85 | 91 | 83 | 15 | 12 |
| Mont. | - | - | 2 | - | - | , | - | - | , | - | 2 | 2 | - |  |
| Idaho | - | 1 | 1 | 2 | - | 1 | - | - | 1 | - | 3 | 12 | 2 | 3 |
| Wyo. | - | - | - | - | - |  | - | - | - | - | 5 | 2 | - | - |
| Colo. | 1 | - | 11 | 4 | - | - | - | - | - | 15 | 20 | 10 | 1 | 1 |
| N. Mex. |  | - | 3 | 2 | - | 28 | - | - | 28 | , | 20 | 6 | N | N |
| Ariz. | - | - | 2 | 1 | - | 10 | 1 | 1 | 10 | - | 33 | 33 | 4 | - |
| Utah | - | - | 1 | 3 | - | - | 1 | 1 | 1 | 70 | 2 | 14 | 1 | 4 |
| Nev. | 1 | - | 1 |  | - | 1 | - | - | 1 | - | 6 | 4 | 6 | 3 |
| PACIFIC | 19 | 20 | 71 | 99 | - | 96 | - | 3 | 99 | 10 | 229 | 234 | 88 | 93 |
| Wash. | - | - | 8 | 11 | , | 13 | - | 1 | 14 | - | 35 | 42 | 5 | 7 |
| Oreg. | 1 | - | 4 | 6 | U | 1 | U | - | 1 | - | 41 | 48 | N | N |
| Calif. | 18 | 20 | 52 | 74 | - | 82 | - | 1 | 83 | 9 | 150 | 138 | 74 | 77 |
| Alaska | - | - | 1 | - | - | - | - | 1 | - | 1 | 1 | 1 | 8 | 2 |
| Hawaii | - | - | 6 | 8 | - | - | - | 1 | 1 | 1 | 2 | 5 | 1 | 7 |
|  | - | - | - | - | U | - | U | - | - | 155 | 1 |  | 2 | 2 |
| P.R. | - | - | - | - | - | 3 | - | - | 3 | 22 | 12 | 5 | - | 2 |
| V.I. | - | - | - | - | - |  | - | - | - | - | - | - | 1 | - |
| Amer. Samoa | - | - | - | - | U | - | U | - | - | - | - | - | - | 1 |
| C.N.M.I. | - | - | - | 1 | U | - | U | - | - | 26 | - | - | - | - |

*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 April 29, 1995, and April 30, 1994 (17th Week)

| Reporting Area | Pertussis |  |  | Rubella |  |  | Syphilis (Primary \& Secondary) |  | Tuberculosis |  | Rabies, Animal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \end{aligned}$ | 1995 | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1995 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1994 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1995 \end{aligned}$ | $\begin{aligned} & \hline \text { Cum. } \\ & 1994 \end{aligned}$ |
| UNITED STATES | 58 | 959 | 1,164 | - | 24 | 139 | 5,301 | 6,162 | 5,118 | 5,769 | 2,048 | 2,315 |
| NEW ENGLAND | 6 | 117 | 132 | - | 2 | 96 | 67 | 63 | 105 | 112 | 596 | 617 |
| Maine | 1 | 13 | 2 | - | - | - | 2 | 1 |  |  |  |  |
| N.H. | 2 | 8 | 31 | - | 1 | - | 1 | 1 | 4 | 6 | 73 | 72 |
| Vt. | - | 2 | 14 | - | - | - | - | - | 1 | - | 79 | 60 |
| Mass. | 3 | 88 | 76 | - | 1 | 96 | 24 | 19 | 57 | 51 | 230 | 237 |
| R.I. | - | - | 2 | - | - | - | 1 | 5 | 13 | 11 | 81 | 5 |
| Conn. | - | 6 | 7 | - | - | - | 39 | 37 | 30 | 44 | 133 | 243 |
| MID. ATLANTIC | 1 | 67 | 225 | - | 2 | 4 | 319 | 470 | 1,067 | 1,080 | 515 | 550 |
| Upstate N.Y. | 1 | 45 | 88 | - | 1 | 4 | 24 | 63 | 94 | 168 | 216 | 389 |
| N.Y. City | - | 10 | 38 | - | 1 | - | 170 | 237 | 594 | 628 | - | - |
| N.J. | - | - | 9 | - | - | - | 67 | 78 | 203 | 201 | 110 | 114 |
| Pa . | - | 12 | 90 | - | - | - | 58 | 92 | 176 | 83 | 189 | 47 |
| E.N. CENTRAL | 2 | 74 | 262 | - | - | 11 | 919 | 826 | 560 | 609 | 2 | 11 |
| Ohio | - | 33 | 59 | - | - | - | 320 | 344 | 91 | 80 | 1 | - |
| Ind. | - | 4 | 31 | - | - | - | 77 | 85 | 21 | 58 | - | 1 |
| III. | - | 5 | 90 | - | - | 6 | 362 | 186 | 315 | 326 | 1 | 3 |
| Mich. | 2 | 31 | 20 | - | - | 5 | 111 | 112 | 115 | 130 | - | 4 |
| Wis. | - | 1 | 62 | - | - | - | 49 | 99 | 18 | 15 | - | 3 |
| W.N. CENTRAL | - | 52 | 41 | - | - | - | 340 | 431 | 184 | 139 | 91 | 59 |
| Minn. | - | 22 | 16 | - | - | - | 15 | 16 | 31 | 29 | 2 | 5 |
| lowa | - | 1 | 3 | - | - | - | 106 | 16 | 26 | 10 | 32 | 23 |
| Mo. | - | 5 | 11 | - | - | - | 210 | 369 | 68 | 68 | 12 | 6 |
| N. Dak. | - | 5 | 2 | - | - | - | - | - | 1 | 2 | 9 | 1 |
| S. Dak. | - | 6 | - | - | - | - | - | - | 16 | 9 | 15 | 9 |
| Nebr. | U | 3 | 3 | U | - | - | - | 5 | 6 | 2 | - | - |
| Kans. | - | 10 | 6 | - | - | - | 9 | 25 | 36 | 19 | 21 | 15 |
| S. ATLANTIC | 13 | 99 | 134 | - | 4 | 5 | 1,234 | 1,836 | 944 | 793 | 613 | 627 |
| Del. | - | 5 | - | - | - | - | 7 | 7 | - | 9 | 10 | 11 |
| Md. | - | 7 | 47 | - | - | - | 24 | 88 | 152 | 105 | 143 | 200 |
| D.C. | - | 2 | 3 | - | - | - | 44 | 80 | 31 | 40 | 5 | 2 |
| Va . | - | 7 | 13 | - | - | - | 236 | 220 | 29 | 119 | 123 | 133 |
| W. Va. | - | - | 2 | - | - | - | 1 | 7 | 29 | 28 | 31 | 24 |
| N.C. | - | 49 | 39 | - | - | - | 385 | 611 | 80 | 130 | 142 | 62 |
| S.C. | - | 11 | 8 | - | - | - | 245 | 228 | 102 | 134 | 46 | 59 |
| Ga. | - | 1 | 7 | - | - | - | 153 | 290 | 223 | 228 | 100 | 131 |
| Fla. | 13 | 17 | 15 | - | 4 | 5 | 139 | 305 | 298 | - | 13 | 5 |
| E.S. CENTRAL | 4 | 21 | 34 | - | - | - | 1,475 | 644 | 361 | 353 | 62 | 68 |
| Ky. | - | - | 15 | - | - | - | 146 | 83 | 54 | 98 | 7 | 4 |
| Tenn. | - | 2 | 13 | - | - | - | 311 | 327 | 117 | 129 | 11 | 33 |
| Ala. | 4 | 19 | 6 | - | - | - | 210 | 234 | 125 | 126 | 44 | 31 |
| Miss. | - | - | U | - | - | U | 808 | U | 65 | U | - | U |
| W.S. CENTRAL | - | 33 | 32 | - | 1 | 7 | 768 | 1,354 | 511 | 663 | 35 | 249 |
| Ark. | - | - | 1 | - | - | - | 177 | 188 | 69 | 75 | 11 | 12 |
| La. | - | 1 | 4 | - | - | - | 374 | 616 | - | - | 9 | 30 |
| Okla. | - | 3 | 20 | - | - | 4 | 21 | 51 | 1 | 70 | 15 | 17 |
| Tex. | - | 29 | 7 | - | 1 | 3 | 196 | 499 | 441 | 518 | - | 190 |
| MOUNTAIN | 29 | 371 | 93 | - | 3 | 1 | 84 | 233 | 192 | 149 | 33 | 37 |
| Mont. | - | 3 | 2 | - | - | - | 3 | - | 3 | - | 14 | 6 |
| Idaho | 6 | 66 | 21 | - | - | - | - | 1 | 6 | 5 | - | - |
| Wyo. | - | - | - | - | - | - | 2 | - | 1 | 1 | 9 | 6 |
| Colo. | - | 1 | 50 | - | - | - | 53 | 55 | 4 | 13 | - | - |
| N. Mex. | - | 16 | 5 | - | - | - | 1 | 5 | 22 | 26 | - | $\stackrel{-}{-}$ |
| Ariz. | 20 | 277 | 10 | - | 3 | - | 14 | 153 | 87 | 67 | 9 | 24 |
| Utah | 3 | 5 | 5 | - | - | 1 | 4 | 5 | 10 | - | - | - |
| Nev. | - | 3 |  | - | - | - | 7 | 14 | 59 | 37 | 1 | 1 |
| PACIFIC | 3 | 125 | 211 | - | 12 | 15 | 95 | 305 | 1,194 | 1,871 | 101 | 97 |
| Wash. | - | 23 | 30 | - | 1 | - | 6 | 15 | 84 | 72 | - | - |
| Oreg. | U | 6 | 23 | U | 1 | - | - | 3 | 3 | 43 | - | - |
| Calif. |  | 89 | 154 | - | 9 | 14 | 88 | 285 | 1,027 | 1,664 | 97 | 74 |
| Alaska | - |  |  | - |  |  | 1 | 1 | 24 | 25 | 4 | 23 |
| Hawaii | 3 | 7 | 4 | - | 1 | 1 | - | 1 | 56 | 67 | - | - |
| Guam | U | - | - | U | - | 1 | 1 | 1 | 4 | 18 | - | - |
| P.R. | 1 | 5 | 3 | - | - | - | 98 | 110 | 23 | 71 | 17 | 26 |
| V.I. | - | - | - | - | - | - | 1 | 17 | - | - | - | - |
| Amer. Samoa | U | - | 1 | U | - | - | - | - | 2 | 2 | - | - |
| C.N.M.I. | U | - | - | U | - | - | - | 1 | 4 | 14 | - | - |

[^2]TABLE III. Deaths in 121 U.S. cities,* week ending April 29, 1995 (17th Week)

| Reporting Area | All Causes, By Age (Years) |  |  |  |  |  | P\&I ${ }^{\dagger}$ Total | Reporting Area | All Causes, By Age (Years) |  |  |  |  |  | P\&I ${ }^{\dagger}$ <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 | 606 | 433 | 97 | 44 | 20 | 12 | 45 | S. ATLANTIC | 1,362 | 901 | 247 | 146 | 37 | 30 | 72 |
| Boston, Mass. | 140 | 88 | 25 | 16 | 6 | 5 | 3 | Atlanta, Ga. | 160 | 101 | 35 | 15 | 6 | 3 | 4 |
| Bridgeport, Conn. | 44 | 34 | 5 | 2 | 3 |  | 4 | Baltimore, Md. | 184 | 109 | 38 | 31 | 5 | 1 | 18 |
| Cambridge, Mass. | 17 | 14 | 2 |  | 1 |  | 2 | Charlotte, N.C. | 162 | 107 | 27 | 20 | 3 | 5 | 6 |
| Fall River, Mass. | 33 | 28 | 4 | 1 |  |  |  | Jacksonville, Fla. | 137 | 102 | 23 | 6 | 4 | 2 | 9 |
| Hartford, Conn. | 45 | 26 | 14 | 2 | 3 |  | 2 | Miami, Fla. | 88 | 45 | 21 | 18 | 2 | 2 |  |
| Lowell, Mass. | 23 | 19 | 2 | 2 | - |  | 3 | Norfolk, Va. | 63 | 43 | 8 | 5 | 5 | 2 | 7 |
| Lynn, Mass. | 15 | 11 | 3 | 1 |  |  |  | Richmond, Va. | 67 | 52 | 10 | 4 | - | 1 | 2 |
| New Bedford, Mass. | 29 | 21 | 5 | 3 |  |  | 2 | Savannah, Ga. | 47 | 32 | 8 | 5 | 1 | 1 | 8 |
| New Haven, Conn. | 43 | 26 | 7 | 6 | 2 | 2 | 5 | St. Petersburg, Fla. | 68 | 44 | 10 | 9 | 2 | 3 | 4 |
| Providence, R.I. | 66 | 50 | 9 | 3 | 1 | 3 | 3 | Tampa, Fla. | 231 | 176 | 30 | 17 | 4 | 3 | 10 |
| Somerville, Mass. | 6 | 5 | , | - |  |  |  | Washington, D.C. | 149 | 84 | 37 | 16 | 5 | 7 | 4 |
| Springfield, Mass. | 49 | 36 | 9 | 2 | 2 |  | 7 | Wilmington, Del. | 6 | 6 | - | - | - | - |  |
| Waterbury, Conn. | 28 | 20 | 7 | 3 |  |  | 4 |  |  | 545 | 166 |  |  |  | 56 |
| Worcester, Mass. | 68 | 55 | 7 | 3 | 2 | 1 | 10 | Birmingham, Ala. | $\begin{aligned} & 856 \\ & 122 \end{aligned}$ | 545 76 | $\begin{array}{r} 166 \\ 22 \end{array}$ | $\begin{aligned} & 62 \\ & 10 \end{aligned}$ | 29 | 25 6 | 56 4 |
| MID. ATLANTIC | 2,131 | 1,397 | 393 | 257 | 45 | 38 | 90 | Chattanooga, Tenn. | 73 | 48 | 19 | 5 | - | 1 | 6 |
| Albany, N.Y. | 45 | 36 | 6 | 2 |  | 1 | 4 | Knoxville, Tenn. | 109 | 83 | 15 | 7 | 3 | 1 | 10 |
| Allentown, Pa. | 30 | 26 | 2 | 1 | 1 |  |  | Lexington, Ky. | 74 | 56 | 10 | 4 | 3 | 1 | 5 |
| Buffalo, N.Y. | 94 | 78 | 14 |  | 1 | 1 | 2 | Memphis, Tenn. | 195 | 120 | 41 | 20 | 11 | 3 | 16 |
| Camden, N.J. | 25 | 17 | 1 | 2 | 3 | 2 | 3 | Mobile, Ala. | 77 | 25 | 14 | 3 | 2 | 7 | 1 |
| Elizabeth, N.J. | 27 | 20 | 3 | 4 |  |  | 1 | Montgomery, Ala. | 47 | 37 | 8 | 1 | 1 |  | 5 |
| Erie, Pa.§ | 47 | 38 | 6 | 3 |  |  | 3 | Nashville, Tenn. | 159 | 100 | 37 | 12 | 4 | 6 | 9 |
| Jersey City, N.J. | 42 | 25 | 9 | 7 |  | 1 |  |  |  |  |  |  |  |  |  |
| New York City, N.Y. | 1,331 | 822 | 264 | 197 | 28 | 20 | 33 | W.S. CENTRAL Austin, Tex. | 1,441 70 | 908 39 | 274 14 | 176 | 51 6 | 32 | 87 |
| Newark, N.J. Paterson, N.J. | 76 23 | 32 9 | 19 6 | 18 | 5 | 2 | 8 | Austin, Tex. <br> Baton Rouge, La. | 45 | 39 | 14 8 | 10 4 | 6 | 1 | 5 1 |
| Paterson, N.J. Philadelphia, Pa. | 23 $\cup$ | 9 $\cup$ | ${ }_{6}^{6}$ | 4 | 2 | 2 | 2 | Corpus Christi, Tex. | 49 | 32 | 8 9 | 6 | 4 | 1 | 1 |
| Philadelphia, Pa. Pittsburgh, Pa.§ | U | U | U 9 | 2 | 2 | 2 | 4 | Dallas, Tex. | 210 | 137 | 37 | 25 | 8 | 3 | 5 |
| Reading, Pa. | 11 | 8 | 1 | 1 | 1 |  | 1 | El Paso, Tex. | 79 | 57 | 12 | 10 | - | - | 6 |
| Rochester, N.Y. | 131 | 108 | 16 | 4 | 1 | 2 | 11 | Ft. Worth, Tex. | 112 | 71 | 17 | 18 | 4 | 2 | 16 |
| Schenectady, N.Y. | 25 | 24 | 1 | - | - |  | 1 | Houston, Tex. | 382 | 216 | 83 | 58 | 10 | 15 | 27 |
| Scranton, Pa.§ | 33 | 27 | 6 | - | - |  | 2 | Little Rock, Ark. | 89 | 54 | 19 | 7 | 6 | 3 | 3 |
| Syracuse, N.Y. | 86 | 60 | 18 | 4 | $\overline{-}$ | 4 | 10 | New Orleans, La. | 179 | 123 | 16 | 14 | 2 | 5 | 12 |
| Trenton, N.J. | 32 | 17 | 6 | 7 | 1 | 1 | 4 | San Antonio, Tex. | 177 59 | 123 38 | 28 | 14 6 | 7 | 1 | 12 |
| Utica, N.Y. | 18 | 11 | 6 |  |  |  | 1 | Tulsa, Okla. | 110 | 79 |  | 10 | 3 | 1 | 2 |
| Yonkers, N.Y. | U | U | U | U | U | I | U | Tulsa, Okla. | 110 | 79 | 18 | 10 | 3 | - | 9 |
| E.N. CENTRAL | 2,335 | 1,503 | 416 | 247 | 114 | 52 | 147 | MOUNTAIN | 889 | 628 | 152 | 69 | 17 | 22 | 60 |
| Akron, Ohio | 63 | 46 | 8 | 9 | - | - | 1 | Albuquerque, N.M. | 96 | 75 | 11 | 10 | - | , | 7 |
| Canton, Ohio | 51 | 39 | 10 | 1 | - | 1 | 5 | Colo. Springs, Colo. | 46 | 34 | 8 | 3 | 7 | 1 | $10^{-}$ |
| Chicago, III. | 506 | 220 | 92 | 101 | 77 | 16 | 20 | Denver, Colo. | 115 | 69 | 28 | 5 | 7 | 6 | 10 |
| Cincinnati, Ohio | 204 | 146 | 34 | 17 | 6 | 1 | 22 | Las Vegas, Nev. | 146 | 101 | 28 | 13 | 1 | 2 | 11 |
| Cleveland, Ohio | 137 | 89 | 26 | 14 | 3 | 5 | 3 | Ogden, Utah | 23 | 20 | 2 | 1 | - | 7 | 3 |
| Columbus, Ohio | 175 | 124 | 33 | 16 | 1 | 1 | 15 | Phoenix, Ariz. | 212 | 147 | 38 | 16 | 4 | 7 | 8 |
| Dayton, Ohio | 115 | 87 | 22 | 4 | - | 2 | 9 | Pueblo, Colo. | 26 | 23 | 3 |  | - | 5 | 12 |
| Detroit, Mich. | 231 | 129 | 55 | 28 | 8 | 8 | 11 | Salt Lake City, Utah | 90 | 61 | 13 | 10 |  | 5 | 12 |
| Evansville, Ind. | 39 | 28 | 7 | 4 | - |  | 1 | Tucson, Ariz. | 135 | 98 | 21 | 11 | 4 | 1 | 8 |
| Fort Wayne, Ind. | 55 | 42 | 10 | 3 | - |  | 4 | PACIFIC | 1,867 | 1,314 | 302 | 172 | 40 | 21 | 157 |
| Gary, Ind. | 12 | 6 | 2 | 4 | $\overline{7}$ |  |  | Berkeley, Calif. | 1,867 | , 16 | 6 |  |  | 1 | 1 |
| Grand Rapids, Mich. | 33 | 27 | 3 | 2 | 1 |  | 4 | Fresno, Calif. | 85 | 62 | 13 | 7 | 2 |  | 6 |
| Indianapolis, Ind. | 198 | 126 | 36 | 17 | 10 | 9 | 12 | Glendale, Calif. | 21 | 18 | 2 | 1 | - | - | 3 |
| Madison, Wis. | 79 | 62 | 12 | 3 | 2 | 2 | 11 | Honolulu, Hawaii | 83 | 62 | 13 | 6 | 2 | - | 10 |
| Milwaukee, Wis. | 134 | 101 | 19 | 10 | 2 | 2 | 9 | Long Beach, Calif. | 88 | 67 | 13 | 7 | 1 | - | 17 |
| Peoria, III. | 32 | 27 | 10 |  |  | 1 | 5 | Los Angeles, Calif. | 410 | 271 | 69 | 52 | 13 | 2 | 14 |
| Rockford, III. South Bend, Ind | 49 | 36 | 10 | 2 | 2 | 1 | 3 | Pasadena, Calif. | 23 | 18 | 2 | 3 | - | - | 1 |
| South Bend, Ind. Toledo, Ohio | 68 | 48 | 11 | 5 | 2 | 2 | 7 | Portland, Oreg. | 82 | 61 | 16 | 4 | 1 | - | 7 |
| Toledo, Ohio Youngstown, Ohio | 90 | 70 | 14 | 3 | 2 | 1 | 4 | Sacramento, Calif. | 185 | 139 | 29 | 11 | 5 | 1 | 18 |
| Youngstown, Ohio | 64 | 50 | 9 | 3 |  | 2 | 1 | San Diego, Calif. | 149 | 100 | 28 | 18 | 1 | 2 | 20 |
| W.N. CENTRAL | 627 | 453 | 102 | 32 | 16 | 14 | 53 | San Francisco, Calif. | 155 | 92 | 27 | 19 | 1 | 1 | 16 |
| Des Moines, lowa | U | U | U | U | U | U | U | San Jose, Calif. | 220 | 159 | 34 | 15 | 6 | 6 | 22 |
| Duluth, Minn. | 28 | 22 | 1 | 4 |  | 1 | 4 | Santa Cruz, Calif. | 34 | 28 | 5 | 1 | 6 | 3 | 5 |
| Kansas City, Kans. | U | U | U | U | U | U | U | Seattle, Wash. | 132 | 88 |  | $21$ | 6 | 3 | 2 |
| Kansas City, Mo. | 98 | 64 | 17 | 4 | 2 | 1 | 8 | Spokane, Wash. Tacoma, Wash. | 62 115 | 47 86 | 10 21 | $\begin{aligned} & 2 \\ & 5 \end{aligned}$ | 1 | 2 | 7 8 |
| Lincoln, Nebr. | 39 | 32 | 4 | 2 | 1 |  |  | Tacoma, Wash. | 115 | 86 |  |  | 1 | 2 | 8 |
| Minneapolis, Minn. Omaha, Nebr. | 187 | 140 | 28 | 12 | 4 | 3 |  | TOTAL | 12,114 ${ }^{\text {f }}$ | 8,082 | 2,149 | 1,205 | 369 | 246 | 767 |
| Omaha, Nebr. St. Louis, Mo. | 118 | 59 | 21 | 2 | 2 | 4 |  |  |  |  |  |  |  |  |  |
| St. Louis, Mo. St. Paul, Minn. | 118 | 86 50 |  | 5 3 | 4 3 | 2 |  |  |  |  |  |  |  |  |  |
| St. Paul, Minn. Wichita, Kans. | $\stackrel{69}{U}$ | 50 $\cup$ |  |  | 3 | $\stackrel{2}{4}$ |  |  |  |  |  |  |  |  |  |
| ${ }^{\text {§ }}$ Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complet counts will be available in 4 to 6 weeks. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ITotal includes unkn U: Unavailable |  | rted |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Melanoma - Continued

increase for melanoma (47.9\%) was the highest for all cancers (6). During the same period, the increase in the rate of deaths from melanoma was greater for white males than for other racial and sex groups (Figure 1). In 1992, the rate of deaths from melanoma was 5.9 times higher for whites than for all other races ( 2.5 and 0.4 per 100,000 population, respectively), and 2.1 times higher for males than females (3.1 and 1.5, respectively).

To increase statistical precision, the rate of deaths from melanoma by state was aggregated for 1988-1992. In every state, the rate of deaths from melanoma was substantially higher for whites than for persons of all other races. For whites, the age-adjusted death rate by state ranged from 2.2 to 5.0 per 100,000 population for males and 0.8 to 2.3 for females (Table 1). Most states that are in the two highest death rate quartiles are not in the lower U.S. latitudes where sun exposure is generally more intense (Figure 2).

During 1973-1975 and 1990-1992, death rates were highest for white men aged $\geq 50$ years (Figure 3). The death rate increased more with age for males than for females during 1990-1992.
Reported by: Div of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, CDC.
Editorial Note: The findings in this report indicate that the rate of deaths from melanoma was higher for whites than persons of all other races-a finding consistent with the more common occurrence of melanoma among persons with lightly pigmented skin (2) and an incidence among whites that is more than 10 times higher than that for blacks (1). Based on estimates by the American Cancer Society, during 1995 an estimated 34,100 new cases of melanoma will be diagnosed and 7200 deaths will be caused by melanoma (1). The likelihood of survival of melanoma is substantially greater if the disease is detected early and treated (2). Early detection of thin lesions is associated with improved prognosis and treatment outcome than is detection of thicker, later stage tumors (2).

FIGURE 1. Average annual age-adjusted rate* of deaths from melanoma, by race and sex — United States, 1973-1992


[^3]
## Melanoma - Continued

TABLE 1. Number and rate* of deaths from melanoma ${ }^{\dagger}$, by state, race, and sex United States, 1988-1992

| State | No. | Rate |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | All white | All other races ${ }^{\S}$ | White males | White females |
| Alabama | 538 | 2.3 | 2.8 | 0.4 | 3.9 | 1.9 |
| Alaska | 39 | 2.1 | 2.5 | \\| | 3.2 | 1.7 |
| Arizona | 488 | 2.3 | 2.5 | 0.5 | 3.4 | 1.6 |
| Arkansas | 325 | 2.2 | 2.5 | 0.7 | 3.3 | 1.8 |
| California | 3,796 | 2.5 | 2.9 | 0.4 | 4.0 | 2.0 |
| Colorado | 444 | 2.6 | 2.7 | 9 | 3.6 | 2.0 |
| Connecticut | 436 | 2.2 | 2.3 | 0.5 | 2.9 | 1.9 |
| Delaware | 108 | 2.9 | 3.4 | ¢ | 5.0 | 2.2 |
| District of Columbia | 38 | 1.1 | 2.4 | 0.4 | 4.3 | 0.8 |
| Florida | 2,210 | 2.4 | 2.6 | 0.4 | 3.9 | 1.6 |
| Georgia | 731 | 2.2 | 2.7 | 0.6 | 3.8 | 1.9 |
| Hawaii | 71 | 1.2 | 3.1 | 0.5 | 4.6 | 1.8 |
| Idaho | 133 | 2.4 | 2.4 | ¢ | 3.3 | 1.7 |
| Illinois | 1,241 | 1.9 | 2.1 | 0.3 | 2.9 | 1.5 |
| Indiana | 662 | 2.1 | 2.2 | 0.3 | 3.1 | 1.5 |
| lowa | 385 | 2.1 | 2.2 | ¢ | 2.9 | 1.6 |
| Kansas | 356 | 2.4 | 2.5 | 9 | 3.5 | 1.7 |
| Kentucky | 452 | 2.1 | 2.3 | 0.4 | 3.1 | 1.5 |
| Louisiana | 378 | 1.7 | 2.2 | 0.3 | 3.1 | 1.5 |
| Maine | 166 | 2.2 | 2.3 | ¢ | 3.1 | 1.6 |
| Maryland | 565 | 2.3 | 2.7 | 0.4 | 3.8 | 1.9 |
| Massachusetts | 935 | 2.6 | 2.8 | 9 | 3.7 | 2.1 |
| Michigan | 902 | 1.8 | 2.0 | 0.3 | 2.8 | 1.3 |
| Minnesota | 493 | 2.0 | 2.1 | 0.9 | 2.6 | 1.6 |
| Mississippi | 269 | 1.8 | 2.4 | 0.5 | 3.6 | 1.5 |
| Missouri | 730 | 2.4 | 2.6 | 0.3 | 3.5 | 1.9 |
| Montana | 115 | 2.4 | 2.5 | ¢ | 3.0 | 2.0 |
| Nebraska | 212 | 2.2 | 2.3 | ๆ | 3.0 | 1.7 |
| Nevada | 161 | 2.5 | 2.6 | ¢ | 3.3 | 2.0 |
| New Hampshire | 143 | 2.3 | 2.3 | 9 | 3.5 | 1.5 |
| New Jersey | 1,134 | 2.4 | 2.7 | 0.4 | 3.9 | 1.8 |
| New Mexico | 174 | 2.2 | 2.3 | 9 | 2.9 | 1.8 |
| New York | 2,169 | 2.0 | 2.3 | 0.4 | 3.3 | 1.6 |
| North Carolina | 956 | 2.5 | 3.1 | 0.4 | 4.1 | 2.3 |
| North Dakota | 65 | 1.5 | 1.5 | I | 2.2 | 1.0 |
| Ohio | 1,321 | 2.1 | 2.3 | 0.5 | 3.2 | 1.5 |
| Oklahoma | 483 | 2.6 | 2.9 | 0.3 | 3.9 | 2.1 |
| Oregon | 425 | 2.5 | 2.6 | 9 | 3.4 | 1.9 |
| Pennsylvania | 1,735 | 2.2 | 2.4 | 0.4 | 3.4 | 1.7 |
| Rhode Island | 138 | 2.1 | 2.2 | 9 | 3.3 | 1.4 |
| South Carolina | 394 | 2.1 | 2.7 | 0.2 | 4.1 | 1.7 |
| South Dakota | 85 | 2.0 | 2.1 | I | 2.8 | 1.5 |
| Tennessee | 662 | 2.3 | 2.6 | 0.5 | 3.6 | 1.8 |
| Texas | 1,806 | 2.1 | 2.3 | 0.5 | 3.3 | 1.6 |
| Utah | 213 | 2.9 | 3.0 | ¢ | 4.0 | 2.0 |
| Vermont | 72 | 2.4 | 2.4 | ๆ | 3.7 | 1.3 |
| Virginia | 738 | 2.2 | 2.6 | 0.5 | 3.5 | 1.9 |
| Washington | 598 | 2.2 | 2.3 | 0.3 | 3.2 | 1.7 |
| West Virginia | 292 | 2.5 | 2.6 | ๆ | 3.5 | 1.9 |
| Wisconsin | 549 | 1.9 | 2.0 | ๆ | 2.7 | 1.4 |
| Wyoming | 45 | 1.9 | 1.9 | I | 2.6 | 1.3 |
| Total | 31,579 | 2.2 | 2.5 | 0.4 | 3.4 | 1.7 |

*Per 100,000 population, adjusted to the 1970 U.S. population.
†International Classification of Diseases, Adapted, Ninth Revision, codes 172.0-172.9.
${ }^{\S}$ Blacks and other races were combined for this analysis because of their small number of deaths from melanoma and the small population of these groups in some states.
${ }^{\top}$ Fewer than 100,000 persons in denominator or fewer than five deaths.

Melanoma - Continued
FIGURE 2. Average annual rate* of deaths from melanoma, by quartile - United States, 1988-1992

*Per 100,000 population, adjusted to the 1970 U.S. population.

FIGURE 3. Average annual age-specific rate* of deaths from melanoma among whites, by sex and time period - United States, 1973-1975 and 1990-1992

*Per 100,000 population.

## Melanoma - Continued

Risk factors ( $2,7,8$ ) for melanoma related to ultraviolet radiation exposure include a history of sunburn or sun sensitivity, a tendency to freckle, the presence of lightly pigmented skin, blue eyes, and blond or red hair. Other risk factors include a family or personal history of melanoma and the presence of a large number of moles or any atypical moles. Sources for exposure to ultraviolet radiation include sunlight and artificial light (e.g., tanning booths), both of which can cause acute sunburn. The increased risk among persons who sustain intermittent, acute sunburn at an early age (i.e., $<18$ years) underscores the need for initiating prevention measures early in childhood (9).

Adults, particularly older men in whom rates of deaths from melanoma are highest, should be encouraged to perform periodic skin self-examination or be examined by a family member (2) to monitor location, size, and color of a pigmented lesion or mole. The "ABCD approach" can be used to assess pigmented lesions and represents mole asymmetry ("A"), border irregularity ("B"), nonuniform color (i.e., pigmentation) ("C"), and diameter $>6 \mathrm{~mm}$ ("D") $(1,2,8)$.

Recommendations for preventing melanoma should emphasize reduction of direct exposure to the sun when sunburn is most likely to occur, especially from 10 a.m. to 3 p.m. Specific measures include wearing a broad-brimmed hat and clothes that protect sun-exposed areas, seeking shade when outdoors, using a sunscreen of sun protection factor $\geq 15$ that provides protection against ultraviolet radiation $A$ and ultraviolet radiation B, and referring to the daily Ultraviolet Index* rating provided by the National Weather Service and others when planning outdoor activities.

In 1994, CDC implemented a program to assist in achievement of the national health objectives for the year 2000 for preventing skin cancer (10). Elements of the CDC program include funding support for state health departments to develop and implement prevention projects aimed at parents and caregivers of young children; enhancing prevention messages for the public; initiating the development of school health curriculum guidelines; enhancing Ultraviolet Index public health messages; and developing a public and professional education plan for skin cancer prevention.

May is Melanoma/Skin Cancer Detection and Prevention Month. Additional information is available from the American Academy of Dermatology, 930 North Meacham Road, Schaumburg, IL 60173-4965.

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*The Ultraviolet Index, provided by the National Weather Service, is broadcast by television and print media in 58 U.S. cities and provides information on the intensity of the sun's rays during the solar noon hour. The index ranges from 0 to $10+$ with $\geq 10$ indicating the most intense sunlight.

## Melanoma - Continued

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## Reptile-Associated Salmonellosis - Selected States, 1994-1995

During 1994-1995, health departments in 13 states reported to CDC persons infected with unusual Salmonella serotypes in which the patients had direct or indirect contact with reptiles (i.e., lizards, snakes, or turtles). In many of those cases, the same serotype of Salmonella was isolated from patients and from reptiles with which they had had contact or a common contact. For some cases, infection resulted in invasive illness, such as sepsis and meningitis. This report summarizes clinical and epidemiologic information for six of these cases.

Connecticut. During January 1995, a 40-year-old man was hospitalized because of an acute illness characterized by constipation, lower back pain, chills, and fever. He reported having taken ranitidine and an antacid for symptoms of heartburn before onset of mild diarrhea 3 days before hospitalization. A blood culture yielded Salmonella serotype Wassenaar. A magnetic resonance image scan of the right sacrum suggested osteomyelitis. Ciprofloxacin therapy was initiated for presumed Salmonella osteomyelitis, and he was discharged after 14 days. All household contacts were asymptomatic. The family had purchased two iguanas (Iguana iguana) in October 1994; although the patient denied directly handling the iguanas, he reported having recently cleaned their aquarium. Stool samples obtained from both iguanas yielded Salmonella Wassenaar.

New Jersey. During September 1994, a 5-month-old girl was hospitalized because of an acute illness including vomiting, lethargy, and fever; on admission, she had a bulging fontanelle and stiff neck. Blood cultures and cerebrospinal fluid yielded Salmonella serotype Rubislaw. She was treated with intravenous ceftazidime for Salmonella sepsis and meningitis and discharged from the hospital after 10 days. Other members of the family were asymptomatic. The infant routinely was fed infant formula. Although the family did not own a reptile, the infant frequently stayed at a babysitter's house where an iguana was kept. Culture of a stool sample from the iguana yielded Salmonella Rubislaw. The infant was reported to have not touched the iguana; however, the iguana frequently was handled by the babysitter and other members of the babysitter's family. All members of the babysitter's family were asymptomatic, but stool cultures from two members, including a child who had frequently played with and fed the infant, yielded Salmonella Rubislaw.

## Salmonellosis - Continued

New York. In December 1994, a 45-year-old man infected with human immunodeficiency virus was hospitalized because of weakness, nausea, vomiting, and diarrhea. His CD4+ T-lymphocyte count was $<50 \mathrm{cells} / \mu \mathrm{L}$. Cultures from blood and sputum samples yielded Salmonella serotype Illa 41:z4z23:- (S. subspecies Arizonae). He owned corn snakes and, until shortly before onset of illness, had worked at a pet store where he handled reptiles frequently. Salmonella sepsis was diagnosed, and he was treated with oral ciprofloxacin.

North Carolina. During December 1994, a 2-day-old boy born 8 weeks prematurely developed respiratory difficulties, had pneumothorax diagnosed, and was transferred to a referral hospital. Blood obtained at birth for culture had been negative, but a culture of blood obtained 9 days later because of an elevated white blood cell count yielded Salmonella serotype Kintambo. He was treated with intravenous ampicillin for Salmonella sepsis and was discharged from the hospital after 30 days. Eleven days after the positive culture was collected, Salmonella Kintambo was cultured from a blood sample obtained from a 12-day-old acutely ill boy who was born at 28 weeks' gestation and had shared a room at the referral hospital with the first infant. The second infant was treated with intravenous cefotaxime for Salmonella sepsis and was discharged after 44 days. Both infants had been in the hospital continuously from birth until onset of illness. The mother of the first infant reported having had a diarrheal illness 4 days before the birth of the infant; she frequently handled a savanna monitor lizard (Varanus exanthemapicus) that the family had purchased in September 1994 and kept in a cage in the kitchen. Culture of a stool sample from the lizard yielded Salmonella Kintambo. The second family did not own a reptile.

Ohio. During January 1994, a 6-week-old boy was hospitalized because of diarrhea, stiff neck, and fever; culture of samples of blood and cerebrospinal fluid yielded Salmonella serotype Stanley. The infant was treated with intravenous cefotaxime for Salmonella sepsis and meningitis and discharged from the hospital after 56 days. He had been fed only formula and had not attended a child-care facility; household contacts were asymptomatic. The family had purchased a 4-inch water turtle in April 1993. A culture of stool from the turtle yielded Salmonella Stanley. Although the infant had not had contact with the turtle, other family members had had direct contact, and the turtle's food and water bowls were washed in the kitchen sink.

Pennsylvania. During October 1994, a 21-day-old girl was hospitalized because of an illness including vomiting, bloody diarrhea, and fever. She received empirical treatment with intravenous ampicillin. A culture of stool yielded Salmonella serotype Poona; she was discharged from the hospital after 11 days. Other members of the family were asymptomatic. The infant had been fed infant formula and had not attended a child-care center. The family owned an iguana, and culture of a stool sample from the iguana yielded Salmonella Poona. Although the infant did not have contact with the iguana, the iguana was handled frequently by her mother and other members of the family.

Additional investigations. In addition to the six states in this report, seven other states (California, Colorado, Florida, Illinois, Minnesota, Oregon, and Utah) have reported recent isolation of the same Salmonella serotype from samples obtained from patients and reptiles with which they had been in contact or associated. Several of these states issued press releases about the risk for acquiring salmonellosis from reptiles. In addition, some states have issued health alerts to pet stores to warn owners

## Salmonellosis - Continued

and prospective owners about the risks for salmonellosis associated with contact with reptiles and to provide instructions about proper handling of reptiles; store owners have been asked to post the alert and provide copies to all persons purchasing a reptile.
Reported by: JW Weinstein, MD, EG Seltzer, MD, Yale Univ School of Medicine, New Haven; RS Nelson, DVM, JL Hadler, MD, State Epidemiologist, Connecticut Dept of Public Health and Addiction Svcs. SM Paul, MD, FE Sorhage, VMD, Div of Epidemiology, Environmental and Occupational Health Svcs; K Pilot, S Matluck, Public Health and Environmental Laboratories; K Spitalny, MD, State Epidemiologist, New Jersey State Dept of Health. M Gupta, MD, J Misage, G Balzano, T Root, G Birkhead, MD, DL Morse, MD, State Epidemiologist, New York State Dept of Health. A Kopelman, MD, S Engelke, MD, L Jones, Pitt County Memorial Hospital, Greenville; L Latour, PhD, P Perry, Wilson County Health Dept, Wilson; B Jenkins, State Laboratory of Public Health, J-M Maillard, MD, JN MacCormack, MD, State Epidemiologist, North Carolina Dept of Environment, Health, and Natural Resources. C Richards, P Fruth, Defiance County Health Dept, Defiance; S Hufford, MD, B Dick, MPH, Toledo Hospital; M Bundesen, Bur of Public Health Laboratories, EP Salehi, MPH, Infectious Disease Epidemiology Unit, TJ Halpin, MD, State Epidemiologist, Ohio Dept of Health. P Lurie, MD, M Deasy, K Mihelcic, JT Rankin, Jr, DVM, State Epidemiologist, Pennsylvania Dept of Health. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; Div of Field Epidemiology, Epidemiology Program Office, CDC.
Editorial Note: For most of the cases described in this report, the identification of rare Salmonella serotypes in persons who had no other apparent exposures was linked to direct or indirect contact with a pet reptile from which the same serotype was isolated. In addition, these cases are consistent with previous reports indicating that direct contact with a reptile is not necessary for transmission of Salmonella (1,2). This report also illustrates the severe complications of Salmonella infection that can occur in young children, immunocompromised persons, and infants during the peripartum period.

Reptiles are popular as pets in the United States: an estimated 7.3 million pet reptiles are owned by approximately 3\% of households (G. Mitchell, Pet Industry Joint Advisory Council, personal communication, 1995). Because the most popular reptiles species will not breed if closely confined, most reptiles are captured in the wild and imported. The number of reptiles imported into the United States has increased dramatically since 1986 and primarily reflects importation of iguanas ( 27,806 in 1986 to 798,405 in 1993) (M. Albert, Fish and Wildlife Service, U.S. Department of the Interior, personal communication, June, 1994).

A high proportion of reptiles are asymptomatic carriers of Salmonella. Fecal carriage rates can be more than $90 \%$ (3); attempts to eliminate Salmonella carriage in reptiles with antibiotics have been unsuccessful and have led to increased antibiotic resistance ( 1,4 ). A wide variety of Salmonella serotypes has been isolated from reptiles, including many that rarely are isolated from other animals (reptile-associated serotypes). Reptiles can become infected through transovarial transmission or direct contact with other infected reptiles or contaminated reptile feces. High rates of fecal carriage of Salmonella can be related to the eating of feces by hatchlings-a typical behavior for iguanas and other lizards-which can establish normal intestinal flora for hindgut fermentation (5).

During the early 1970s, small pet turtles were an important source of Salmonella infection in the United States; an estimated 4\% of families owned turtles, and 14\% of salmonellosis cases were attributed to exposure to turtles (6). In 1975, the Food and

## Salmonellosis - Continued

Drug Administration prohibited the distribution and sale of turtles with a carapace <4 inches; many states prohibited the sale of such turtles. These measures resulted in the prevention of an estimated 100,000 cases of salmonellosis annually (6). However, since 1986, the popularity of iguanas and other reptiles that can transmit infection to humans has been paralleled by an increased incidence of Salmonella infections caused by reptile-associated serotypes (7).

Because young children are at increased risk for reptile-associated salmonellosis and severe complications (e.g., septicemia and meningitis) (7-9), reducing exposure of infants or children aged <5 years to reptiles is particularly important. The risks for transmission of Salmonella from reptiles to humans can be reduced by avoiding direct and indirect contact with reptiles (see box).

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## Recommendations for Preventing Transmission of Salmonella From Reptiles to Humans

- Persons at increased risk for infection or serious complications of salmonellosis (e.g., pregnant women, children aged $<5$ years, and immunocompromised persons such as persons with AIDS) should avoid contact with reptiles.
- Reptiles should not be kept in child-care centers and may not be appropriate pets in households in which persons at increased risk for infection reside.
- Veterinarians and pet store owners should provide information to potential purchasers and owners of reptiles about the increased risk of acquiring salmonellosis from reptiles.
- Veterinarians and operators of pet stores should advise reptile owners always to wash their hands after handling reptiles and reptile cages.
- To prevent contamination of food-preparation areas (e.g., kitchens) and other selected sites, reptiles should be kept out of these areas-in particular, kitchen sinks should not be used to bathe reptiles or to wash reptile dishes, cages, or aquariums.


## Monthly Immunization Table

To track progress toward achieving the goals of the Childhood Immunization Initiative (CII), CDC publishes monthly a tabular summary of the number of cases of all diseases preventable by routine childhood vaccination reported during the previous month and year-to-date (provisional data). In addition, the table compares provisional data with final data for the previous year and highlights the number of reported cases among children aged $<5$ years, who are the primary focus of CII. Data in the table are derived from CDC's National Notifiable Diseases Surveillance System.

Number of reported cases of diseases preventable by routine childhood vaccination — United States, March 1995 and 1994-1995*

| Disease | No. cases, March 1995 | Total cases, January-March |  | No. cases among children aged $<5$ years, ${ }^{\dagger}$ January-March |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1994 | 1995 | 1994 | 1995 |
| Congenital rubella syndrome | 0 | 2 | 2 | 2 | 2 |
| Diphtheria | 0 | 1 | 0 | 1 | 0 |
| Haemophilus influenzaes | 108 | 291 | 337 | 89 | 78 |
| Hepatitis B ${ }^{\text {T }}$ | 782 | 2,743 | 1,873 | 44 | 11 |
| Measles | 111 | 108 | 143 | 25 | 54 |
| Mumps | 80 | 334 | 176 | 38 | 34 |
| Pertussis | 271 | 923 | 672 | 533 | 332 |
| Poliomyelitis, paralytic** | 0 | 0 | 0 | 0 | 0 |
| Rubella | 6 | 89 | 17 | 7 | 5 |
| Tetanus | 4 | 8 | 6 | 0 | 0 |

* Data for 1994 and 1995 are provisional.
${ }^{\dagger}$ 'For 1994 and 1995, age data were available for $\geq 87 \%$ cases.
§Invasive disease; $H$. influenzae serotype is not routinely reported to the National Notifiable Diseases Surveillance System. Of 78 cases among children aged $<5$ years, serotype was reported for 17 cases, and of those, 10 were type b, the only serotype of $H$. influenzae preventable by vaccination.
${ }^{1}$ Because most hepatitis B virus infections among infants and children aged $<5$ years are asymptomatic (although likely to become chronic), acute disease surveillance does not reflect the incidence of this problem in this age group or the effectiveness of hepatitis $B$ vaccination in infants.
**One case with onset in 1994 has been confirmed; this case was vaccine-associated. An additional six suspected cases are under investigation. In 1993, three of 10 suspected cases were confirmed; two of the confirmed cases for 1993 were vaccine-associated, and one was imported. The imported case occurred in a 2 -year-old Nigerian child brought to the United States for care of his paralytic illness; no poliovirus was isolated from the child.

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[^0]:    *ICD-9-CM codes 95.6, 95.7, 98.5, 99.3, 136.1, 274, 277.2, 287.0, 344.6, 353.0, 354.0, 355.5, 357.1, 390, 391, 437.4, 443.0, 446, 447.6, 696.0, 710-716, 719.0, 719.2-719.9, 720-721, 725-727, 728.0728.3, 728.6-728.9, 729.0-729.1, and 729.4.

[^1]:    * Numbers from other racial/ethnic groups were too small for reliable analysis.
    †Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

[^2]:    U: Unavailable -: no reported cases

[^3]:    *Per 100,000 population, adjusted to the 1970 U.S. population.

