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Health Disparities Experienced by Racial/Ethnic Minority Populations

In the United States, blacks, Hispanics, American Indians/Alaska Natives, Asians, and Native Hawaiian or Other Pacific Islanders (NHOPIs) bear a disproportionate burden of disease, injury, premature death, and disability. For persons of these racial/ethnic minority populations, health disparities can mean lower life expectancy, decreased quality of life, loss of economic opportunities, and perceptions of injustice. For society, these disparities translate into decreased productivity, increased health-care costs, and social inequity. By 2050, racial/ethnic minorities will account for nearly 50% of the total U.S. population. If these populations continue to experience poor health status, the expected demographic changes will magnify the adverse impact of such disparities on public health in the United States.

Since 1985, the U.S. Department of Health and Human Services has coordinated several initiatives to reduce or eliminate racial/ethnic health disparities, such as the Executive Order on Increasing Participation of Asian Americans and Pacific Islanders in Federal Programs. Information about these initiatives is available at http://www.omhrc.gov/omh/sidebar/aboutomh.htm. Ongoing public awareness campaigns include Closing the Health Gap and Take a Loved One to the Doctor Day.

Despite recent progress, racial/ethnic disparities persist among the 10 leading health indicators identified in the 2010 national health objectives. Socioeconomic factors (e.g., education, employment, and poverty), lifestyle behaviors (e.g., physical activity, alcohol intake, and tobacco use), social environment (e.g., educational and economic opportunities and neighborhood and work conditions), and access to clinical preventive services (e.g., cancer screening and vaccination) contribute to racial/ethnic health disparities. Level of education has been correlated with the prevalence of certain health risks (e.g., obesity, lack of physical activity, and cigarette smoking). In addition, recent immigration might increase risks for chronic disease and injury among certain populations. Although some immigrants are highly educated and have high incomes, lack of familiarity with the U.S. health-care system, different cultural attitudes about the use of traditional and conventional medicine, and lack of fluency in English can pose barriers to obtaining appropriate health care.

The elimination of racial/ethnic disparities in health status also will require important changes in the ways health care is delivered and financed. Unequal access to care and unequal treatment of persons who receive care are key determinants of racial/ethnic disparities in health care and health status.

Beginning with this week's issue, *MMWR* will publish a series underscoring health disparities for certain racial/ethnic populations. The reports in this *MMWR* issue describe levels of physical activity among Asians and NHOPIs in the United States and highlight how community-based surveys of Asian subpopulations and NHOPIs reveal important differences in health status and access to health-care services. These findings can help guide ongoing efforts to reduce or eliminate such disparities.

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Physical Activity Among Asians and Native Hawaiian or Other Pacific Islanders — 50 States and the District of Columbia, 2001–2003

Data on physical activity participation rates among Asians and Native Hawaiian or Other Pacific Islanders (NHOPIs) in the United States are limited. For example, few studies have measured physical activity prevalence among the diverse Asian population, which was estimated to be 11.9 million in 2000 according to the U.S. Census and is projected to increase to 33.4 million by 2050 (*1*). One of the broadly defined goals of the 2010 national health objectives is to reduce disparities in health among population groups (*2*). To determine the prevalence of recommended levels of lifestyle (i.e., nonoccupational) physical activity (e.g., combined leisure-time, household-related, and transport-related), the prevalence of physical inactivity, and the prevalence of leisure-time physical inactivity among Asians and NHOPIs in the United States, CDC analyzed physical activity data from the Behavioral Risk Factor Surveillance System (BRFSS) surveys from 2001, 2002, and 2003 for the Asian and NHOPI populations from all 50 states and the District of Columbia (DC). This report summarizes the results of that analysis, which indicated that 38.6% of Asians and NHOPIs met recommended levels of lifestyle physical activity, compared with 45.8% of the total U.S. population, and approximately 24% were inactive during their leisure time. To increase physical activity in the Asian and NHOPI populations, state and local health departments and other organizations should adopt evidence-based strategies at the community and individual level to promote and encourage physical activity.

BRFSS conducts annual random-digit–dialed state-based telephone surveys of the noninstitutionalized, U.S. civilian population aged ≥18 years. In 2001 and 2003, data for lifestyle physical activity and physical inactivity were collected in all states and DC. Data about leisure-time physical inactivity were collected in all 3 years (2001, 2002, and 2003). Annual sample sizes in BRFSS increased from 214,500 in 2001 to 264,684 in 2003.

For this analysis, Asians and NHOPIs were defined as those respondents who did not report being of Hispanic origin and either self-selected their racial/ethnic identity as Asian or NHOPI or selected the multiracial category and identified one race/ethnicity as Asian or NHOPI. Three variables were used to describe activity levels: lifestyle physical activity, lifestyle physical inactivity, and no leisure-time physical activity. Lifestyle physical activity was assessed on the basis of partici-

pants' responses about their participation in nonoccupational physical activities of moderate intensity (e.g., brisk walking, bicycling, vacuuming, gardening, or anything else that causes small increases in breathing or heart rate) and vigorous intensity (e.g., running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate) for ≥10 minutes at a time in a usual week. Engaging in the recommended level of lifestyle physical activity was defined operationally as engaging in moderate-intensity physical activity ≥5 days per week for ≥30 minutes per day or in vigorous-intensity physical activity ≥3 days per week for ≥20 minutes per day or both. Respondents who reported no moderate or vigorous physical activity in a usual week were classified as inactive (lifestyle inactivity). Data for 2001 and 2003 were pooled to increase the sample size of Asians and NHOPIs. The sample size for NHOPIs was too small to allow for a separate analysis.

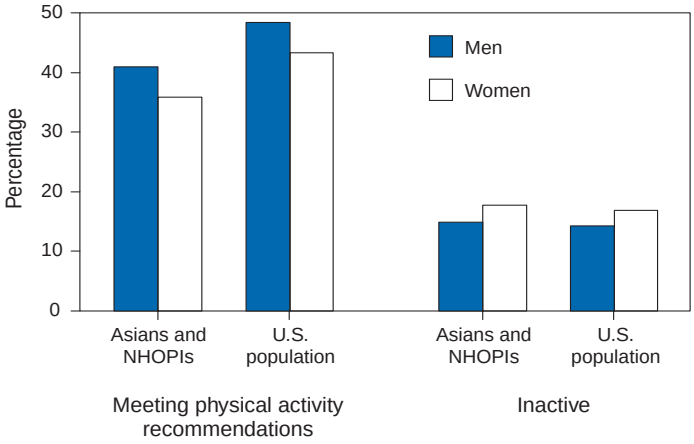
Respondents were classified as having engaged in no leisure-time physical activity if they answered "no" to the survey question, "During the past month, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise?" The time frame of this survey question was the "past 30 days" in 2001 and "past month" in 2002 and 2003. The response rates were 51.1% in 2001, 59.5% in 2002, and 54.0% in 2003 (*3*). SUDAAN was used to account for the complex sampling design. The overall sample consisted of 5,186 Asian and NHOPI respondents in 2001, 6,567 in 2002, and 5,848 in 2003.

Physical activity was reported for body mass index (BMI) categories by using two guidelines. Participants' self-reported height and weight were used to calculate their BMI (weight in kg divided by height in m^2). Participants were then categorized as underweight, normal weight, overweight, or obese. The first guideline used was the World Health Organization (WHO) standard: underweight (BMI <18.5), normal weight (BMI = 18.5–24.9), overweight (BMI = 25.0–29.9), and obese (BMI ≥30.0) (*4*). The second was the WHO Asia-Pacific guideline for Asian adults: underweight (BMI <18.5), normal weight (BMI = 18.5–22.9), overweight (BMI = 23.0–24.9), and obese (BMI ≥25.0) (*5*).

Approximately 41.0% of Asian and NHOPI men and 35.8% of Asian and NHOPI women reported lifestyle physical activity participation that met or exceeded recommended levels of physical activity (Figure). These values were lower than overall estimates for U.S. men and women in 2003 (48.4 for men and 43.3 for women). In addition to having a lower prevalence of recommended levels of lifestyle physical activity, Asian and NHOPI women also had a higher prevalence of lifestyle physical inactivity (17.8%) than Asian and NHOPI men (14.9%). The prevalence of lifestyle inactivity among Asian and NHOPI men and women was nearly equal to estimates of the overall U.S. population (14.3% and 16.9%, respectively).

Analyses by age indicated that the percentage of persons meeting recommended lifestyle physical activity levels was highest among men aged 18–34 years (46.6%) and women aged 50–64 years (37.7%) and lowest among men aged 50–64 years (33.4%) and women aged ≥65 years (31.7%) (Table). The percentage of respondents meeting recommended levels of lifestyle physical activity was higher among those who reported their health to be good, very good, or excellent (39.7%) than among those who reported it to be fair or poor (27.6%). Based on the standard WHO definitions for BMI classification, the prevalence of recommended lifestyle physical activity was slightly higher among respondents who were classified as obese (42.7%), compared with those who were classified as overweight (38.6%). Based on the WHO guidelines for Asian adults, the prevalence of recommended lifestyle physical activity was approximately 40.0% among normal weight, overweight, and obese respondents. The prevalence of lifestyle inactivity was highest among participants aged ≥65 years (24.3% among men and 27.9% among women) and was higher among those who had a high school education or less (24.7%) than among those who attended some college

FIGURE. Prevalence of recommended lifestyle physical activity* and prevalence of lifestyle physical inactivity† among Asians and Native Hawaiian or Other Pacific Islanders (NHOPIs), by sex — Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia, 2001 and 2003



* Defined as engaging in moderate-intensity physical activity (i.e., combined leisure-time, transportation-related, or household-related activity) ≥5 days per week for ≥30 minutes each day or in vigorous-intensity physical activity ≥3 days per week for ≥20 minutes each day.

† Defined as engaging in <10 minutes total per week of moderate- or vigorous-intensity physical activity.

TABLE. Prevalence of lifestyle physical activity levels among Asians and Native Hawaiian or Other Pacific Islanders, by selected characteristics — Behavioral Risk Factor Surveillance System, 50 states and the District of Columbia, 2001–2003

Characteristic	Recommended* (n = 11,480)			Inactive† (n = 11,480)		No leisure time§ (n = 18,369)		
	No.¶	(%**)	(95% CI††)	%**	(95% CI)	No.§§	(%**)	(95% CI)
Sex/Age group (yrs)								
Men	4,544	(40.9)	(±3.0)	14.9	(±2.2)	7,667	(21.2)	(±2.1)
18–34	1,803	(46.6)	(±4.6)	13.5	(±3.3)	2,936	(18.1)	(±2.9)
35–49	1,490	(36.1)	(±5.1)	15.4	(±3.5)	2,510	(23.2)	(±3.6)
50–64	746	(33.4)	(±7.1)	14.4	(±5.4)	1,336	(22.9)	(±5.5)
≥65	505	(36.1)	(±10.9)	24.3	(±9.9)	885	(31.9)	(±10.5)
Women	5,817	(35.9)	(±2.7)	17.8	(±2.5)	9,689	(27.0)	(±2.1)
18–34	2,086	(36.4)	(±4.0)	16.9	(±4.0)	3,391	(28.1)	(±3.3)
35–49	1,869	(35.3)	(±4.8)	16.9	(±3.5)	3,111	(26.3)	(±3.3)
50–64	1,034	(37.7)	(±6.8)	17.4	(±5.7)	1,733	(26.2)	(±5.5)
≥65	828	(31.7)	(±10.2)	27.9	(±11.9)	1,454	(26.1)	(±7.8)
Marital status								
Married	6,051	(35.5)	(±2.4)	16.9	(±1.9)	10,254	(25.6)	(±1.9)
Not married	4,403	(43.5)	(±3.7)	15.1	(±2.9)	7,254	(21.1)	(±2.3)
Education level								
≤High school	3,050	(41.5)	(±4.5)	24.7	(±4.3)	5,381	(30.4)	(±3.5)
≥Some college	7,393	(37.9)	(±2.3)	13.8	(±1.7)	12,109	(22.0)	(±1.6)
General health status								
Good/Very good/Excellent	9,250	(39.7)	(±2.2)	14.4	(±1.5)	15,517	(22.8)	(±1.5)
Fair/Poor	1,205	(27.6)	(±6.5)	33.4	(±7.7)	1,988	(34.0)	(±5.6)
Body mass index (BMI) (kg/m^2)¶¶								
Underweight (<18.5)	423	(28.7)	(±8.8)	25.8	(±11.1)	667	(46.6)	(±9.1)
Normal weight (18.5–24.9)	5,533	(39.8)	(±2.7)	15.5	(±2.1)	9,115	(22.8)	(±1.8)
Overweight (25.0–29.9)	2,970	(38.6)	(±4.0)	14.4	(±2.9)	5,065	(21.5)	(±2.7)
Obese (≥30.0)	1,152	(42.7)	(±7.5)	14.8	(±4.5)	1,970	(23.8)	(±4.8)
BMI* **								
Underweight (<18.5)	423	(28.7)	(±8.8)	25.8	(±11.1)	667	(46.6)	(±9.1)
Normal weight (18.5–22.9)	3,521	(39.2)	(±3.4)	15.8	(±2.6)	5,726	(24.6)	(±2.4)
Overweight (23.0–24.9)	2,032	(40.6)	(±4.5)	15.1	(±3.4)	3,439	(19.8)	(±2.9)
Obese (≥25.0)	4,102	(39.6)	(±3.6)	14.5	(±2.5)	6,985	(22.0)	(±2.4)
Region†††								
Northeast	1,807	(36.9)	(±3.6)	20.5	(±3.2)	3,094	(28.9)	(±2.9)
Midwest	980	(37.9)	(±4.2)	16.3	(±3.3)	1,569	(23.5)	(±2.9)
South	1,480	(37.7)	(±3.9)	17.1	(±3.0)	2,447	(24.7)	(±2.5)
West	6,212	(39.8)	(±3.4)	14.2	(±2.6)	10,444	(21.6)	(±2.4)
Total	**10,479**	**(38.6)**	**(±2.1)**	**16.2**	**(±1.6)**	**17,554**	**(23.9)**	**(±1.5)**

* Defined as engaging in moderate-intensity lifestyle physical activity (i.e., combined leisure-time, transportation-related, and household-related activity) ≥5 days per week for ≥30 minutes each day or in vigorous-intensity physical activity ≥3 days per week for ≥20 minutes each day.
† Defined as engaging in <10 minutes total per week of moderate- or vigorous-intensity physical activities.
§ Defined as not engaging in any leisure-time physical activity (e.g., running, calisthenics, golf, gardening, or walking) during the preceding month or preceding 30 days.
¶ Data reported for 2001 and 2003. Numbers might not sum to total because of missing data.
** Weighted percentage.
†† Confidence interval.
§§ Data reported for 2001, 2002, and 2003. Numbers might not sum to total because of missing data.
¶¶ World Health Organization (WHO) guidelines.
*** WHO guidelines for Asian populations.
††† *Northeast*: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *Midwest*: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *South*: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; and *West*: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

(13.8%). The prevalence of no leisure-time activity was lower among those who reported being in good, very good, or excellent health (22.8%) than among those who reported fair or poor health (34.0%).

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Editorial Note: The findings in this report indicate that, for 2001 and 2003 combined, approximately 39.0% of U.S. adults who self-identified as being of Asian and NHOPI ethnicity met the recommended levels of lifestyle physical activity, a substantially lower rate than that for the overall 2001 U.S. population (45.4%) (*6*). Although this report does not address disparities in physical activity among racial/ethnic populations directly, this observation supports summary findings from *Healthy People 2010*, which indicate a slightly lower percentage of Asians and NHOPIs (15.0%) engaged in recommended levels of moderate-intensity physical activity, compared with non-Hispanic whites (16.0%). Moreover, 17.0% of Asians and NHOPIs engaged in recommended levels of vigorous physical activity, compared with 25.0% of non-Hispanic whites (*7*).

The estimated prevalence of no leisure-time physical activity among Asians and NHOPIs (23.9%) is similar to estimates documented in 2002 in 35 states and DC (25.1%) (*8*). To increase the proportion of Asians and NHOPIs who engage in the recommended amount of lifestyle physical activity, researchers will need to devise and implement effective intervention strategies to overcome barriers to physical activity specific to this population. Although socioeconomic factors have been associated with physical inactivity (*9*), the potential impact that cultural influences have on that association is not well understood.

Results from this report conflict with evidence from other studies that suggests physical activity is associated with education among U.S. adults (*2*). The results from this study instead suggest that a higher percentage of Asians and NHOPIs with less formal education were more likely to participate in physical activity at least at the recommended level than those with more formal education. However, similar to the overall U.S. population (*8*), Asians and NHOPIs with more education reported lower levels of inactivity and no leisure-time physical activity than those with less education. Those who reported their health to be good, very good, or excellent were more likely to report meeting recommended levels of physical activity and less likely to report inactivity than participants who reported fair or poor health status.

This report characterizes physical activity patterns among Asians and NHOPIs by using both the standard WHO guidelines and WHO Asia-Pacific guidelines to define overweight and obesity. The Asia-Pacific guidelines were created because of variations in body size and composition characteristics between Asian populations and those of largely European origin (*5*). On the basis of either set of guidelines, the results from this report suggest little difference in activity levels among those Asians and NHOPIs who were normal weight, overweight, or obese. For both sets of guidelines, the data suggest the percentage of participants who reported engaging in at least recommended levels of lifestyle physical activity was lowest among those classified as underweight. This finding is difficult to explain, especially given the heterogeneity among the Asian and NHOPI populations, and might be related to poor health. However, overweight and obese respondents might have reported meeting physical activity recommendations because physical activity was part of their weight-loss strategy or because they were responding to survey questions in what they deemed to be a socially desirable manner.

The findings in this report are subject to at least four limitations. First, BRFSS data are based on telephone interviews and thus are subject to recall bias. Second, "Asian" does not describe a homogenous population but rather is an umbrella term for numerous distinct subpopulations such as Chinese, Asian Indians, and Vietnamese. For this report, NHOPI were grouped with Asians because of a small sample size; however, NHOPI are a separate racial group from Asians. Third, the limited number of Asian and NHOPI respondents in the BRFSS surveys required pooling of data across 2 or 3 years; however, slight differences in physical activity participation levels existed between 2001 and 2003. Finally, because BRFSS data are derived from telephone interviews, the survey sample might not have been representative of all Asians and NHOPIs, and the data might be limited by nonresponse and telephone coverage–related errors.

Because approximately 61% of Asians and NHOPIs are not active at levels consistent with public health recommendations, local and state health departments and other interested groups are encouraged to establish prevention and public health education programs geared to this population. The Task Force on Community Preventive Services recommends six strategies to increase physical activity: 1) communitywide campaigns, 2) placement of signs near elevators and escalators to encourage stair usage, 3) individually adapted programs to promote health-behavior change, 4) physical education in schools, 5) social support interventions in community settings, and 6) creation or enhancement of access to places for physical activity in community environments in combination with informal outreach activities (*10*). These strategies could be tailored to Asian and NHOPI populations in several ways.

For example, social support interventions targeting subpopulations could be used to design and promote culturally appropriate physical activities popular among this population. More research leading to effective intervention strategies for this population and additional health-promotion efforts to encourage increased physical activity among Asians and NHOPIs are needed.

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Health Status of Cambodians and Vietnamese — Selected Communities, United States, 2001–2002

National health data often are reported for Asians in the aggregate and do not monitor the health of specific Asian subpopulations (e.g., Cambodians and Vietnamese) in the United States (*1,2*). In addition, surveys conducted in English exclude Cambodians and Vietnamese with limited English proficiency. This report summarizes and compares health data from 1) a survey of one Cambodian and three Vietnamese communities conducted during 2001–2002 for the Racial and Ethnic Approaches to Community Health (REACH) 2010 project and 2) a survey of Asians in the aggregate and the general U.S. population conducted by the 2002 Behavioral Risk Factor Surveillance System (BRFSS). The questions were identical on both surveys. The results of this analysis indicated that Cambodians and Vietnamese had lower levels of education and household income and substantially different health-risk profiles than both the aggregate Asian population and the general U.S. population. Public health agencies should examine the health status of racial/ethnic subpopulations and prioritize interventions that address disparities.

In 1999, CDC launched the REACH 2010 project to support efforts by minority community coalitions to eliminate health disparities (*3*). As part of surveillance and evaluation, CDC contracted with the National Organization for Research at the University of Chicago to conduct annual REACH 2010 Risk Factor Surveys in project communities. During June 2001–August 2002, a baseline survey was conducted in 21 minority communities in 14 states. The detailed survey methodology has been published (*4*).

For this report, data from Vietnamese communities in Los Angeles, Orange, and Santa Clara counties, California, were combined; Cambodian data were from Lowell, Massachusetts, where 57% of the Asian population is Cambodian. Vietnamese respondents were interviewed by telephone; Cambodians were interviewed in person on the advice of local REACH project staff. In Lowell, 199 (19%) of the interviews were conducted in English, and 827 (81%) were conducted in Khmer. In the three Vietnamese communities, 747 (28%) of the interviews were conducted in English, 1,876 (71%) in Vietnamese, and 1% in Chinese. Response rate was 93% in the Cambodian community and 72% in the combined Vietnamese communities.

All data were self reported. Respondents were considered to have fulfilled physical activity recommendations if they participated in moderate physical activity for ≥30 minutes per day, 5 days per week, or participated in vigorous physical activity for ≥20 minutes per day, 3 days per week. Data were weighted to represent the communities surveyed, and SUDAAN was used to account for the complex survey and sample design. Prevalence estimates were standardized to the sex and age distribution of the population in the 2000 U.S. Census.

The REACH 2010 survey sampled 1,026 Cambodians and 2,658 Vietnamese. The 2002 BRFSS survey sampled 5,183 Asians from a total adult sample of 246,025 from 50 states and the District of Columbia (Table 1). Although Asians in the aggregate had higher education and income than the general U.S. population, Cambodians and Vietnamese had substantially lower education and income. The surveyed Cambodians and Vietnamese were at least three times more likely to report not visiting a doctor because of the cost than were all Asians or all U.S. residents.

up-to-the-minute: *adj*

1 : extending up to the immediate present, including the very latest information; see also *MMWR*.

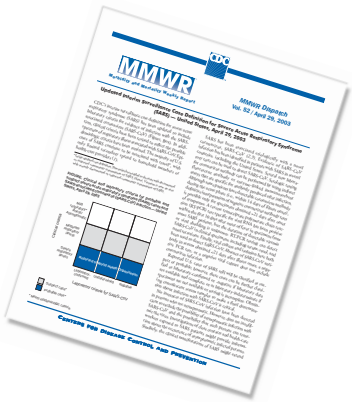

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TABLE 1. Prevalence* of selected socioeconomic and health indicators among four Asian communities and the U.S. general population — Racial and Ethnic Approaches to Community Health (REACH) 2010 Risk Factor Survey, 2001–2002 and Behavioral Risk Factor Surveillance System (BRFSS), 2002

	REACH 2010 Risk Factor Survey				2002 BRFSS†			
	Cambodians: Lowell, Massachusetts (n = 1,026)		Vietnamese: Los Angeles, Orange, and Santa Clara counties, California (n = 2,658)		Asians: national aggregate (n = 5,183)		U.S. general population (n = 246,025)	
Socioeconomic indicator/Health indicator	%	(95% CI§)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Socioeconomic indicator								
Education completed								
<High school	56.6	(51.2–61.8)	29.9	(28.0–31.8)	3.8	(2.8–5.1)	12.3	(12.0–12.5)
High school	30.0	(24.5–36.0)	24.0	(22.0–26.2)	15.3	(12.7–18.3)	30.3	(30.0–30.7)
Some college	11.6	(9.0–14.7)	21.1	(19.1–23.3)	19.8	(17.4–22.4)	27.5	(27.2–27.9)
College graduate	1.9	(1.1–3.4)	24.9	(22.7–27.3)	61.1	(57.7–64.5)	29.9	(29.5–30.2)
Annual household income <$25,000	57.0	(51.2–62.6)	54.6	(52.1–57.1)	22.1	(18.9–25.6)	30.0	(29.6–30.3)
Could not visit a doctor because of the cost	14.3	(9.8–20.3)	13.1	(11.5–14.8)	2.6	(1.7–4.1)	3.7	(3.6–3.9)
Health indicator								
Obesity	5.6	(3.8–8.1)	1.9	(1.4–2.6)	5.5	(4.3–7.1)	21.9	(21.6–22.2)
Current smoking								
Men	50.4	(42.1–58.7)	30.4	(27.1–34.0)	14.7	(11.8–18.1)	24.9	(24.4–25.4)
Women	10.9	(7.3–16.1)	0.9	(0.5–1.8)	7.3	(5.5–9.6)	20.4	(20.1–20.8)
Eating five or more fruits and vegetables daily	16.4	(13.1–20.3)	11.1	(9.6–12.7)	32.1	(28.9–35.5)	24.4	(24.1–24.7)
Met physical activity recommendations	34.6	(29.3–40.3)	14.3	(12.6–16.2)	28.1	(25.2–31.2)	33.3	(32.9–33.8)
Hypertension	17.0	(13.9–20.6)	18.9	(17.3–20.6)	20.9	(15.5–27.7)	26.5	(25.9–27.1)
Diabetes	5.1	(3.6–7.0)	5.3	(4.3–6.5)	7.8	(5.8–10.3)	7.0	(6.8–7.2)
High blood cholesterol	24.5	(19.0–30.9)	24.8	(22.4–27.4)	28.5	(22.5–35.2)	29.7	(29.0–30.4)
Ever had blood cholesterol checked	47.7	(41.7–53.9)	68.3	(65.8–70.7)	70.1	(64.0–75.7)	77.4	(76.8–77.9)
Examinations in the preceding year¶								
Hemoglobin A1c	41.9	(35.2–49.0)	64.0	(54.3–72.6)	84.0	(70.9–91.9)	84.2	(81.9–86.3)
Foot	59.5	(51.4–67.1)	46.0	(34.4–57.9)	57.9	(45.1–69.6)	65.6	(62.7–68.5)
Eye	65.3	(57.8–72.1)	69.5	(63.0–75.3)	52.2	(42.2–62.0)	61.4	(58.5–64.1)
Mammogram in the preceding 2 years**	73.6	(62.8–82.1)	73.9	(68.9–78.3)	71.9	(60.3–81.2)	79.6	(79.0–80.1)
Papanicolaou test in the preceding 3 years††	64.2	(57.5–70.5)	65.5	(62.2–68.8)	74.5	(69.5–78.9)	85.8	(85.4–86.2)
Influenza vaccination in the preceding year§§	77.2	(64.4–86.4)	82.5	(77.3–86.8)	75.2	(62.5–84.7)	66.4	(65.6–67.2)
Ever had a pneumococcal vaccination§§	18.8	(8.1–37.8)	40.0	(33.6–46.7)	63.4	(49.8–75.2)	61.8	(61.0–62.6)

* Adjusted for sex and age.
† Data from 50 states and the District of Columbia (DC); however, data on some indicators were not collected in every state and DC.
§ Confidence interval.
¶ Limited to diabetes patients.
** Limited to women aged ≥50 years.
†† Limited to women.
§§ Limited to persons aged ≥65 years.

Among men, greater proportions of Cambodians (50.4%) and Vietnamese (30.4%) smoked than aggregate Asians (14.7%) and the general U.S. population (24.9%). Among women, prevalence of self-reported smoking was higher among Cambodians (56 [10.9%]) than both Vietnamese (15 [0.9%]) and aggregate Asians (274 [7.3%]) but lower than the prevalence in the general U.S. population (29,992 [20.4%]). Cambodians (153 [16.4%]) and Vietnamese (294 [11.1%]) were less likely to report eating five or more fruits and vegetables a day, and Vietnamese (365 [14.3%]) were less likely to meet physical activity recommendations, compared with aggregate Asians (977 [28.1%]) and the general U.S. population (32,450 [33.3%]).

Fewer than half of surveyed Cambodians (477 [47.7%]) reported ever having their blood cholesterol checked. Cambodians with diabetes were the least likely (40 [41.9%]) to have had a hemoglobin A1c test in the preceding year. Cambodian and Vietnamese women had lower rates of Papanicolaou tests (64.2% and 65.5%, respectively) than women in the aggregate Asian and general U.S. populations (74.5% and 85.8%, respectively). Approximately 18.8% of Cambodians and 40.0% of Vietnamese aged ≥65 years reported ever having pneumococcal vaccine, compared with 63.4% of aggregate Asians and 61.8% of the general U.S. population.

Persons interviewed in English had different characteristics than those interviewed in Khmer or Vietnamese (Table 2). For example, Cambodians interviewed in their native language were on average older (39.6 years versus 36.4 years), more likely to have less than a high school education (64.2% versus 39.4%), annual household income of <$25,000 (60.1% versus 51.3%), and to report cost as a barrier to obtaining health care (15.2% versus 11.6%). Vietnamese interviewed in English had a higher fruit and vegetable intake (19.9% versus 7.6%) and reported more leisure-time physical activity (22.5% versus 10.5%). Among men in the Cambodian community, prevalence of smoking was higher among those interviewed in English (63.9% versus 40.9%); however, among women, the opposite pattern was observed (6.1% versus 12.1%).

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Editorial Note: Asians are the fastest-growing racial population in the United States. During April 1, 2000–July 1, 2003, the Asian population increased an estimated 12.5% to 13.5 million (*5*). In 2000, Cambodians and Vietnamese constituted 12% of the U.S. Asian population. In the mid-1970s, large numbers of Cambodians and Vietnamese began arriving in the United States, primarily as refugees. These refugees faced socioeconomic and language challenges often different from persons in other Asian subpopulations that had been established in the United States for multiple generations.

The findings in this report revealed differences in health status among Asian subpopulations, including Cambodians and Vietnamese. For example, the data indicated that among Cambodian and Vietnamese men and women in the surveyed communities, pronounced differences in smoking prevalence existed that were not evident in the aggregate Asian population; in addition, higher proportions of Cambodian and Vietnamese men reported smoking than the overall Asian general U.S. populations. Because the average age for smoking initiation has been estimated at 17 years among Vietnamese and 14 years among Cambodians (*6*), tobacco-use prevention efforts in these populations should focus on youths.

Contrary to traditional diets in their countries of origin (*7,8*), Cambodians and Vietnamese also reported less fruit and vegetable consumption. Reports have suggested that fruits and vegetables have been perceived as more costly in the United States in some populations (*7*). Data on physical activity indicate substantial differences between Cambodians and Viet-

TABLE 2. Prevalence of selected socioeconomic and health indicators of persons interviewed in English and interviewed in native languages — Racial and Ethnic Approaches to Community Health (REACH) 2010 Risk Factor Survey, 2001–2002

	Cambodians: Lowell, Massachusetts				Vietnamese: Los Angeles, Orange, and Santa Clara Counties, California			
	English (n = 199)		Khmer (n = 827)		English (n = 747)		Vietnamese (n = 1,876)	
Socioeconomic indicator/Health indicator	Mean	SE*	Mean	SE	Mean	SE	Mean	SE
Socioeconomic indicator								
Age (yrs)	36.4	1.6	39.6	1.0	41.4	0.7	46.5	0.5
	%	(95% CI†)	%	(95% CI)	%	(95% CI)	%	(95% CI)
<High school education	39.4	(34.0–45.2)	64.2	(59.2–68.8)	26.7	(23.3–30.3)	31.0	(28.8–33.3)
Annual household income <$25,000	51.3	(43.2–59.4)	60.1	(53.0–66.9)	44.4	(40.1–48.7)	58.6	(55.6–61.6)
Could not visit a doctor because of the cost	11.6	(7.0–18.6)	15.2	(10.4–21.8)	11.8	(9.4–14.7)	13.6	(11.7–15.7)
Health indicator								
Current smoking								
Men	63.9	(47.7–77.5)	40.9	(35.2–47.0)	32.2	(26.2–38.9)	30.4	(26.4–34.8)
Women	6.1	(3.4–10.6)	12.1	(7.7–18.7)	0.9	(0.3–2.6)	0.9	(0.4–2.1)
Eating five or more fruits and vegetables daily	20.8	(16.1–26.4)	15.0	(11.0–20.2)	19.9	(16.6–23.6)	7.6	(6.2–9.3)
Met physical activity recommendations	41.4	(30.5–53.3)	31.3	(27.0–36.1)	22.5	(18.9–26.5)	10.5	(8.8–12.5)
Mammogram in the preceding 2 years§	75.1	(54.6–88.3)	73.0	(60.0–83.0)	79.6	(70.3–86.5)	72.1	(66.1–77.4)
Pap test in the preceding 3 years¶	60.3	(53.1–67.1)	65.6	(58.5–72.1)	67.8	(61.5–73.4)	65.0	(60.8–69.0)

* Standard error.
† Confidence interval.
§ Limited to women aged ≥50 years.
¶ Limited to women.

namese. The low prevalence of physical activity among Vietnamese in California was reported previously (*9*) and indicates a need for programs to promote physical activity among Vietnamese adults.

Although self-reported prevalence of hypertension, diabetes, and high cholesterol among Cambodians and Vietnamese were similar to or lower than prevalences among aggregate Asians and the general U.S. population, these data should be examined in relation to data regarding less access to health care and lack of screenings. Respondents with limited English also might be unaware of their chronic conditions because of poor communication with health-care providers. In Lowell, Massachusetts, where the majority of Asians are Cambodian, Asians aged ≥45 years die from diabetes at higher rates than the general Massachusetts population (*10*).

A major strength of the REACH 2010 survey was that interviews could be conducted in native languages. Previous nationwide surveys, such as those conducted by BRFSS, have included only questions and answers in English. The findings in this report indicate substantial differences between persons interviewed in English and in their native languages. A survey that accommodates both English and the native language also is a demonstration of respect and sensitivity to the community and might help increase survey participation, even among English speakers.

The findings in this report are subject to at least three limitations. First, the REACH 2010 survey included only one Cambodian and three Vietnamese communities, and the data might not be representative of other Cambodian and Vietnamese communities in the United States. Second, because estimates are based on self-reported data, the prevalence of some chronic conditions and the percentage of the population using preventive services might be under- or overestimated. Finally, food-frequency questions concerned mostly Western eating habits, which might not be culturally appropriate in certain Asian subpopulations.

The results of this analysis underscore the need for public health agencies to study the health status of racial/ethnic subpopulations. Whenever possible, communities should gather local data to guide program planning and evaluation. REACH 2010 health intervention projects are ongoing in the four communities described in this report. The Vietnamese Community Health Promotion Project (http://www.suckhoelavang.org) is targeting cervical cancer among Vietnamese women in Santa Clara County, Promoting Access to Health for Pacific Islander and Southeast Asian Women is working to increase breast- and cervical-cancer screening and follow-up in Los Angeles and Orange counties, and the Cambodian Community Health 2010 project in Lowell is promoting cardiovascular health and diabetes prevention. Additional surveillance and

targeted interventions will be needed to address the disparities in health between these subpopulations and the overall Asian and general U.S. populations.

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Breast- and Cervical-Cancer Screening Among Korean Women — Santa Clara County, California, 1994 and 2002

Asians account for an increasing proportion of the U.S. population (*1*). Koreans are the fifth largest Asian subpopulation, totaling 1.2 million in 2000 (*1*). In Santa Clara County (2000 population: 1.7 million), California, Koreans constitute 1.3% of the population (*2*). In 1994 and 2002, two population-based surveys were conducted among Korean women (2000 population: approximately 12,000) in Santa Clara County regarding breast- and cervical-cancer screening. The results were contrasted with two surveys of the general population of California women conducted during the same years. This report summarizes the findings of those surveys, which indicated that Korean women received less frequent breast- and cervical-cancer screening compared with all California women. This report also assesses compliance with the 2010 national health objectives for Papanicolaou (Pap) tests and mammography screening*. Multifaceted community programs that include culturally and linguistically sensitive education of community members and their health-care providers, along with improved health-care access, will be required to achieve the 2010 national health objectives.

During August 1994–February 1995 and February–June 2002, the Center for Family and Community Health (CFCH) at the University of California, Berkeley, and Asian Health Services (AHS) conducted two household telephone surveys among Korean women in Santa Clara County. These results were compared with results for all California women from the 1994 and 2002 California Behavioral Risk Factor Survey (BRFS) and with the 2010 national health objectives for Pap tests and mammography screening.

The surveys of Korean women were adapted from the 1993 California BRFS and modified for cultural sensitivity and appropriateness. Questionnaires were developed in English, translated into Korean, back-translated into English, and pretested. In 1994 and 2002, 94.2% and 93.0%, respectively, of the interviews were administered in Korean. Approximately 500 Korean surnames were identified, and Korean surname–based telephone lists were purchased from commercial sources.

In 1994, a total of 5,079 listed telephone numbers with Korean surnames were sampled; 501 (9.8%) were eligible, 4,385 (86.3%) were ineligible, and 193 (3.8%) were of unknown eligibility. Most ineligible telephone numbers represented households without a Korean woman (71.5%) or were incorrect, disconnected, or nonworking (20.4%). The estimated survey response rate was 79.5%.

In 2002, a total of 10,785 listed telephone numbers with Korean surnames were sampled; 626 (5.8%) were eligible, 9,180 (85.1%) were ineligible, and 979 (9.1%) were of unknown eligibility. Most ineligible telephone numbers represented households without a Korean woman (68.7%) or were incorrect, disconnected, or nonworking (24.6%). The estimated survey response rate was 66.5%.

Interviewers spoke in Korean and switched to English if the respondent did not reply in Korean. The survey was described as a "study about health and immigration among Koreans." Respondents were eligible for the study if they self-identified as either Korean, Korean American, or of Korean origin. Both surveys consisted of two phases; in phase 1, one Korean woman aged ≥18 years was selected randomly within each eligible

*The objectives call for 97% of women aged ≥18 years to receive Pap tests (objective no. 3-11a), 90% to receive Pap tests during the preceding 3 years (objective no. 3-11b), and 70% of women aged ≥40 years to receive mammograms during the preceding 2 years (objective no. 3-13) (*3*).

household and, in phase 2, to ensure an oversample of older women, additional Korean women aged ≥50 years were selected randomly from eligible households. In 1994, a total of 414 interviews were completed; in 2002, a total of 458 interviews were completed. Results were weighted to account for the probability of selection of the respondent and for the age distribution of Korean women in Santa Clara County in the 1990 Census for the 1994 survey and in the 2000 Census for the 2002 survey. Because of complex survey samples, SUDAAN was used to estimate sampling errors. For each pair of comparable estimates, t-tests were conducted, and estimates were examined to determine statistical significance ($p<0.05$).

From 1994 to 2002, four statistically significant changes in sociodemographic characteristics were observed: 1) the percentage of women aged 18–29 years decreased from 29.3% to 18.1%, 2) the percentage with some college education increased from 61.7% to 71.7%, 3) the percentage who immigrated during the 5 years preceding the survey increased from 9.9% to 19.3%, and 4) the percentage who spoke little or no English increased from 61.0% to 77.2%. Thus, in 2002 compared with 1994, Korean women were more likely to be middle-aged, college educated, and recent immigrants who spoke little or no English.

In 1994, 79.2% of Korean women in Santa Clara County reported having at least one routine checkup during their lifetimes, and 40.5% had routine checkups during the preceding year (Table). An estimated 65.0% had at least one Pap test during their lifetimes, and 56.6% had Pap tests during the preceding 3 years. Approximately 66.3% of Korean women had performed breast self-examinations at least once during their lifetimes, and 23.6% performed breast self-examinations monthly. Among Korean women aged ≥50 years, 40.9% had at least one clinical breast examination during their lifetimes, 29.2% had clinical breast examinations during the preceding 2 years, 43.3% had at least one mammogram during their lifetimes, and 28.7% reported having mammograms during the preceding 2 years.

In 2002, six statistically significant improvements in screening practices among Korean women were observed: 1) 87.6% of women reported having at least one routine checkup during their lifetimes, 2) 55.4% reported routine checkups during the preceding year, 3) 55.4% of women aged ≥50 years reported having clinical breast examinations during their lifetimes, 4) 41.0% had clinical breast examinations during the preceding 2 years, 5) 77.9% had at least one mammogram during their lifetimes, and 6) 58.9% reported having mammograms during the preceding 2 years.

In 1994 and again in 2002, Korean women in Santa Clara County were less likely to receive any preventive screening than all women in California (Table). The preventive screenings included routine checkups, Pap tests, breast self-examinations for all women, and clinical breast examinations and mammograms for women aged ≥50 years. Although certain preventive screenings increased over time for Korean women, screening rates were higher in the general population of California women.

Korean women in Santa Clara County have yet to achieve the 2010 national health objectives for Pap tests and mammography screening; objectives for breast self-examinations or clinical breast examinations have not been established. In 2002, 74.8% of Korean women aged ≥18 years had received at least one Pap test during their lifetimes, and 63.0% received

TABLE. Percentage distribution of self-reported preventive screening practices among Korean women in Santa Clara County, California, and all women in California — California Behavioral Risk Factor Survey, 1994 and 2002

	1994				2002			
	Korean women (N = 414)		California women* (N = 2,257)		Korean women (N = 458)		California women† (N = 2,478)	
Preventive screening practice	%	(95% CI§)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Ever had routine checkup	79.2	(72.5–85.9)	97.1	(96.5–97.7)	87.6	(83.9–91.3)	N/A¶	N/A
Had routine checkup during preceding year	40.5	(32.8–48.2)	54.6	(52.8–56.4)	55.4	(49.9–61.0)	N/A	N/A
Ever had Papanicolaou (Pap) test	65.0	(56.5–73.5)	92.1	(90.7–93.5)	74.8	(69.5–80.1)	92.5	(90.8–94.2)
Had Pap test during preceding 3 years	56.6	(48.1–65.0)	81.5	(79.7–83.4)	63.0	(57.6–68.5)	80.7	(78.5–82.8)
Ever performed breast self-examination	66.3	(58.7–73.7)	N/A	N/A	61.7	(56.1–67.3)	N/A	N/A
Performed breast self-examination monthly	23.6	(17.1–30.2)	N/A	N/A	26.6	(22.0–31.1)	N/A	N/A
Ever had clinical breast examination**	40.9	(34.4–47.4)	88.7	(86.2–91.2)	55.4	(48.3–62.5)	88.4	(85.4–91.5)
Had clinical breast examination during preceding 2 years**	29.2	(23.5–35.0)	76.6	(73.3–79.8)	41.0	(34.1–47.9)	74.9	(71.1–78.6)
Ever had mammogram**	43.3	(36.8–49.8)	86.2	(83.5–88.9)	77.9	(71.8–84.0)	93.0	(90.5–95.5)
Had mammogram during preceding 2 years**	28.7	(22.8–34.6)	75.1	(71.7–78.4)	58.9	(51.9–65.9)	82.0	(78.6–85.3)

* Results were weighted to account for different probabilities of selection and to adjust to the age and race distribution for 1994 intercensile estimates.
† Results were weighted to account for different probabilities of selection and to adjust to the age and race distribution for 2002 intercensile estimates.
§ Confidence interval.
¶ Not assessed.
** Limited to women aged ≥50 years.

Pap tests during the preceding 3 years. Among Korean women aged ≥50 years, 58.9% had received mammograms during the preceding 2 years.

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Editorial Note: The findings in this report indicate that among Korean women who resided in Santa Clara County in 1994 and 2002, breast- and cervical-cancer screening frequencies had not reached the 2010 national health objectives; however, certain improvements in screening practices were observed. From 1994 to 2002, mammography screening for women aged ≥50 years increased among Korean women. In addition, during this period, routine checkups increased for Korean women, and those aged ≥50 years were more likely to have received clinical breast examinations.

In 1994 and 2002, Korean women were less likely to receive preventive screenings, compared with women in the California general population. Cultural and linguistic factors and health-care access and use might explain some of these differences. Previous research identified independent correlates of breast- and cervical-cancer screening among Korean women (*4,5*). Those who had regular medical checkups and private health insurance were more likely to have received a recent mammogram and clinical breast examination (*4*), and those who had regular medical checkups and public health insurance were more likely to receive a recent Pap test (*5*). Having a non-Korean doctor was associated with increased likelihood of having a recent Pap test, mammogram, and clinical breast examination, compared with women who had a Korean doctor (*6*).

The findings in this report are subject to at least three limitations. First, the use of Korean surname–based telephone lists might exclude from the survey persons of Korean origin who resided in households without telephones, who did not list their telephone numbers, or who did not have Korean surnames. Second, because of the small sample sizes for Korean women, modest increases in screening were not statistically significant. Finally, self-reports of preventive screening might be subject to reporting biases.

CFCH and AHS implemented a 4-year community intervention to improve breast- and cervical-cancer screening among Korean women in neighboring Alameda County (*7*). The intervention included educational workshops conducted in Korean churches and other community venues, a media campaign that used financial incentives to encourage screening, and a poster campaign. Culturally appropriate educational interventions, better health-care access, and health-care provider training might help improve breast- and cervical-cancer screening in Asian populations.

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Community-Associated Methicillin-Resistant *Staphylococcus aureus* Infections in Pacific Islanders — Hawaii, 2001–2003

Methicillin-resistant *Staphylococcus aureus* (MRSA) is emerging as a cause of skin and soft-tissue infections in persons who have little or no contact with health-care settings. The majority of these infections are mild, involving skin and soft tissue; however, certain cases can progress to invasive tissue infections, bacteremia, and death (*1*). Transmission of MRSA has been reported most frequently in certain populations (e.g., children, sports participants, or jail inmates) (*2,3*). Persons in the American Indian or Alaska Native population in the United States and aboriginals and Pacific Islanders (PIs) in Australia have high rates of MRSA colonization and infection (*4,5*). In 2003, clinicians reported an increased number of skin abscesses caused by MRSA among patients examined in ambulatory care settings. This report summarizes the findings of a retrospective study of community-associated MRSA (CA-MRSA)

infections in Hawaii that identified a higher proportion of cases among PIs than were identified among Asians, compared with their respective proportions in the Hawaii population. Efforts to prevent CA-MRSA in Hawaii should focus on identifying factors causing the disproportionate number of infections among PIs.

Four health-care facilities in Hawaii were selected for the study: a pediatric and women's center, a private urban clinic, a county urban hospital, and a rural community hospital. Patients with MRSA isolated during the study period were identified, and chart abstraction was performed for those patients who had illness consistent with the CA-MRSA case definition*. Chart information on race was self-reported. Race categories included white, black, Asian, multiracial non-PI, and PI (i.e., Native Hawaiians and persons of Polynesian, Micronesian, and Melanesian ancestry). The category PI also was used for persons who were PI in addition to another race. Data from the 2001 Hawaii Health Survey, Hawaii State Department of Health (*6*), and 2002 hospital data from the pediatric and women's center were used for population comparisons.

During July 2001–June 2003, MRSA was recovered from 1,389 patients in the four study facilities, of whom 389 (28%) had illness consistent with the case definition for CA-MRSA infection; 346 (89%) of these patients had racial/ethnic data recorded on their charts. PIs accounted for 51% (178 of 346) of the CA-MRSA patients, compared with 24% (278,607 of 1,175,595) of the total population of Hawaii in 2001 ($p<0.01$) (*6*). In the pediatric and women's center alone, PIs accounted for 76% (90 of 118) of CA-MRSA patients, compared with 35% (17,088 of 48,912) of the patients served in this facility in 2002 ($p<0.01$). In contrast, Asians accounted for 16% (54 of 346) of all patients with CA-MRSA, compared with 32% (374,776 of 1,175,595) of the 2001 Hawaii population ($p<0.01$). In the pediatric and women's center alone, Asians constituted 10% (12 of 118) of CA-MRSA patients, compared with 36% (17,648 of 48,912) of the patients examined in 2002 ($p<0.01$). Among all CA-MRSA patients, 211 (61%) were male; median age was 18.5 years (range: 0–87 years) for PIs and 32 years (range: 0–93 years) for other races ($p<0.01$). Of 321 patients who received antimicrobial therapy, 215 (67%) were treated with an antimicrobial agent to which *S. aureus* was resistant. Adult PIs (i.e., aged ≥19 years) had

*A case of CA-MRSA was defined as illness compatible with staphylococcal disease, in which MRSA was cultured from the site of infection during July 2001–June 2003 in an outpatient setting or <48 hours after hospital admission, and with none of the following health-care risk factors: hospitalization, surgery, dialysis, or residence in a long-term–care facility <1 year before the onset of illness; permanent indwelling catheter or percutaneous medical device; or a previous positive MRSA culture.

diabetes mellitus more often than adults of other races (27% versus 12%; p<0.05) and reported intravenous drug use less often (1% versus 8%; p<0.05).

Among patients with CA-MRSA, adult PIs had skin and soft tissue infections more often than adults of other races (98% [87 of 89] versus 85% [119 of 140]; p<0.05). The majority of skin infections in PIs consisted of abscesses (71% [126 of 178]) and/or cellulitis (41% [73 of 178]). Other skin infections were wounds/ulcers (six), impetigo (four), and folliculitis (three). Of the PIs with skin infections, 11 had concurrent illnesses (e.g., deep soft-tissue infections, bacteremia, bursitis, osteomyelitis, and pneumonia). Among the 28 patients who did not have skin infections, pneumonia was the most frequent presentation (five PIs and seven others).

Despite differences in clinical presentation, the proportion of patients hospitalized and the types of therapies received were similar for PIs and patients of other races when stratified by age group. The majority of patients received antimicrobials to treat MRSA infection (98% [174 of 177] among PIs and 96% [156 of 163] among other races). Among adults, surgery, mostly incision and drainage of abscesses, was performed on 62% (54 of 87) of PIs and 57% (73 of 129) of patients of other races. Among persons aged <19 years, surgery was performed on 64% (56 of 88) of PIs and 72% (18 of 25) of patients of other races.

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Editorial Note: In 2000, PIs, alone or in combination with other races, made up only 0.3% (874,000) of the total U.S. population. However, in Hawaii, the state with the largest PI population, 23% of the population was PI in 2001 and 32% was Asian (*6*). Historically, PIs have been grouped with persons of Asian origin for demographic purposes; however, these two populations might differ in health status and risk factors for infectious and noninfectious diseases. This report documents that the number of CA-MRSA infections in Hawaii is disproportionately greater among PIs than among Asians. Clinical presentation as skin and soft-tissue infection also was more frequent among PIs than among patients of other races.

Several factors might contribute to higher rates of CA-MRSA among PIs. In Australia, Hawaii, and New Zealand, PIs have higher reported rates of infections by *S. aureus*, group A streptococcus, and *Neisseria meningitidis* than persons of other races (*5,7*). Geographic isolation might have facilitated transmission of genetic traits conferring differences in immune function; however, little has been reported on specific immunologic differences among PIs (*5,7*). Alternatively, environmental factors such as home overcrowding, inadequate access to appropriate sanitation, and limited access to health care also might contribute to a higher rate of bacterial infections, especially skin infections (*2,3,7*). Because of the limited information recorded in medical charts, presence of these risk factors could not be assessed in this study. However, in the 1990 Census, persons who self-identified as PIs had larger families, a lower proportion of college graduates, and higher poverty rates, compared with persons who self-identified as Asian/PIs and the overall national average (*8*). Cultural and language barriers, limited access to health care, and lack of prevention and education programs also are known to contribute to poorer health among PIs (*9*).

In this study, investigators also observed a higher proportion of diabetes mellitus among PIs with CA-MRSA infections. Persons with diabetes and obesity are at risk for skin and soft-tissue infections, which can require multiple and/or prolonged courses of antibiotics, making them more susceptible to infections with antimicrobial-resistant strains (*10*).

The findings in this report are subject to at least one limitation. The PIs identified as CA-MRSA patients from the four facilities in this study might not be representative of the total PI population in Hawaii in terms of health-risk factors. This might have widened the disparity between the percentage of CA-MRSA cases accounted for by PIs and the percentage of PIs in the general state population. However, PI patients at the pediatric women's center also were compared with the center's patient census. This comparison revealed similar disproportionate prevalence of CA-MRSA infections in PIs, compared with Asians and the total patient census.

Prospective studies are needed to identify specific risk factors for, and targeting measures to prevent, MRSA acquisition and transmission among PIs. General strategies to prevent and control CA-MRSA infections include 1) encouraging clinicians to culture suspect lesions and provide targeted antimicrobial and surgical therapy, 2) maintaining appropriate infection-control precautions during wound care of patients with skin infections at outpatient health-care facilities, and 3) providing patients and families with simple instructions to prevent transmission of skin infections to family members and other contacts, such as education on appropriate wound management, hand and body hygiene, and limiting sharing of potentially contaminated items. Additional information about CA-MRSA is available at http://www.cdc.gov/ncidod/hip/aresist/mrsa_comm_faq.htm.

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West Nile Virus Activity — United States, August 18–24, 2004

During August 18–24, a total of 154 cases of human West Nile virus (WNV) illness were reported from 18 states (Alabama, Arizona, California, Colorado, Connecticut, Florida, Georgia, Illinois, Kentucky, Minnesota, Mississippi, Missouri, Nevada, New Mexico, North Carolina, South Dakota, Tennessee, and Wisconsin).

During 2004, a total of 32 states have reported 843 cases of human WNV illness to CDC through ArboNET (Table, Figure). Of these, 304 (36%) cases were reported from Arizona. A total of 469 (56%) of the 843 cases occurred in males; the median age of patients was 50 years (range: 1 month–99 years). Illness onset ranged from April 23 to August 17; a total of 20 cases were fatal.

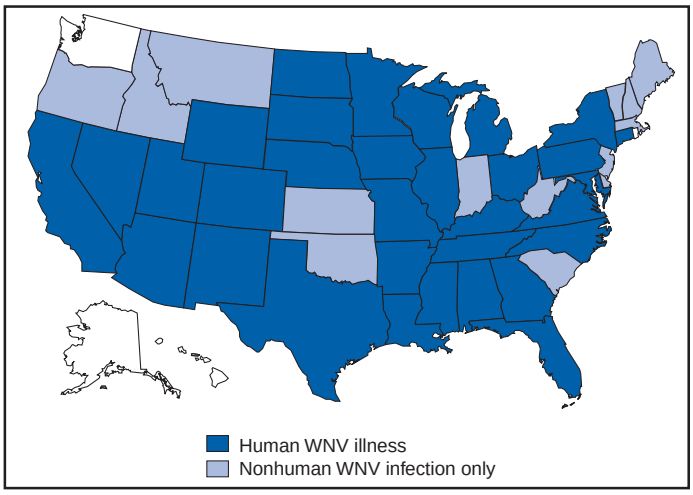
A total of 77 presumptive West Nile viremic blood donors (PVDs) have been reported to ArboNET in 2004. Of these, 36 (47%) were reported from Arizona, 16 from California, seven from New Mexico, six from Texas, three each from Florida and South Dakota, two each from Colorado and Wisconsin, and one each from Iowa and Missouri. Of the 77 PVDs, two persons aged 66 and 69 years subsequently had neuroinvasive illness, and 12 persons (median age: 56 years; range: 22–73 years) subsequently had West Nile fever.

TABLE. Number of human cases of West Nile virus (WNV) illness, by state — United States, 2004*

State	Neuroinvasive disease†	West Nile fever§	Other clinical/ unspecified¶	Total reported to CDC**	Deaths
Alabama	6	0	0	**6**	0
Arizona	122	31	151	**304**	4
Arkansas	1	2	0	**3**	0
California	72	96	66	**234**	6
Colorado	23	118	0	**141**	2
Connecticut	0	1	0	**1**	0
Florida	14	3	0	**17**	1
Georgia	1	0	1	**2**	0
Illinois	5	3	1	**9**	0
Iowa	1	2	0	**3**	1
Kentucky	0	2	0	**2**	0
Louisiana	10	0	0	**10**	1
Maryland	0	1	0	**1**	0
Michigan	1	0	0	**1**	0
Minnesota	5	3	0	**8**	0
Mississippi	5	1	1	**7**	2
Missouri	4	1	1	**6**	0
Nebraska	0	1	0	**1**	0
Nevada	10	6	2	**18**	0
New Mexico	9	14	4	**27**	0
New York	2	1	0	**3**	0
North Carolina	1	0	0	**1**	0
North Dakota	0	2	0	**2**	0
Ohio	2	0	0	**2**	1
Pennsylvania	1	0	0	**1**	0
South Dakota	2	14	0	**16**	0
Tennessee	3	0	0	**3**	0
Texas	4	1	0	**5**	2
Utah	2	2	0	**4**	0
Virginia	0	0	1	**1**	0
Wisconsin	0	1	0	**1**	0
Wyoming	1	2	0	**3**	0
Total	**307**	**308**	**228**	**843**	**20**

* As of August 24, 2004.
† Cases with neurologic manifestations (i.e., West Nile meningitis, West Nile encephalitis, and West Nile myelitis).
§ Cases with no evidence of neuroinvasion.
¶ Illnesses for which sufficient clinical information was not provided.
** Total number of human cases of WNV illness reported to ArboNet by state and local health departments.

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2004*



* As of 3 a.m., Mountain Standard Time, August 24, 2004.

In addition, during 2004, a total of 2,961 dead corvids and 514 other dead birds with WNV infection have been reported from 40 states. WNV infections have been reported in horses from 28 states (Alabama, Arizona, Arkansas, California, Colorado, Florida, Idaho, Illinois, Iowa, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, and Wyoming) and in four dogs from Nevada and New Mexico. Three unidentified animal species with WNV infection were reported from Illinois and Nevada. WNV seroconversions have been reported in 474 sentinel chicken flocks from 11 states (Arizona, Arkansas, California, Delaware, Florida, Iowa, Louisiana, Nebraska, Nevada, South Dakota, and Utah) and in two wild hatchling birds from Ohio. Three seropositive sentinel horses were reported from Puerto Rico. A total of 3,526 WNV-positive mosquito pools have been reported from 31 states (Arizona, Arkansas, California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, and Wisconsin).

Additional information about national WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and at http://westnilemaps.usgs.gov.

Notice to Readers

Web-Based Course on Smallpox Vaccine Storage and Handling

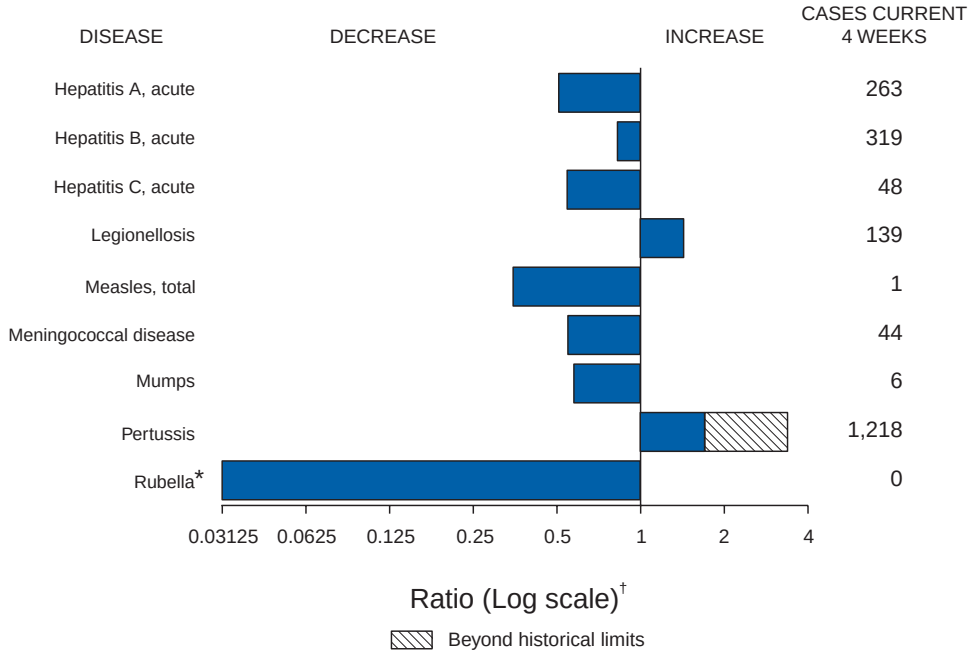
CDC's National Immunization Program (NIP) announces the availability of "Smallpox Vaccine Storage and Handling," an interactive, Internet-based training course. Goals of the course are to ensure proper storage, handling, and shipping of smallpox vaccine by health-care providers and to support the national emergency preparedness response to bioterrorism events.

The course consists of four self-study modules that participants can complete at their own pace: 1) Vaccine Distribution, 2) Vaccine Storage, 3) Handling the Vaccine: Clinic Issues, and 4) Safeguarding the Vaccine. Supplemental information includes a glossary, Internet resources, and frequently asked questions. Opportunities to test learning are provided through pretests, posttests, and interactive questions and answers. The course also provides practical information on ordering vaccine from the Strategic National Stockpile, monitoring temperature and using proper equipment, reconstituting the vaccine, and developing a vaccine disaster recovery plan.

The audience for this training includes staff in state and local health departments; hospital emergency room technicians, nurses, and laboratory workers; hospital and private physicians; and first responders. The training also is appropriate for clinicians, pharmacists, health educators, and other health-care providers working in private offices, hospitals, and public health settings.

Continuing education credits are offered for various professions based on 2.75 hours of instruction. The course is available free of charge on the NIP website at http://www2.cdc.gov/nip/isd/spoxvsh/launch1.html. Questions or comments about "Smallpox Vaccine Storage and Handling" may be e-mailed to nipinfo@cdc.gov.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals August 21, 2004, with historical data



* No Rubella cases were reported for the current 4-week period yielding a ratio for week 33 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending August 21, 2004 (33rd Week)*

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	Hemolytic uremic syndrome, postdiarrheal†	76	89
Botulism:	-	-	HIV infection, pediatric†¶	98	135
foodborne	8	8	Measles, total	22**	43††
infant	45	41	Mumps	128	142
other (wound & unspecified)	8	16	Plague	-	1
Brucellosis†	69	62	Poliomyelitis, paralytic	-	-
Chancroid	19	37	Psittacosis†	5	8
Cholera	4	1	Q fever†	38	51
Cyclosporiasis†	126	54	Rabies, human	5	1
Diphtheria	-	-	Rubella	15	6
Ehrlichiosis:	-	-	Rubella, congenital syndrome	-	1
human granulocytic (HGE)†	134	183	SARS-associated coronavirus disease†§§	-	8
human monocytic (HME)†	117	125	Smallpox†¶¶	-	NA
human, other and unspecified	10	26	*Staphylococcus aureus*:	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA)†¶¶	4	NA
California serogroup viral†§	27	56	Vancomycin-resistant (VRSA)†¶¶	1	NA
eastern equine†§	1	9	Streptococcal toxic-shock syndrome†	67	121
Powassan†§	-	-	Tetanus	7	9
St. Louis†§	3	20	Toxic-shock syndrome	71	80
western equine†§	-	-	Trichinosis	4	-
Hansen disease (leprosy)†	53	56	Tularemia†	46	49
Hantavirus pulmonary syndrome†	15	17	Yellow fever	-	-

-: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).
¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update July 25, 2004.
** Of 22 cases reported, 10 were indigenous, and 12 were imported from another country.
†† Of 43 cases reported, 25 were indigenous, and 18 were imported from another country.
§§ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (notifiable as of July 2003).
¶¶ Not previously notifiable.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2004, and August 16, 2003 (33rd Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile§	
	Cum. 2004¶	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	23,710	26,286	545,185	540,123	3,547	2,102	1,668	1,554	306	1,213
NEW ENGLAND	775	907	18,760	17,137	-	-	93	107	-	2
Maine	10	49	1,253	1,235	N	N	15	8	-	-
N.H.	29	22	890	973	-	-	16	14	-	1
Vt.	13	11	636	635	-	-	15	20	-	-
Mass.	236	371	8,575	6,889	-	-	31	48	-	1
R.I.	82	68	2,120	1,711	-	-	4	12	-	-
Conn.	405	386	5,286	5,694	N	N	12	5	-	-
MID. ATLANTIC	5,023	6,201	68,878	67,001	-	-	247	208	3	33
Upstate N.Y.	625	645	14,265	11,940	N	N	64	54	-	-
N.Y. City	2,759	3,193	20,929	22,139	-	-	51	66	2	4
N.J.	923	1,045	10,446	10,130	-	-	12	10	-	4
Pa.	716	1,318	23,238	22,792	N	N	120	78	1	25
E.N. CENTRAL	1,946	2,620	92,436	97,230	10	6	434	436	8	21
Ohio	240	463	21,403	26,654	N	N	122	56	2	12
Ind.	257	346	11,345	10,683	N	N	53	41	-	5
Ill.	961	1,235	24,870	30,029	-	-	13	55	5	3
Mich.	382	452	23,966	19,083	10	6	102	65	1	1
Wis.	106	124	10,852	10,781	-	-	144	219	-	-
W.N. CENTRAL	483	490	32,232	31,312	4	2	230	186	11	237
Minn.	120	96	5,985	6,823	N	N	77	67	5	9
Iowa	37	54	3,642	3,468	N	N	50	41	-	20
Mo.	211	233	12,213	11,187	3	1	36	16	4	3
N. Dak.	13	3	963	985	N	N	9	10	-	26
S. Dak.	7	7	1,566	1,579	-	-	23	23	2	74
Nebr.**	18	33	3,234	2,834	1	1	17	9	-	74
Kans.	77	64	4,629	4,436	N	N	18	20	-	31
S. ATLANTIC	7,289	7,613	106,189	101,409	-	3	298	198	16	36
Del.	105	146	1,813	1,904	N	N	-	3	-	-
Md.	808	877	12,011	10,210	-	3	12	11	-	4
D.C.	460	724	1,948	2,058	-	-	8	4	-	-
Va.	403	625	13,919	11,944	-	-	31	28	-	4
W. Va.	33	53	1,772	1,607	N	N	3	3	-	-
N.C.	401	782	18,206	16,429	N	N	52	19	1	3
S.C.**	428	497	10,105	8,591	-	-	9	3	-	1
Ga.	1,034	1,205	19,796	22,269	-	-	100	72	1	6
Fla.	3,617	2,704	26,619	26,397	N	N	83	55	14	18
E.S. CENTRAL	1,179	1,143	36,016	35,068	4	1	63	72	14	36
Ky.	130	98	3,590	5,188	N	N	26	15	-	4
Tenn.**	466	517	14,171	12,526	N	N	12	27	3	5
Ala.	295	272	7,664	9,259	-	-	13	24	6	13
Miss.	288	256	10,591	8,095	4	1	12	6	5	14
W.S. CENTRAL	2,978	2,691	68,519	67,510	2	-	48	53	15	337
Ark.	130	106	5,022	4,925	1	-	14	6	1	9
La.	606	403	13,364	13,483	1	-	-	2	10	49
Okla.	120	137	7,206	7,121	N	N	14	7	-	18
Tex.**	2,122	2,045	42,927	41,981	-	-	20	38	4	261
MOUNTAIN	861	963	30,256	31,278	2,269	1,388	99	75	167	511
Mont.	5	10	1,363	1,345	N	N	28	13	-	23
Idaho	9	16	1,809	1,568	N	N	10	15	-	-
Wyo.	8	5	686	617	1	1	2	3	1	65
Colo.	166	213	6,992	8,087	N	N	33	19	23	379
N. Mex.	118	71	3,367	4,689	11	5	6	6	9	39
Ariz.	331	433	10,492	9,067	2,197	1,352	16	4	122	3
Utah	44	40	2,279	2,343	20	4	2	9	2	-
Nev.	180	175	3,268	3,562	40	26	2	6	10	2
PACIFIC	3,176	3,658	91,899	92,178	1,258	702	156	219	72	-
Wash.	215	287	11,064	10,124	N	N	17	25	-	-
Oreg.	157	166	5,147	4,709	-	-	22	26	-	-
Calif.	2,717	3,130	71,741	71,542	1,258	702	116	168	72	-
Alaska	29	13	2,307	2,429	-	-	-	-	-	-
Hawaii	58	62	1,640	3,374	-	-	1	-	-	-
Guam	2	5	-	420	-	-	-	-	-	-
P.R.	401	723	1,699	1,578	N	N	N	N	-	-
V.I.	6	22	143	243	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	32	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).

¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update July 25, 2004.

** Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2004, and August 16, 2003 (33rd Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,313	1,217	125	142	95	83	9,843	10,507	190,083	204,185
NEW ENGLAND	87	80	31	26	19	8	842	796	4,446	4,321
Maine	5	6	-	-	-	-	73	93	151	129
N.H.	10	12	5	2	-	-	18	25	64	73
Vt.	7	8	-	-	1	-	91	59	52	52
Mass.	39	32	6	7	18	8	408	391	2,038	1,703
R.I.	6	1	1	-	-	-	68	74	540	549
Conn.	20	21	19	17	-	-	184	154	1,601	1,815
MID. ATLANTIC	146	145	21	14	16	18	2,182	2,167	21,926	25,646
Upstate N.Y.	67	48	11	6	6	7	760	555	4,620	4,612
N.Y. City	26	5	-	-	-	-	605	721	6,684	8,521
N.J.	21	21	3	2	4	-	215	314	3,963	5,327
Pa.	32	71	7	6	6	11	602	577	6,659	7,186
E.N. CENTRAL	255	281	22	23	12	10	1,213	1,871	37,820	42,923
Ohio	59	51	8	11	11	10	499	510	10,668	13,876
Ind.	34	49	-	-	-	-	-	-	4,018	4,050
Ill.	43	51	-	2	-	-	84	578	10,789	13,225
Mich.	50	45	4	-	1	-	412	426	9,546	8,147
Wis.	69	85	10	10	-	-	218	357	2,799	3,625
W.N. CENTRAL	301	207	19	25	15	13	1,165	1,057	10,109	10,712
Minn.	68	65	9	13	2	1	415	392	1,961	1,803
Iowa	83	46	-	-	-	-	178	146	649	814
Mo.	55	48	10	5	6	1	288	299	5,043	5,380
N. Dak.	10	6	-	3	5	4	18	25	72	49
S. Dak.	22	13	-	3	-	-	40	24	169	126
Nebr.	44	14	-	1	-	-	88	73	639	910
Kans.	19	15	-	-	2	7	138	98	1,576	1,630
S. ATLANTIC	99	88	18	31	24	20	1,600	1,568	47,399	50,185
Del.	2	2	N	N	N	N	30	23	572	751
Md.	20	5	1	2	3	1	71	66	5,191	4,871
D.C.	1	1	-	-	-	-	37	25	1,427	1,566
Va.	22	25	7	5	-	-	273	207	5,599	5,536
W. Va.	2	3	-	-	-	-	19	25	579	538
N.C.	-	-	-	-	14	17	N	N	9,689	9,397
S.C.	4	-	-	-	-	-	28	69	4,779	4,988
Ga.	17	20	6	5	-	-	452	508	8,406	10,986
Fla.	31	32	4	19	7	2	690	645	11,157	11,552
E.S. CENTRAL	49	48	1	1	8	5	177	205	15,524	17,145
Ky.	18	15	1	1	5	5	N	N	1,564	2,260
Tenn.	15	21	-	-	3	-	82	93	5,221	5,097
Ala.	9	9	-	-	-	-	95	112	4,672	5,739
Miss.	7	3	-	-	-	-	-	-	4,067	4,049
W.S. CENTRAL	50	51	2	4	1	4	173	177	25,748	27,760
Ark.	10	6	1	-	-	-	73	97	2,433	2,618
La.	2	3	-	-	-	-	19	8	6,056	7,582
Okla.	13	14	-	-	-	-	81	72	3,059	2,809
Tex.	25	28	1	4	1	4	-	-	14,200	14,751
MOUNTAIN	130	154	10	16	-	5	898	860	6,526	6,586
Mont.	12	5	-	-	-	-	35	52	39	70
Idaho	28	31	4	11	-	-	104	99	52	46
Wyo.	2	2	1	-	-	-	15	14	36	28
Colo.	37	45	2	3	-	5	320	252	1,638	1,813
N. Mex.	6	5	1	2	-	-	48	30	435	761
Ariz.	12	21	N	N	N	N	120	146	2,474	2,453
Utah	24	29	1	-	-	-	185	187	343	217
Nev.	9	16	1	-	-	-	71	80	1,509	1,198
PACIFIC	196	163	1	2	-	-	1,593	1,806	20,585	18,907
Wash.	73	45	-	1	-	-	205	176	1,649	1,726
Oreg.	34	31	1	1	-	-	269	245	664	625
Calif.	80	83	-	-	-	-	1,025	1,279	17,502	15,493
Alaska	1	1	-	-	-	-	43	52	369	339
Hawaii	8	3	-	-	-	-	51	54	401	724
Guam	N	N	-	-	-	-	-	2	-	44
P.R.	-	1	-	-	-	-	30	154	135	178
V.I.	-	-	-	-	-	-	-	-	49	57
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	3	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2004, and August 16, 2003 (33rd Week)*

Reporting area	*Haemophilus influenzae*, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,207	1,235	10	18	64	79	118	135	3,460	3,988
NEW ENGLAND	104	87	1	2	5	5	3	3	621	189
Maine	9	2	-	-	-	-	-	1	10	8
N.H.	13	10	-	1	2	-	-	-	11	9
Vt.	5	6	-	-	-	-	1	-	8	5
Mass.	45	44	1	1	-	5	2	1	522	103
R.I.	3	4	-	-	-	-	-	1	17	11
Conn.	29	21	-	-	3	-	-	-	53	53
MID. ATLANTIC	259	268	-	1	3	2	29	32	410	830
Upstate N.Y.	86	97	-	1	3	2	5	7	55	74
N.Y. City	54	46	-	-	-	-	9	8	161	302
N.J.	52	52	-	-	-	-	3	7	81	130
Pa.	67	73	-	-	-	-	12	10	113	324
E.N. CENTRAL	195	202	-	3	6	3	28	37	336	396
Ohio	73	49	-	-	2	-	12	8	34	76
Ind.	37	32	-	-	4	-	1	3	60	41
Ill.	43	77	-	-	-	-	9	19	118	115
Mich.	14	16	-	3	-	3	5	1	101	127
Wis.	28	28	-	-	-	-	1	6	23	37
W.N. CENTRAL	73	82	2	-	3	6	5	10	127	114
Minn.	33	32	1	-	3	6	-	1	28	33
Iowa	1	-	1	-	-	-	-	-	35	17
Mo.	22	34	-	-	-	-	2	9	40	37
N. Dak.	3	2	-	-	-	-	-	-	1	-
S. Dak.	-	1	-	-	-	-	-	-	2	-
Nebr.	7	1	-	-	-	-	1	-	8	9
Kans.	7	12	-	-	-	-	2	-	13	18
S. ATLANTIC	275	263	-	1	16	9	20	16	651	866
Del.	-	-	-	-	-	-	-	-	5	5
Md.	44	63	-	-	4	5	-	-	80	88
D.C.	-	-	-	-	-	-	-	-	4	26
Va.	25	39	-	-	-	-	1	5	61	51
W. Va.	10	13	-	-	-	-	3	-	4	12
N.C.	40	22	-	-	5	1	1	1	63	46
S.C.	2	5	-	-	-	-	-	1	21	25
Ga.	75	46	-	-	-	-	13	6	227	360
Fla.	79	75	-	1	7	3	2	3	186	253
E.S. CENTRAL	44	49	1	1	-	2	8	4	99	114
Ky.	4	3	-	-	-	1	-	-	20	23
Tenn.	27	29	-	-	-	1	6	3	54	65
Ala.	12	16	1	1	-	-	2	1	6	12
Miss.	1	1	-	-	-	-	-	-	19	14
W.S. CENTRAL	51	54	1	1	6	8	1	4	264	405
Ark.	2	5	-	-	-	1	-	-	53	22
La.	8	17	-	-	-	2	1	4	15	34
Okla.	40	30	-	-	6	5	-	-	18	9
Tex.	1	2	1	1	-	-	-	-	178	340
MOUNTAIN	143	126	3	6	18	22	17	13	303	305
Mont.	-	-	-	-	-	-	-	-	4	5
Idaho	5	3	-	-	-	-	2	1	13	10
Wyo.	-	1	-	-	-	-	-	-	4	1
Colo.	33	24	-	-	-	-	3	5	36	47
N. Mex.	28	15	-	-	5	4	5	1	13	13
Ariz.	54	64	-	6	9	9	2	4	187	172
Utah	12	10	2	-	1	5	4	2	36	20
Nev.	11	9	1	-	3	4	1	-	10	37
PACIFIC	63	104	2	3	7	22	7	16	649	769
Wash.	3	6	2	-	-	4	1	1	39	41
Oreg.	31	25	-	-	-	-	2	2	44	42
Calif.	18	47	-	3	7	18	2	8	544	671
Alaska	4	18	-	-	-	-	1	5	5	7
Hawaii	7	8	-	-	-	-	1	-	17	8
Guam	-	-	-	-	-	-	-	-	-	2
P.R.	-	-	-	-	-	-	-	-	15	55
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2004, and August 16, 2003 (33rd Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	3,883	4,357	691	673	976	1,165	364	394	9,169	12,463
NEW ENGLAND	214	222	5	3	22	56	17	29	1,051	2,365
Maine	1	1	-	-	-	1	5	5	53	77
N.H.	23	11	-	-	1	5	1	2	52	61
Vt.	3	2	2	3	2	2	1	-	28	23
Mass.	116	145	3	-	4	33	3	14	207	1,196
R.I.	3	8	-	-	2	3	1	-	148	181
Conn.	68	55	U	U	13	12	6	8	563	827
MID. ATLANTIC	730	497	82	81	269	295	86	80	6,654	8,252
Upstate N.Y.	56	52	8	10	53	68	28	15	2,303	2,324
N.Y. City	68	145	-	-	20	31	12	15	-	161
N.J.	417	125	-	-	49	48	14	17	1,716	2,236
Pa.	189	175	74	71	147	148	32	33	2,635	3,531
E.N. CENTRAL	344	314	63	100	253	256	60	51	332	706
Ohio	77	88	5	7	113	142	24	14	54	30
Ind.	30	22	4	6	44	17	15	3	59	14
Ill.	50	38	10	15	10	31	-	14	-	59
Mich.	164	135	44	67	79	51	19	14	15	-
Wis.	23	31	-	5	7	15	2	6	204	603
W.N. CENTRAL	236	202	201	141	24	46	7	11	250	188
Minn.	30	26	11	7	3	3	3	3	176	127
Iowa	13	7	-	1	3	9	1	-	16	26
Mo.	156	137	190	131	12	22	2	5	49	30
N. Dak.	4	1	-	-	1	1	-	-	-	-
S. Dak.	-	2	-	-	3	1	-	-	-	-
Nebr.	20	17	-	2	1	2	1	3	6	2
Kans.	13	12	-	-	1	8	-	-	3	3
S. ATLANTIC	1,188	1,219	113	105	221	307	61	73	752	777
Del.	23	6	-	-	8	12	N	N	90	137
Md.	102	76	13	6	42	73	9	12	455	489
D.C.	13	7	1	-	5	8	-	-	3	5
Va.	141	108	15	5	28	59	12	9	66	46
W. Va.	24	16	17	1	4	11	2	5	8	11
N.C.	116	110	8	8	24	23	14	11	73	56
S.C.	54	94	7	23	1	5	-	2	7	1
Ga.	394	400	8	9	28	22	10	19	9	10
Fla.	321	402	44	53	81	94	14	15	41	22
E.S. CENTRAL	255	285	63	50	49	74	16	15	27	36
Ky.	40	46	22	9	20	27	4	3	11	7
Tenn.	108	116	20	11	17	26	7	4	9	10
Ala.	42	61	2	5	11	17	3	6	1	4
Miss.	65	62	19	25	1	4	2	2	6	15
W.S. CENTRAL	163	708	83	123	39	44	24	37	24	78
Ark.	51	55	2	3	-	2	2	1	4	-
La.	34	91	44	78	3	1	2	2	2	6
Okla.	29	41	3	2	3	5	-	1	-	-
Tex.	49	521	34	40	33	36	20	33	18	72
MOUNTAIN	326	373	34	27	52	42	15	22	19	8
Mont.	2	8	2	1	1	2	-	1	-	-
Idaho	8	6	-	1	6	3	1	2	5	2
Wyo.	7	23	-	-	5	2	-	-	2	-
Colo.	35	52	8	6	11	7	6	8	1	-
N. Mex.	10	29	7	-	-	2	-	2	-	1
Ariz.	184	168	4	6	10	9	-	5	5	-
Utah	30	32	2	-	16	13	1	2	6	2
Nev.	50	55	11	13	3	4	7	2	-	3
PACIFIC	427	537	47	43	47	45	78	76	60	53
Wash.	34	43	14	13	9	5	8	4	7	1
Oreg.	72	77	11	7	N	N	5	3	23	10
Calif.	305	399	19	21	38	40	62	65	29	39
Alaska	13	3	-	-	-	-	-	-	1	3
Hawaii	3	15	3	2	-	-	3	4	N	N
Guam	-	5	-	3	-	-	-	-	-	-
P.R.	37	86	-	-	1	-	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2004, and August 16, 2003 (33rd Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	744	728	895	1,154	7,830	4,791	3,367	4,447	675	428
NEW ENGLAND	48	31	49	51	843	577	368	337	14	7
Maine	5	1	8	5	2	11	32	34	-	-
N.H.	1	5	3	3	26	43	11	16	-	-
Vt.	3	-	2	-	47	49	16	21	-	-
Mass.	24	14	29	32	740	442	155	120	12	7
R.I.	2	-	1	2	16	7	24	41	1	-
Conn.	13	11	6	9	12	25	130	105	1	-
MID. ATLANTIC	178	185	113	139	1,646	503	328	555	42	27
Upstate N.Y.	25	34	28	32	1,167	208	295	231	1	-
N.Y. City	77	92	21	33	92	73	4	5	7	9
N.J.	38	37	25	18	133	86	-	62	12	12
Pa.	38	22	39	56	254	136	29	257	22	6
E.N. CENTRAL	66	70	126	186	1,863	446	87	82	38	9
Ohio	20	13	49	45	316	141	43	33	13	4
Ind.	8	2	19	33	62	33	7	8	22	1
Ill.	13	30	12	50	303	41	26	13	-	2
Mich.	15	19	36	33	94	60	11	23	3	2
Wis.	10	6	10	25	1,088	171	-	5	-	-
W.N. CENTRAL	46	29	65	85	976	208	321	455	73	39
Minn.	18	15	17	20	153	59	52	24	-	1
Iowa	2	3	12	16	43	55	58	62	-	2
Mo.	14	3	19	34	195	55	26	11	59	31
N. Dak.	3	1	2	1	535	3	46	41	-	-
S. Dak.	1	2	2	1	10	3	10	102	4	2
Nebr.	2	-	3	6	4	5	53	84	10	2
Kans.	6	5	10	7	36	28	76	131	-	1
S. ATLANTIC	189	182	155	211	362	359	1,203	1,787	292	240
Del.	4	2	2	8	6	6	9	26	-	1
Md.	40	42	8	24	77	54	157	248	34	60
D.C.	9	8	4	4	2	-	-	-	-	-
Va.	16	21	11	19	105	64	299	357	12	14
W. Va.	-	4	5	4	5	6	41	60	3	5
N.C.	12	13	24	27	49	83	412	530	200	97
S.C.	7	3	12	19	28	67	95	135	9	12
Ga.	37	43	10	24	11	21	184	243	19	44
Fla.	64	46	79	82	79	58	6	188	15	7
E.S. CENTRAL	22	16	38	55	101	108	89	136	77	64
Ky.	4	3	7	11	35	33	17	27	1	-
Tenn.	3	4	10	14	37	52	28	88	31	36
Ala.	11	6	10	15	19	15	35	20	22	9
Miss.	4	3	11	15	10	8	9	1	23	19
W.S. CENTRAL	70	86	82	130	362	364	755	838	120	35
Ark.	7	4	14	11	32	28	35	25	78	-
La.	2	3	23	32	7	7	-	2	3	-
Okla.	4	3	7	12	17	44	83	143	38	27
Tex.	57	76	38	75	306	285	637	668	1	8
MOUNTAIN	32	23	45	61	735	640	105	109	14	7
Mont.	-	-	3	3	31	1	19	14	3	1
Idaho	1	1	6	6	24	50	1	8	3	2
Wyo.	-	1	2	2	12	119	2	3	2	2
Colo.	12	12	12	15	382	219	20	21	-	2
N. Mex.	2	1	6	8	80	46	2	5	2	-
Ariz.	8	4	9	21	137	114	55	48	1	-
Utah	5	3	4	-	57	68	5	6	3	-
Nev.	4	1	3	6	12	23	1	4	-	-
PACIFIC	93	106	222	236	942	1,586	111	148	5	-
Wash.	11	16	23	23	437	388	-	-	-	-
Oreg.	12	8	46	35	286	330	4	5	3	-
Calif.	68	78	147	164	200	860	99	136	2	-
Alaska	-	-	2	4	8	1	8	7	-	-
Hawaii	2	4	4	10	11	7	-	-	-	-
Guam	-	1	-	-	-	1	-	-	-	-
P.R.	-	-	5	8	3	2	36	47	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2004, and August 16, 2003 (33rd Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	22,265	24,160	6,663	14,566	3,220	4,205	1,440	1,410	450	485
NEW ENGLAND	1,213	1,299	161	199	141	375	22	73	51	6
Maine	60	84	2	6	6	23	2	-	3	-
N.H.	51	91	5	5	15	23	-	-	N	N
Vt.	36	43	2	6	8	16	7	6	1	3
Mass.	720	787	98	141	95	168	N	N	40	N
R.I.	75	60	13	6	17	9	13	10	7	3
Conn.	271	234	41	35	-	136	-	57	U	U
MID. ATLANTIC	3,349	2,876	753	1,569	541	727	104	93	79	72
Upstate N.Y.	731	609	329	222	182	275	48	50	54	52
N.Y. City	741	790	217	256	73	101	U	U	U	U
N.J.	485	508	136	263	124	141	-	-	5	2
Pa.	1,392	969	71	828	162	210	56	43	20	18
E.N. CENTRAL	2,580	3,503	475	1,258	644	1,024	345	320	114	210
Ohio	835	873	104	237	171	243	239	209	59	76
Ind.	369	338	133	97	78	101	106	111	25	20
Ill.	321	1,259	87	665	136	257	-	-	-	78
Mich.	544	487	74	174	222	295	N	N	N	N
Wis.	511	546	77	85	37	128	N	N	30	36
W.N. CENTRAL	1,513	1,431	267	476	217	252	12	11	60	54
Minn.	361	318	33	60	112	120	-	-	43	38
Iowa	318	223	54	36	N	N	N	N	N	N
Mo.	397	529	111	252	44	57	8	7	8	2
N. Dak.	29	24	2	6	10	12	-	3	2	4
S. Dak.	69	61	8	9	9	19	4	1	-	-
Nebr.	100	95	16	67	11	22	-	-	5	5
Kans.	239	181	43	46	31	22	N	N	2	5
S. ATLANTIC	5,886	5,592	1,701	4,498	628	706	735	745	34	14
Del.	51	61	6	152	3	6	4	1	N	N
Md.	527	473	82	410	131	172	-	10	23	-
D.C.	28	19	24	43	4	6	4	-	3	5
Va.	714	572	96	257	56	87	N	N	N	N
W. Va.	133	79	4	-	17	30	82	53	8	9
N.C.	737	673	179	596	85	80	N	N	U	U
S.C.	450	314	204	286	35	35	65	110	N	N
Ga.	981	1,067	393	869	133	140	166	161	N	N
Fla.	2,265	2,334	713	1,885	164	150	414	410	N	N
E.S. CENTRAL	1,306	1,639	384	620	147	143	87	103	1	-
Ky.	212	252	45	67	51	37	21	13	N	N
Tenn.	246	465	145	217	96	106	65	90	N	N
Ala.	375	392	159	200	-	-	-	-	N	N
Miss.	473	530	35	136	-	-	1	-	1	-
W.S. CENTRAL	1,816	3,433	1,554	3,822	197	194	36	57	77	75
Ark.	320	400	48	70	15	6	6	19	7	5
La.	274	513	170	294	2	1	30	38	12	15
Okla.	242	256	310	543	46	65	N	N	31	36
Tex.	980	2,264	1,026	2,915	134	122	N	N	27	19
MOUNTAIN	1,454	1,280	478	612	360	353	24	4	34	54
Mont.	100	61	4	2	-	1	-	-	-	-
Idaho	108	108	9	18	8	15	N	N	N	N
Wyo.	34	62	3	3	6	2	6	3	-	-
Colo.	360	313	96	120	91	98	-	-	31	42
N. Mex.	138	129	69	122	62	86	5	-	-	8
Ariz.	465	381	246	286	159	127	N	N	N	N
Utah	144	118	28	30	32	23	11	1	3	4
Nev.	105	108	23	31	2	1	2	-	-	-
PACIFIC	3,148	3,107	890	1,512	345	431	75	4	-	-
Wash.	331	355	73	115	38	41	-	-	N	N
Oreg.	259	263	41	172	N	N	N	N	N	N
Calif.	2,299	2,309	741	1,194	245	315	N	N	N	N
Alaska	41	52	5	5	-	-	-	-	N	N
Hawaii	218	128	30	26	62	75	75	4	-	-
Guam	-	28	-	28	-	-	-	-	-	-
P.R.	126	416	3	16	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	3	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2004, and August 16, 2003 (33rd Week)*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
	Primary & secondary		Congenital							
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	4,593	4,437	210	284	6,224	7,899	168	215	12,584	10,622
NEW ENGLAND	125	139	1	-	209	262	16	20	590	2,187
Maine	2	6	-	-	-	17	-	-	179	641
N.H.	3	15	-	-	9	10	-	2	-	-
Vt.	-	-	-	-	-	7	-	-	411	492
Mass.	81	89	-	-	133	127	13	11	-	115
R.I.	17	14	-	-	19	34	1	2	-	3
Conn.	22	15	1	-	48	67	2	5	-	936
MID. ATLANTIC	622	532	36	44	1,288	1,368	34	38	65	19
Upstate N.Y.	62	26	6	7	167	167	5	6	-	-
N.Y. City	375	293	10	24	654	721	11	20	-	-
N.J.	102	109	19	13	255	262	9	11	-	-
Pa.	83	104	1	-	212	218	9	1	65	19
E.N. CENTRAL	516	608	36	48	738	719	10	26	3,953	3,792
Ohio	143	132	1	2	127	125	3	-	1,023	929
Ind.	39	33	9	9	76	87	-	4	-	-
Ill.	193	247	4	18	331	335	-	15	-	-
Mich.	122	182	22	19	145	129	6	7	2,538	2,268
Wis.	19	14	-	-	59	43	1	-	392	595
W.N. CENTRAL	106	103	2	4	274	288	7	4	122	40
Minn.	14	33	-	-	106	109	3	2	-	-
Iowa	5	7	-	-	23	18	-	1	N	N
Mo.	64	35	1	4	71	76	2	1	5	-
N. Dak.	-	2	-	-	3	-	-	-	74	40
S. Dak.	-	1	-	-	5	16	-	-	43	-
Nebr.	5	5	-	-	22	12	2	-	-	-
Kans.	18	20	1	-	44	57	-	-	-	-
S. ATLANTIC	1,224	1,167	25	54	1,238	1,469	34	36	1,567	1,555
Del.	6	4	1	-	-	-	-	-	4	20
Md.	232	192	3	9	161	143	9	8	-	-
D.C.	49	33	1	-	54	-	1	-	17	22
Va.	69	57	2	1	140	163	3	11	394	432
W. Va.	2	2	-	-	14	12	-	-	927	910
N.C.	114	100	6	11	161	191	3	6	N	N
S.C.	74	67	1	4	115	98	-	-	225	171
Ga.	184	318	1	13	11	321	11	5	-	-
Fla.	494	394	10	16	582	541	7	6	-	-
E.S. CENTRAL	255	200	16	10	355	437	5	5	-	-
Ky.	27	26	1	1	66	76	2	-	-	-
Tenn.	86	84	7	2	127	154	3	2	-	-
Ala.	113	71	6	5	129	139	-	3	-	-
Miss.	29	19	2	2	33	68	-	-	-	-
W.S. CENTRAL	729	543	34	49	474	1,197	12	18	4,654	2,668
Ark.	32	36	-	1	76	62	-	-	-	-
La.	142	82	-	1	-	-	-	-	42	9
Okla.	19	35	2	1	96	91	1	-	-	-
Tex.	536	390	32	46	302	1,044	11	18	4,612	2,659
MOUNTAIN	220	208	37	27	287	258	5	4	1,633	361
Mont.	-	-	-	-	4	5	-	-	-	-
Idaho	13	4	2	2	4	5	-	-	-	-
Wyo.	1	-	-	-	2	2	-	-	24	38
Colo.	21	23	-	3	58	60	1	3	1,236	-
N. Mex.	32	38	1	4	16	31	-	-	68	-
Ariz.	130	130	34	18	130	110	2	1	-	-
Utah	4	4	-	-	27	23	1	-	305	323
Nev.	19	9	-	-	46	22	1	-	-	-
PACIFIC	796	937	23	48	1,361	1,901	45	64	-	-
Wash.	73	50	-	-	142	146	4	2	-	-
Oreg.	19	29	-	-	55	68	1	3	-	-
Calif.	701	851	23	48	1,072	1,578	34	58	-	-
Alaska	-	1	-	-	22	39	-	-	-	-
Hawaii	3	6	-	-	70	70	6	1	-	-
Guam	-	1	-	-	-	38	-	-	-	94
P.R.	77	122	5	9	60	58	-	-	186	400
V.I.	4	1	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	10	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending August 21, 2004 (33rd Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45–64	25–44	1–24	<1	
NEW ENGLAND	538	387	102	31	8	10	51
Boston, Mass.	124	77	27	14	4	2	8
Bridgeport, Conn.	25	22	3	-	-	-	1
Cambridge, Mass.	13	10	1	2	-	-	1
Fall River, Mass.	33	25	5	2	-	1	1
Hartford, Conn.	58	39	16	2	-	1	5
Lowell, Mass.	22	16	5	-	-	1	2
Lynn, Mass.	16	15	1	-	-	-	1
New Bedford, Mass.	23	14	7	2	-	-	4
New Haven, Conn.	36	23	8	3	2	-	8
Providence, R.I.	49	40	8	-	-	1	4
Somerville, Mass.	4	3	1	-	-	-	-
Springfield, Mass.	42	27	7	3	1	4	4
Waterbury, Conn.	32	26	4	1	1	-	1
Worcester, Mass.	61	50	9	2	-	-	11
MID. ATLANTIC	1,851	1,250	408	120	41	30	76
Albany, N.Y.	47	31	11	4	-	1	4
Allentown, Pa.	16	13	2	1	-	-	1
Buffalo, N.Y.	82	51	20	4	2	5	11
Camden, N.J.	21	15	4	2	-	-	-
Elizabeth, N.J.	22	16	5	-	1	-	1
Erie, Pa.	33	25	8	-	-	-	-
Jersey City, N.J.	34	21	7	5	-	1	-
New York City, N.Y.	1,030	694	236	61	24	13	38
Newark, N.J.	61	30	13	11	4	3	1
Paterson, N.J.	38	26	8	4	-	-	1
Philadelphia, Pa.	124	73	39	9	1	2	5
Pittsburgh, Pa.§	20	12	3	3	1	1	1
Reading, Pa.	25	19	4	2	-	-	2
Rochester, N.Y.	126	95	20	6	4	1	6
Schenectady, N.Y.	28	25	2	1	-	-	1
Scranton, Pa.	24	19	4	1	-	-	-
Syracuse, N.Y.	62	45	12	2	2	1	1
Trenton, N.J.	19	10	6	1	-	2	-
Utica, N.Y.	16	12	-	2	2	-	-
Yonkers, N.Y.	23	18	4	1	-	-	3
E.N. CENTRAL	1,993	1,302	449	142	51	49	115
Akron, Ohio	45	30	9	4	-	2	5
Canton, Ohio	45	30	10	3	1	1	3
Chicago, Ill.	376	230	94	30	11	11	27
Cincinnati, Ohio	84	47	22	4	5	6	7
Cleveland, Ohio	222	146	56	13	5	2	7
Columbus, Ohio	189	126	47	11	1	4	15
Dayton, Ohio	118	74	25	13	6	-	7
Detroit, Mich.	154	78	52	15	3	6	8
Evansville, Ind.	42	34	5	2	-	1	-
Fort Wayne, Ind.	62	46	9	4	3	-	4
Gary, Ind.	16	8	2	3	2	1	-
Grand Rapids, Mich.	32	20	7	-	3	2	2
Indianapolis, Ind.	180	120	34	16	4	6	5
Lansing, Mich.	40	29	8	1	1	1	1
Milwaukee, Wis.	109	82	18	6	1	2	7
Peoria, Ill.	54	32	15	6	1	-	1
Rockford, Ill.	59	41	10	3	2	3	6
South Bend, Ind.	37	29	4	2	2	-	1
Toledo, Ohio	87	62	20	4	-	1	7
Youngstown, Ohio	42	38	2	2	-	-	2
W.N. CENTRAL	526	341	109	41	19	16	30
Des Moines, Iowa	49	33	13	1	1	1	1
Duluth, Minn.	33	22	8	2	-	1	-
Kansas City, Kans.	16	10	3	2	1	-	3
Kansas City, Mo.	82	49	17	9	5	2	3
Lincoln, Nebr.	30	26	1	3	-	-	1
Minneapolis, Minn.	63	38	13	6	3	3	8
Omaha, Nebr.	80	60	15	2	1	2	1
St. Louis, Mo.	65	30	16	9	5	5	6
St. Paul, Minn.	57	40	10	4	2	1	3
Wichita, Kans.	51	33	13	3	1	1	4
S. ATLANTIC	1,311	797	312	108	54	38	73
Atlanta, Ga.	145	85	40	17	1	2	11
Baltimore, Md.	168	82	52	21	11	2	20
Charlotte, N.C.	120	75	26	10	5	4	6
Jacksonville, Fla.	140	89	27	11	4	9	6
Miami, Fla.	114	70	32	5	7	-	6
Norfolk, Va.	45	27	9	4	2	3	2
Richmond, Va.	54	34	11	6	1	-	4
Savannah, Ga.	68	50	10	4	4	-	2
St. Petersburg, Fla.	56	40	10	4	2	-	8
Tampa, Fla.	203	132	51	9	4	7	6
Washington, D.C.	198	113	44	17	13	11	2
Wilmington, Del.	U	U	U	U	U	U	U
E.S. CENTRAL	825	525	203	58	25	14	62
Birmingham, Ala.	188	130	34	16	2	6	15
Chattanooga, Tenn.	69	48	17	2	1	1	3
Knoxville, Tenn.	103	66	26	10	1	-	1
Lexington, Ky.	60	38	20	-	1	1	4
Memphis, Tenn.	145	85	41	10	7	2	17
Mobile, Ala.	89	58	21	6	2	2	4
Montgomery, Ala.	32	23	6	2	1	-	9
Nashville, Tenn.	139	77	38	12	10	2	9
W.S. CENTRAL	1,536	944	377	124	50	39	79
Austin, Tex.	74	49	18	4	1	2	3
Baton Rouge, La.	50	27	12	8	3	-	-
Corpus Christi, Tex.	68	39	21	4	3	1	2
Dallas, Tex.	194	103	60	15	6	10	10
El Paso, Tex.	99	63	22	10	3	1	6
Ft. Worth, Tex.	112	64	31	10	4	3	7
Houston, Tex.	441	259	114	43	14	11	27
Little Rock, Ark.	57	36	8	7	2	4	2
New Orleans, La.	60	35	17	3	3	-	-
San Antonio, Tex.	222	155	42	13	5	7	11
Shreveport, La.	57	36	15	4	2	-	5
Tulsa, Okla.	102	78	17	3	4	-	6
MOUNTAIN	923	602	206	56	34	24	56
Albuquerque, N.M.	120	81	29	5	3	2	7
Boise, Idaho	48	32	9	2	5	-	4
Colo. Springs, Colo.	75	52	14	8	1	-	-
Denver, Colo.	106	62	24	8	6	6	7
Las Vegas, Nev.	206	131	57	11	1	6	14
Ogden, Utah	29	27	2	-	-	-	1
Phoenix, Ariz.	77	44	19	5	7	1	3
Pueblo, Colo.	27	16	5	4	-	2	3
Salt Lake City, Utah	98	63	20	8	3	4	8
Tucson, Ariz.	137	94	27	5	8	3	9
PACIFIC	1,514	1,024	306	104	43	37	130
Berkeley, Calif.	10	7	2	1	-	-	1
Fresno, Calif.	110	82	15	9	4	-	7
Glendale, Calif.	13	10	1	1	1	-	1
Honolulu, Hawaii	84	60	18	4	-	2	3
Long Beach, Calif.	57	32	16	5	3	1	12
Los Angeles, Calif.	274	178	55	21	9	11	29
Pasadena, Calif.	U	U	U	U	U	U	U
Portland, Oreg.	96	69	18	6	-	3	10
Sacramento, Calif.	184	116	40	17	7	4	8
San Diego, Calif.	165	113	31	11	5	5	15
San Francisco, Calif.	130	76	40	10	1	3	11
San Jose, Calif.	131	98	15	7	8	3	14
Santa Cruz, Calif.	23	18	2	2	1	-	-
Seattle, Wash.	93	56	28	4	3	2	7
Spokane, Wash.	57	47	7	1	1	1	9
Tacoma, Wash.	87	62	18	5	-	2	3
TOTAL	11,017¶	7,172	2,472	784	325	257	672

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Total includes unknown ages.

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