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National Infant Immunization Week — April 16–22, 2000

National Infant Immunization Week (NIIW) is April 16–22, 2000; this year's theme is "You Gave Them Life...Protect It." This week emphasizes the importance of timely infant and childhood vaccination. Vaccination is one of the most effective ways to protect children, especially infants and young children, from potentially serious diseases. Because of increased vaccination efforts in the United States, eight vaccine-preventable diseases are at or near record low levels. In 1999, 86 measles cases, eight congenital rubella cases, one diphtheria case, and no wild poliovirus cases were reported (*1,2*).

Approximately 11,000 babies are born each day in the United States; they need 16–20 doses of vaccine before age 2 years. Although vaccination coverage levels are high for preschool-aged children, approximately 1 million 2-year-old children are missing one or more of the recommended vaccine doses (*3*).

During NIIW, states and communities will sponsor activities designed to highlight the need to achieve and maintain high childhood vaccination coverage rates. In addition, CDC will launch a new television public service announcement (PSA) and two radio PSAs in Spanish. Additional information about NIIW and childhood vaccinations is available from CDC's National Immunization Program World-Wide Web site, http://www.cdc.gov/nip or the National Immunization Information Hotline, telephone (800) 232-2522 (English) or (800) 232-0233 (Spanish).

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U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Progress in Development of Immunization Registries — United States, 1999

Community-based and state-based immunization registries are confidential, population-based, computerized information systems that contain data about children's vaccinations (*1*) and represent an important tool to increase and sustain high vaccination coverage. Immunization registries consolidate vaccination records for children from multiple providers, provide a vaccination needs assessment for each child, generate reminder and recall vaccination notices, produce an official vaccination record, and provide practice-specific and community-based vaccination coverage assessments. One of the *Healthy People 2010* national objectives is to increase to 95% the proportion of children aged <6 years who are enrolled in a fully operational population-based immunization registry (*2*). To assess the status of immunization registry development, CDC analyzed data from the 1999 Immunization Registry Annual Report (IRAR) of 64 jurisdictions (grantees) that receive federal immunization funds under section 317d of the Public Health Service Act. Findings from this analysis indicate that substantial progress has been made in the United States in developing and implementing community-based and state-based immunization registries.

The IRAR was a self-administered questionnaire, sent to immunization program managers, that measured the degree of enrollment of a registry's target population (i.e., percentage of children in the catchment area with vaccinations recorded in the registry and percentage of public and private providers submitting records to the registry) and the implementation of 12 functional standards considered essential for immunization registry operation. The 12 standards (Table 1) were identified through a survey of immunization program managers and registry developers. Focus group research with the managers and developers was conducted to ensure consensus about the importance of these standards. Key elements associated with each standard then were identified and used to establish more sensitive registry development and implementation progress measures. In addition, the IRAR collected information on immunization registry links with other information systems.

In 1999, the 64 jurisdictions (50 states, the District of Columbia, Chicago, Houston, New York City, Philadelphia, San Antonio, American Samoa, Guam, Marshall Islands, Micronesia, Northern Mariana Islands, Palau, Puerto Rico, and the U.S. Virgin Islands) were mailed the questionnaire; 62 (97%) responded. Of the 62, three (5%) grantees (all commonwealths or territories) reported no registry activity, 16 (26%) grantees reported planning or pilot-testing of registries, and 43 (69%) grantees reported implementing registries (Figure 1).

Data from 37 of the 43 grantees implementing registries indicated that approximately 32% (mean=50%; median=54%) of estimated target children aged 0–5 years in the grantees' catchment areas had at least two doses of vaccine recommended by the Advisory Committee on Immunization Practices and that the information was recorded in a registry's database. Data from 42 grantees indicated that 46% (median=96%) of public providers and 13% (median=15%) of private providers had submitted records to a registry.

Of the 43 grantees, all had implemented at least one key element on four of the 12 registry functional standards (i.e., electronic data storage of core data elements, protection of confidential medical information, recovery of lost data, and consolidation of

Immunization Registries — Continued

TABLE 1. Number and percentage of immunization jurisdictions (grantees*) with immunization registries that have implemented key elements of the 12 essential functional standards — United States, April 1999

Functional standard	Registries meeting all key elements		Registries meeting one or more key elements	
	No.	(%)	No.	(%)
Electronically store data on all National Vaccine Advisory Committee-approved core data elements	30	(70)	43	(100)
Establish a registry record within 2 months of birth for each newborn child residing in the catchment area	31	(72)	31	(72)
Enable providers to retrieve information from the registry on all vaccination records at the time of encounter	38	(88)	38	(88)
Ensure that providers submit information on all vaccination encounters within 1 month of vaccine administration	41	(95)	41	(95)
Protect confidential medical information (confidentiality and security measures)	3	(7)	43	(100)
Recover lost data (disaster recovery)	21	(49)	43	(100)
Exchange vaccination records using Health Level 7 standards	3	(7)	4	(9)
Automatically determine the vaccination(s) needed when a person seeks vaccination based on Advisory Committee on Immunization Practices' recommendations	35	(81)	35	(81)
Identify persons late for vaccination to provide recall notifications	25	(58)	37	(86)
Automatically produce vaccination coverage reports by providers, age groups, and geographic areas	33	(77)	38	(88)
Produce authorized vaccination records	37	(86)	37	(86)
Consolidate vaccination records from multiple providers, using duplication and edit checking procedures to optimize accuracy and completeness	7	(16)	43	(100)

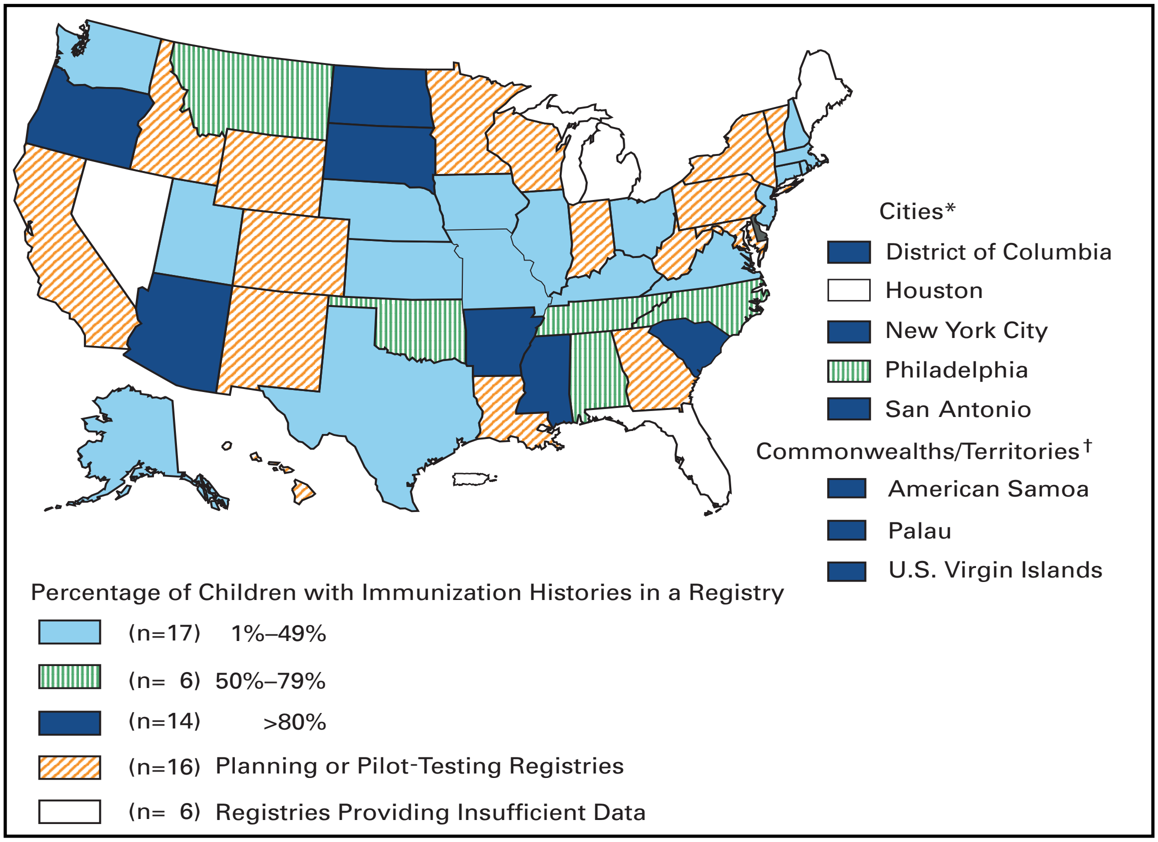
*Of the 64 grantees, 43 have implemented immunization registries.

vaccination records from multiple providers). Three (7%) grantees reported implementing at least one key element in each standard. However, none had implemented all key elements of the 12 functional standards (Table 1).

Forty-one (95%) of the 43 grantees reported immunization registry links with at least one other health-care program; of these, 25 (61%) were linked to their state's vital records department. Links to birth certificates indicate that these registries are population-based (not provider-based or practice-based). The median number of weeks from birth to establishing a registry record was 5 weeks (range: 1–12 weeks).

Immunization Registries — Continued

FIGURE 1. States, cities, and commonwealths/territories with children aged 0–5 years with at least two vaccine doses recorded in an immunization registry — United States, April 1999



* No report received from Chicago.

† The Marshall Islands, Micronesia, and the Northern Mariana Islands reported no registry activity. No report received from Guam.

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Editorial Note: The 1999 IRAR represents the first attempt to quantify and evaluate state-based and community-based immunization registry development in the United States. These data suggest that substantial progress has been made in U.S. communities and states in enrolling children, recruiting providers, and implementing registry functional standards.

Substantial challenges remain in developing registries. One of the greatest challenges is balancing the need to protect the privacy of patients, providers, and other users of these systems with the need to gather and share information to protect the public health and provide clinical benefit to persons. In response to recommendations of the National Vaccine Advisory Committee (NVAC) 1999 report, *Development of Community- and State-Based Immunization Registries* (*1*), CDC developed specifications for privacy protection of registry participants and for the confidentiality of information contained in a registry. These specifications were approved by NVAC in February 2000. They are consistent with privacy regulations required by the Health Insurance Portability and Accountability Act of 1996 (*3*).

Immunization Registries — Continued

Ensuring high levels of public and private provider participation in registries is a critical prerequisite to complete and accurate electronic vaccination records. In an increasingly mobile environment, where approximately 20% of children move by age 2 years (*4*), appropriate vaccination decision-making often depends on aggregating vaccination histories from multiple providers. Solving technical and operational challenges of sharing vaccination information between registries that may use different computer hardware and software is critical.

The findings in this report are subject to at least two limitations. First, because the IRAR relies on self-reported data, some bias is expected. On-site verification of these data is planned to ensure a more accurate assessment of registry development. Second, because only immunization program grantees were surveyed, these data underestimate the degree of registry activity occurring in the United States. Survey respondents reported 84 additional immunization registries implemented at the local level. However, data collected on these systems suggest that many are not population-based.

Since 1994, more than $178 million in federal funds have been awarded to state and local health departments to support the development and implementation of immunization registries (*5*). Fiscal savings associated with registries include avoiding duplicative vaccinations, assuring maximal returns for appointments through the use of reminder/recall notices, reducing vaccine wastage, avoiding manual generation of vaccination certificates, and avoiding manual review of multiple records to establish the Health Plan Employer Data and Information Set (HEDIS) indices. Immunization registries also can play an important role in increasing vaccine safety and monitoring adverse events because core registry data elements include vaccine date and type, manufacturer, and lot number. Registry data in Arkansas and California have been used to identify and revaccinate children who received vaccinations from sub-potent vaccine lots or an inadequate dosage of vaccine (*6,7*), and Oklahoma's registry data have been used to monitor the implementation of new vaccine recommendations (*8*). In addition, immunization registry links to broader child health information systems may help coordinate preventive care by enabling provider assessments of other health needs. Funding sources need to be identified to ensure reaching the *Healthy People 2010* immunization registry objective (*2*). Additional information on immunization registries is available from CDC's immunization registry World-Wide Web site, http://www.cdc.gov/nip/registry; telephone (800) 799-7062; or e-mail, siisclear@cdc.gov.

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Palmar Pallor as an Indicator for Anthelminthic Treatment Among Ill Children Aged 2–4 Years — Western Kenya, 1998

Infections with the soil-transmitted intestinal helminths (i.e., *Ascaris lumbricoides*, *Trichuris trichiura*, and hookworm), estimated to affect approximately 1 billion persons, are among the most common and widespread human infections (*1*). Among children aged <5 years, intestinal helminth infections cause malnutrition and anemia, two important causes of mortality. Anthelminthic treatment (deworming) improves nutritional status of school-aged children (*1*). The World Health Organization and the United Nations Children's Fund (UNICEF) have developed guidelines that include interventions for anemia and malnutrition (*2*) in the integrated management of childhood illness (IMCI) for children aged <5 years seen at first-level health-care facilities in developing countries. Under the IMCI guidelines, in geographic areas where hookworm or *Trichuris* infections are endemic, children aged 2–4 years with palmar pallor are treated with an anthelminthic drug. This report summarizes an investigation of the use of palmar pallor as an indication for anthelminthic treatment among ill children aged 2–4 years seen at first-level health-care facilities in rural western Kenya; the investigation found that palmar pallor was associated with anemia but not with intestinal helminth infection.

Children eligible for enrollment in the investigation were aged 2–4 years and seen for the first consultation for an illness during July 13–August 12, 1998, in three rural government health-care facilities in Bungoma District, Kenya. Enrollment criteria included caretaker consent, absence of a severe illness requiring referral, and no reported anthelminthic treatment during the 6 months preceding the investigation based on an interview with the caretaker. Each child was examined using IMCI guidelines, and a standard questionnaire was used to collect demographic, socioeconomic, and clinical information. Hemoglobin (Hb) levels were measured from a capillary finger-stick blood specimen using a hemoglobin photometer. Blood smears were examined for malaria parasites. Stool samples were processed using a formal-ethyl-acetate concentration technique (*3*). The intensity of helminth infection was measured by eggs per gram of stool and categorized as light, moderate, or heavy (*3*).

Of the 633 eligible children, 574 (91%) were enrolled; 34 (5%) children were excluded for receiving anthelminthic treatment during the 6 months before the investigation, 13 (2%) for the presence of a severe illness requiring referral, and 12 (2%) because the caretaker refused to participate. Excluded and enrolled children had similar demographic and socioeconomic characteristics. The participants' median age was 37 months (range: 24–59 months); 319 (56%) were boys. A total of 191 (33%) children had palmar pallor, 351 (61%) children had anemia (Hb: <11 gm/dL; normal: 11–16 gm/dL), 329 (57%) had malaria parasitemia, 32 (6%) were infected with *Ascaris*, 34 (6%) were infected with hookworm, and five (1%) were infected with *Trichuris*; 66 (12%) children had one or more intestinal helminths.

Anthelminthic Treatment — Continued

The prevalence of helminth infection was 10% among children aged 2 years, 11% among children aged 3 years, and 16% among children aged 4 years. All *Trichuris* infections, 97% of hookworm infections, and 78% of *Ascaris* infections were of light intensity. The sensitivity, specificity, and positive predictive value (PPV) of palmar pallor as an indicator for anemia were 50%, 93%, and 92%, respectively. Palmar pallor was associated with anemia (prevalence ratio [PR]=2.0; 95% confidence interval [CI]=1.8–2.3); however, no association was found between palmar pallor and helminth infection (Table 1). The sensitivity, specificity, and PPV of palmar pallor for identifying children with helminth infections were 27%, 66%, and 9%, respectively. Although malaria parasitemia modified the association between palmar pallor and helminth infection, the sensitivity and PPV of palmar pallor as an indicator for helminth infections in this geographic area remained low in children with or without malaria parasitemia. In the IMCI guidelines, the anthelminthic treatment is specifically for anemia; however, no association was found between palmar pallor and hookworm or *Trichuris* infection (PR=0.9; 95% CI=0.5–1.8). The sensitivity, specificity, and PPV of palmar pallor for identifying children with hookworm or *Trichuris* infection were 32%, 67%, and 6%, respectively.

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Editorial Note: The prevalence of intestinal helminth infection among a population of ill children aged 2–4 years who resided in Bungoma District, Kenya, was low and the infections identified were of low intensity. Findings of the few prevalence studies of intestinal helminth infection among healthy preschool-aged children in tropical areas are higher, ranging from 25% to 90% (*4–7*). The prevalence of intestinal helminth infections among healthy children aged 4–5 years in Kisumu District, western Kenya, was 60% (*7*) compared with 16% among children aged 4 years seen for outpatient care in Bungoma District; therefore, wide variation may exist in the prevalence of helminth

TABLE 1. Association between palmar pallor and intestinal helminth infection among ill children aged 2–4 years — Bungoma District, Kenya, 1998

Characteristic	Helminth infection		Prevalence ratio	(95% CI*)	Sensitivity	Specificity	Positive predictive value
	Yes	No					
All children[†]							
Pallor	18	173	0.8	(0.5–1.3)	27%	66%	9%
No pallor	48	335					
Children with malaria parasitemia							
Pallor	10	123	0.5[§]	(0.2–0.9)	24%	57%	8%
No pallor	31	165					
Children without malaria parasitemia							
Pallor	8	50	1.5[§]	(0.7–3.3)	32%	77%	14%
No pallor	17	170					

* Confidence interval.
† n=574.
§ Prevalence ratios differ significantly (p=0.03).

Anthelminthic Treatment — Continued

infections within proximate geographic areas. These differences may be environmental (e.g., Kisumu and Bungoma districts are only 62 miles [100 km] apart; however, Kisumu District is warmer and more humid than Bungoma District) or socioeconomic (e.g., the prevalence of *Ascaris* and *Trichuris* infections among school children living in overcrowded conditions in Colombo, Sri Lanka, was seven to 10 times higher than that among children attending rural schools approximately 20 miles [30 km] away) (*8*).

The findings in this report indicate that palmar pallor was predictive of anemia but was not associated with helminth infections. Heavy hookworm infections consistently have been reported to be associated with anemia (*9,10*). The lack of association between palmar pallor and helminth infection in Bungoma District may be the result of the light intensity of hookworm infections; all but one hookworm infection was considered light.

The findings in this report are subject to at least two limitations. First, children who participated in the study may not be representative of all ill children in Bungoma District. Second, the findings may not be generalizable beyond areas with low prevalence and intensity of helminth infections.

Most children in Bungoma District with a helminth infection would not have received anthelminthic treatment, and few receiving anthelminthic treatment would have been infected with an intestinal helminth if palmar pallor were used to indicate anthelminthic treatment, as recommended in the IMCI guidelines. These guidelines have been introduced into approximately 60 developing countries; although implementing the guidelines provides a means for delivering the nutritional benefits of anthelminthic therapy to preschool-aged children, additional studies may help to determine under what conditions palmar pallor indicates the need for anthelminthic treatment. These studies should be conducted in areas with varying prevalences of intestinal helminth and malaria infections.

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Community Indicators of Health-Related Quality of Life — United States, 1993–1997

It is known that persons' longevity is affected by the environmental and population characteristics of their community (*1–3*). Studies that identify community-level characteristics associated with the health-related quality of life (HRQOL) of residents could help guide local health planning. Data from the Behavioral Risk Factor Surveillance System (BRFSS) for 1993–1997 indicate that HRQOL differs among U.S. counties according to county population size. In addition, socioeconomic and health status indicators, such as poverty, noncompletion of high school, unemployment, number of persons with severe work disabilities, mortality, and births to adolescents, also might affect county-level HRQOL differences. This report examines initial findings on the relation between selected community health status indicators (CHSIs) and the mean number of days that persons aged ≥18 years reported ill health (i.e., unhealthy days), a surveillance measure of population HRQOL (*4–6*). The findings suggest that CHSIs may be useful in the public health planning process.

Since 1993, CDC and participating state health departments have tracked the number of days persons aged ≥18 years have reported feeling unhealthy through BRFSS, an ongoing, state-based, random-digit–dialed telephone survey of the civilian, noninstitutionalized U.S. population aged ≥18 years. Unhealthy days were measured using the sum of the responses to two questions about the estimated number of days during the 30 days preceding the survey when the respondent's physical health (i.e., "physical illness and injury") or mental health (i.e., "stress, depression, and problems with emotions") was not good, with the restriction that unhealthy days for an individual could not exceed 30 days (*6*). The mean number of unhealthy days was estimated for each U.S. county after each response was weighted to the age, race, and sex distribution of the state in which the county was located. Data from 1993 through 1997 were combined to increase the precision of the estimates of the mean number of unhealthy days per county. Data from 2450 (80%) of 3081 U.S. counties were analyzed; Alaska and 631 counties with <20 BRFSS respondents were excluded from the analysis.

Potential county indicators of HRQOL were selected from preliminary CHSI data provided for this analysis by the Public Health Foundation (PHF)* based on recognized

*County data for age distribution, population size and density, poverty, high school graduation, unemployment, severe work disabilities, all-cause mortality, and births to adolescents were obtained from the Health Resources and Services Administration-funded Community Health Status Indicator Project Health Status Reports, which were created by the CHSI Project partners (Association of State and Territorial Health Officials, National Association of County and City Health Officials, and PHF). The CHSI Project is described by PHF at http://www.phf.org. References to sites of non-CDC organizations on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

associations with HRQOL (*6*) or on their possible relation to population HRQOL (i.e., mortality rate and births to adolescents). Socioeconomic and health status indicators (specifically, rates of poverty, high school education, unemployment, severe work disability, mortality, and proportion of births to adolescents) were analyzed for mean population HRQOL differences among counties categorized by population size and the prevalence level of each indicator. Multiple linear regression was used to estimate the percentage of variability in the mean number of unhealthy days per county explained by these indicators after weighting county records by the square root of the BRFSS sample size to allow use of county data with smaller BRFSS sample sizes and to reflect the increased precision of HRQOL estimates in counties with larger sample sizes. A maximum relative weight of 6.32 (i.e., the square root of 800 divided by the square root of 20) was assigned to counties with ≥800 respondents.

Overall, persons aged ≥18 years reported an average of 5.3 unhealthy days (range: 0.7–12.7 days) during the 30 days preceding the survey (Table 1). The most unhealthy days were reported by persons in the most populous counties (i.e., 5.6 unhealthy days for counties of ≥1,000,000); the least unhealthy days were reported by persons in counties with populations of 500,000–999,999 (5.1 days). Compared with the latter group, persons in smaller and larger counties were estimated to have 1.3 million excess unhealthy years of life. For each CHSI indicator, counties in the lowest third (i.e., the one third that had the lowest rates for poverty, noncompletion of high school education, unemployment, severe work disability, mortality, and proportion of births to adolescents) had the lowest mean number of unhealthy days overall and for almost all county sizes. Taking all tested indicators together, the variability in county unhealthy days predicted was approximately 11%. Socioeconomic and health-related factors accounted for almost all of the predicted variability; age and population size and density accounted for only 0.4%.

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Editorial Note: Local health agencies play a major role in promoting health and quality of life, and community indicators of HRQOL can help to guide planning programs to improve community health. This initial study of community indicators of HRQOL predicted approximately 11% of the variability in unhealthy days among counties. Although no similar county-based HRQOL studies are known, the amount of variability explained was similar to that found in efforts to predict health-care costs of various populations using socioeconomic and health-related indicators (*7*). Although counties with

TABLE 1. Number* of counties† and mean number of unhealthy days§ in persons aged ≥18 years, by county population¶ and prevalence of socioeconomic and health characteristics — United States, Behavioral Risk Factor Surveillance System, 1993–1997

	Population															
	<25,000		25,000–49,999		50,000–99,999		100,000–499,999		500,000–999,999		≥1,000,000		All counties	
Characteristics/Level	**No. counties**	**Mean**	**No. counties**	**Mean**	**No. counties**	**Mean**	**No. counties**	**Mean**	**No. counties**	**Mean**	**No. counties**	**Mean**	**No. counties**	**Mean**
Overall	**998**	**5.4**	**567**	**5.3**	**375**	**5.2**	**407**	**5.2**	**69**	**5.1**	**34**	**5.6**	**2450**	**5.3**
% of population living below poverty line**														
Upper (≥16.2%)	415	5.7	206	5.6	101	5.4	68	5.6	14	5.1	11	6.0	815	5.7
Middle (11.5%–16.1%)	312	5.2	193	5.3	127	5.2	130	5.3	22	5.5	11	5.3	795	5.3
Lower (≤11.4%)	271	5.0	168	4.8	147	5.0	209	5.0	33	4.8	12	5.4	840	5.0
% of population aged ≥25 years without high school diploma††														
Upper (≥40.3%)	397	5.7	234	5.6	111	5.2	61	5.1	5	5.4	2	6.2	810	5.4
Middle (29.1%–40.2%)	263	5.3	213	5.2	152	5.2	159	5.2	16	5.0	15	5.8	818	5.4
Lower (≤29.0%)	338	4.8	120	4.8	112	5.1	187	5.2	48	5.1	17	5.3	822	5.2
Unemployment rate§§														
Upper (≥5.7%)	401	5.7	208	5.6	109	5.5	68	5.6	7	5.3	8	6.0	801	5.7
Middle (3.7%–5.6%)	294	5.3	216	5.2	134	5.1	146	5.3	26	5.1	12	5.6	828	5.3
Lower (≤3.6%)	303	4.9	143	5.0	132	5.0	193	4.9	36	5.1	14	5.3	821	5.1
Severe work disability rate¶¶														
Upper (≥4.2%)	414	5.7	229	5.7	121	5.4	51	5.5	2	5.6	0	—	817	5.6
Middle (3.0%–4.1%)	293	5.2	205	5.1	130	5.3	159	5.3	24	5.5	6	5.9	817	5.4
Lower (≤2.9%)	291	4.9	133	4.9	124	4.9	196	5.0	43	4.8	28	5.6	815	5.2
All-cause death rate***														
Upper (≥972)	350	5.8	211	5.6	133	5.3	96	5.2	16	5.0	8	5.7	814	5.4
Middle (873–971)	264	5.3	204	5.2	143	5.2	171	5.2	26	5.2	10	5.5	818	5.3
Lower (≤872)	384	5.0	152	4.9	99	5.0	140	5.1	27	5.0	16	5.6	818	5.2

% births to mothers aged ≤17 years†††														
Upper (≥6.6%)	359	5.6	215	5.5	108	5.3	88	5.6	10	5.1	2	5.9	782	5.5
Middle (4.2%–6.5%)	283	5.4	201	5.2	150	5.3	168	5.1	28	5.2	18	5.7	848	5.4
Lower (≤4.1%)	355	5.0	151	4.9	117	4.9	151	5.0	31	4.9	14	5.4	819	5.1

* n=2450.
† Counties with ≥20 Behavioral Risk Factor Surveillance System (BRFSS) respondents to questions about unhealthy days for 1993–1997.
§ Mean number of unhealthy days for all adult respondents in each county when standard BRFSS weights are used.
¶ Bureau of the Census estimates for mid-1997.
** 1995 Bureau of the Census Small Area Income Poverty estimates.
†† Calculated using 1990 Census of Population and Housing, STF3A, Bureau of the Census area resource file data.
§§ Persons with no employment, were available for work, and had made efforts to find employment. Current Population Survey, Local Area Unemployment Statistics, Bureau of Labor Statistics, U.S. Department of Labor.
¶¶ Borawski EA, Jia H, Wu GW, Case Western Reserve University. The use of the Behavioral Risk Factor Surveillance System (BRFSS) to estimate the prevalence of state and substate disability. Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, CDC, 1999.
*** Per 100,000 population. Average annual rate for all causes of death, age adjusted to 2000. Data from CDC's National Center for Health Statistics (5-year average, 1993–1997).
††† Data from CDC's National Center for Health Statistics, Vital Statistics Reporting System (5-year average for 1993–1997). One county with a population of <25,000 has a missing value for this percentage.

populations of 500,000–999,999 residents reported better HRQOL than the other counties, this study indicates that counties of all sizes might be able to address factors to reduce adult unhealthy days.

The findings in this report are subject to at least five limitations. First, BRFSS reaches only persons who have a telephone and are able and willing to participate in the survey; therefore, results may underestimate the number of unhealthy days experienced by persons living at home and do not reflect persons living in long-term–care facilities or other institutions. Second, unhealthy days may be overestimated for some persons who report both physical and mental unhealthy days. Third, the county indicators explored in this study were few, cross-sectional, and not necessarily the most valid and sensitive indicators of population HRQOL. Fourth, the analysis was limited by the small BRFSS sample size available at the county level, and BRFSS data are weighted to reflect their state's population characteristics, which may differ from population characteristics of the county. Finally, although one scheme for weighting counties in the regression analysis was used, others should be explored.

Using a validated HRQOL measure, this study represents an initial effort to quantify certain factors that contribute to the well-being of populations in U.S. counties (*8*). However, to improve county health planning, additional factors that contribute directly to HRQOL, such as access to health care and preventive services, environmental factors, workplace safety, public safety, and health behaviors, should be assessed. Also, county health departments should use local HRQOL data and associated community indicators to identify health issues and guide their community health improvement process (*9,10*).

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Errata: Vol. 49, No. 12

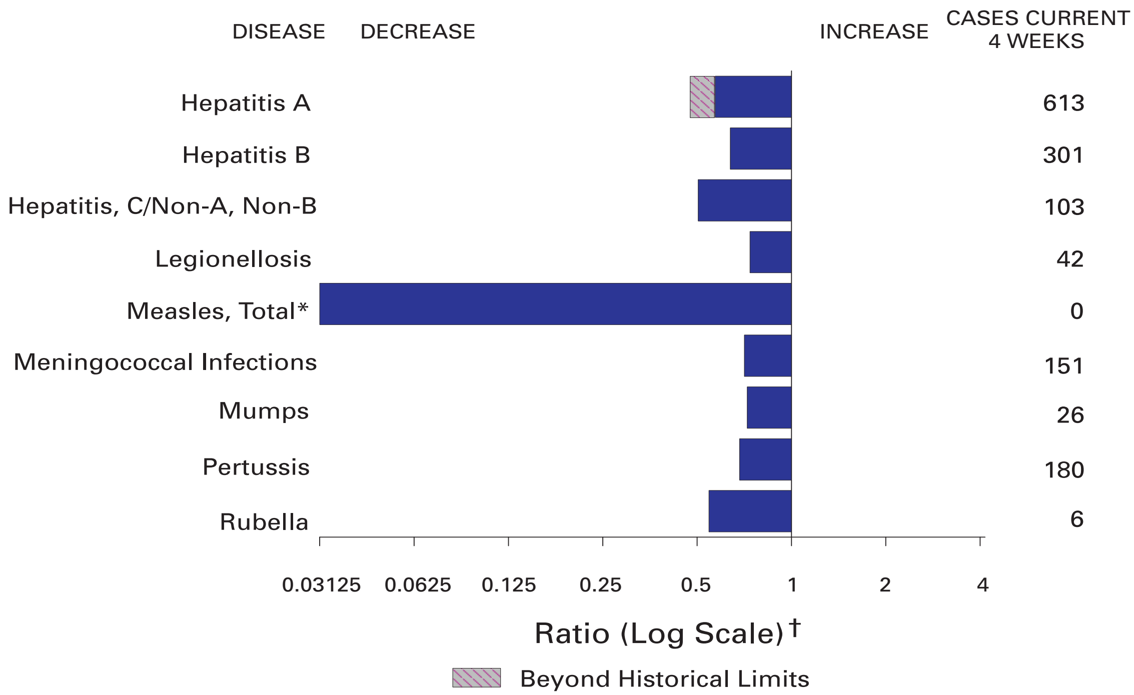
In the article "Public Opinion About Public Health—United States, 1999," there were errors in the percentages given in both tables. On page 259 in Table 1, in the "Sinus problems/allergies" category, the percentages for "Not too important," "Not at all," and "Don't know" should have been 4%, 3%, and 4%, respectively. On page 260 in Table 2, in the "Air pollution" category, the percentages for "Not much," "Not at all," and "Don't know" should have been 5%, 2%, and 5%, respectively.

In the Notice to Readers "National Vaccine Program Office Workshop on Aluminum in Vaccines" on page 262, the web address was incorrect. It should have been http://www.cdc.gov/od/nvpo/calendar.htm.

Erratum: Vol. 49, No. 10

In the article "Preliminary FoodNet Data on the Incidence of Foodborne Illnesses—Selected Sites, United States, 1999," in Table 1 on page 203, the total rate for 1998 is incorrect. The total should read "46.9."

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending April 1, 2000, with historical data — United States



*No measles cases were reported for the current 4-week period, yielding a ratio for week 13 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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending April 1, 2000 (13th Week)

	Cum. 2000		Cum. 2000
Anthrax	-	HIV infection, pediatric*§	32
Brucellosis*	6	Plague	2
Cholera	-	Poliomyelitis, paralytic	-
Congenital rubella syndrome	1	Psittacosis*	4
Cyclosporiasis*	3	Rabies, human	-
Diphtheria	-	Rocky Mountain spotted fever (RMSF)	30
Encephalitis: California* serogroup viral	2	Streptococcal disease, invasive Group A	767
eastern equine*	-	Streptococcal toxic-shock syndrome*	32
St. Louis*	-	Syphilis, congenital¶	6
western equine*	-	Tetanus	4
Ehrlichiosis human granulocytic (HGE)*	13	Toxic-shock syndrome	33
human monocytic (HME)*	1	Trichinosis	2
Hansen Disease*	10	Typhoid fever	70
Hantavirus pulmonary syndrome*†.	-	Yellow fever	-
Hemolytic uremic syndrome, post-diarrheal*	21		

-: no reported cases
*Not notifiable in all states.
† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§ Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update March 26, 2000.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending April 1, 2000, and April 3, 1999 (13th Week)

Reporting Area	AIDS		Chlamydia[§]		Cryptosporidiosis		*Escherichia coli* O157:H7* NETSS		*Escherichia coli* O157:H7* PHLIS	
	Cum. 2000[†]	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	10,143	11,376	122,644	164,831	277	359	312	287	201	230
NEW ENGLAND	666	529	4,820	5,310	12	16	30	41	28	37
Maine	11	5	286	153	3	1	3	4	2	-
N.H.	8	19	229	268	-	1	4	2	4	3
Vt.	1	4	131	117	6	1	1	3	2	-
Mass.	446	354	1,881	2,330	1	10	8	19	7	18
R.I.	21	30	588	547	2	-	-	1	-	1
Conn.	179	117	1,705	1,895	-	3	14	12	13	15
MID. ATLANTIC	2,471	2,834	6,312	19,622	24	67	30	15	39	3
Upstate N.Y.	131	359	N	N	17	23	30	10	32	1
N.Y. City	1,441	1,443	-	9,437	4	34	-	2	-	-
N.J.	563	593	1,058	3,167	-	3	-	3	2	2
Pa.	336	439	5,254	7,018	3	7	N	N	5	-
E.N. CENTRAL	921	842	22,157	26,398	48	64	40	53	10	38
Ohio	139	148	5,783	8,249	13	8	12	22	5	10
Ind.	88	124	2,912	2,950	3	5	5	10	1	8
Ill.	542	402	6,291	6,828	-	7	12	10	-	7
Mich.	114	125	5,526	5,567	9	10	11	11	2	7
Wis.	38	43	1,645	2,804	23	34	N	N	2	6
W.N. CENTRAL	203	246	5,801	9,291	19	24	71	69	48	57
Minn.	44	39	1,446	1,928	4	11	18	12	22	14
Iowa	15	30	867	693	3	1	12	7	4	2
Mo.	90	99	902	3,461	7	5	32	5	12	3
N. Dak.	-	3	61	230	1	-	2	2	2	2
S. Dak.	2	5	427	495	2	2	1	1	1	1
Nebr.	13	17	743	943	2	3	2	28	4	35
Kans.	39	53	1,355	1,541	-	2	4	14	3	-
S. ATLANTIC	2,848	3,163	24,314	33,675	48	54	29	26	16	15
Del.	45	40	758	724	-	-	-	1	-	-
Md.	271	344	1,585	3,290	5	4	5	1	1	-
D.C.	186	118	790	N	-	3	-	-	U	U
Va.	221	177	3,574	3,664	1	1	6	6	5	3
W. Va.	15	19	450	550	-	-	2	-	1	1
N.C.	128	197	5,057	5,484	3	1	7	7	2	6
S.C.	232	313	669	5,456	-	-	-	1	-	1
Ga.	300	349	4,670	7,113	30	38	3	1	3	U
Fla.	1,450	1,606	6,761	7,394	9	7	6	9	4	4
E.S. CENTRAL	415	490	11,532	12,158	8	4	14	23	13	12
Ky.	56	70	1,831	2,024	-	1	6	6	3	5
Tenn.	172	211	3,126	3,588	1	2	5	9	8	3
Ala.	120	109	4,322	3,542	7	1	1	4	-	3
Miss.	67	100	2,253	3,004	-	-	2	4	2	1
W.S. CENTRAL	824	1,174	20,402	21,732	9	22	14	9	18	17
Ark.	42	45	1,080	1,420	1	-	4	2	1	2
La.	143	119	4,199	2,776	-	13	-	3	9	3
Okla.	42	36	1,559	2,055	1	1	4	3	3	2
Tex.	597	974	13,564	15,481	7	8	6	1	5	10
MOUNTAIN	342	397	5,328	8,554	20	24	30	15	11	14
Mont.	5	4	-	309	1	1	8	-	-	-
Idaho	6	5	64	459	1	2	4	-	-	2
Wyo.	2	2	185	191	1	-	2	1	2	2
Colo.	70	74	833	1,945	5	3	10	5	5	2
N. Mex.	40	13	473	1,189	1	11	-	1	-	-
Ariz.	115	186	2,480	3,249	3	7	4	3	3	2
Utah	41	37	573	454	7	N	1	5	1	5
Nev.	63	76	720	758	1	-	1	-	-	1
PACIFIC	1,453	1,701	21,978	28,091	89	84	54	36	18	37
Wash.	148	88	3,189	3,133	N	N	5	5	7	15
Oreg.	35	45	1,196	1,553	2	4	7	12	8	10
Calif.	1,230	1,541	16,358	22,094	87	80	39	19	-	12
Alaska	5	6	602	496	-	-	-	-	-	-
Hawaii	35	21	633	815	-	-	3	-	3	-
Guam	13	1	-	120	-	-	N	N	U	U
P.R.	187	413	142	U	-	-	-	2	U	U
V.I.	16	10	-	U	-	U	-	U	U	U
Amer. Samoa	-	-	-	U	-	U	-	U	U	U
C.N.M.I.	-	-	-	U	-	U	-	U	U	U

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

* Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

† Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update March 26, 2000.

§ Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 1, 2000, and April 3, 1999 (13th Week)

Reporting Area	Gonorrhea		Hepatitis C/NA,NB		Legionellosis		Lyme Disease	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	65,182	88,598	493	868	149	220	757	1,096
NEW ENGLAND	1,409	1,825	-	3	10	14	62	268
Maine	18	10	-	-	2	2	-	1
N.H.	20	20	-	-	2	1	15	-
Vt.	10	15	-	2	-	3	-	-
Mass.	532	717	-	1	3	4	7	112
R.I.	144	141	-	-	-	1	-	8
Conn.	685	922	-	-	3	3	40	147
MID. ATLANTIC	4,481	10,678	12	37	24	61	555	568
Upstate N.Y.	1,351	1,403	12	19	12	14	247	135
N.Y. City	-	4,282	-	-	-	8	3	17
N.J.	591	1,877	-	-	-	5	-	120
Pa.	2,539	3,116	-	18	12	34	305	296
E.N. CENTRAL	14,352	15,906	60	463	44	66	4	43
Ohio	3,331	4,188	-	-	24	18	4	10
Ind.	1,311	1,734	-	-	6	5	-	1
Ill.	4,407	4,869	4	8	1	10	-	2
Mich.	4,278	3,969	56	121	8	20	-	1
Wis.	1,025	1,146	-	334	5	13	U	29
W.N. CENTRAL	1,964	3,986	65	49	9	8	25	21
Minn.	564	706	-	-	1	-	6	6
Iowa	181	236	-	-	2	3	1	2
Mo.	367	1,914	59	42	5	3	5	5
N. Dak.	4	17	-	-	-	-	-	1
S. Dak.	61	40	-	-	-	1	-	-
Nebr.	239	465	1	1	-	1	-	-
Kans.	548	608	5	6	1	-	13	7
S. ATLANTIC	17,303	25,826	21	59	32	26	86	132
Del.	404	427	-	-	2	2	6	5
Md.	820	3,551	3	20	8	4	63	106
D.C.	593	1,718	-	-	-	-	-	1
Va.	2,440	2,504	-	6	3	5	5	2
W. Va.	118	155	1	8	N	N	4	2
N.C.	4,570	4,848	7	13	3	5	4	14
S.C.	574	2,683	-	9	2	5	-	1
Ga.	3,086	4,676	-	1	2	-	-	-
Fla.	4,698	5,264	10	2	12	5	4	1
E.S. CENTRAL	8,201	9,530	85	57	3	13	-	17
Ky.	736	940	10	5	1	7	-	1
Tenn.	2,395	2,794	21	24	1	5	-	5
Ala.	3,256	3,182	3	1	1	1	-	6
Miss.	1,814	2,614	51	27	-	-	-	5
W.S. CENTRAL	11,014	12,401	133	96	-	1	-	-
Ark.	541	704	3	4	-	-	-	-
La.	3,134	2,667	44	72	-	1	-	-
Okla.	735	1,084	-	2	-	-	-	-
Tex.	6,604	7,946	86	18	-	-	-	-
MOUNTAIN	2,177	2,370	69	66	9	15	1	3
Mont.	-	8	-	4	-	-	-	-
Idaho	4	26	-	4	1	-	-	-
Wyo.	17	8	43	25	1	-	-	1
Colo.	869	539	10	9	4	1	-	-
N. Mex.	80	214	4	9	-	1	-	1
Ariz.	845	1,206	10	12	-	1	1	-
Utah	75	50	-	1	3	6	-	1
Nev.	287	319	2	2	-	6	-	-
PACIFIC	4,281	6,076	48	38	18	16	24	44
Wash.	583	541	5	2	5	2	-	-
Oreg.	138	228	9	4	N	N	1	1
Calif.	3,409	5,083	34	32	13	14	23	43
Alaska	74	98	-	-	-	-	-	-
Hawaii	77	126	-	-	-	-	N	N
Guam	-	18	-	-	-	-	-	-
P.R.	30	97	1	-	-	-	N	N
V.I.	-	U	-	U	-	U	-	U
Amer. Samoa	-	U	-	U	-	U	-	U
C.N.M.I.	-	U	-	U	-	U	-	U

N: Not notifiable U: Unavailable - : no reported cases

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 1, 2000, and April 3, 1999 (13th Week)

	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
Reporting Area	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	182	294	1,030	1,286	5,069	6,049	3,183	5,418
NEW ENGLAND	3	4	139	205	343	339	312	366
Maine	1	-	38	36	31	27	12	17
N.H.	-	-	2	14	23	9	20	13
Vt.	-	-	7	40	21	14	17	15
Mass.	2	4	46	45	191	201	187	198
R.I.	-	-	-	19	8	13	12	32
Conn.	-	-	46	51	69	75	64	91
MID. ATLANTIC	21	94	213	251	488	897	652	655
Upstate N.Y.	11	21	162	163	164	171	181	205
N.Y. City	5	40	U	U	171	279	217	256
N.J.	-	24	30	51	-	215	83	188
Pa.	5	9	21	37	153	232	171	6
E.N. CENTRAL	22	32	8	3	739	925	365	813
Ohio	2	4	2	2	192	202	137	154
Ind.	1	4	-	-	75	50	46	60
Ill.	10	13	-	-	233	285	1	292
Mich.	9	8	6	1	130	224	127	216
Wis.	-	3	-	-	109	164	54	91
W.N. CENTRAL	6	13	88	187	262	355	276	397
Minn.	4	2	22	24	42	97	81	140
Iowa	-	3	12	25	34	39	25	37
Mo.	-	6	2	6	92	78	91	116
N. Dak.	-	-	19	30	4	2	15	13
S. Dak.	-	-	18	45	13	13	17	20
Nebr.	1	-	-	1	35	30	22	29
Kans.	1	2	15	56	42	96	25	42
S. ATLANTIC	51	65	448	438	964	1,090	564	964
Del.	-	-	10	8	12	19	11	24
Md.	21	21	99	102	155	129	111	136
D.C.	1	6	-	-	1	23	U	U
Va.	14	11	110	103	102	131	86	121
W. Va.	-	1	28	22	27	19	19	24
N.C.	5	5	100	97	177	221	103	195
S.C.	-	-	28	27	86	66	68	67
Ga.	1	6	45	46	152	210	166	273
Fla.	9	15	28	33	252	272	-	124
E.S. CENTRAL	7	6	39	65	254	336	121	215
Ky.	2	2	8	17	52	72	23	51
Tenn.	-	2	23	23	59	91	67	89
Ala.	5	2	8	25	102	97	23	62
Miss.	-	-	-	-	41	76	8	13
W.S. CENTRAL	1	10	14	30	326	434	364	420
Ark.	-	2	-	-	54	57	22	46
La.	1	6	-	-	27	67	84	79
Okla.	-	1	14	30	55	53	35	36
Tex.	-	1	-	-	190	257	223	259
MOUNTAIN	14	13	38	36	479	460	307	454
Mont.	1	2	9	15	18	4	-	1
Idaho	-	1	-	-	28	17	-	23
Wyo.	-	-	16	9	6	3	3	7
Colo.	7	4	-	1	116	143	97	147
N. Mex.	-	2	3	-	47	58	28	55
Ariz.	2	3	10	11	160	140	123	122
Utah	2	1	-	-	65	57	56	66
Nev.	2	-	-	-	39	38	-	33
PACIFIC	57	57	43	71	1,214	1,213	222	1,134
Wash.	3	3	-	-	63	74	103	163
Oreg.	6	7	-	-	61	83	77	117
Calif.	47	42	33	68	1,022	974	-	782
Alaska	-	-	10	3	15	8	8	5
Hawaii	1	5	-	-	53	74	34	67
Guam	-	-	-	-	-	16	U	U
P.R.	-	-	6	21	10	93	U	U
V.I.	-	U	-	U	-	U	U	U
Amer. Samoa	-	U	-	U	-	U	U	U
C.N.M.I.	-	U	-	U	-	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 1, 2000, and April 3, 1999 (13th Week)

Reporting Area	Shigellosis* NETSS Cum. 2000	Shigellosis* NETSS Cum. 1999	Shigellosis* PHLIS Cum. 2000	Shigellosis* PHLIS Cum. 1999	Syphilis (Primary & Secondary) Cum. 2000	Syphilis (Primary & Secondary) Cum. 1999	Tuberculosis Cum. 2000	Tuberculosis Cum. 1999[†]
UNITED STATES	3,091	3,023	1,353	1,633	1,341	1,652	2,032	2,998
NEW ENGLAND	68	73	51	69	16	16	61	83
Maine	2	1	-	-	-	-	-	3
N.H.	1	4	1	5	-	-	1	-
Vt.	1	4	-	3	-	1	-	-
Mass.	46	48	37	44	12	8	45	42
R.I.	7	9	4	8	1	1	5	15
Conn.	11	7	9	9	3	6	10	23
MID. ATLANTIC	234	246	233	148	35	77	440	472
Upstate N.Y.	141	50	73	20	2	8	29	50
N.Y. City	67	86	105	76	6	28	274	233
N.J.	-	71	23	52	5	18	105	115
Pa.	26	39	32	-	22	23	32	74
E.N. CENTRAL	508	508	181	262	322	251	248	296
Ohio	34	163	25	20	19	23	34	79
Ind.	63	19	9	9	117	72	18	23
Ill.	170	195	2	178	112	120	156	131
Mich.	195	66	139	41	56	27	24	49
Wis.	46	65	6	14	18	9	16	14
W.N. CENTRAL	221	182	125	144	16	45	107	107
Minn.	47	23	49	28	2	5	38	41
Iowa	36	2	21	3	6	3	8	4
Mo.	105	116	43	97	5	31	48	44
N. Dak.	1	1	-	2	-	-	-	1
S. Dak.	1	3	-	2	-	-	3	3
Nebr.	22	13	8	5	2	3	4	4
Kans.	9	24	4	7	1	3	6	10
S. ATLANTIC	420	493	84	118	431	604	332	501
Del.	3	5	2	2	2	1	-	5
Md.	27	30	8	5	81	123	55	54
D.C.	-	19	U	U	15	36	-	10
Va.	15	19	13	5	35	44	-	44
W. Va.	2	3	2	1	1	2	9	11
N.C.	26	61	11	34	134	130	44	78
S.C.	3	30	2	11	11	63	18	85
Ga.	53	52	25	19	73	113	99	115
Fla.	291	274	21	41	79	92	107	99
E.S. CENTRAL	126	320	85	184	195	293	122	169
Ky.	32	34	19	23	19	32	-	27
Tenn.	59	232	63	146	124	133	52	45
Ala.	9	31	1	15	29	79	70	73
Miss.	26	23	2	-	23	49	-	24
W.S. CENTRAL	288	486	287	536	192	242	50	487
Ark.	49	34	3	20	16	25	33	28
La.	19	38	45	34	52	38	-	U
Okla.	9	122	5	31	41	62	17	24
Tex.	211	292	234	451	83	117	-	435
MOUNTAIN	231	174	73	103	37	50	94	84
Mont.	-	3	-	-	-	-	4	-
Idaho	22	2	-	3	-	-	-	-
Wyo.	1	2	1	1	-	-	-	-
Colo.	33	31	17	21	1	-	8	U
N. Mex.	26	24	13	13	5	-	16	14
Ariz.	93	91	32	49	29	49	40	39
Utah	6	13	10	13	-	1	7	11
Nev.	50	8	-	3	2	-	19	20
PACIFIC	995	541	234	69	97	74	578	799
Wash.	168	16	182	35	13	11	35	33
Oreg.	76	15	45	19	2	1	-	22
Calif.	735	495	-	-	82	60	508	692
Alaska	5	-	1	-	-	1	12	11
Hawaii	11	15	6	15	-	1	23	41
Guam	-	3	U	U	-	-	-	-
P.R.	1	18	U	U	20	59	-	41
V.I.	-	U	U	U	-	U	-	U
Amer. Samoa	-	U	U	U	-	U	-	U
C.N.M.I.	-	U	U	U	-	U	-	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

[†]Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending April 1, 2000, and April 3, 1999 (13th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 2000†	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	282	323	2,862	4,599	1,112	1,472	-	5	-	-	5	23
NEW ENGLAND	16	22	70	49	11	40	-	-	-	-	-	2
Maine	1	2	4	2	1	-	-	-	-	-	-	-
N.H.	4	3	7	5	6	2	-	-	-	-	-	1
Vt.	2	3	3	-	2	1	U	-	U	-	-	-
Mass.	5	10	27	19	2	21	-	-	-	-	-	1
R.I.	-	-	-	-	-	2	-	-	-	-	-	-
Conn.	4	4	29	23	-	14	-	-	-	-	-	-
MID. ATLANTIC	41	47	114	289	104	208	-	-	-	-	-	-
Upstate N.Y.	20	20	56	63	26	41	-	-	-	-	-	-
N.Y. City	8	14	58	84	78	63	-	-	-	-	-	-
N.J.	10	12	-	39	-	28	-	-	-	-	-	-
Pa.	3	1	-	103	-	76	-	-	-	-	-	-
E.N. CENTRAL	31	46	375	983	124	143	-	3	-	-	3	-
Ohio	16	19	100	209	28	30	-	2	-	-	2	-
Ind.	3	3	12	33	5	7	-	-	-	-	-	-
Ill.	9	20	117	184	-	-	-	-	-	-	-	-
Mich.	3	4	133	526	90	99	-	1	-	-	1	-
Wis.	-	-	13	31	1	7	-	-	-	-	-	-
W.N. CENTRAL	14	24	292	228	60	77	-	1	-	-	1	-
Minn.	7	10	28	11	4	10	-	-	-	-	-	-
Iowa	-	3	33	37	11	14	-	-	-	-	-	-
Mo.	3	5	150	124	26	40	-	-	-	-	-	-
N. Dak.	1	-	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	1	-	8	-	-	-	-	-	-	-	-
Nebr.	1	1	10	22	8	8	-	-	-	-	-	-
Kans.	2	4	71	26	11	5	-	1	-	-	1	-
S. ATLANTIC	84	68	339	398	259	234	-	-	-	-	-	-
Del.	-	-	-	1	-	-	-	-	-	-	-	-
Md.	24	21	40	100	34	55	-	-	-	-	-	-
D.C.	-	2	2	16	6	6	-	-	-	-	-	-
Va.	15	9	45	32	35	24	-	-	-	-	-	-
W. Va.	2	1	29	3	-	4	-	-	-	-	-	-
N.C.	8	12	60	40	81	54	-	-	-	-	-	-
S.C.	4	2	7	5	2	26	-	-	-	-	-	-
Ga.	22	16	48	119	39	33	-	-	-	-	-	-
Fla.	9	5	108	82	62	32	-	-	-	-	-	-
E.S. CENTRAL	15	24	85	115	64	114	-	-	-	-	-	-
Ky.	7	5	7	21	14	9	-	-	-	-	-	-
Tenn.	5	9	21	51	28	53	-	-	-	-	-	-
Ala.	3	8	19	24	7	28	-	-	-	-	-	-
Miss.	-	2	38	19	15	24	-	-	-	-	-	-
W.S. CENTRAL	18	24	444	1,010	52	198	-	-	-	-	-	2
Ark.	-	-	46	10	16	14	-	-	-	-	-	-
La.	3	6	11	44	18	50	-	-	-	-	-	-
Okla.	15	16	101	157	18	34	-	-	-	-	-	-
Tex.	-	2	286	799	-	100	-	-	-	-	-	2
MOUNTAIN	37	37	217	424	93	124	-	-	-	-	-	-
Mont.	-	1	1	4	3	5	-	-	-	-	-	-
Idaho	2	1	11	11	4	7	-	-	-	-	-	-
Wyo.	-	1	6	1	-	2	-	-	-	-	-	-
Colo.	11	2	47	81	22	24	-	-	-	-	-	-
N. Mex.	10	9	22	10	24	32	-	-	-	-	-	-
Ariz.	12	20	102	258	33	29	-	-	-	-	-	-
Utah	2	3	13	18	3	7	-	-	-	-	-	-
Nev.	-	-	15	41	4	18	-	-	-	-	-	-
PACIFIC	26	31	926	1,103	345	334	-	1	-	-	1	19
Wash.	2	-	50	70	9	9	-	-	-	-	-	4
Oreg.	9	11	61	67	26	26	-	-	-	-	-	8
Calif.	5	17	812	961	306	288	-	1	-	-	1	7
Alaska	1	2	3	3	3	7	-	-	-	-	-	-
Hawaii	9	1	-	2	1	4	-	-	-	-	-	-
Guam	-	-	-	2	-	2	-	-	-	-	-	-
P.R.	-	-	15	38	8	54	-	-	-	-	-	-
V.I.	-	U	-	U	-	U	U	-	U	-	-	U
Amer. Samoa	-	U	-	U	-	U	U	-	U	-	-	U
C.N.M.I.	-	U	-	U	-	U	U	-	U	-	-	U

N: Not notifiable   U: Unavailable   - : no reported cases

*For imported measles, cases include only those resulting from importation from other countries.

†Of 63 cases among children aged <5 years, serotype was reported for 26 and of those, 5 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending April 1, 2000, and April 3, 1999 (13th Week)

	Meningococcal Disease		Mumps			Pertussis			Rubella		
Reporting Area	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	631	721	4	98	109	34	924	1,462	4	12	13
NEW ENGLAND	31	38	-	2	3	7	238	133	1	5	3
Maine	3	3	-	-	-	2	9	-	-	-	-
N.H.	-	3	-	-	1	-	45	19	-	1	-
Vt.	1	2	U	-	-	U	51	9	U	-	-
Mass.	20	25	-	-	2	-	117	99	-	3	3
R.I.	1	2	-	1	-	-	7	2	-	-	-
Conn.	6	3	-	1	-	5	9	4	1	1	-
MID. ATLANTIC	54	72	-	5	14	4	84	301	-	2	-
Upstate N.Y.	12	15	-	3	2	4	58	254	-	2	-
N.Y. City	12	25	-	-	3	-	-	10	-	-	-
N.J.	16	13	-	-	-	-	-	5	-	-	-
Pa.	14	19	-	2	9	-	26	32	-	-	-
E.N. CENTRAL	94	115	-	11	15	4	144	151	-	-	-
Ohio	20	44	-	3	6	-	108	89	-	-	-
Ind.	18	6	-	-	-	-	8	8	-	-	-
Ill.	19	39	-	3	3	2	10	21	-	-	-
Mich.	27	14	-	5	6	2	8	16	-	-	-
Wis.	10	12	-	-	-	-	10	17	-	-	-
W.N. CENTRAL	51	98	-	10	3	4	34	45	-	2	1
Minn.	3	25	-	-	-	4	14	-	-	-	-
Iowa	10	18	-	3	2	-	8	8	-	-	-
Mo.	33	30	-	1	1	-	4	9	-	-	-
N. Dak.	1	-	-	-	-	-	1	-	-	-	-
S. Dak.	2	5	-	-	-	-	1	2	-	-	-
Nebr.	1	5	-	4	-	-	2	1	-	-	1
Kans.	1	15	-	2	-	-	4	25	-	2	-
S. ATLANTIC	110	97	1	12	16	3	76	71	3	3	2
Del.	-	2	-	-	-	-	1	-	-	-	-
Md.	11	18	-	4	4	3	21	26	-	-	1
D.C.	-	1	-	-	1	-	-	-	-	-	-
Va.	17	16	1	2	2	-	5	7	-	-	-
W. Va.	3	1	-	-	-	-	-	-	-	-	-
N.C.	21	14	-	2	3	-	28	22	-	-	1
S.C.	6	16	-	4	2	-	12	5	3	3	-
Ga.	21	16	-	-	-	-	9	6	-	-	-
Fla.	31	13	-	-	4	-	-	5	-	-	-
E.S. CENTRAL	39	59	-	1	3	-	21	30	-	-	-
Ky.	9	12	-	-	-	-	12	9	-	-	-
Tenn.	17	21	-	-	-	-	2	13	-	-	-
Ala.	12	16	-	1	1	-	7	6	-	-	-
Miss.	1	10	-	-	2	-	-	2	-	-	-
W.S. CENTRAL	39	60	-	1	15	-	5	33	-	-	5
Ark.	5	14	-	1	-	-	5	4	-	-	-
La.	13	30	-	-	2	-	-	2	-	-	-
Okla.	9	13	-	-	1	-	-	3	-	-	-
Tex.	12	3	-	-	12	-	-	24	-	-	5
MOUNTAIN	42	60	1	5	7	10	210	203	-	-	1
Mont.	1	-	-	1	-	-	1	1	-	-	-
Idaho	6	8	-	-	-	-	32	81	-	-	-
Wyo.	-	2	-	-	-	-	-	1	-	-	-
Colo.	10	18	1	1	2	9	108	47	-	-	-
N. Mex.	7	7	-	1	N	1	45	10	-	-	-
Ariz.	11	19	-	-	-	-	17	40	-	-	-
Utah	6	4	-	-	4	-	4	21	-	-	1
Nev.	1	2	-	2	1	-	3	2	-	-	-
PACIFIC	171	122	2	51	33	2	112	495	-	-	1
Wash.	13	17	-	2	-	-	41	209	-	-	-
Oreg.	19	25	N	N	N	1	18	4	-	-	-
Calif.	136	72	2	48	27	-	49	264	-	-	1
Alaska	1	4	-	-	1	1	3	2	-	-	-
Hawaii	2	4	-	1	5	-	1	16	-	-	-
Guam	-	-	-	-	1	-	-	1	-	-	-
P.R.	-	7	-	-	-	-	-	-	-	-	-
V.I.	-	U	U	-	U	U	-	U	U	-	U
Amer. Samoa	-	U	U	-	U	U	-	U	U	-	U
C.N.M.I.	-	U	U	-	U	U	-	U	U	-	U

N: Not notifiable U: Unavailable - : no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending April 1, 2000 (13th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	450	327	80	31	8	4	42
Boston, Mass.	143	95	28	15	3	2	17
Bridgeport, Conn.	31	23	6	2	-	-	1
Cambridge, Mass.	6	5	-	1	-	-	2
Fall River, Mass.	24	22	1	1	-	-	1
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	22	16	5	1	-	-	1
Lynn, Mass.	11	10	1	-	-	-	2
New Bedford, Mass.	29	24	5	-	-	-	-
New Haven, Conn.	31	20	7	2	2	-	2
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	3	2	1	-	-	-	-
Springfield, Mass.	48	32	11	2	1	2	7
Waterbury, Conn.	41	33	4	3	1	-	3
Worcester, Mass.	61	45	11	4	1	-	6
MID. ATLANTIC	2,228	1,558	437	166	37	29	127
Albany, N.Y.	46	28	11	4	3	-	7
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	91	71	14	3	1	2	15
Camden, N.J.	38	22	10	4	2	-	2
Elizabeth, N.J.	23	18	5	-	-	-	-
Erie, Pa.§	44	31	9	2	1	1	2
Jersey City, N.J.	53	34	16	2	-	1	-
New York City, N.Y.	1,131	774	241	81	17	17	33
Newark, N.J.	58	32	10	15	-	1	7
Paterson, N.J.	18	8	4	6	-	-	1
Philadelphia, Pa.	397	289	69	30	6	3	28
Pittsburgh, Pa.§	58	44	9	-	2	3	5
Reading, Pa.	14	5	7	2	-	-	-
Rochester, N.Y.	133	112	14	4	3	-	15
Schenectady, N.Y.	20	13	2	5	-	-	2
Scranton, Pa.§	27	20	4	2	-	1	3
Syracuse, N.Y.	46	34	7	4	1	-	4
Trenton, N.J.	19	12	4	2	1	-	3
Utica, N.Y.	12	11	1	-	-	-	-
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,135	1,463	425	135	57	55	187
Akron, Ohio	50	37	10	1	-	2	7
Canton, Ohio	33	20	8	2	2	1	2
Chicago, Ill.	430	280	93	35	14	8	61
Cincinnati, Ohio	73	45	17	5	3	3	6
Cleveland, Ohio	150	101	30	6	4	9	15
Columbus, Ohio	172	125	32	8	3	4	13
Dayton, Ohio	149	111	29	5	3	1	11
Detroit, Mich.	193	112	40	18	14	9	8
Evansville, Ind.	50	38	5	3	2	2	2
Fort Wayne, Ind.	54	38	10	5	1	-	4
Gary, Ind.	19	11	4	2	2	-	1
Grand Rapids, Mich.	49	36	10	3	-	-	6
Indianapolis, Ind.	228	163	38	16	8	3	16
Lansing, Mich.	39	28	7	3	-	1	2
Milwaukee, Wis.	147	107	26	8	-	6	12
Peoria, Ill.	38	27	8	2	-	1	2
Rockford, Ill.	50	33	15	1	1	-	2
South Bend, Ind.	52	40	7	3	-	2	4
Toledo, Ohio	101	70	23	5	-	3	10
Youngstown, Ohio	58	41	13	4	-	-	3
W.N. CENTRAL	716	515	118	46	19	18	51
Des Moines, Iowa	U	U	U	U	U	U	U
Duluth, Minn.	23	18	4	1	-	-	2
Kansas City, Kans.	34	23	5	5	1	-	3
Kansas City, Mo.	108	78	18	5	3	4	4
Lincoln, Nebr.	47	36	8	2	1	-	9
Minneapolis, Minn.	183	124	34	17	4	4	10
Omaha, Nebr.	110	75	22	5	4	4	7
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	106	91	10	2	1	2	9
Wichita, Kans.	105	70	17	9	5	4	7
S. ATLANTIC	2,006	1,273	430	198	71	33	105
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	191	116	41	21	9	3	20
Charlotte, N.C.	124	81	22	12	4	5	10
Jacksonville, Fla.	140	92	28	16	4	-	5
Miami, Fla.	118	73	30	10	2	3	4
Norfolk, Va.	51	32	10	6	1	2	2
Richmond, Va.	47	31	9	4	-	3	3
Savannah, Ga.	60	43	11	3	3	-	5
St. Petersburg, Fla.	86	64	15	5	1	1	14
Tampa, Fla.	176	124	34	12	3	3	12
Washington, D.C.	999	612	223	107	44	13	30
Wilmington, Del.	14	5	7	2	-	-	-
E.S. CENTRAL	863	578	183	49	30	23	60
Birmingham, Ala.	151	103	34	9	4	1	17
Chattanooga, Tenn.	62	44	15	1	2	-	2
Knoxville, Tenn.	82	54	17	6	5	-	2
Lexington, Ky.	109	75	21	6	2	5	7
Memphis, Tenn.	202	124	44	13	9	12	10
Mobile, Ala.	101	70	20	6	4	1	3
Montgomery, Ala.	30	24	5	1	-	-	7
Nashville, Tenn.	126	84	27	7	4	4	12
W.S. CENTRAL	1,199	792	256	83	35	33	94
Austin, Tex.	99	64	22	6	5	2	6
Baton Rouge, La.	55	36	18	-	-	1	1
Corpus Christi, Tex.	55	39	11	4	-	1	4
Dallas, Tex.	217	132	50	20	7	8	15
El Paso, Tex.	43	32	7	1	3	-	-
Ft. Worth, Tex.	111	69	26	10	3	3	11
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	52	31	11	4	2	4	7
New Orleans, La.	96	68	16	5	3	4	10
San Antonio, Tex.	221	160	38	17	2	4	14
Shreveport, La.	107	69	26	4	6	2	15
Tulsa, Okla.	143	92	31	12	4	4	11
MOUNTAIN	1,014	686	208	80	15	24	81
Albuquerque, N.M.	108	75	22	8	1	2	11
Boise, Idaho	43	30	8	2	1	2	6
Colo. Springs, Colo.	63	47	12	2	-	2	3
Denver, Colo.	121	77	24	13	2	5	6
Las Vegas, Nev.	203	133	56	9	3	2	17
Ogden, Utah	27	21	4	1	1	-	1
Phoenix, Ariz.	168	95	38	22	5	8	15
Pueblo, Colo.	29	27	-	2	-	-	5
Salt Lake City, Utah	102	72	14	13	2	1	11
Tucson, Ariz.	150	109	30	8	-	2	6
PACIFIC	2,356	1,747	400	138	35	34	274
Berkeley, Calif.	22	12	6	3	-	1	2
Fresno, Calif.	155	112	30	10	3	-	16
Glendale, Calif.	61	52	4	3	-	2	7
Honolulu, Hawaii	69	51	12	4	-	2	2
Long Beach, Calif.	72	54	9	4	2	3	13
Los Angeles, Calif.	1,191	892	201	68	15	15	145
Pasadena, Calif.	35	28	4	2	-	1	3
Portland, Oreg.	103	76	20	6	-	1	11
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	181	139	27	6	3	6	26
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	182	127	40	9	5	1	21
Santa Cruz, Calif.	31	22	7	2	-	-	4
Seattle, Wash.	110	73	18	14	3	2	7
Spokane, Wash.	59	44	11	2	2	-	8
Tacoma, Wash.	85	65	11	5	2	-	9
TOTAL	12,967¶	8,939	2,537	926	307	253	1,021

U: Unavailable -:no reported cases

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

†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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