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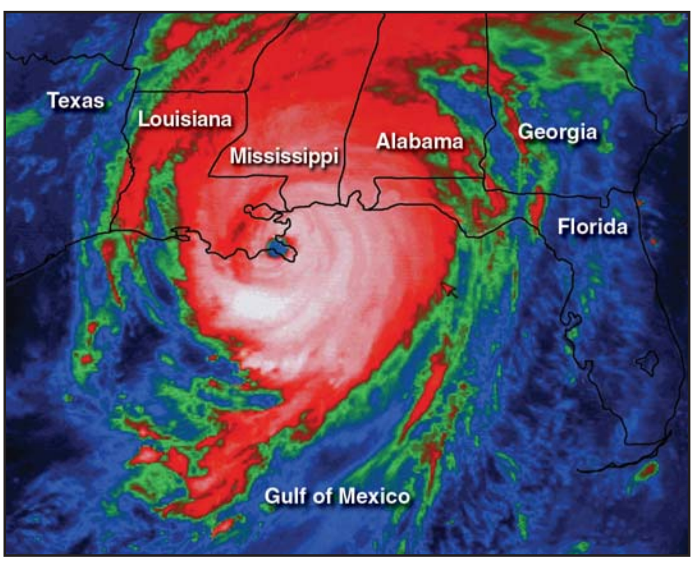
Public Health Response to Hurricanes Katrina and Rita — United States, 2005

On August 29, 2005, Hurricane Katrina struck the U.S. Gulf Coast, the eye making landfall at Plaquemines Parish, Louisiana (Figure 1). The events that followed made Katrina the deadliest hurricane since 1928 and likely the costliest natural disaster on record in the United States (*1*). Devastating storm surge, strong winds, and heavy rains caused widespread destruction in Louisiana, Mississippi, Alabama, and Florida (*1*). Storm-induced breeches in the levee system surrounding New Orleans flooded 80% of the city (*1*). The disaster was compounded when Hurricane Rita made landfall 26 days later near the Texas-Louisiana border, forcing cessation of hurricane-response activities in New Orleans and evacuation of coastal regions of Louisiana and Texas. The economic and health consequences of Hurricanes Katrina and Rita extended beyond the Gulf region to affect states and communities throughout the United States. *MMWR* is highlighting the public health response to Hurricanes Katrina and Rita with two special issues. The first issue, published January 20, 2006, focused on public health activities in Louisiana. This second issue focuses on activities in other states directly or indirectly affected by the two hurricanes.

Hurricane activity is cyclical (*2*). Since 1995, the Atlantic Basin has been in an active hurricane phase, and the 2005 Atlantic hurricane season was the most active on record (Figure 2). Katrina was one of 27 named storms (i.e., tropical storms or hurricanes) observed in the Atlantic Basin (*2*), eclips-

FIGURE 1. Colors of a satellite infrared image indicate varying cloud-top temperatures of Hurricane Katrina at landfall — August 29, 2005



Photo/Associated Press/National Oceanic and Atmospheric Administration

INSIDE

231 Surveillance for Illness and Injury After Hurricane Katrina — Three Counties, Mississippi, September 5–October 11, 2005
234 Rapid Community Needs Assessment After Hurricane Katrina — Hancock County, Mississippi, September 14–15, 2005
236 Carbon Monoxide Poisonings After Two Major Hurricanes — Alabama and Texas, August–October 2005
239 Mortality Associated with Hurricane Katrina — Florida and Alabama, August–October 2005
242 Rapid Assessment of Health Needs and Resettlement Plans Among Hurricane Katrina Evacuees — San Antonio, Texas, September 2005
244 Illness Surveillance and Rapid Needs Assessment Among Hurricane Katrina Evacuees — Colorado, September 1–23, 2005
247 Progress in Reducing Global Measles Deaths, 1999–2004
249 Update: Influenza Activity — United States, February 19–25, 2006
251 Notices to Readers
253 QuickStats

ing the previous record of 21 set in 1933. Tropical storms are allotted an alphabetical listing of 21 names each year; these annual lists of names typically are reused every 6 years. However, during 2005, for the first time since this naming convention began in 1953, all 21 names were used, and Greek letters (i.e., Alpha, Beta, Delta, Epsilon, Gamma, and Zeta) were required to complete the naming. Tropical storm Zeta, which was observed on December 30 and dissipated on January, 6, 2006, was the last named storm of 2005 (*2*).

The 2005 Atlantic hurricane season also was notable for the wind speed and intensity of the storms produced. During 2005, a total of 15 tropical storms became hurricanes (i.e., winds of ≥74 mph), and three of these (Katrina, Rita, and Wilma) reached Category 5 (i.e., winds of ≥156 mph) on the Saffir-Simpson Hurricane Scale (*2*). The previous record for number of hurricanes in a season was 12, set in 1969 (*2*). Only twice previously, during 1960 and 1961, had two hurricanes reached Category 5 in a single season (*2*). In 2005, for the first time on record, four major (i.e., Category 3, 4, or 5) hurricanes (Dennis, Katrina, Rita, and Wilma) made landfall in the United States. The intensity of a hurricane can be rated by its lowest central atmospheric pressure, as measured in millibars (mb). At 882 mb, Hurricane Wilma became the most intense hurricane ever measured (*3*). Previously, Hurricane Gilbert (888 mb), which struck Jamaica and the Yucatan Peninsula in 1988, had been the most intense hurricane (*4*). Two other 2005 hurricanes, Rita (897 mb) and Katrina (902 mb), became the fourth and sixth most intense Atlantic hurricanes on record, respectively (*4*).

The impact of the 2005 Atlantic hurricane season and the combined effects of death, injury, destruction, and population displacement from Hurricane Katrina were unprecedented in U.S. history. With the Atlantic Basin predicted to continue in an active hurricane phase during the next 10–20 years, information from the reports in this issue and other issues of *MMWR* can document the public health impact of a major natural disaster and help guide future response and recovery activities.

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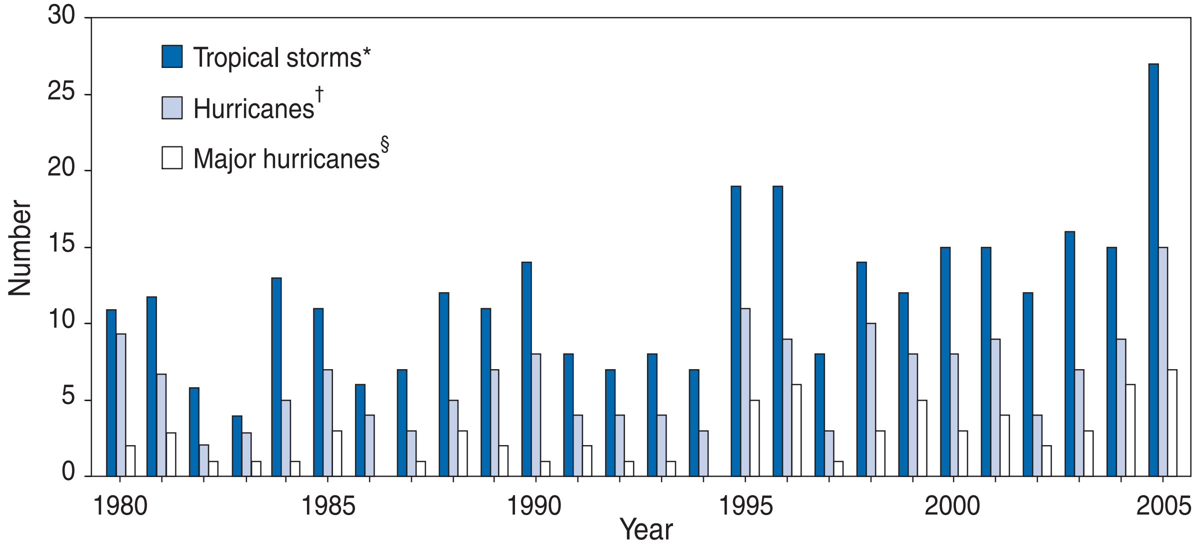
FIGURE 2. Number of tropical storms, hurricanes, and major hurricanes, by year — Atlantic Basin, 1980–2005



* Includes hurricanes.
† Includes major hurricanes.
§ Category 3, 4, or 5 on the Saffir-Simpson Hurricane Scale.

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Surveillance for Illness and Injury After Hurricane Katrina — Three Counties, Mississippi, September 5–October 11, 2005

Hurricane Katrina made landfall on the U.S. Gulf Coast on August 29, 2005, resulting in massive destruction from wind damage and storm surge. In Mississippi, the storm surge was an estimated 27 feet high at the Hancock County Emergency Operations Center and extended inland for 6–12 miles, causing extensive flooding in Biloxi and Gulfport and rendering approximately 80% of buildings in Waveland uninhabitable (*1*). The devastation was greatest in the coastal counties of Hancock, Harrison, and Jackson, where public infrastructure (e.g., electric power, communications networks, roads, sanitation systems, and water treatment plants) was severely disrupted. Multiple hospitals, health clinics, and public health facilities were either destroyed or nonfunctioning immediately after the hurricane. The Mississippi Department of Health (MDH) asked CDC to help conduct active surveillance at hospital emergency departments (EDs), federal Disaster Medical Assistance Team (DMAT)* operation sites, and outpatient health-care facilities in Hancock, Harrison, and Jackson counties. On September 4, a team of 17 CDC staff members was deployed to Mississippi to work with MDH and an Epi Strike Team from the Florida Department of Health to provide surveillance for injury and illness (*2*). This report describes those surveillance activities and their findings, which determined that no major outbreaks of infectious illnesses or clusters of preventable major injuries occurred after the hurricane. However, daily reports to MDH provided reassurance regarding outbreaks and data to help direct public health activities in the affected region.

Data were collected from a total of 15 EDs, DMATs, and outpatient health-care facilities in two phases, using two different systems. The number of facilities reporting varied daily; a maximum of 15 total facilities, including eight DMATs,

* Creation of DMATs is fostered by the U.S. Department of Homeland Security through the National Disaster Medical System. A DMAT is a group of medical professionals or paraprofessionals, supported by logistic and administrative staff, who can provide medical care during a disaster or other event. Each team has a sponsoring organization, such as a major medical center, public health or safety agency, or nonprofit, public, or private organization. The DMAT sponsor organizes the team, recruits members, arranges training, and coordinates deployment of the team. DMAT members are paid while serving as part-time federal employees.

were included in the reporting. During September 5–11, individual patient data were collected from each facility and entered into a database. Data collection was limited to the following variables that were consistently available: medical record number, sex, age, illness/injury diagnostic category, severity, disposition, and comments. Data were collected from patient ED records, paper logs of ED/DMAT visits, or electronic records of visits to the one facility equipped with electronic medical record-keeping. For each patient visit, an injury or illness diagnostic category for reason of visit was assigned by a reviewing epidemiologist, using both chief-complaint data and discharge diagnoses from the patient record and diagnostic categories from a standard injury and illness surveillance form designed by CDC. Data were forwarded to MDH in Jackson to create daily reports on illness and injury trends for MDH staff, reporting facilities, and CDC in Atlanta.

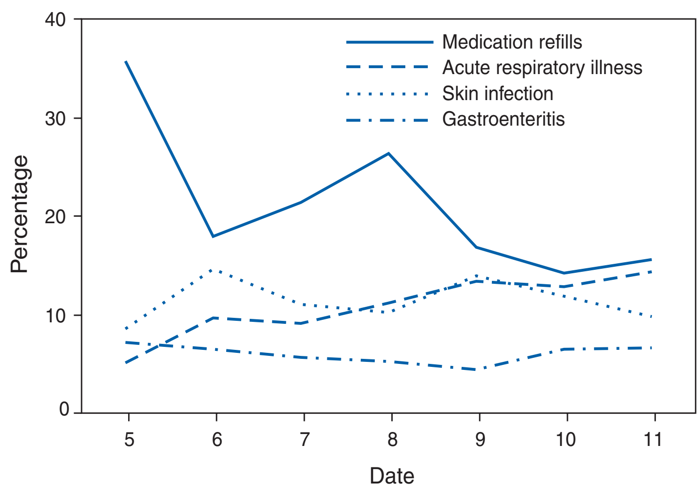
By September 10, DMAT operations had begun to scale down, shifting health-care services to operating EDs. As patient volumes declined and no major outbreaks of infectious disease were identified, the surveillance team simplified its system. On September 12, the team began collecting aggregate data by using a tally-based system that focused on 16 categories of syndromes[†] selected from illnesses and injuries most commonly observed during the first surveillance phase and conditions considered to be of greatest public health importance on the basis of severity, communicability, and preventability. Hospitals and DMATs faxed or e-mailed a daily tally sheet to MDH, where it was analyzed and reported back to the sites and CDC. Operation of this tally-based system was transferred to MDH on September 24 and continued until mid-October, when baseline surveillance activities were resumed gradually.

During September 5–11, active surveillance data from 11,424 patient visits were reported daily from up to 15 facilities, an average of 1,632 visits per day. For the 10,999 visits with patient information available, 5,614 (51.0%) patients were female. At one facility, which included both an ED and a DMAT on site and where complete electronic patient records were recorded by the surveillance system, 2,235 patient visits were recorded during the 1-week period. This total was 83.6% greater than the number of visits to the same ED (1,217) during the 1-week period before the hurricane.

Of the 10,047 patient visits for which disposition information was available, 376 (3.7%) patients were admitted, and five (0.05%) died. Of the 11,424 visits for which the reason for visit was known, 6,550 (57.3%) were for illness (including 1,394 for medication refills only), and 4,391 (38.4%) were for injury (including 1,324 for tetanus vaccination with no further injury description). Trends in the most common types of illnesses (i.e., gastrointestinal, acute respiratory, and skin infection/rash illness) were stable. Among illness visits, medication refills accounted for a decreasing proportion of visits during the 1-week period (Figure 1). Among injury visits, the proportion of visits for lacerations decreased and strains/sprains increased during the 1-week period (Figure 2). Five nonfatal post-hurricane carbon monoxide (CO) poisonings were detected by this surveillance system.

During the period after active surveillance, September 12–October 11, a total of 27,135 visits were reported from EDs, DMATs, and outpatient clinics, an average of 904 per day; 1,196 (4.4%) patients were children aged <5 years. Facility reporting varied, with seven to 13 facilities reporting daily. Among visits during this period, the greatest proportion, 5,907 (21.8%), were for injuries. Major injuries accounted for 497 (8.4%) of the total injuries; minor injuries accounted for 5,410 (91.6%). The most common illnesses were skin/wound infections (1,858 [6.8%]), followed by 1,769 (6.5%) upper respiratory infections, 1,212 (4.5%) rashes and insect stings/bites, and 761 (2.8%) lower respiratory infections. Among gastrointestinal conditions, nausea/vomiting was the most

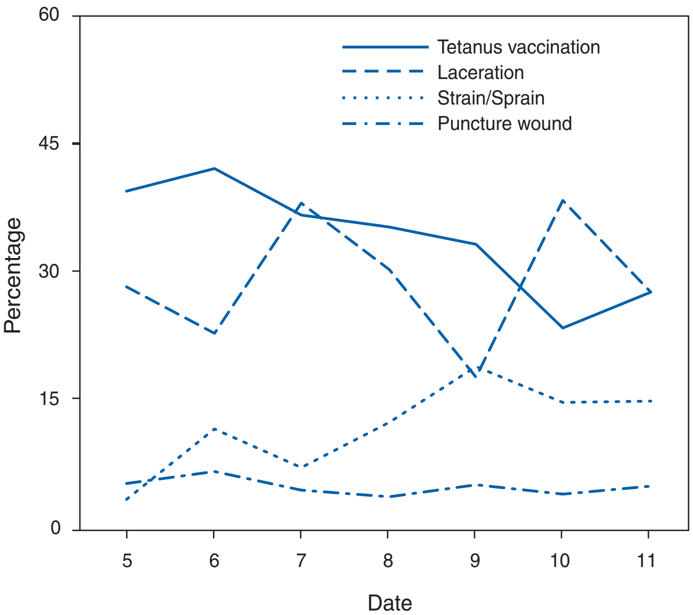
FIGURE 1. Percentage of total visits for selected illnesses and medication refills after Hurricane Katrina, by date of visit — three counties,* Mississippi, September 5–11, 2005



* Reported by emergency departments and Disaster Medical Assistance Teams sites in Hancock, Harrison, and Jackson counties; the number of facilities reporting varied daily.

† Major injuries (e.g., amputations, fractures, or closed head and spinal cord injuries), minor injuries (e.g., strains, sprains, bruises, lacerations, contusions, or puncture wounds), three gastrointestinal syndromes (nausea/vomiting, bloody diarrhea, or watery diarrhea), three respiratory illnesses (upper respiratory infections, lower respiratory infections, or asthma), two skin conditions (rash or skin/wound infection), two mental health problems (attempted suicide or mental health condition), two environmentally induced illnesses (carbon monoxide poisoning or insect stings/bites), suspected meningo-encephalitis, and other illness visits (including for medication refills, cardiovascular disease, renal disease, chronic obstructive pulmonary disease, diabetes, headache, other chronic diseases, generalized pain, abdominal pain, or unspecified).

FIGURE 2. Percentage of total visits for selected injuries and tetanus vaccinations after Hurricane Katrina, by date of visit — three counties,* Mississippi, September 5–11, 2005



* Reported by emergency departments and Disaster Medical Assistance Teams sites in Hancock, Harrison, and Jackson counties; the number of facilities reporting varied daily.

common syndrome (743 [2.7%]), followed by watery diarrhea (288 [1.1%]), and bloody diarrhea (16 [0.1%]). A total of 675 (2.5%) visits were for mental health concerns; 43 suicide attempts were reported. In addition, 13,655 (50.3%) were categorized as other illness. Although visits for particular conditions varied daily, no trends or outbreaks were noted.

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Editorial Note: In the immediate aftermath of Hurricane Katrina, visits to hospital EDs in the three southernmost counties of Mississippi likely increased; at the one facility with available pre-hurricane data, visits increased approximately twofold. This burden on a damaged health-care infrastructure was partially shifted to DMATs, which were able to fill the role of certain facilities rendered inoperable by the storm. The most common health-care visits to EDs and DMATs in the immediate post-hurricane period were for minor injuries, primarily puncture wounds, lacerations, strains, and sprains. Among initial noninjury visits, acute respiratory illness, gastroenteritis, and skin infections were among the most common diagnoses. Many persons visited health-care facilities for tetanus vaccination, and records did not always indicate whether associated injuries were present. A large proportion of persons also sought medication refills without other reported illnesses. Pre-hurricane preparations might reduce the post-hurricane burden on health-care systems by 1) improving tetanus booster vaccination coverage, 2) communicating to residents that tetanus vaccination is not required after disasters, and 3) encouraging residents to maintain emergency travel medical kits with supplies of critical medications.

The surveillance team conducted follow-up on cases of reported infection with *Vibrio* spp. and clusters of respiratory and diarrheal illness (*3*). Similar to reports from Louisiana after Katrina (*4*) and from Florida after Hurricane Andrew (*5*), no community-associated outbreaks of infectious disease were reported in Mississippi after Katrina. Unlike Alabama and Louisiana, Mississippi had few cases of post-hurricane CO poisoning (*6*).

The strengths of the surveillance systems described in this report included their capability to obtain large amounts of data from all major hospital EDs and DMATs in the region, despite the challenges of operating in a setting in which telephone communication, electricity, and gasoline were not always available. In addition, the physical presence of a surveillance team in health-care facilities permitted dialogue with clinical providers regarding the surveillance activity, without adding to the already burdened health-care system.

The findings in this report are subject to at least three limitations. First, accurate pre- and post-hurricane population data were not available to calculate illness rates and allow for comparisons to place the findings into context. Second, diagnostic categories might have been miscoded because chief-complaint and discharge-diagnosis codes might have differed and classification might have varied by reviewer and condition (*7,8*). Finally, data on patient characteristics (e.g., recovery worker, resident, or shelter evacuee) were rarely collected in ED and DMAT records, limiting the ability to identify groups at higher risk.

The Mississippi surveillance system, especially during the first week, was labor intensive, relying on teams of epidemiologists to travel throughout the region to collect and manually enter data. For monitoring illness and injury in a post-disaster setting, surveillance practices should allow for simple, direct electronic data entry of key syndromes of public health concern. When possible, data-collection guidelines and forms should be distributed to EDs and DMATS before the storm to ensure rapid initiation of post-storm data collection. Calculation of historical proportional morbidities for syndromes of public health concern before a disaster will enable local health departments and health-care facilities to provide useful background for post-disaster comparison. Surveillance results should be linked to educational resources, risk-communication messages, and recommendations of effective interventions. Finally, surveillance-system infrastructure should be self-contained at the site of the disaster with technological capabilities to collect data, transmit results, and deliver feedback to the affected region (*9*). Whether individual-level or aggregate surveillance methods are more effective for detecting outbreaks requires further evaluation (*2*). Both methods allayed concerns regarding infectious disease outbreaks in Mississippi; however, aggregate surveillance was less labor intensive.

Acknowledgments

This report is based, in part, on data provided by members of the Florida Epi Strike Team and health-care professionals in Hancock, Harrison, and Jackson counties.

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Rapid Community Needs Assessment After Hurricane Katrina — Hancock County, Mississippi, September 14–15, 2005

On August 29, 2005, Hurricane Katrina moved northeast from Louisiana and made its second landfall over Hancock County, Mississippi, with measured wind speeds as high as 132 mph. Katrina's strong winds and high storm surge (an estimated 27 feet in Hancock County) ravaged the Mississippi coast, making it one of the strongest storms to strike the United States during the past 100 years and likely the nation's costliest natural disaster to date (*1*). Hurricane Katrina left thousands of residents without shelter, food, water, utilities, and access to health care. To obtain information about the effects of the hurricane on residents in Hancock County, the Mississippi Department of Health (MDH) asked CDC to conduct a rapid community needs assessment in what was presumed to be the state's most severely affected county. The objectives of the assessment were to 1) identify the public health needs of the community and 2) estimate the effect of the hurricane on households to assist response and recovery activities. This report describes the results of that assessment, which indicated that more than one third of the homes had been destroyed, many in the area lacked critical household services and remained dependent on relief agencies, and some were in need of health services such as medical care and prescription refills.

The 2000 U.S. Census reported 21,072 households with a total population of 42,967 in Hancock County. For this assessment, using a two-staged sampling plan, 200 of those households were selected. The sample of households allowed for 20% accuracy of the estimates and 30% oversampling to account for demolished homes. The first stage involved randomly selecting 40 of 659 census blocks with a probability proportional to the total number of households. This selection was restricted to those blocks with more than 20 households. During the second stage of sampling, five random waypoints (latitude and longitude) were generated for each selected block. Each of the waypoints represented the geographic location of one household for a total of 200 to be surveyed. At the time of the assessment, only 1990 U.S. Census data were available in the geographic information system. During the statistical analysis, estimates from the 40 clusters defined by 1990 census block boundaries were weighted according to 2000 U.S. Census data.

On September 14 and 15, less than 3 weeks after Hurricane Katrina struck the county, survey teams were provided waypoints and used global positioning system (GPS) instruments to navigate to those locations. Once at the waypoint, survey teams selected the home closest to that waypoint. If no home was located at the waypoint, the closest home north of the waypoint was selected.

One of the goals of this assessment was to estimate the extent of housing damage in Hancock County; therefore, the sampling protocol required teams to approach the target home to assess accessibility, occupancy, and extent of damage. If a home was destroyed, the teams made note of this, and the survey was considered complete. A neighbor, if available, served as the proxy for a vacant home.

Survey teams used a one-page questionnaire to interview an adult household member or proxy to assess basic needs (e.g., food and water), illnesses, hurricane-associated injuries, pre- and post-hurricane home occupancy, access to utilities, access to prescribed medications, and medical-care needs within that household. Another goal was to perform the assessment as rapidly as possible; therefore, the sampling protocol instructed teams to approach each target home once, complete the survey, and move to the next waypoint.

In addition to collecting information on household needs, survey teams distributed local health-care and relief agency telephone numbers; insect repellent; and educational materials regarding hand washing, mold, carbon monoxide poisoning, and other hurricane-related health concerns.

Surveys were completed for 197 households in Hancock County; three waypoints resulted in duplicate homes and were entered once. Eight of the 197 waypoints were in commercial areas or vacant lots with no homes in sight, leaving 189 eligible households for the analysis. Interviews were completed in 63 (33%) of the 189 households, and proxy interviews were completed in 14 (7%), for a total of 77 (41%) completed interviews.

Approximately 69 (36%) of the 189 homes were destroyed, and 43 (23%) did not have a resident at home at the time of the survey and might have been uninhabitable. Of those persons interviewed, 5% reported having had someone in the household go to a shelter. Of the households surveyed, 7% reported having at least one child aged <2 years. In addition, 49% of households reported having at least one resident aged ≥65 years.

Multiple households lacked critical services such as telephone service (53%), electricity (41%), and functioning indoor toilets (37%) (Table). Of the 77 households surveyed, 26% were still dependent on relief agencies for water. Many residents reported having a problem with mosquitoes (49%) and trash removal (33%). Although the reported number of households with members who had sustained an injury was low (6%), 20% of the households reported having at least one member who had experienced an illness, and 13% reported having a member with mental health problems after the hurricane. One third (33%) of reporting households had a member who had sought medical care. In addition, 34% of the households had a member who needed medical care at the time of the interview, and 29% of the households reported having a member who would require a prescription refill within 3 days.

The results of the assessment were provided to MDH and Mississippi Emergency Management Agency officials. The findings were used to underscore the need for continued relief-agency support for supplying water, expediting restoration of trash and debris removal services, and publicizing the names and locations of functioning medical care facilities, pharmacies, and mental health services in the community.

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Editorial Note: Lack of information on the availability of public health services and basic needs is a major obstacle to delivering appropriate relief in the aftermath of serious disasters. Rapid community needs assessments are a tool that can be used to quickly obtain information on the status of a com-

TABLE. Household* needs after Hurricane Katrina, by selected characteristics — Hancock County, Mississippi, September 14–15, 2005

	% of sampled households		Estimated no. of households†	
Characteristic	%	(95% CI§)	No.	(95% CI)
Household services				
No running water	21.5	(0.0–49.3)	2,990	(0.0–6,880)
No electricity	40.8	(16.2–65.4)	5,890	(2,260–9,110)
No working indoor toilet	37.2	(12.4–62.0)	5,190	(1,730–8,650)
No working telephone	52.9	(31.6–74.3)	7,380	(4,400–10,360)
No trash disposal	33.0	(18.2–47.8)	4,600	(2,540–6,670)
No access to transportation	26.4	(2.3–50.5)	3,680	(320–7,040)
No access to news	10.4	(0.9–19.8)	1,450	(130–2,760)
Food and water				
Using well water	3.0	(0.0–0.07)	449	(0.0–923)
Using public water	3.0	(0.0–0.06)	405	(0.0–905)
Using bottled water	68.0	(0.48–0.88)	9,457	(6,663–12,250)
Using relief agency	26.0	(0.06–0.46)	3,626	(900–6,353)
Without access to 3-day food supply	16.7	(0.0–38.4)	2,330	(0.0–5,350)
Health status				
With injuries since hurricane	5.7	(0.0–13.8)	790	(0.0–1,930)
With illnesses since hurricane	19.5	(9.4–29.5)	2,720	(1,320–4,120)
With emotional concerns	13.3	(0.2–26.4)	1,855	(30–3,680)
Sought medical care	32.9	(15.6–50.2)	4,590	(2,170–7,000)
Medications needing refill	28.6	(0.5–56.6)	3,980	(70–7,890)
Requiring medical care now	34.0	(13.6–54.3)	4,730	(1,900–7,570)
Other				
Went to a shelter	5.4	(0.7–10.2)	760	(100–1,420)
Having problem with mosquitoes	49.4	(27.9–70.8)	3,890	(6,880–9,870)
Using a generator	33.3	(13.5–53.2)	4,650	(1,890–7,410)
Using a pressure washer	3.6	(0.0–7.5)	500	(0.0–1,050)

* N = 77.
† Based on 2000 U.S. Census estimates for Hancock County.
§ Confidence interval.

munity (*2,3*). As needs change, repeat assessments also can be instrumental in determining changing community needs.

A cluster sample design, such as the one used in Hancock County, can be applied when limited information is available regarding persons who did not evacuate and when identifying geographic features are destroyed or missing. This assessment used geographic information systems (GIS) to randomly select households to interview in each selected cluster and GPS units to navigate to those selected households. This represents one of the first times that GIS and GPS have been used in such situations.

The findings in this report are subject to at least four limitations. First, no stable population estimates existed, so the survey design was based on preexisting population distribution. Second, the response rate for the survey was 41%. The assessment was conducted during daytime hours, and the occupants of the selected homes and proxies might have been at work or might have evacuated the area. All information was obtained during a single attempt to locate and identify a household member or proxy to interview. No repeat attempts to visit the targeted households were possible. Third, because of a small sample size, the confidence intervals are wide, offering less precision in the results. Finally, the survey obtained household information and could not make inferences about individual persons.

More than 2 weeks after Hurricane Katrina struck, many residents were still without power, telephone service, and functioning indoor toilets. Trash removal posed an ongoing problem, and mosquitoes were a concern of many residents, despite distribution of insect repellent. In response to the survey findings, MDH implemented aerial pesticide spraying for the county and provided education on preventing mosquito breeding and bites and recognizing signs and symptoms of mosquito-borne illness. This assessment also revealed additional health needs (e.g., for prescription medication and medical care) in the community and led MDH to identify methods to assess and publicize available medical facilities, pharmacies, and mental health services.

Filling gaps in information during the response and recovery phases of disasters is critical to discovering and addressing any needs that might produce adverse human health outcomes. Rapid community needs assessments continue to be an important tool in this process.

Acknowledgments

The findings in this report are based, in part, on contributions by the Mississippi Hospital Augmentation Team, US Public Health Svc; and the Mississippi Illness and Injury Surveillance Team, CDC.

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Carbon Monoxide Poisonings After Two Major Hurricanes — Alabama and Texas, August–October 2005

Hurricanes Katrina and Rita struck the U.S. Gulf Coast on August 29, 2005, and September 24, 2005, respectively, causing widespread damage and leaving approximately 4 million households without electrical power (*1,2*). Despite public health measures to prevent carbon monoxide (CO) poisonings after major power outages, multiple CO poisonings were reported in Gulf Coast states in the wake of these hurricanes (*3*). The Alabama Department of Public Health and Texas Department of State Health Services asked CDC to assist in investigating the extent and causes of these hurricane-related CO poisonings. The investigation identified 27 incidents of CO poisoning resulting in 78 nonfatal cases and 10 deaths in hurricane-affected counties in Alabama and Texas, nearly all of which were caused by gasoline-powered generators. Most of the generators involved were placed outside but close to the home to power window air conditioners (ACs) or connect to central electric panels. Few homes had functioning CO detectors. CDC continues to recommend that generators be placed far from homes, away from window ACs, and that CO detectors be used by all households operating gasoline-powered appliances (e.g., generators and gas furnaces), with batteries replaced yearly. Although the risk for CO poisoning likely decreases as generators are placed further from the home, additional studies are needed to establish a safe distance for generator placement.

For this analysis, a case was defined as an illness among persons of any age residing in Alabama during August 28–November 1, 2005, or in Texas during September 20–November 1, 2005, with a diagnosis consistent with CO poisoning. Confirmed cases were those in which the affected person had an elevated blood carboxyhemoglobin (COHb) level (>2% for nonsmokers and >9% for smokers). Probable cases were those in persons who did not have an elevated COHb level or did not have a COHb level documented.

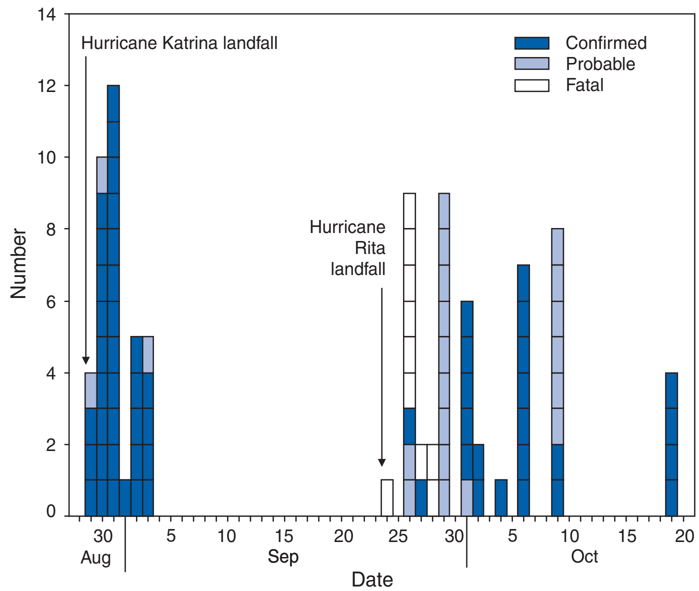
Eighteen counties were included in this investigation: the two Alabama counties* along the coast most affected by Hurricane Katrina and the 16 Texas counties† with peak wind gust from Hurricane Rita of >80 mph in the majority of the county (*4*) or with at least one media-reported CO poisoning fatality. Case finding was conducted through review of medical charts coded as CO poisoning on the basis of *International Classification of Diseases, Ninth Revision* (ICD-9) codes or external cause of injury codes§ from 28 hospitals in the 18 hurricane-affected counties. In Texas, emergency medical service (EMS) records were used to identify CO poisonings in counties where hospital records were not available. Demographic and clinical information was recorded from each medical record. Persons affected by CO poisoning were contacted and asked to participate in home interviews and generator inspections. Interviews were conducted in Alabama during October 20–November 2 and in Texas during December 5–15. CO poisoning fatalities were confirmed through medical examiner data obtained by the Consumer Product Safety Commission (CPSC). Families of persons who died from CO poisoning were not interviewed, but demographic and generator-location information was obtained from CPSC investigations.

Twenty-seven separate incidents of CO poisoning during August 29–October 19, 2005, were identified (Figure). Fifty-seven confirmed and 21 probable nonfatal cases were identified, associated with 23 incidents. Alabama had 37 nonfatal cases from 12 incidents, and Texas had 41 nonfatal cases from 11 incidents. The 10 fatal poisonings were associated with four incidents in Texas.

No statistically significant differences were observed by age or sex for the poisonings in Alabama and Texas, but the Texas cases were more racially and ethnically diverse. Among the 10 fatal cases, five were in females, six were in blacks, and four were in whites; median age was 34 years (range: 8–76 years).

Information regarding hospital outcomes was available for 68 (87%) of the 78 nonfatal cases. Ten (15%) of the 68 persons were hospitalized (mean: 2.2 days, range: 1–4 days), and 24 (35%) had poisonings severe enough to require hyperbaric oxygen treatment. A greater percentage of patients were hospitalized in Alabama (16%) than in Texas (8%); however, all of the CO poisoning fatalities occurred in Texas (Table 1).

FIGURE. Number of cases of carbon monoxide poisoning after Hurricanes Katrina and Rita,* by date of medical contact — Alabama and Texas, August–October 2005



* All cases during August 29–September 3 occurred in Alabama, and all cases during September 24–October 19 occurred in Texas.

A portable generator was implicated in 25 (93%) of the 27 incidents. Of the other two incidents, one involved a fixed generator and one involved a portable gas stove. The median number of persons poisoned per incident was three (range: one to eight persons).

Persons from the households involved in 18 (67%) of the 27 incidents were interviewed. Nine (50%) of the 18 households had generators placed outside in the open (not enclosed by a roof or walls); five (28%) generators were in a partially enclosed area (attached porch or carport), two (11%) were in a fully enclosed area (enclosed porch, garage, or shed), and two (11%) were inside the home. Generators placed outside were an average of 3.2 feet away from the home (range: 1–7 feet); a negative correlation ($r = -0.75$)¶ between the distances of generators from homes and the COHb levels of patients was observed. Among persons poisoned by outside generators, the median COHb was 10.7% (range: 0.3%–34.3%); nine (30%) of those cases were severe enough to require hyperbaric oxygen treatment for affected persons (Table 2).

* Mobile and Baldwin counties.

† Angelina, Chambers, Hardin, Jasper, Jefferson, Liberty, Montgomery, Nagadoches, Newton, Orange, Polk, Sabine, San Augustine, San Jacinto, Shelby, and Tyler counties.

§ ICD-9 code N-986 (toxic effect of CO exposure) was used to identify CO poisoning cases. External cause of injury codes that mentioned hurricane-related CO exposures (E867, E868.0, E868.1, E868.8, E868.9) or codes that indicated a possible hurricane-related CO exposure (E962.2, E981.8, E982.1) were also used to identify cases.

¶ Spearman's rank correlation coefficient.

TABLE 1. Number and percentage of carbon monoxide (CO) poisoning cases, by selected characteristics — Alabama and Texas, August–October 2005

Characteristic	Alabama (n = 37) No	(%)	Texas (n = 51) No.	(%)	Total (N = 88) No.	(%)
Sex						
Female	19	(51)	28	(55)	**47**	**(53)**
Male	18	(49)	23	(45)	**41**	**(47)**
Race/Ethnicity						
White, non-Hispanic	29	(78)	30	(59)	**59**	**(67)**
Black, non-Hispanic	8	(22)	12	(24)	**20**	**(23)**
Asian	0	(0)	3	(6)	**3**	**(3)**
Hispanic	0	(0)	5	(10)	**5**	**(6)**
Unknown	0	(0)	1	(2)	**1**	**(1)**
Age (yrs)						
Median	30	—	29	—	**27.5**	**—**
<18	14	(38)	22	(43)	**34**	**(39)**
18–65	20	(54)	26	(51)	**46**	**(52)**
>65	3	(8)	3	(6)	**6**	**(7)**
Outcome						
Hospitalized	6	(16)	4	(8)	**10**	**(11)**
Discharged from emergency department or mobile clinic	31	(84)	25	(49)	**56**	**(64)**
Treated by emergency medical services on site	0	(0)	2	(4)	**2**	**(2)**
Died	0	(0)	10	(20)	**10**	**(11)**
Disposition unknown	0	(0)	10	(20)	**10**	**(11)**
Severity of poisonings						
Median COHb level* (range) (%)	15.9 (0.3–41.0)†	—	11.6 (2.8–29.9)	—	**14.1 (0.3–41.0)**	**—**
Required hyperbaric oxygen treatment§	16	(43)	8	(16)	**24**	**(35)**

* n = 59 (Alabama 36, Texas 23).
† Two cases in persons in Alabama with normal carboxyhemoglobin (COHb) levels were considered probable cases because the clinical symptoms and exposure settings were consistent with CO poisoning.
§ n = 68 (Alabama 37, Texas 31).

Of the four fatal poisoning incidents, three involved generators and one involved a gas stove. In all four fatal incidents, the generator or gas stove was inside a home or garage.

Nine (50%) of the 18 households were operating a window AC powered by a generator when the poisonings occurred. Five (28%) of the 18 households reported that the generator was placed close to the home to connect to an electric panel. Six (33%) of 18 households had a CO detector at the time of poisoning, but only one of those detectors sounded an alarm. Four detectors contained dead batteries, and one detector sounded an alarm remotely to a security system that was unable to alert the household by telephone.

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Editorial Note: Unintentional, non–fire-related CO poisonings account for an estimated 500 deaths and 15,000–40,000 emergency department visits in the United States annually (*5*). Although CO poisonings caused by portable generators represent a small percentage of total CO poisonings, the number of generator-related CO poisoning deaths reported to CPSC doubled from 18 deaths in 2001 to 36 deaths in 2003 (*6*). Investigation of generator-related CO poisonings after hurricanes in Florida in 2004 revealed that 16 (34%) of 47 nonfatal poisoning incidents were caused by outdoor generators (*7*). In the study described in this report, even higher percentages (50%) of households were poisoned by outdoor generators, indicating that generators, even when placed outside, can be dangerous sources of CO. This study also found that placement of outdoor generators located up to 7 feet from the home resulted in CO poisonings.

Multiple other factors, in addition to distance from the home, might increase the risk for generator-related CO poisoning. More than half of the households affected by CO poisoning were using a generator to operate a window AC. Window ACs might allow infiltration of CO into the home

TABLE 2. Carbon monoxide poisoning case severity and outcome, by generator placement — Alabama and Texas, August–October 2005

Generator placement	No. of cases	Deaths No.	(%)	Median COHb* level (%)	Received HBO† treatment No.§	(%)
Inside home	26	9	(34.6)	17.2	9/21	(42.9)
Outside, fully enclosed space¶	6	1	(16.6)	15.5	0/5	(0)
Outside, partially enclosed space**	19	0	(0)	13.7	6/19	(31.6)
Outside, open area	31	0	(0)	10.7	9/30	(30.0)

* Blood carboxyhemoglobin.
† Hyperbaric oxygen.
§ Denominators varied depending on the number of cases with outcome information available.
¶ Included garages, sheds, and enclosed porches.
** Included carports and open porches.

by bringing outside air into the home or by providing a leak path around the casing of the unit (*8*). Generators should be located on the opposite side of the home away from window ACs to avoid this possibility. Several households interviewed for this study had connected generators to a central electric panel because it was more convenient than using extension cords. This practice encourages improper placement of generators near the home and poses a serious electrocution risk to utility workers during power-line repair (*9*). In addition, a functioning CO detector was not present in most of the households that had CO poisoning cases. Although use of a CO detector is not a substitute for proper placement of a generator, a functioning CO detector might help prevent poisonings (*10*). Routine replacement of batteries is critical to proper function of a CO detector.

The findings in this report are subject to at least three limitations. First, the investigation was limited to cases diagnosed by medical providers in specific regions. Cases in other regions and persons with milder poisonings might have been excluded. Second, interviews were conducted 1–3 months after the poisonings, and only one household member was interviewed per incident. Therefore, information collected might have been inaccurate or incomplete. Finally, population denominators and a nonpoisoned comparison group were not available, so risks associated with specific practices (e.g., generator placement near the home or near window ACs) could not be quantified. Despite these limitations, the findings in this report confirm that generator-related CO poisonings after power outages can cause substantial morbidity and mortality, even when generators are used outdoors.

With the number of generator owners increasing (*7*) and the 2006 hurricane season approaching, public health campaigns should emphasize placement of generators far from homes. According to the study described in this report, placement of generators further from the home tended to result in fewer CO poisoning fatalities and lower COHb levels. However, because the minimum safe distance for generator placement has not been determined, all households should have a functional CO detector when operating a generator or other gasoline-powered appliance. Emergency response personnel should consider touring neighborhoods undergoing power outages to locate homes with improperly placed generators and nonfunctioning CO detectors. Use of multiple surveillance sources at state and local levels, including hospitals, EMS providers, hyperbaric oxygen chamber facilities, media reports, and poison control centers, might help estimate the extent of CO poisonings after hurricanes and focus interventions (*3*). Although proper placement of generators and use of CO detectors are important, design modifications (e.g., weatherization and CO emissions reduction) ultimately might prove more effective in reducing CO poisonings from generators.

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Mortality Associated with Hurricane Katrina — Florida and Alabama, August–October 2005

On August 25, 2005, Hurricane Katrina made landfall between Hallandale Beach and Aventura, Florida, as a Category 1 hurricane, with sustained winds of 80 mph. Storm effects, primarily rain, flooding, and high winds, were substantial; certain areas reported nearly 12 inches of rainfall (*1*). After crossing southern Florida and entering the Gulf of Mexico, the hurricane strengthened and made landfall in southeastern Louisiana on August 29 as a Category 3 hurricane, with sustained winds of 125 mph. Katrina was one of the strongest hurricanes to strike the United States during the past 100 years and was likely the nation's costliest natural disaster to date (*2*). This report summarizes findings and recommendations from a review of mortality records of Florida's Medical Examiners Commission (FMEC) and the Alabama Department of Forensic Science (ADFS). CDC was invited by the Florida Department of Health (FDOH) and the Alabama Department of Public Health (ADPH) to assess the mortality related to Hurricane Katrina. The mortality review was intended to provide county-based information that would be used to 1) define the impact of the hurricane, 2) describe the etiology of deaths, and 3) identify strategies to prevent or reduce future hurricane-related mortality. Combined, both agencies identified five, 23, and 10 deaths, respectively, that were directly, indirectly, or possibly related to Hurricane Katrina (Figure). Information from the characterization of these deaths will be used to reduce hurricane-related mortality through early community awareness of hurricane-related risk, prevention measures, and effective communication of a coordinated hurricane response plan.

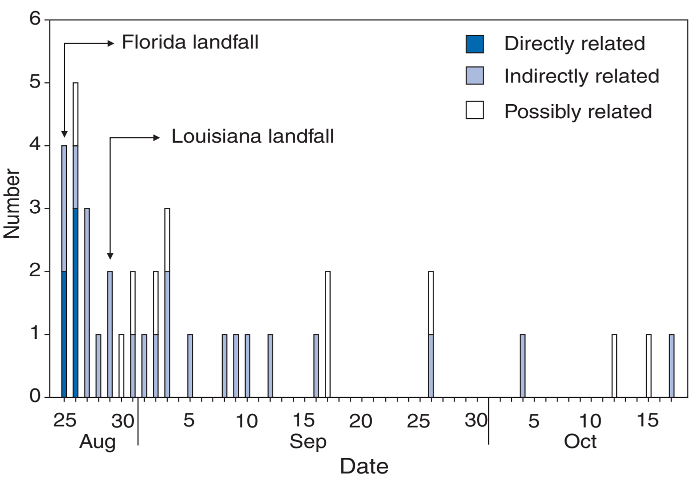
Florida law requires that traumatic deaths (including hurricane-related deaths), deaths that occur under unusual or suspicious circumstances, and deaths associated with diseases that pose a threat to public health be referred to the local medical examiner (ME).* All 67 Florida counties are under the jurisdiction of ME offices. When MEs receive death reports of public health importance, specifically those related to hurricanes, they report the information to FMEC. During hurricane season (June 1–November 30), deaths associated with hurricanes are reported twice daily. FDOH also reviews copies of final death certificates and medical examiner documentation. This mortality surveillance, in place since the beginning of the 2004 hurricane season, is part of the standard procedure for FDOH hurricane response. FMEC and the FDOH Bureau of Epidemiology collected and analyzed data for this review.

Similarly, ADFS collects and reviews data for all deaths in Alabama that are unintentional, intentional, or of undetermined cause. On October 5–6, 2005, CDC reviewed ADFS forensic records and logbooks and interviewed forensic MEs regarding specific cases in Baldwin and Mobile counties in Alabama. Data such as demographic characteristics, circumstances, causes, and dates of deaths potentially related to Hurricane Katrina were abstracted using a case report form. Additional cases were identified by the MEs during follow-up telephone calls.

A directly related death was defined as a death caused by the physical forces of a hurricane, whereas an indirectly related death was one caused by unsafe or unhealthy conditions that existed during the evacuation phase, occurrence of the hurricane, or post-hurricane/cleanup phase (*3*). A case was classified as possibly related to the hurricane if 1) the death occurred in the hurricane-affected area during August 23–October 23, 2005, 2) the cause or manner of death was undetermined or pending, and 3) reviewers agreed that a possible relation between the death and the hurricane might exist. Natural causes of death were considered storm-related if physical or mental stress before, during, or after the storm resulted in exacerbation of preexisting medical conditions and contributed to death.

Florida. Fourteen deaths from Florida's Miami-Dade, Broward, and Walton counties were identified as being directly, indirectly, or possibly related to Hurricane Katrina during August 25–September 1 (Table). Decedents ranged in age from 17 to 79 years (mean: 53 years; median: 58 years); 71% were male. Of the 14 deaths, 13 (93%) were classified as resulting from unintentional injuries, and one was listed as "manner undetermined pending further studies." The majority (79%) of deaths occurred during the impact phase (August 25, 26, and 29), with only three occurring after impact. Of the 13 deaths for which no cause or manner was determined, eight

FIGURE. Number of deaths related to Hurricane Katrina (directly, indirectly, and possibly), by date — selected counties,* Florida and Alabama, August–October 2005



* Surveillance covered all 67 counties in Florida and Baldwin and Mobile counties in Alabama.

* The 2005 Florida statutes. Available at http://www.leg.state.fl.us/statutes/index.cfm.

TABLE. Number of deaths directly, indirectly, or possibly related to Hurricane Katrina, by cause of death — selected counties,* Florida and Alabama, August–October 2005

	Florida					Alabama			
Cause of death	**Direct**	**Indirect**	**Possible**	**Total**	**(%)**	**Indirect**	**Possible**	**Total**	**(%)**
Drowning	3			**3**	(21)	1		**1**	(4)
Car collision		3†		**3**	(21)	1		**1**	(4)
Hit by falling tree limb	2	2		**4**	(29)				
Carbon monoxide poisoning		2		**2**	(14)				
Fall from ladder		1		**1**	(7)				
ASCVD§						6	3	**9**	(38)
Chronic alcoholism						1		**1**	(4)
Sepsis						1		**1**	(4)
Seizure						1		**1**	(4)
Other CNS¶ disease						1		**1**	(4)
Traumatic brain injury						1	1	**2**	(8)
Homicide (gunshot wound)							3	**3**	(13)
Suicide						1	1	**2**	(8)
Asphyxia						1		**1**	(4)
Undetermined			1	**1**	(7)		1	**1**	(4)
Total	**5**	**8**	**1**	**14**		**15**	**9**	**24**	

* Surveillance covered all 67 counties in Florida and Baldwin and Mobile counties in Alabama.
† Two deaths in Walton County were associated with weather conditions during the second landfall of Hurricane Katrina.
§ Atherosclerotic cardiovascular disease.
¶ Central nervous system.

(62%) were attributed to trauma, three (23%) to drowning, and two (15%) to carbon monoxide poisoning.

Of the 14 deaths, five were directly related to the hurricane: two persons drowned on boats that sank during the storm, two died from trees falling on them during the hurricane, and one was found floating in the water after the hurricane. Eight deaths were indirectly related: three persons died in car collisions with fallen trees in the road, two were struck and killed by falling tree limbs during cleanup, one sustained fatal injuries from a fall off a ladder after the hurricane, and two died from carbon monoxide poisoning as a result of generator use in a laundry room adjoining the residence.

Alabama. A total of 24 deaths from Mobile and Baldwin counties were identified as being indirectly or possibly related to Hurricane Katrina during August 27–October 17 (Table). Decedent ages ranged from 6 months to 77 years (mean: 46 years; median: 52 years); 88% were male. Thirteen (54%) deaths were categorized as natural deaths. Five (21%) deaths were attributed to intentional injuries (three assaults and two suicides); four (17%) to unintentional injuries; and two (8%) to injuries with intent undetermined (one trauma-related and one with unknown cause).

Fifteen (63%) of the 24 deaths were indirectly related to the hurricane, including deaths resulting from injuries incurred while working on hurricane cleanup, and natural deaths exacerbated by hurricane conditions. Six of the indirectly related deaths were associated with underlying cardiovascular disease and two with other preexisting diseases (i.e., sepsis from infected diabetic ulcers and complications of chronic alcoholism). Two children died naturally: one child had cerebral palsy and suffered a fatal seizure while being moved to a shelter, and another had preexisting central nervous system disease, which was exacerbated by stress. Five of the indirectly related deaths were trauma related: one man had onset of multiple hernias during cleanup, became incapacitated, and committed suicide by a gunshot to the chest; one person died during evacuation in a car collision involving a drunk driver; a homeless man with an unexplained head injury was found dead after the hurricane, although no foul play was suspected; a girl aged 6 years drowned when she climbed onto a fallen tree and fell into a neighbor's swimming pool; and an infant aged 6 months suffocated while sharing a bed with his mother after evacuation.

Nine deaths were possibly hurricane-related; these included suicides, assaults, and natural causes. Three men were shot during possible looting incidents after the hurricane, one man was struck by a tree that was being cut during cleanup, and one man committed suicide by hanging the day after the hurricane. Three deaths were associated with underlying cardiovascular disease; however, the circumstance of the deaths indicated a possible association with the hurricane. The cause of one death was undetermined; the decedent, who had a history of heavy drinking and cocaine use, was found dead during the hurricane. No deaths in Alabama were categorized as directly related.

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Editorial Note: Mortality surveillance after natural or manmade disasters plays a critical role in evaluating the cause, manner, and circumstances of disaster-related deaths (*4*). An understanding of attributable factors and the relation between disasters and mortality is useful for developing and implementing policies to prevent disaster-related mortality. In Florida, the review of death records associated with Hurricane Katrina indicated that trauma directly or indirectly related to the hurricane was the leading cause of death, which is consistent with reported deaths associated with previous hurricanes (*4–6*). However, the majority of deaths occurred during the impact phase; the rapid (<24 hours) strengthening of Katrina from a tropical storm to a hurricane and the subsequent landfall later the same day likely left many residents unprepared.

In Alabama, most of the deaths were attributed to indirect causes, both natural and traumatic; the majority of these deaths were from natural causes exacerbated by the hurricane. Persons with preexisting medical conditions can die when access to care is interrupted. Mental stress associated with evacuation, change in residence or work, property damage, and loss of human life might increase in communities affected by hurricanes and can lead to suicide in persons with a history of psychological problems. Violent behavior also might escalate. Moreover, increased use of alcohol or drugs might contribute to a greater incidence of car collisions, violence, and unintentional injuries (*7*).

The majority of Hurricane Katrina–related deaths occurred in Louisiana and Mississippi (*8*). The deaths described in this report are not representative of Katrina-related deaths. Furthermore, the findings in this report are subject to at least three limitations. First, a universally accepted standard definition of a hurricane-related death has not been established. The classification of a direct, indirect, or possible hurricane-related death is based on the circumstances of death, availability of information, and individual judgment, which might lead to over- or underreporting. Second, entry of certain records and interviews with MEs occurred 5 weeks after landfall, increasing the likelihood of recall bias regarding the circumstances of deaths. Finally, background information in some of the medical records was incomplete or insufficient, which presented difficulties in determining the circumstances of those deaths. In such cases, the logbook review and interview of the ME provided additional information.

The mortality report after Hurricane Katrina provided information to FDOH, ADPH, and CDC regarding the characteristics of deaths in the affected communities. Agencies can use these results in future public health interventions during hurricane preparation, warning, and response periods to address the direct and indirect effects of hurricanes. In addition, MEs, coroners, and state and federal health agencies should continue to collaborate to establish procedures for active mortality surveillance during hurricane season.

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Rapid Assessment of Health Needs and Resettlement Plans Among Hurricane Katrina Evacuees — San Antonio, Texas, September 2005

Hurricane Katrina struck the coastal regions of Alabama, Florida, Louisiana, and Mississippi on August 29, 2005, resulting in one of the worst natural disasters in U.S. history (*1,2*). The city of New Orleans, Louisiana, was further damaged by severe flooding when major levees broke and released water from Lake Pontchartrain. Residents were evacuated to neighboring states and cities, including San Antonio, Texas. On September 3, 2005, approximately 12,700 evacuees arrived in San Antonio and were housed in four primary evacuation centers (ECs). Although many evacuees in San Antonio soon found other accommodations, as of September 16, 2005, approximately 3,700 evacuees remained in ECs awaiting resumption of public services in New Orleans. To assess evacuee needs for clinical care, public health services, and housing assistance, the San Antonio Metropolitan Health District (Metro Health) requested CDC assistance to conduct a needs assessment of heads of households in the ECs. This report summarizes the findings of that survey, which identified substantial numbers of evacuees with chronic health conditions, physical or mental disabilities, and needs for counseling and housing assistance.

The findings underscore the need to augment local public health and public assistance resources to address ongoing health and housing needs of evacuee populations.

Assessment Methods

Survey data were collected for 4 days (September 15, 16, 17, and 19), during which the American Red Cross (ARC) distributed monetary aid to all heads of households in the four main San Antonio ECs (an empty warehouse and an office building at a former Air Force Base, an empty clothing distribution center, and an empty department store at a suburban shopping mall). Heads of households were identified and assigned special wristbands. ARC distributed aid at a different EC each day for 4 days. Interviews were conducted by trained public health practitioners and medical student volunteers and by CDC and Metro Health staff while heads of households were waiting to be processed. Interviewers clarified that participation in the survey did not affect eligibility to receive ARC aid. Identifying information was not collected. Respondents were asked about 1) basic demographic information and household size, 2) settlement plans, and 3) whether any household members had chronic medical conditions, physical or mental disabilities, or counseling needs. The heads of households were asked to report the number of persons in their household who had a condition that requires them to visit a health-care provider regularly or a physical or mental disability. Those reporting one or more members with a condition were counted as a household with a family member having the condition.

Assessment Results

Interviews were completed with 1,360 heads of households who resided in ECs. According to ARC estimates of the daily EC census, approximately 75% of all heads of households were recruited. The response rate was 95%. Response rates and recruitment rates were similar each day for each EC. The highest nonresponse rate for any individual question was 9.4%.

Respondents were 55% male, with a median age of 46 years (range: 18–89 years). Eighty-nine percent of respondents were black, 6% were white, 2% were Hispanic, and 3% were of other race/ethnicity. Median household size was two persons (range: one to 11); 46% of all households contained a single person. Ninety-one percent of those surveyed were from a New Orleans postal code. Approximately 51% (714) of heads of households reported holding jobs in unskilled professions (e.g., food service, manual labor, housekeeping, or retail sales), whereas 21% (290) reported working in skilled occupations (e.g., health care, education, or law enforcement). The remaining heads of households were unemployed (10%), retired (8%), or receiving Social Security or disability benefits (11%) before evacuation. Among 3,286 total evacuees in surveyed households, the median age was 32 years (range: <1–94 years). A total of 1,049 (32%) evacuees were aged <18 years, and 324 (10%) evacuees were aged >60 years.

Approximately 42% of respondents reported having a household member with a chronic medical condition, approximately 28% reported having a member with a physical or mental disability, and 20% reported having someone in need of counseling services to better cope with their recent experiences (Table). The majority of respondents (774 [57%]) did not know when they would be leaving their EC; 251 (19%) planned to leave in less than 1 week, and 54 (4%) planned to stay for at least 4 weeks. Approximately half of evacuee households planned to stay and settle in San Antonio, and fewer than one fourth planned to leave Texas. Of 719 households whose members planned to stay in San Antonio, 62% reported needing housing assistance, 29% planned to rent housing on their own, and 5% planned to move in with family or friends. The evacuee population expected to settle in San Antonio was compared with those planning to leave San Antonio by respondent race/ethnicity, employment status, and proportion of family members with chronic illness or disability; no statistically significant differences between these two groups were detected.

Reported by: *N Rogers, MPH; F Guerra, MD, San Antonio Health Dept, San Antonio, Texas. Hurricane Katrina Response Team, US Dept of Health and Human Svcs and CDC. PS Suchdev, MD, AS Chapman, DVM, RN Plotinsky, MD, M Jhung, MD, E Miller, PhD, EIS officers, CDC.*

Editorial Note: According to the findings of this assessment, approximately 1,700 evacuees from New Orleans who remained in San Antonio ECs at the time of the interview planned to settle in San Antonio. This population included multiple households with persons with ongoing health needs

TABLE. Characteristics of evacuee households in evacuation centers after Hurricane Katrina — San Antonio, Texas, September 2005

Characteristic	Total no. of households responding	No. of households with characteristic	% of households with characteristic (95% CI*)
Family member with chronic illness	1,335	563	42.2 (39.5–44.9)
Family member with physical or mental disability	1,332	367	27.6 (25.2–30.1)
Family member in need of counseling services	1,330	266	20.0 (16.2–25.3)

* Confidence interval.

and disabilities. In addition, one half of the heads of households planning to stay in San Antonio held unskilled jobs, and approximately one third were either unemployed, retired, or on disability assistance before evacuation. The rapid assessment results were provided to San Antonio health officials, who used the findings to facilitate health-care delivery to the sheltered evacuees.

The findings in this report underscore the need to augment local public health and public assistance resources to address the ongoing health and housing needs of evacuee populations. In addition to those resources used to provide immediate assistance for this displaced population, additional resources are needed to address long-term needs of those evacuees remaining in San Antonio. Evacuee families, in particular those with chronic conditions or mental health needs, will require links to the health-care system to address both chronic conditions and routine health needs. Such services might include provision of health-care access via Medicaid enrollment and expansion of reproductive health, mental health, dental health, immunization, and elder-care services. Other needs to be addressed include securing adequate assisted housing and meeting schooling needs of children.

The findings in this report are subject to at least three limitations. First, because the survey sample consisted primarily of evacuees at EC sites in San Antonio, the results might not be generalizable to evacuees in San Antonio not living in ECs or to evacuees in other centers in the United States. Second, probability sampling was not feasible because of the movement of the evacuee population in and out of the different ECs and the lack of consistent evacuee registration. However, nonprobability sampling methods are often used to conduct rapid needs assessment surveys after disasters (*3*), and interviewers for this survey attempted to interview all heads of households residing in ECs and were able to survey approximately three fourths of them. Some San Antonio evacuees living in smaller shelters serving the specific needs of older persons and new and expectant mothers (representing about 5% of the total sheltered population) also were not accounted for by this survey. Finally, information collected from this assessment represents the views of evacuee heads of households during the 4-day survey period; those views might change over time.

In the wake of its response to Katrina evacuees, San Antonio also responded to the needs of thousands of persons whose homes were destroyed or severely damaged by Hurricane Rita. The results of this survey have been useful to San Antonio officials as they continue to enhance the city's long-term social services and public health infrastructure to better assist both current and future evacuee populations. Metro Health continues to explore ways to expand existing public health programs to meet the needs of these new San Antonio residents. The findings in this report also might have implications for local resource planning in other communities providing services to populations displaced by disasters.

Acknowledgments

The findings of this report are based, in part, on contributions by C Rohr-Allegrini, PhD, J Berlanga, MPA, I Villegas, B Chavez, and V Falcon, San Antonio Metropolitan Health District; and G Cox, MSN, American Red Cross.

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Illness Surveillance and Rapid Needs Assessment Among Hurricane Katrina Evacuees — Colorado, September 1–23, 2005

After Hurricane Katrina struck the U.S. Gulf Coast on August 29, 2005, approximately 200,000 evacuees were sent to shelters in 18 states (*1*). On September 3, 2005, Colorado was asked to assist in sheltering some of the evacuees; the next day the first evacuees were airlifted into the Denver area, where they were housed at the former Lowry Air Force Base. During the next 4 weeks, 3,600 evacuees registered at Lowry, with an average of 400 persons in residence per day. Other persons self-evacuated to other parts of the state, including approximately 2,000 who went to Colorado Springs. In all, an estimated 6,000 evacuees were living throughout Colorado in the weeks after Hurricane Katrina. As a result of the influx of evacuees, the Colorado Department of Public Health and Environment (CDPHE) and the Tri-County Health Department (TCHD) established surveillance systems to provide early detection of outbreaks and determine the scope of medical conditions of evacuees. A rapid needs assessment also was conducted at the local level to assess acute medical and other needs of evacuees. Results indicated that many evacuees had chronic conditions and approximately half planned to remain in the area, suggesting a long-term need for increased health-related and other services. In addition, the most common acute symptoms were related to altitude sickness, requiring education of incoming Gulf Coast evacuees regarding the effects of the mile-high altitude in Denver.

Local and State Surveillance

As evacuees arrived at the Lowry site during the week of September 4, 2005, TCHD established syndromic surveillance at the Lowry medical clinic, an outpatient facility. Beginning September 7, the clinic reported various syndromes or types of symptoms among evacuees. Gastrointestinal (i.e., vomiting or diarrhea), respiratory (i.e., acute cough and fever), and dermatologic symptoms (i.e., rash with fever) were assessed, along with certain chronic disease–related syndromes (e.g., acute chest pain, stroke, or psychiatric illnesses). Report forms were faxed daily to TCHD, which monitored the information for baseline illness rates and potential outbreaks.

Local surveillance was conducted during September 7–September 21, when 509 evacuee visits were made to the Lowry clinic. The number of daily visits declined from 83 to 16, as evacuees moved out of Lowry and into the surrounding community. During the surveillance period, 10 cases of vomiting or diarrhea were identified, along with 10 cases of acute cough and fever and 15 cases of wound infection or cellulitis; 17 visits were related to mental health. The majority of visits were for medication refills, according to the head clinician at the Lowry clinic. These visits were not counted by TCHD. No outbreaks of infectious disease were identified.

On September 9, 2005, CDPHE implemented statewide surveillance of hospital emergency department (ED) visits among evacuees. A Colorado Health Alert Network (HAN) message to EDs requested that they identify evacuee visits and inform their hospital infection-control practitioner (ICP). A separate HAN message to ICPs requested that they report these visits through their usual disease-reporting process and that they report retroactively to September 1. Surveillance was continued through September 23.

During September 1–23, a total of 124 visits were reported by Colorado hospital EDs in 10 counties. ED visits were reported from 17 hospitals, although four Denver-area hospitals and one Colorado Springs hospital accounted for 75% of reports. Among the evacuees who visited EDs, 74 (59.7%) were female; 12 (9.7%) were aged ≤19 years, 34 (27.4%) were aged 20–39 years, 46 (37.1%) were aged 40–64 years, and 32 (25.8%) were aged ≥65 years. The most common reasons for ED visits included pain or headache (20.1%), other reason (e.g., dizziness, allergic reaction, or sore throat) (15.3%), medication refill (12.9%), chronic disease (10.5%), and respiratory illness (10.5%) (Table 1). Twenty-eight persons (22.5%) were admitted to a hospital; one person died suddenly at a Lowry dormitory after being evaluated in a nearby ED and refusing hospital admission for pneumonia.

TABLE 1. Number and percentage of emergency department visits by Hurricane Katrina evacuees, by reason for visit — Colorado, September 1–23, 2005

Reason for visit	No.	(%)
Pain/Headache	25	(20.2)
Other*	19	(15.3)
Medication refill	16	(12.9)
Chronic disease	13	(10.5)
Respiratory illness	13	(10.5)
Neurologic symptoms	8	(6.5)
Physical injury/Trauma	7	(5.6)
Skin or wound infection	7	(5.6)
Mental health	5	(4.0)
Obstetric	4	(3.2)
Gastrointestinal illness	3	(2.4)
Rash illness	2	(1.6)
Possible tuberculosis	2	(1.6)
Total	**124**	**(100.0)**

* Including follow-up from previous surgery or trauma, dizziness, allergic reaction, sore throat, dehydration, acute renal failure, dental abscess, urinary tract infection, pancreatitis, deep vein thrombosis, and near syncope.

Rapid Needs Assessment

During September 4–9, 2005, TCHD conducted a rapid needs assessment of a sample of newly arriving evacuees at Lowry. All evacuees who registered during the first week at Lowry were sent by bus to an American Red Cross family assistance center to register with the Federal Emergency Management Association. Among eight buses arriving from Lowry, two were selected at random. Heads of all 106 households with members on the two buses were interviewed; all agreed to participate.

Among heads of households surveyed, 55% were non-Hispanic blacks, 36% were non-Hispanic whites, and 6% were Hispanic whites. The number of family members per household ranged from one to 30 (an extended family living in a mobile home with some members sleeping outside); the median was 2.0, and the mean was 3.8. The most common acute medical conditions among households reporting one or more conditions were related to altitude sickness (e.g., dehydration, lightheadedness, or problems breathing) (Table 2). Common chronic medical conditions included hypertension (28.4%), depression or other psychiatric illness (23.2%), asthma or chronic lung disease (21.1%), cardiovascular disease (17.9%), and diabetes (13.7%).

Among households surveyed, 60.2% had one or more family members requiring prescription medications. Of those households requiring prescription medications, 38.8% were lacking them at the time of the survey, and 42.7% had gone without medications at some point as a result of Hurricane Katrina. The most common long-term service needs included medical services, health insurance, housing assistance, and clothing (particularly winter clothing) (Table 3). Although

TABLE 2. Acute medical conditions among Hurricane Katrina evacuees, by percentage of evacuee households* affected and mean number of persons affected per household — Colorado, September 1–23, 2005

Medical condition	% of households affected	Mean no. of persons affected per household
Thirst/Dehydration	33.7	2.9
Dizziness/Lightheadedness	21.8	1.3
Problem breathing	18.8	1.6
Cough	16.8	1.5
Diarrhea/Vomiting	11.9	1.4
Skin rashes	11.9	1.0
Cuts/Bruises	9.9	1.0
Fever/Chills	6.9	1.5
Chest pain	6.0	1.0
Broken bones	3.0	1.0
Eye infection	3.0	1.0
Animal bites	2.0	1.0
Other†	10.0	1.3

* N = 106.
† Including acute congestive heart failure, nose bleeds, allergies, insect bites, back and joint pain, and strep throat.

TABLE 3. Types of needs among Hurricane Katrina evacuees, by percentage of households* reporting need — Colorado, September 1–23, 2005

Type of need	% reporting need
Medical services	51.0
Health insurance	47.2
Housing assistance	46.2
More clothing	45.3
Dental services	45.3
Employment services	34.0
Transportation assistance	32.1
Schools	20.8
Vaccinations	19.8
WIC† services	15.1
Birth control/Reproductive health	14.2
Assistance finding family members	14.2
Child care	13.2
Additional food or water	13.2
Legal services	12.3
Grief counseling	12.3
Religious	9.4
Pet services/Veterinarian	6.6
Substance abuse	1.0
Other	5.7

* N = 106.
† Special Supplemental Nutrition Program for Women, Infants, and Children.

the majority of services already were being offered, many evacuees seemed unaware of their availability. Among households surveyed, 49.1% of evacuees reported planning to stay in Colorado permanently, suggesting the need to provide these services over an extended period.

As a result of this assessment, several recommendations were made to meet the needs of evacuees arriving in subsequent weeks. TCHD nurses provided altitude sickness education to all evacuees during their initial registration at Lowry, and evacuees were advised of the available services. In addition, other agencies, including CDPHE and the American Red Cross, were provided summaries of the needs assessment to better meet the long-term needs of evacuees.

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Editorial Note: In post-disaster situations, timely surveillance systems and rapid needs assessments are needed to provide information regarding outbreaks, disaster-related morbidity and mortality, and medical and nonmedical needs that can guide public health responses (*2–5*). These activities are needed not only in the immediate disaster area, but also in outside areas that house displaced persons (*6,7*).

Both surveillance systems described in this report were implemented within 1 week of the arrival of evacuees, enabling timely surveillance. Although no outbreaks of infectious disease were detected, surveillance efforts provided information regarding the scope of medical issues affecting evacuees, which was useful in planning for ongoing medical needs. The rapid needs assessment, which also was completed within 1 week of the arrival of evacuees, provided insight into their medication, chronic disease, and mental health needs. Meeting these needs was important to avoid the long-term complications of chronic disease and mental health conditions among the 49.1% of evacuees who indicated they planned to remain in the area. The assessment also helped to identify a need for altitude sickness education.

The findings in this report are subject to at least two limitations. First, illness surveillance was limited to patients who visited EDs and therefore did not include results from persons who sought treatment at outpatient health-care clinics. Second, the rapid needs assessment was conducted during a 1-week period and considered only the immediate needs of newly arriving evacuees; those needs might have changed over time.

The state-level ED surveillance system demonstrated the ability to rapidly adapt an existing disease reporting system to accommodate a short-term surveillance need and provide information regarding potential outbreaks of infectious disease. Rapid needs assessments such as the one described in this report should be conducted routinely after a natural disaster, both at the immediate disaster site and in evacuation areas, because needs can vary by location (*7*). Data from surveillance and assessment activities can be used to direct immediate assistance to evacuees and guide program planning that will adequately provide for long-term evacuee needs.

Acknowledgments

The findings in the report are based, in part, on contributions by S Weinberg, L Smith, and J Uhernik, Tri-County Health Dept, Greenwood Village; members of the El Paso County Dept of Health and Environment, Colorado Springs; and N Enyart, L Loveland, and A Cronquist, Colorado Dept of Public Health and Environment.

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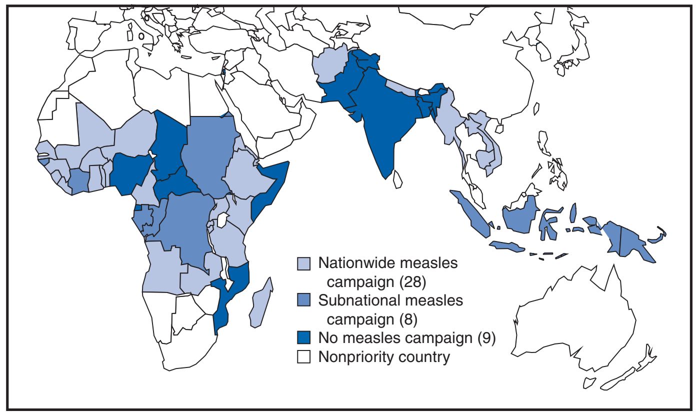
Progress in Reducing Global Measles Deaths, 1999–2004

Measles remains a substantial cause of global childhood mortality, particularly in developing countries. In their joint strategic plan for Measles Mortality Reduction, 2001–2005, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) targeted 45 priority countries* (Figure 1) with the highest measles mortality for implementation of a comprehensive strategy for accelerated and sustained measles mortality reduction (*1*). Components of this strategy include achieving high routine vaccination coverage (>90%) in every district and ensuring that all children receive a second opportunity for measles vaccination. In May 2003, the World Health Assembly endorsed a resolution urging member countries to achieve a goal (adopted in 2002 by the United Nations General Assembly Special Session on Children) to reduce 1999 deaths resulting from measles by half by the end of 2005. This report updates progress toward this goal and introduces a new goal for measles mortality reduction by 2010.

* Afghanistan, Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau, India, Indonesia, Kenya, Lao People's Democratic Republic, Liberia, Madagascar, Mali, Mozambique, Myanmar, Nepal, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Togo, Uganda, United Republic of Tanzania, Vietnam, and Zambia.

FIGURE 1. Countries* with highest measles mortality, by measles campaign status — worldwide, 2000–2004



* N = 45.

Immunization Activities

By July of each year, all countries are asked to submit information on measles vaccination coverage from the previous year using the WHO/UNICEF Joint Reporting Form. Estimates of routine coverage with 1 dose of measles vaccine are based on review of coverage data from administrative records, surveys, national reports, and consultation with local and regional experts. Coverage achieved during nationwide supplementary immunization activities (SIAs) against measles are reported on the basis of the reported number of doses administered, divided by the target population.

WHO/UNICEF estimates indicate that global routine measles vaccination coverage increased from 71% in 1999 to 76% in 2004. Coverage varied significantly by geographic region† (Table). Substantial increases in routine coverage were evident in Sub-Saharan Africa (from 49% to 65%) and South Asia (54% to 61%). Moreover, an increase has occurred in the proportion of countries offering children a second opportunity for measles vaccination, through either SIAs or routine services. During 2004, a total of 168 (88%) countries offered children a second opportunity, compared with 150 (78%) countries in 2001. During 2000–2004, SIAs were offered in 36 of the 45 priority countries; 28 (78%) of these SIAs were nationwide and 24 (67%) were in Sub-Saharan Africa (Figure 1). Of the SIAs in Sub-Saharan Africa, 18 (75%) were nationwide. Of the 232 million (93%) children aged 9 months–14 years targeted to receive measles vaccine through these SIAs, an estimated 215 million (93%) were vaccinated.

† Data reported for World Bank geographic regions are for countries classified as having low-income and middle-income economies only. A list of countries by classification is available at http://www.worldbank.org. Four member states (Cook Islands, Nauru, Niue, and Tuvalu) not classified by World Bank were added to East Asia and Pacific.

TABLE. Routine measles vaccination coverage and estimated number of measles deaths, by World Bank geographic region* — worldwide, 1999 and 2004

	1999			2004		
Geographic region	Routine measles vaccination coverage (%)	Estimated no. of deaths	Uncertainty bounds†	Routine measles vaccination coverage (%)	Estimated no. of deaths	Uncertainty bounds
Sub-Saharan Africa	49	530,000	(387,000–689,000)	65	216,000	(160,000–279,000)
South Asia	54	263,000	(192,000–341,000)	61	202,000	(145,000–264,000)
East Asia and Pacific	83	68,000	(47,000–96,000)	83	32,000	(21,000–47,000)
Middle East and North Africa	92	8,000	(5,000–11,000)	92	4,000	(2,000–5,000)
Europe and Central Asia	92	<1,000		93	<1,000	
Latin America and Caribbean	92	<1,000		92	<1,000	
High-income countries	90	<1,000		92	<1,000	
Total§	**71**	**871,000**	**(633,000–1,139,000)**	**76**	**454,000**	**(329,000–596,000)**

* Data reported for World Bank geographic regions are for countries classified as having low-income and middle-income economies only. A list of countries by classification is available at http://www.worldbank.org. The four member states (Cook Islands, Nauru, Niue, and Tuvalu) not classified by World Bank were added to East Asia and Pacific.
† Based on Monte Carlo simulations (*3*) that account for uncertainty in key input variables (i.e., vaccination coverage and case-fatality ratios).
§ Numbers do not sum to totals because of rounding.

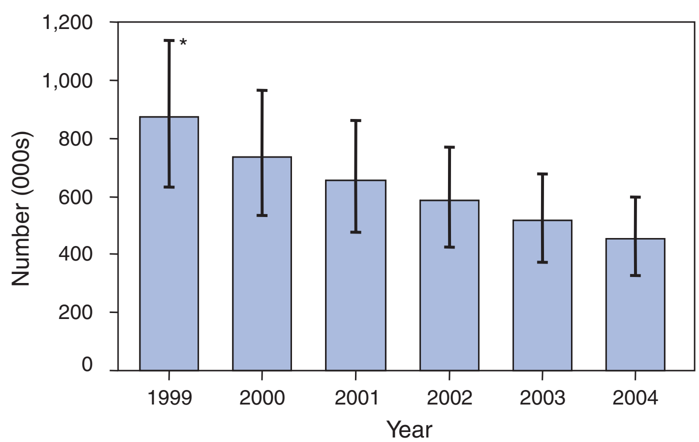
Mortality Estimates

Annual estimates of global measles deaths were generated for the years 1999 through 2004 using the same method used to calculate 1999–2003 estimates of measles deaths (*2*). Data sources included updates to information on both historical and 2004 measles vaccination coverage (including both routine and SIAs) and 2004 United Nations population estimates (including updates for 1999–2004).

Results from surveillance data combined with the natural history model[§] indicate that overall global measles mortality decreased 48%, from 871,000 deaths (uncertainty bounds[¶]: 633,000–1,139,000) in 1999 to 454,000 deaths (uncertainty bounds: 329,000–596,000) in 2004 (Table, Figure 2). The largest percentage reduction during this period (59%) was in Sub-Saharan Africa, followed by East Asia and the Pacific (52%) and the Middle East and North Africa (50%).

Reported by: *Dept of Immunization, Vaccines, and Biologicals, WHO, Geneva, Switzerland. UNICEF, New York, New York. Global Immunization Div, National Immunization Program, CDC.*

FIGURE 2. Estimated number of annual measles deaths — worldwide, 1999–2004



* Uncertainty bounds based on Monte Carlo simulations (*3*) that account for uncertainty in key input variables (i.e., vaccination coverage and case-fatality ratios).

Editorial Note: During 1999–2004, improvements in routine measles vaccination coverage and implementation of measles SIAs in the 45 priority countries targeted by the WHO/UNICEF joint strategic plan have resulted in a 48% decrease in the estimated number of global measles deaths. Worldwide, since 1999, an estimated 500 million persons have received measles vaccine through SIAs, and an estimated 1.4 million measles deaths have been averted as a result of implementing the strategy of improving routine vaccination coverage with the first dose along with providing a second opportunity for measles vaccination. The largest decrease in estimated measles deaths (59%) was seen in Sub-Saharan Africa. The reduction in South Asia (23%) was smaller because certain large countries had not yet begun large-scale measles SIAs by the end of 2004. If global progress has continued at the rates achieved in recent years, data for 2005 likely will reveal that the 2005 measles mortality reduction goal was met. The mortality estimates based on the natural history model have been corroborated by data from countries that have fully implemented recommended vaccination strategies and strengthened measles surveillance. An analysis of the effect of intensified vaccination efforts in 19 African countries observed a 92% reduction in reported measles cases; only one country (Burkina Faso) experienced a large outbreak after an SIA. This outbreak resulted, in part, from large-scale popu-

§ Incorporates historical figures with population data that are annually updated.
¶ Based on Monte Carlo simulations (3) that account for uncertainty in key input variables (i.e., vaccination coverage and case-fatality ratios).

lation migration caused by civil unrest in neighboring Côte d'Ivoire.

Both disease surveillance and mathematical models have been used to monitor progress towards the 2005 measles mortality reduction goal. Models are limited by their assumptions and the lack of current information for key parameters such as proportional cause-specific mortality or measles case-fatality ratios. Emphasis on strengthening surveillance as a key strategy for measles mortality reduction has led to improvement in reporting measles cases by countries. During 2004, a total of 190 countries reported on measles cases through the WHO/UNICEF joint reporting form, compared with 174 countries during 2003 and 166 countries during 1999. However, strengthening disease surveillance and registration of cause-specific mortality continue to be needed in many developing countries. While better health information systems are being developed, models remain useful for monitoring and directing program activities.

Support of the Measles Initiative has been a key factor contributing to progress in reducing measles mortality. Begun in 2001, the Measles Initiative is a partnership formed to sustainably reduce the number of deaths from measles.** The Measles Initiative serves an important role in providing technical and financial support to priority countries and in strengthening political and social commitment in the fight against measles. The Measles Initiative is led by the American Red Cross, United Nations Foundation, CDC, WHO, UNICEF, and the Canadian International Development Agency. During 2000–2004, the Measles Initiative supported approximately 40 African countries in implementing high-quality measles SIAs.

Because the 2005 measles mortality reduction goal likely was met on schedule (final 2005 data will not be available until 2007), a more ambitious goal has been proposed in the Global Immunization Vision and Strategy (GIVS).†† The new goal calls for a 90% reduction in measles mortality by 2010 compared with the 2000 level. However, major challenges exist to achieving this new goal. First, measles mortality reduction activities need to be successfully implemented in several large countries with high measles burden (e.g., India, Nigeria, and Pakistan). Second, to sustain the gains in reduced measles deaths in the 45 priority countries, vaccination systems need to be improved to ensure that ≥90% of infants are vaccinated against measles through routine health services before their first birthday. Third, priority countries will need to conduct follow-up SIAs every 3–4 years until their routine vaccination systems are capable of providing two opportunities for measles vaccination to >90% of every birth cohort. Fourth, disease surveillance systems at district, provincial, and national levels need to be strengthened to enable case-based surveillance with testing of clinical specimens from suspected cases in laboratories participating in the global measles and rubella laboratory network (*4*). Finally, measles case management, including appropriate vitamin A supplementation, should be strengthened.

** Additional information is available at http://www.measlesinitiative.org.

†† Developed by WHO and UNICEF for the period 2006–2015. Additional information is available at http://www.who.int/vaccines/givs.

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Update: Influenza Activity — United States, February 19–25, 2006

During February 19–25, 2006,* the number of states reporting widespread influenza activity† increased to 21. Fourteen states reported regional activity, 10 reported local activity, and five reported sporadic activity (Figure 1).§

The percentage of specimens testing positive for influenza increased in the United States overall. During the preceding 3 weeks (weeks 6–8), the percentage of specimens testing positive for influenza ranged from 39.7% in the East North Central region to 7.5% in the Pacific region. The percentage of outpatient visits for influenza-like illness (ILI)¶ increased dur-

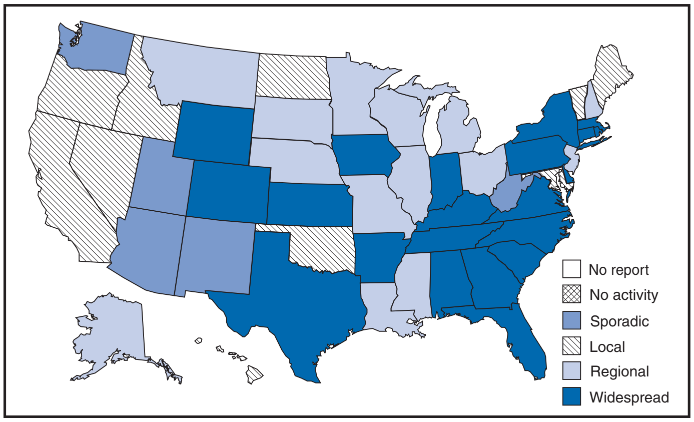
* Provisional data reported as of March 3. Additional information about influenza activity is updated each Friday and is available from CDC at http://www.cdc.gov/flu.

† Levels of activity are 1) *widespread:* outbreaks of influenza or increases in influenza-like illness (ILI) cases and recent laboratory-confirmed influenza in at least half the regions of a state; 2) *regional:* outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least two but less than half the regions of a state; 3) *local:* outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of a state; 4) *sporadic:* small numbers of laboratory-confirmed influenza cases or a single influenza outbreak reported but no increase in cases of ILI; and 5) *no activity*.

§ *Widespread:* Alabama, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Indiana, Iowa, Kansas, Kentucky, Massachusetts, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, and Wyoming; *regional:* Alaska, Illinois, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, Ohio, South Dakota, and Wisconsin; *local:* California, Hawaii, Idaho, Maine, Maryland, Nevada, North Dakota, Oklahoma, Oregon, and Vermont; *sporadic:* Arizona, New Mexico, Utah, Washington, and West Virginia; *no activity:* none; *no report:* none.

¶ Temperature of ≥100.0°F (≥37.8°C) and cough and/or sore throat in the absence of a known cause other than influenza.

FIGURE 1. Estimated influenza activity levels reported by state epidemiologists, by state and level of activity* — United States, February 19–25, 2006



* Levels of activity are 1) *widespread:* outbreaks of influenza or increases in influenza-like illness (ILI) cases and recent laboratory-confirmed influenza in at least half the regions of a state; 2) *regional:* outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least two but less than half the regions of a state; 3) *local:* outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of a state; 4) *sporadic:* small numbers of laboratory-confirmed influenza cases or a single influenza outbreak reported but no increase in cases of ILI; and 5) *no activity*.

ing the week ending February 25 and remains above the national baseline.** The percentage of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold for the week ending February 25.

Laboratory Surveillance

During February 19–25, World Health Organization (WHO) collaborating laboratories and National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories in the United States reported testing 2,066 specimens for influenza viruses, of which 439 (21.2%) were positive. Of these, 134 were influenza A (H3N2) viruses, 12 were influenza A (H1N1) viruses, 231 were influenza A viruses that were not subtyped, and 62 were influenza B viruses.

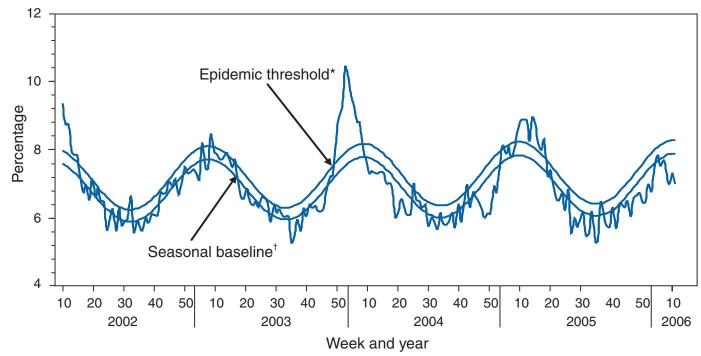
Since October 2, 2005, WHO and NREVSS laboratories have tested 79,336 specimens for influenza viruses, of which 7,256 (9.1%) were positive. Of these, 6,853 (94.4%) were influenza A viruses, and 403 (5.6%) were influenza B viruses. Of the 6,853 influenza A viruses, 3,105 (45.3%) have been subtyped; 3,046 (98.1%) were influenza A (H3N2) viruses, and 59 (1.9%) were influenza A (H1N1) viruses.

P&I Mortality and ILI Surveillance

During the week ending February 25, P&I accounted for 7.0% of deaths reported through the 122 Cities Mortality Reporting System. This percentage is below the epidemic threshold†† of 8.3% (Figure 2).

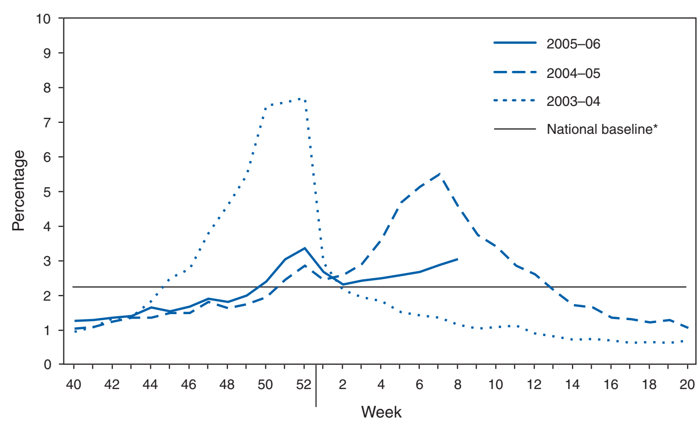
The percentage of patient visits for ILI was 3.4%, which is above the national baseline of 2.2% (Figure 3). The percentage of patient visits for ILI ranged from 1.8% in the Pacific region to 6.9% in the West South Central region.

FIGURE 2. Percentage of deaths attributed to pneumonia and influenza (P&I) reported by the 122 Cities Mortality Reporting System, by week and year — United States, 2002–2006



* The epidemic threshold is 1.645 standard deviations above the seasonal baseline.
† The seasonal baseline is projected using a robust regression procedure that applies a periodic regression model to the observed percentage of deaths from P&I during the preceding 5 years.

FIGURE 3. Percentage of visits for influenza-like illness (ILI) reported by the Sentinel Provider Surveillance Network, by week — United States, 2003–04, 2004–05, and 2005–06 influenza seasons



* The national baseline was calculated as the mean percentage of visits for ILI during noninfluenza weeks for the preceding three seasons, plus two standard deviations. Noninfluenza weeks are those in which <10% of laboratory specimens are positive for influenza. Wide variability in regional data precludes calculating region-specific baselines; therefore, applying the national baseline to regional data is inappropriate.

†† The expected seasonal baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I that occurred during the preceding 5 years. The epidemic threshold is 1.645 standard deviations above the seasonal baseline.

Pediatric Deaths and Hospitalizations

During October 2, 2005–February 25, 2006, CDC received reports of 13 influenza-associated deaths occurring during the 2005–06 influenza season in U.S. residents aged <18 years. During October 1, 2005–February 18, 2006, the preliminary laboratory-confirmed influenza-associated hospitalization rate reported by the Emerging Infections Program[§§] for children aged 0–17 years was 0.48 per 10,000 population. For children aged 0–4 years and 5–17 years, the rate was 1.11 per 10,000 and 0.15 per 10,000, respectively. During October 30, 2005–February 18, 2006, the preliminary laboratory-confirmed influenza-associated hospitalization rate for children aged 0–4 years in the New Vaccine Surveillance Network[¶¶] was 0.48 per 10,000.

Human Avian Influenza A (H5N1)

No human avian influenza A (H5N1) virus infection has ever been identified in the United States. From December 2003 through March 6, 2006, a total of 175 laboratory-confirmed human avian influenza A (H5N1) infections were reported to WHO from Cambodia, China, Indonesia, Iraq, Thailand, Turkey, and Vietnam.*** Of these, 95 (54%) were fatal (Table). This represents an increase of one case and one death in China and one case and one death in Iraq since February 27, 2006. The majority of infections appear to have been acquired from direct contact with infected poultry. No evidence of sustained human-to-human transmission of H5N1 has been detected, although rare instances of human-to-human transmission likely have occurred (*1*).

§§ The Emerging Infections Program Influenza Project conducts surveillance in 60 counties associated with 12 metropolitan areas: San Francisco, California; Denver, Colorado; New Haven, Connecticut; Atlanta, Georgia; Baltimore, Maryland; Minneapolis/St. Paul, Minnesota; Albuquerque, New Mexico; Las Cruces, New Mexico; Albany, New York; Rochester, New York; Portland, Oregon; and Nashville, Tennessee.

¶¶ The New Vaccine Surveillance Network conducts surveillance in Monroe County, New York; Hamilton County, Ohio; and Davidson County, Tennessee.

*** Available at http://www.who.int/csr/disease/avian_influenza/en.

Reference

1. Ungchusak K, Auewarakul P, Dowell SF, et al. Probable person-to-person transmission of avian influenza A (H5N1). N Engl J Med 2005;352:333–40.

Notice to Readers

Satellite Broadcast: Learning from Katrina

Public Health Grand Rounds, a partnership project sponsored by CDC in collaboration with the University of North Carolina School of Public Health, will air a satellite broadcast, "Learning from Katrina: Tough Lessons in Preparedness and Emergency Response," on March 31, 2006, at 2:00 p.m. EST. This live broadcast will be transmitted from CDC and will focus on the public health implications and vulnerabilities of disaster preparedness.

The program will also be available as a webcast. In addition, the North Carolina Center for Public Health Preparedness will facilitate an online discussion beginning during March 31–April 7. Details about the program, satellite coordinates, webcast, discussion, and registration are available at http://www.publichealthgrandrounds.unc.edu.

Notice to Readers

Ground Water Awareness Week, March 12–18, 2006

Each year, the National Ground Water Association (NGWA) sponsors Ground Water Awareness Week to focus public attention on protecting ground water and the importance of private well maintenance and water testing (*1*). Other partners in Ground Water Awareness Week include CDC, the U.S. Environmental Protection Agency, the U.S. Geological Survey, and the Groundwater Foundation.

During 2001–2002, a total of 31 waterborne-illness outbreaks were reported to CDC; 16 (52%) of these outbreaks were attributed to improperly treated or untreated ground-

TABLE. Number of laboratory-confirmed human cases and deaths from avian influenza A (H5N1) infection reported to the World Health Organization, by country — worldwide, 2003–2006*

	Year of onset									
	2003		2004		2005		2006		Total	
Country	No. of cases	Deaths	No. of cases	Deaths	No. of cases	Deaths	No. of cases	Deaths	No. of cases	Deaths
Cambodia	0	0	0	0	4	4	0	0	4	4
China	0	0	0	0	8	5	7	4	15	9
Indonesia	0	0	0	0	17	11	10	9	27	20
Iraq	0	0	0	0	0	0	2	2	2	2
Thailand	0	0	17	12	5	2	0	0	22	14
Turkey	0	0	0	0	0	0	12	4	12	4
Vietnam	3	3	29	20	61	19	0	0	93	42
Total	**3**	**3**	**46**	**32**	**95**	**41**	**31**	**19**	**175**	**95**

* As of March 6, 2006.

water (*2*). Private wells typically provide untreated or minimally treated groundwater for drinking. Because private wells are not covered by the Safe Drinking Water Act, NGWA and its partners recommend annual well-maintenance checkups and water tests for contaminants of health concern (*1,3*). Certain contaminants, such as arsenic, can occur naturally in groundwater (*4*), whereas others are linked to well placement, construction, or maintenance. For example, improper storage or disposal of hazardous substances such as fuel, oil, fertilizer, or pesticides can endanger well water quality (*4*). Improper disposal of household waste, such as pouring cleaning products or other chemicals down the drain or toilet into septic systems, can also contaminate groundwater used for drinking (*5*). In addition, wells are susceptible to bacterial contamination if surface runoff pools around the wellhead or if the wellhead is too close to an animal enclosure, feedlot, or septic system drain field (*6*).

Information about Ground Water Awareness Week and the public health benefits of well maintenance, water quality, and water testing is available at http://www.wellowner.org, http://www.watersystemscouncil.org/wellcare/index.cfm, http://www.cdc.gov/health/water.htm, and http://www.epa.gov/safewater.

References

1. National Ground Water Association. Ground Water Awareness Week. Westerville, OH: National Ground Water Association; 2006. Available at http://www.ngwa.org/awareness/aware.cfm.
2. CDC. Summary surveillance for waterborne-disease outbreaks associated with drinking water—United States, 2001–2002. MMWR 2004;53 (No. SS-8):24–45.
3. US Environmental Protection Agency. Drinking water from household wells. Washington, DC: US Environmental Protection Agency; 2002. Available at http://www.epa.gov/privatewells/pdfs/household_wells.pdf.
4. National Ground Water Association. Ground water quality basics. Westerville, OH: National Ground Water Association; 2006. Available at http://www.wellowner.org/awaterquality/basics.shtml.
5. North Carolina Cooperative Extension Service. Disposal of hazardous household wastes. Raleigh, NC: North Carolina Cooperative Extension Service; 1992. Available at http://www.ces.ncsu.edu/depts/fcs/housing/pubs/fcs3683.pdf.
6. National Ground Water Association. Planning for a water well. Westerville, OH: National Ground Water Association; 2006. Available at http://www.wellowner.org/awaterwellbasics/planningforawaterwell.shtml.

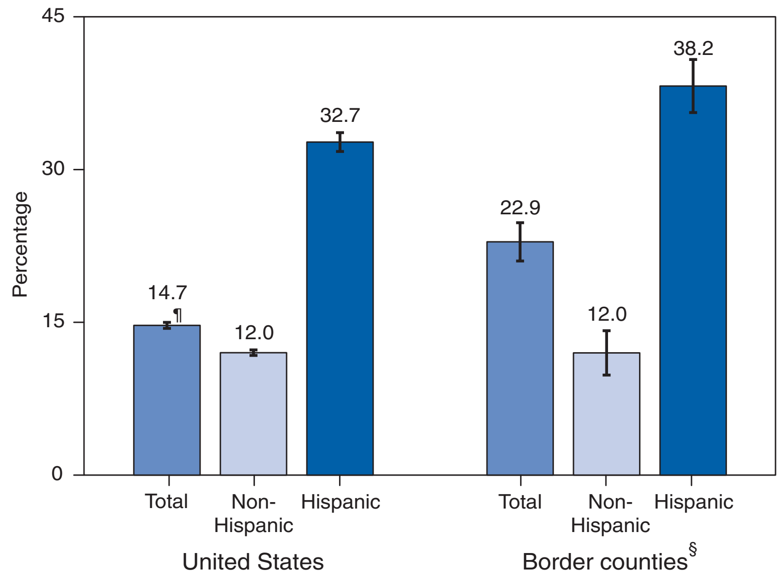
Erratum: Vol. 55, No. RR-2

In the *MMWR Recommendations and Reports*, "Influenza Vaccination of Health-Care Personnel: Recommendations of the Healthcare Infection Control Practices Advisory Committee (HICPAC) and the Advisory Committee on Immunization Practices (ACIP)," an error occurred on page 9 in the section on LAIV storage. The first sentence of the paragraph should read, "LAIV must be stored at **5° F** (-15° C) or colder."

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Adults Aged ≥18 Years Without Health Insurance Coverage,* by Ethnicity† — United States and Counties Along the United States–Mexico Border, 2000–2003



* Without insurance at the time of the interview.
† Hispanic or non-Hispanic ethnicity of any race.
§ Counties within 100 km (62 miles) of the United States–Mexico border.
¶ 95% confidence interval.

During 2000–2003, Hispanic adults in the United States were more than twice as likely to be without health insurance than non-Hispanic adults. This disparity was even greater for Hispanics who lived along the U.S.–Mexico border, who were more than three times as likely as non-Hispanics to be without health insurance.

SOURCE: In-House National Health Interview Survey, 2000–2003. Available at http:www.cdc.gov/nchs.nhis.htm. Data are based on household interviews of a sample of the civilian noninstitutionalized population.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 4, 2006 (9th Week)[*]

Disease	Current week	Cum 2006	5-year weekly average[†]	Total cases reported for previous years 2005	2004	2003	2002	2001	States reporting cases during current week (No.)
Anthrax	—	—	0	—	—	—	2	23	
Botulism:									
foodborne	—	—	0	19	16	20	28	39	
infant	—	2	2	86	87	76	69	97	
other (wound & unspecified)	—	9	0	24	30	33	21	19	
Brucellosis	1	11	2	106	114	104	125	136	WY (1)
Chancroid	—	2	2	27	30	54	67	38	
Cholera	—	—	—	6	5	2	2	3	
Cyclosporiasis[§]	—	7	4	737	171	75	156	147	
Diphtheria	—	—	—	—	—	1	1	2	
Domestic arboviral diseases[§¶]:									
California serogroup	—	—	0	71	112	108	164	128	
eastern equine	—	—	—	21	6	14	10	9	
Powassan	—	—	—	1	1	—	1	N	
St. Louis	—	—	—	10	12	41	28	79	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis[§]:									
human granulocytic	1	5	2	730	537	362	511	261	NY (1)
human monocytic	4	33	1	480	338	321	216	142	MD (4)
human (other & unspecified)	—	1	0	120	59	44	23	6	
Haemophilus influenzae,[**]									
invasive disease (age <5 yrs):									
serotype b	—	2	0	8	19	32	34	—	
nonserotype b	3	11	4	115	135	117	144	—	CT (1), OK (2)
unknown serotype	5	33	4	212	177	227	153	—	NY (1), GA (1), AZ (3)
Hansen disease[§]	2	10	2	89	105	95	96	79	TX (1), CA (1)
Hantavirus pulmonary syndrome[§]	—	2	0	22	24	26	19	8	
Hemolytic uremic syndrome, postdiarrheal[§]	1	7	2	204	200	178	216	202	NY (1)
Hepatitis C viral, acute	4	105	34	754	713	1,102	1,835	3,976	NY (1), MI (1), FL (1), OR (1)
HIV infection, pediatric (age <13 yrs)[§††]	—	—	5	382	436	504	420	543	
Influenza-associated pediatric mortality[§,§§,¶¶]	1	11	2	49	—	N	N	N	OK (1)
Listeriosis	3	63	9	817	753	696	665	613	NY (2), CA (1)
Measles	2	3[***]	2	63	37	56	44	116	FL (1), CO (1)
Meningococcal disease,[†††] invasive:									
A, C, Y, & W-135	1	35	8	291	—	—	—	—	MI (1)
serogroup B	2	20	4	162	—	—	—	—	MO (1), OK (1)
other serogroup	—	3	1	24	—	—	—	—	
Mumps	1	51	6	293	258	231	270	266	PA (1)
Plague	—	—	—	7	3	1	2	2	
Poliomyelitis, paralytic	—	—	—	1	—	—	—	—	
Psittacosis[§]	—	1	0	22	12	12	18	25	
Q fever[§]	2	13	1	134	70	71	61	26	NY (1), CA (1)
Rabies, human	—	—	—	2	7	2	3	1	
Rubella	—	—	0	10	10	7	18	23	
Rubella, congenital syndrome	—	—	0	1	—	1	1	3	
SARS-CoV[§,§§]	—	—	0	—	—	8	N	N	
Smallpox[§]	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome[§]	—	19	3	103	132	161	118	77	
Streptococcus pneumoniae,[§]									
invasive disease (age <5 yrs)	15	152	16	1,029	1,162	845	513	498	NY (8), OH (2), IN (1), MO (1), NE (1), MD (1), CO (1)
Syphilis, congenital (age <1 yr)	1	35	9	320	353	413	412	441	AZ (1)
Tetanus	—	1	0	20	34	20	25	37	
Toxic-shock syndrome (other than streptococcal)[§]	1	12	3	88	95	133	109	127	CO (1)
Trichinellosis	—	2	0	19	5	6	14	22	
Tularemia[§]	1	4	0	135	134	129	90	129	KS (1)
Typhoid fever	1	30	6	297	322	356	321	368	FL (1)
Vancomycin-intermediate *Staphylococcus aureus*[§]	—	—	—	2	—	N	N	N	
Vancomycin-resistant *Staphylococcus aureus*[§]	—	—	—	—	1	N	N	N	
Yellow fever	—	—	—	—	—	—	1	—	

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

* Incidence data for reporting years 2004, 2005, and 2006 are provisional, whereas data for 2001, 2002, and 2003 are finalized.

† Calculated by summing the incidence counts for the current week, the two weeks preceding the current week, and the two weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf.

§ Not notifiable in all states.

¶ Includes both neuroinvasive and non-neuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNET Surveillance).

** Data for *H. influenzae* (all ages, all serotypes) are available in Table II.

†† Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Data for HIV/AIDS are available in Table IV quarterly.

§§ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.

¶¶ Of the 16 cases reported since October 2, 2005 (week 40), only 14 occurred during the current 2005–06 season.

*** The two measles cases reported for the current week were imported from another country.

††† Data for meningococcal disease (all serogroups and unknown serogroups) are available in Table II.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

Reporting area	Chlamydia†					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005
United States	13,035	18,551	24,089	131,945	162,070	130	95	1,203	994	820	25	69	847	340	303
New England	710	604	1,519	4,583	4,685	—	0	0	—	—	—	4	34	15	17
Connecticut	109	150	1,182	615	826	N	0	0	N	N	—	0	14	2	3
Maine	50	41	74	344	374	N	0	0	N	N	—	0	2	3	1
Massachusetts	457	271	417	2,547	2,388	—	0	0	—	—	—	2	16	7	6
New Hampshire	10	34	64	274	319	—	0	0	—	—	—	0	3	2	4
Rhode Island	56	63	99	570	601	—	0	0	—	—	—	0	5	—	—
Vermont§	28	19	43	233	177	N	0	0	N	N	—	0	5	1	3
Mid. Atlantic	1,521	2,264	3,665	15,083	18,994	—	0	0	—	—	4	10	595	65	43
New Jersey	112	362	530	1,451	3,178	N	0	0	N	N	—	0	5	—	1
New York (Upstate)	539	485	1,711	2,742	3,038	N	0	0	N	N	2	3	562	13	12
New York City	223	692	1,248	5,303	6,292	N	0	0	N	N	—	2	15	17	13
Pennsylvania	647	693	1,083	5,587	6,486	N	0	0	N	N	2	4	21	35	17
E.N. Central	1,831	3,142	4,098	23,085	25,952	1	0	3	5	2	3	13	162	62	60
Illinois	786	919	1,748	6,168	6,218	—	0	0	—	—	—	1	16	5	10
Indiana	356	387	558	3,508	3,604	N	0	0	N	N	—	1	13	3	3
Michigan	546	550	1,023	5,981	3,846	1	0	3	3	2	—	2	7	12	8
Ohio	51	812	1,446	5,511	8,710	—	0	1	2	—	3	4	109	35	19
Wisconsin	92	380	530	1,917	3,574	N	0	0	N	N	—	4	38	7	20
W.N. Central	481	1,122	1,427	8,862	10,234	—	0	3	—	—	7	8	51	39	39
Iowa	—	143	221	1,293	1,219	N	0	0	N	N	—	1	11	3	8
Kansas	171	148	269	1,521	1,390	N	0	0	N	N	2	0	5	9	6
Minnesota	1	231	294	1,231	2,229	—	0	3	—	—	3	2	10	18	6
Missouri	216	435	525	3,400	3,895	—	0	1	—	—	2	2	37	8	17
Nebraska§	—	98	200	674	809	N	0	1	N	N	—	0	2	1	—
North Dakota	34	28	48	289	207	N	0	0	N	N	—	0	1	—	—
South Dakota	59	51	118	454	485	N	0	0	N	N	—	0	4	—	2
S. Atlantic	2,778	3,377	4,677	25,103	31,008	—	0	1	2	—	8	12	53	107	58
Delaware	80	68	92	629	519	N	0	0	N	N	—	0	2	—	—
District of Columbia	—	67	103	212	662	—	0	0	—	—	—	0	3	5	1
Florida	759	866	1,027	7,547	7,588	N	0	0	N	N	6	6	28	43	18
Georgia	12	600	1,710	1,064	4,592	—	0	0	—	—	—	2	12	28	14
Maryland	319	364	525	2,981	2,937	—	0	1	2	—	—	0	4	4	5
North Carolina	634	533	1,743	6,051	6,372	N	0	0	N	N	1	1	10	23	8
South Carolina§	453	314	1,418	2,064	3,648	—	0	0	—	—	1	0	4	1	2
Virginia§	448	427	841	3,697	4,327	N	0	0	N	N	—	1	8	2	6
West Virginia	73	47	354	858	363	N	0	0	N	N	—	0	3	1	4
E.S. Central	1,266	1,362	2,188	10,996	12,379	—	0	0	—	—	—	3	21	4	8
Alabama§	397	331	1,048	2,838	2,141	N	0	0	N	N	—	0	3	2	4
Kentucky	67	157	323	1,509	2,262	N	0	0	N	N	—	1	20	1	1
Mississippi	285	385	801	2,281	3,985	—	0	0	—	—	—	0	1	—	1
Tennessee§	517	457	624	4,368	3,991	N	0	0	N	N	—	0	4	1	2
W.S. Central	1,350	1,978	3,361	13,122	20,177	—	0	1	—	—	1	3	30	22	11
Arkansas	191	170	340	1,347	1,484	—	0	0	—	—	—	0	1	1	—
Louisiana	17	239	760	363	2,644	N	0	1	N	N	—	0	21	3	2
Oklahoma	175	226	2,150	1,738	1,731	N	0	0	N	N	1	0	10	10	4
Texas§	967	1,315	1,702	9,674	14,318	N	0	0	N	N	—	1	8	8	5
Mountain	695	1,098	1,588	7,713	10,498	98	69	204	630	484	2	3	9	14	22
Arizona	538	316	516	2,909	3,720	98	67	204	613	462	—	0	1	2	3
Colorado	—	250	376	991	2,478	N	0	0	N	N	1	1	3	3	5
Idaho§	—	47	235	450	275	N	0	0	N	N	—	0	2	—	1
Montana	82	42	180	168	428	N	0	0	N	N	1	0	3	2	—
Nevada§	—	138	465	1,000	1,277	—	1	4	10	17	—	0	2	1	3
New Mexico§	58	162	338	1,518	1,363	—	0	2	—	3	—	0	3	—	6
Utah	—	86	132	439	757	—	0	3	5	2	—	0	3	6	2
Wyoming	17	23	43	238	200	—	0	2	2	—	—	0	2	—	2
Pacific	2,403	3,178	4,593	23,398	28,143	31	28	1,114	357	334	—	6	50	12	45
Alaska	75	77	121	529	595	—	0	0	—	—	—	0	2	—	—
California	1,525	2,454	3,829	17,752	21,780	31	28	1,114	357	334	—	3	14	—	37
Hawaii	9	106	133	855	962	N	0	0	N	N	—	0	1	—	—
Oregon§	190	168	315	1,150	1,541	N	0	0	N	N	—	1	20	12	8
Washington	604	362	485	3,112	3,265	N	0	0	N	N	—	0	36	—	—
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	72	141	490	638	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	4	12	—	81	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2005 and 2006 are provisional.
† Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive All ages, all serotypes				
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2006	Cum 2005	Current week	Med	Max	Cum 2006	Cum 2005	Current week	Med	Max	Cum 2006	Cum 2005
United States	169	323	762	1,965	2,592	4,884	6,239	7,858	47,130	55,174	36	38	80	335	427
New England	6	29	90	123	175	138	102	281	798	883	9	3	12	27	28
Connecticut	—	1	65	17	1	38	36	234	170	284	8	0	6	8	8
Maine	1	4	11	6	24	1	2	7	22	19	—	0	1	2	2
Massachusetts	1	12	34	67	114	87	49	86	465	473	—	2	5	13	13
New Hampshire	—	1	7	5	6	1	4	9	46	22	1	0	3	2	—
Rhode Island	3	0	25	9	12	11	8	25	86	81	—	0	4	1	2
Vermont†	1	3	11	19	18	—	1	4	9	4	—	0	1	1	3
Mid. Atlantic	24	63	237	351	493	546	652	1,003	4,588	5,575	5	8	23	76	80
New Jersey	—	7	17	—	85	81	109	149	669	998	—	1	5	1	14
New York (Upstate)	17	22	208	127	134	230	123	434	897	948	4	2	19	20	22
New York City	—	17	33	113	137	59	185	405	1,303	1,712	—	1	6	22	15
Pennsylvania	7	16	29	111	137	176	211	344	1,719	1,917	1	3	8	33	29
E.N. Central	17	53	102	272	435	1,063	1,293	1,805	11,125	10,104	3	6	11	36	70
Illinois	—	13	32	14	104	243	373	752	2,491	2,355	—	1	5	3	20
Indiana	N	0	0	N	N	142	158	234	1,577	1,422	2	1	6	9	10
Michigan	1	14	29	110	122	596	234	586	3,845	1,309	—	0	3	9	7
Ohio	16	15	34	128	95	28	383	682	2,531	4,010	1	2	6	12	28
Wisconsin	—	12	33	20	114	54	112	162	681	1,008	—	0	3	3	5
W.N. Central	10	36	142	182	273	172	361	461	2,734	3,228	1	2	7	15	18
Iowa	—	5	14	35	43	—	30	54	226	259	—	0	1	—	—
Kansas	4	4	9	24	25	53	47	124	432	475	—	0	2	4	1
Minnesota	—	16	113	50	97	—	64	89	322	633	—	0	4	—	7
Missouri	5	9	32	57	71	108	182	240	1,540	1,579	1	0	7	10	8
Nebraska†	1	1	6	6	22	—	21	40	136	210	—	0	1	1	2
North Dakota	—	0	3	1	—	2	2	5	16	14	—	0	2	—	—
South Dakota	—	2	7	9	15	9	6	15	62	58	—	0	0	—	—
S. Atlantic	21	48	83	342	412	1,305	1,464	2,199	10,519	13,656	10	9	22	92	102
Delaware	—	1	3	3	11	33	18	40	237	125	—	0	0	—	—
District of Columbia	2	1	6	10	10	—	40	67	183	392	—	0	0	—	—
Florida	16	18	40	148	145	362	395	510	3,519	3,289	3	2	12	26	19
Georgia	—	11	25	105	115	1	271	760	458	2,031	5	1	6	20	32
Maryland	3	4	11	33	28	125	138	242	1,297	1,189	—	1	5	15	18
North Carolina	N	0	0	N	N	374	272	766	2,910	3,324	2	1	11	14	19
South Carolina†	—	2	9	11	15	199	133	783	804	1,612	—	1	3	7	2
Virginia†	—	10	39	30	82	194	150	289	939	1,585	—	1	7	6	6
West Virginia	—	0	6	2	6	17	13	36	172	109	—	0	4	4	6
E.S. Central	4	7	19	40	67	504	528	868	4,387	4,751	—	2	8	13	21
Alabama†	2	3	13	27	34	176	167	491	1,358	1,329	—	0	2	3	4
Kentucky	N	0	0	N	N	22	55	107	539	675	—	0	3	—	1
Mississippi	—	0	0	—	—	115	133	225	949	1,237	—	0	0	—	—
Tennessee†	2	4	11	13	33	191	171	284	1,541	1,510	—	1	5	10	16
W.S. Central	4	6	23	38	38	508	791	1,296	5,247	7,988	2	2	6	18	25
Arkansas	3	1	5	11	16	98	85	187	822	764	—	0	2	2	—
Louisiana	—	1	5	9	7	20	130	461	271	1,476	—	0	3	2	14
Oklahoma	1	3	16	18	15	46	85	761	570	840	2	1	5	14	11
Texas†	N	0	0	N	N	344	477	631	3,584	4,908	—	0	1	—	—
Mountain	23	31	59	209	188	125	234	486	1,827	2,231	6	4	19	39	52
Arizona	—	2	12	24	35	106	70	166	686	782	6	1	9	15	16
Colorado	9	9	33	87	54	—	57	90	319	516	—	1	4	14	14
Idaho†	—	3	12	14	18	—	2	10	25	14	—	0	1	1	1
Montana	2	1	7	11	8	7	2	13	12	27	—	0	0	—	—
Nevada†	—	2	6	4	12	—	54	195	394	516	—	0	3	—	7
New Mexico†	—	1	6	3	9	10	28	64	257	250	—	0	4	5	10
Utah	11	7	28	62	51	—	15	22	97	117	—	0	2	3	3
Wyoming	1	1	2	4	1	2	2	6	37	9	—	0	2	1	1
Pacific	60	61	195	408	511	523	785	940	5,905	6,758	—	3	20	19	31
Alaska	—	2	6	1	10	6	9	23	62	91	—	0	19	2	2
California	49	41	102	315	409	340	647	806	4,792	5,627	—	1	7	1	5
Hawaii	2	1	6	9	15	6	19	36	151	183	—	0	2	2	1
Oregon†	6	7	21	66	53	29	30	58	190	261	—	2	7	13	23
Washington	3	5	87	17	24	142	72	167	710	596	—	0	4	1	—
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	3	14	1	20	—	6	16	41	61	—	0	1	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	4	—	31	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2005 and 2006 are provisional.
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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

	Hepatitis (viral, acute), by type										Legionellosis				
	A					B									
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2006	Cum 2005	Current week	Med	Max	Cum 2006	Cum 2005	Current week	Med	Max	Cum 2006	Cum 2005
United States	44	78	186	580	714	95	98	209	665	1,005	19	38	112	178	192
New England	3	8	23	43	78	1	4	12	35	42	1	2	11	8	5
Connecticut	1	1	3	5	12	—	0	5	—	13	1	0	8	4	—
Maine	—	0	2	1	—	—	0	2	—	2	—	0	1	1	—
Massachusetts	—	5	14	24	59	—	4	10	30	24	—	1	5	2	5
New Hampshire	2	1	12	7	6	1	0	3	4	2	—	0	1	—	—
Rhode Island	—	0	4	1	1	—	0	2	1	—	—	0	7	—	—
Vermont†	—	0	2	5	—	—	0	1	—	1	—	0	3	1	—
Mid. Atlantic	4	12	23	39	136	4	12	37	53	182	8	11	53	55	57
New Jersey	—	3	11	6	27	—	4	23	15	99	—	1	12	6	8
New York (Upstate)	3	1	17	8	17	2	1	12	5	12	7	3	27	19	14
New York City	—	5	12	13	65	—	2	7	8	23	—	2	20	7	2
Pennsylvania	1	1	6	12	27	2	4	9	25	48	1	5	17	23	33
E.N. Central	1	7	18	37	75	3	10	25	45	100	3	6	24	22	49
Illinois	—	1	9	1	32	—	2	7	—	27	—	0	2	—	9
Indiana	—	1	10	2	4	—	0	11	1	3	—	0	5	1	4
Michigan	1	2	11	21	16	1	3	7	25	36	—	2	6	7	12
Ohio	—	1	4	12	16	2	2	8	17	29	3	3	19	14	21
Wisconsin	—	1	5	1	7	—	0	6	2	5	—	0	2	—	3
W.N. Central	—	2	31	23	19	3	5	13	15	43	—	1	12	5	7
Iowa	—	0	2	—	3	—	0	2	1	1	—	0	1	—	—
Kansas	—	0	5	17	3	1	0	3	3	6	—	0	1	—	—
Minnesota	—	0	31	—	—	1	0	6	1	—	—	0	10	—	—
Missouri	—	0	5	3	11	1	3	7	10	28	—	0	3	4	6
Nebraska†	—	0	3	1	2	—	0	2	—	7	—	0	1	1	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	1
South Dakota	—	0	1	2	—	—	0	1	—	1	—	0	6	—	—
S. Atlantic	14	13	33	101	105	19	23	52	153	289	5	9	19	51	42
Delaware	—	0	1	1	2	—	1	6	3	16	—	0	4	1	—
District of Columbia	—	0	2	1	—	—	0	4	1	—	—	0	2	—	1
Florida	7	5	18	39	35	7	9	21	70	92	1	2	6	20	13
Georgia	1	1	6	8	21	1	2	7	9	55	—	1	3	3	3
Maryland	2	2	6	16	10	6	2	8	34	39	1	2	9	15	13
North Carolina	3	0	20	31	21	—	0	19	19	34	3	0	3	7	6
South Carolina†	1	1	3	5	3	3	2	9	10	20	—	0	2	—	—
Virginia†	—	1	7	—	13	—	2	13	3	30	—	1	8	4	3
West Virginia	—	0	2	—	—	2	0	11	4	3	—	0	3	1	3
E.S. Central	3	3	16	18	30	1	7	20	32	65	—	1	6	4	3
Alabama†	—	0	6	—	3	—	1	7	11	18	—	0	2	1	3
Kentucky	3	0	3	9	3	—	1	6	9	20	—	0	4	—	—
Mississippi	—	0	2	—	6	—	1	4	4	8	—	0	1	—	—
Tennessee†	—	2	13	9	18	1	2	12	8	19	—	1	4	3	—
W.S. Central	4	7	25	27	52	4	12	48	107	77	—	0	4	2	1
Arkansas	—	0	3	—	1	—	1	3	2	13	—	0	1	—	—
Louisiana	—	1	5	1	15	—	1	5	5	13	—	0	2	2	—
Oklahoma	2	0	1	4	1	—	0	5	—	6	—	0	3	—	—
Texas†	2	6	22	22	35	4	9	46	100	45	—	0	3	—	1
Mountain	4	6	21	44	68	51	11	55	159	95	—	2	6	6	13
Arizona	1	3	20	21	40	51	5	52	141	59	—	0	3	—	3
Colorado	3	1	5	12	7	—	1	6	7	10	—	0	3	1	2
Idaho†	—	0	3	1	5	—	0	2	2	3	—	0	2	—	—
Montana	—	0	1	1	5	—	0	7	—	—	—	0	1	—	—
Nevada†	—	0	2	3	2	—	1	4	6	8	—	0	2	3	3
New Mexico†	—	0	3	3	4	—	0	3	1	6	—	0	1	—	1
Utah	—	0	3	3	5	—	0	5	2	9	—	0	2	2	2
Wyoming	—	0	0	—	—	—	0	1	—	—	—	0	1	—	2
Pacific	11	15	148	248	151	9	10	54	66	112	2	1	10	25	15
Alaska	—	0	2	—	1	—	0	2	—	—	—	0	1	—	—
California	11	13	147	231	124	6	6	39	50	81	2	1	10	25	15
Hawaii	—	0	2	5	4	—	0	1	—	1	—	0	1	—	—
Oregon†	—	1	5	6	10	—	2	6	10	22	N	0	0	N	N
Washington	—	1	11	6	12	3	1	11	6	8	—	0	0	—	—
American Samoa	U	0	1	U	—	U	0	0	U	—	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	6	1	8	—	1	6	1	2	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

Reporting area	Lyme disease Current week	Lyme disease Previous 52 weeks Med	Lyme disease Previous 52 weeks Max	Lyme disease Cum 2006	Lyme disease Cum 2005	Malaria Current week	Malaria Previous 52 weeks Med	Malaria Previous 52 weeks Max	Malaria Cum 2006	Malaria Cum 2005
United States	39	292	1,327	476	1,192	5	24	45	151	189
New England	2	47	228	29	97	—	1	12	6	5
Connecticut	2	9	154	22	3	—	0	10	—	—
Maine	—	2	25	2	5	—	0	1	—	—
Massachusetts	—	16	160	—	76	—	0	4	5	4
New Hampshire	—	3	17	4	11	—	0	1	—	1
Rhode Island	—	0	12	—	1	—	0	1	—	—
Vermont†	—	0	5	1	1	—	0	2	1	—
Mid. Atlantic	26	179	916	277	786	—	6	15	28	50
New Jersey	—	30	303	47	289	—	1	7	—	14
New York (Upstate)	21	48	824	87	108	—	1	9	4	5
New York City	—	0	0	—	—	—	3	8	18	25
Pennsylvania	5	60	464	143	389	—	1	2	6	6
E.N. Central	—	13	157	13	52	2	2	6	18	18
Illinois	—	0	6	—	—	—	0	2	4	6
Indiana	—	0	4	—	1	—	0	3	3	—
Michigan	—	1	7	3	1	—	0	2	2	6
Ohio	—	1	5	1	12	2	0	3	6	3
Wisconsin	—	10	148	9	38	—	0	2	3	3
W.N. Central	2	13	99	12	27	—	1	5	5	7
Iowa	—	1	8	—	3	—	0	1	1	2
Kansas	—	0	3	1	2	—	0	1	—	1
Minnesota	1	9	96	9	22	—	0	3	2	1
Missouri	—	0	2	1	—	—	0	3	1	3
Nebraska†	1	0	1	1	—	—	0	2	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	1	—	—	—	0	1	1	—
S. Atlantic	6	33	125	111	208	—	6	15	47	37
Delaware	—	9	37	40	78	—	0	1	—	1
District of Columbia	2	0	2	5	1	—	0	2	—	—
Florida	3	1	8	9	9	—	1	6	5	6
Georgia	—	0	1	—	1	—	0	6	14	7
Maryland	—	16	86	51	101	—	1	9	18	11
North Carolina	—	0	5	5	11	—	0	8	4	5
South Carolina†	1	0	3	1	4	—	0	2	1	1
Virginia†	—	3	20	—	3	—	0	5	5	5
West Virginia	—	0	6	—	—	—	0	2	—	1
E.S. Central	—	1	4	—	2	—	0	2	2	5
Alabama†	—	0	1	—	—	—	0	1	1	1
Kentucky	—	0	1	—	—	—	0	2	1	1
Mississippi	—	0	0	—	—	—	0	0	—	—
Tennessee†	—	0	4	—	2	—	0	2	—	3
W.S. Central	—	1	8	—	8	—	1	9	4	18
Arkansas	—	0	2	—	—	—	0	2	—	1
Louisiana	—	0	2	—	1	—	0	1	—	1
Oklahoma	—	0	0	—	—	—	0	6	1	—
Texas†	—	0	7	—	7	—	1	9	3	16
Mountain	—	0	4	—	—	1	1	5	9	11
Arizona	—	0	4	—	—	—	0	4	1	2
Colorado	—	0	1	—	—	1	0	3	3	5
Idaho†	—	0	1	—	—	—	0	0	—	—
Montana	—	0	0	—	—	—	0	0	—	—
Nevada†	—	0	2	—	—	—	0	2	—	—
New Mexico†	—	0	1	—	—	—	0	1	—	1
Utah	—	0	1	—	—	—	0	2	5	2
Wyoming	—	0	1	—	—	—	0	1	—	1
Pacific	3	3	14	34	12	2	4	12	32	38
Alaska	—	0	1	—	1	—	0	1	1	1
California	3	2	11	34	10	1	3	9	25	34
Hawaii	N	0	0	N	N	—	0	4	—	1
Oregon†	—	0	3	—	1	—	0	2	2	2
Washington	—	0	3	—	—	1	0	5	4	—
American Samoa	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

	Meningococcal disease, invasive										Pertussis				
	All serogroups					Serogroup unknown									
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2006	Cum 2005	Current week	Med	Max	Cum 2006	Cum 2005	Current week	Med	Max	Cum 2006	Cum 2005
United States	22	22	64	203	288	19	13	51	145	158	168	429	957	1,774	4,025
New England	—	1	5	8	23	—	1	2	8	6	—	30	51	222	250
Connecticut	—	0	3	2	6	—	0	2	2	1	—	0	4	—	16
Maine	—	0	1	2	1	—	0	1	2	1	—	0	5	5	8
Massachusetts	—	0	3	4	11	—	0	2	4	2	—	22	41	200	187
New Hampshire	—	0	2	—	1	—	0	2	—	1	—	1	15	5	—
Rhode Island	—	0	2	—	2	—	0	0	—	—	—	0	8	—	—
Vermont†	—	0	1	—	2	—	0	1	—	1	—	1	6	12	39
Mid. Atlantic	2	3	14	29	34	2	2	13	26	25	25	22	124	182	335
New Jersey	—	0	2	—	9	—	0	2	—	9	—	3	7	12	48
New York (Upstate)	1	0	6	4	9	1	0	5	3	3	18	10	115	64	103
New York City	—	0	5	11	6	—	0	5	11	6	—	2	6	—	17
Pennsylvania	1	1	3	14	10	1	1	3	12	7	7	7	16	106	167
E.N. Central	4	2	9	16	26	3	1	6	13	22	14	62	121	256	1,034
Illinois	—	0	4	5	6	—	0	4	5	6	—	14	31	8	186
Indiana	—	0	3	—	4	—	0	2	—	2	2	6	23	21	40
Michigan	1	1	3	4	6	—	0	3	1	4	3	4	26	63	42
Ohio	3	1	5	7	5	3	0	4	7	5	9	19	43	147	412
Wisconsin	—	0	1	—	5	—	0	1	—	5	—	21	40	17	354
W.N. Central	1	1	4	8	19	—	0	3	3	7	16	56	205	232	609
Iowa	—	0	2	—	6	—	0	2	—	—	—	9	55	36	225
Kansas	—	0	1	—	2	—	0	1	—	2	9	11	29	99	65
Minnesota	—	0	2	—	3	—	0	1	—	—	—	0	148	—	93
Missouri	1	0	3	5	6	—	0	2	1	3	3	9	39	82	106
Nebraska†	—	0	1	3	2	—	0	1	2	2	2	2	12	11	58
North Dakota	—	0	1	—	—	—	0	1	—	—	2	0	28	4	19
South Dakota	—	0	1	—	—	—	0	0	—	—	—	2	9	—	43
S. Atlantic	2	3	14	35	40	2	2	7	13	18	23	23	90	140	236
Delaware	—	0	1	1	—	—	0	1	1	—	—	0	1	1	10
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	3	2	—
Florida	1	1	7	14	11	1	1	6	5	3	5	4	14	46	22
Georgia	—	0	2	1	7	—	0	2	1	7	—	1	3	3	7
Maryland	—	0	2	3	5	—	0	1	1	—	4	4	8	39	49
North Carolina	—	0	11	11	4	—	0	3	3	—	4	0	21	23	19
South Carolina†	1	0	1	3	8	1	0	1	1	6	—	5	21	14	87
Virginia†	—	0	3	2	4	—	0	3	1	1	10	1	72	10	27
West Virginia	—	0	1	—	1	—	0	1	—	1	—	0	12	2	15
E.S. Central	2	1	3	8	13	2	1	3	6	9	1	8	25	27	96
Alabama†	—	0	1	1	—	—	0	1	1	—	1	1	9	11	21
Kentucky	—	0	2	1	5	—	0	2	1	5	—	3	10	2	27
Mississippi	—	0	1	1	3	—	0	1	1	3	—	1	4	8	14
Tennessee†	2	0	2	5	5	2	0	1	3	1	—	3	17	6	34
W.S. Central	1	2	12	21	27	—	1	7	14	8	4	41	111	79	81
Arkansas	—	0	3	2	5	—	0	2	2	1	3	5	19	13	13
Louisiana	—	0	3	14	10	—	0	3	11	2	—	0	3	2	5
Oklahoma	1	0	3	5	3	—	0	3	1	—	—	0	1	2	—
Texas†	—	0	6	—	9	—	0	2	—	5	1	36	98	62	63
Mountain	—	2	7	16	17	—	0	5	9	2	74	74	145	540	759
Arizona	—	0	5	5	5	—	0	5	5	2	17	15	86	66	45
Colorado	—	0	2	9	8	—	0	1	2	—	19	27	41	281	354
Idaho†	—	0	2	—	—	—	0	2	—	—	—	3	16	10	59
Montana	—	0	0	—	—	—	0	0	—	—	—	8	29	25	168
Nevada†	—	0	2	—	2	—	0	1	—	—	—	0	8	8	10
New Mexico†	—	0	2	—	1	—	0	2	—	—	—	2	9	1	50
Utah	—	0	2	2	1	—	0	1	2	—	38	13	35	140	67
Wyoming	—	0	0	—	—	—	0	0	—	—	—	1	4	9	6
Pacific	10	5	28	62	89	10	4	16	53	61	11	70	538	96	625
Alaska	—	0	1	—	—	—	0	1	—	—	1	2	15	18	9
California	7	2	11	45	35	7	2	11	45	35	—	40	350	1	352
Hawaii	—	0	1	—	6	—	0	1	—	2	—	3	10	12	23
Oregon†	—	1	6	6	39	—	0	5	2	22	—	5	33	32	193
Washington	3	0	25	11	9	3	0	11	6	2	10	11	185	33	48
American Samoa	U	0	1	—	—	U	0	1	U	U	U	0	0	U	U
C.N.M.I.	U	0	0	—	—	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	1	—	0	2	—	1	—	0	2	—	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2005 and 2006 are provisional.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

Reporting area	Rabies, animal					Rocky Mountain spotted fever					Salmonellosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005
United States	42	105	160	444	883	2	34	98	222	97	325	858	1,454	3,815	3,989
New England	15	13	33	65	102	—	0	1	—	—	4	41	76	187	179
Connecticut	5	3	13	18	16	—	0	0	—	—	—	9	42	42	36
Maine	3	1	4	9	6	N	0	0	N	N	—	3	8	5	13
Massachusetts	4	5	22	29	69	—	0	1	—	—	—	21	40	117	104
New Hampshire	1	0	3	2	2	—	0	1	—	—	1	2	12	13	13
Rhode Island	—	0	4	1	2	—	0	1	—	—	3	0	15	8	4
Vermont†	2	1	7	6	7	—	0	0	—	—	—	1	10	2	9
Mid. Atlantic	7	18	40	111	94	1	1	7	2	4	45	94	214	378	481
New Jersey	N	0	0	N	N	—	0	2	—	—	—	16	43	15	100
New York (Upstate)	5	12	24	57	38	—	0	2	—	—	33	21	178	94	92
New York City	—	0	3	—	5	—	0	2	1	1	—	24	43	101	147
Pennsylvania	2	7	22	54	51	1	1	6	1	3	12	31	61	168	142
E.N. Central	—	3	19	2	6	—	0	6	1	2	35	93	243	425	487
Illinois	—	1	4	—	1	—	0	3	—	1	—	29	160	40	134
Indiana	—	0	3	—	1	—	0	1	—	—	6	10	71	58	25
Michigan	—	0	4	1	2	—	0	1	—	—	4	18	35	91	109
Ohio	—	0	13	1	2	—	0	3	1	1	25	23	52	176	112
Wisconsin	N	0	3	N	N	—	0	1	—	—	—	15	45	60	107
W.N. Central	1	7	23	16	35	—	2	16	4	4	19	43	91	253	253
Iowa	—	1	10	3	7	—	0	2	—	—	—	7	18	36	54
Kansas	1	1	5	4	6	—	0	2	—	—	9	7	17	45	22
Minnesota	—	1	5	1	11	—	0	1	—	—	7	11	31	57	59
Missouri	—	1	7	1	4	—	1	14	4	4	3	14	40	87	73
Nebraska†	—	0	0	—	—	—	0	2	—	—	—	2	8	14	22
North Dakota	—	0	4	2	1	—	0	0	—	—	—	0	5	—	3
South Dakota	—	1	6	5	6	—	0	2	—	—	—	2	11	14	20
S. Atlantic	14	31	54	192	463	1	16	94	212	68	77	255	509	1,125	1,098
Delaware	—	0	0	—	—	—	0	2	1	—	—	2	9	11	9
District of Columbia	—	0	0	—	—	—	0	1	—	—	2	1	7	13	5
Florida	2	0	14	26	201	—	0	3	5	2	53	99	230	516	428
Georgia	—	4	15	16	46	—	1	9	14	1	12	32	77	193	139
Maryland	—	6	16	31	48	1	2	7	7	3	8	14	39	83	83
North Carolina	12	8	19	38	71	—	5	87	183	57	—	30	114	236	225
South Carolina†	—	0	1	—	5	—	1	6	2	4	2	21	146	40	89
Virginia†	—	10	26	71	90	—	1	10	—	—	—	19	66	26	106
West Virginia	—	0	13	10	2	—	0	2	—	1	—	2	13	7	14
E.S. Central	2	2	9	28	18	—	5	24	1	3	12	56	134	219	226
Alabama†	2	1	5	11	14	—	0	9	—	1	9	14	39	98	66
Kentucky	—	0	3	—	—	—	0	1	—	—	2	7	26	36	28
Mississippi	—	0	1	—	—	—	0	3	—	—	—	13	66	23	28
Tennessee†	—	1	5	17	4	—	3	18	1	2	1	15	40	62	104
W.S. Central	1	13	42	9	119	—	2	32	2	1	48	80	160	376	300
Arkansas	—	0	3	1	7	—	0	32	2	—	44	13	67	116	39
Louisiana	—	0	0	—	—	—	0	2	—	1	—	15	42	31	73
Oklahoma	1	1	7	8	12	—	0	23	—	—	4	7	26	39	33
Texas†	—	12	39	—	100	—	0	7	—	—	—	44	121	190	155
Mountain	—	4	18	12	33	—	0	4	—	13	17	47	99	246	248
Arizona	—	2	11	12	29	—	0	4	—	11	2	13	28	57	85
Colorado	—	0	2	—	—	—	0	1	—	—	4	10	45	79	58
Idaho†	—	0	12	—	—	—	0	2	—	—	2	2	17	14	14
Montana	—	0	3	—	—	—	0	1	—	—	1	2	16	14	13
Nevada†	—	0	2	—	—	—	0	0	—	—	—	3	8	16	28
New Mexico†	—	0	1	—	1	—	0	1	—	—	—	5	14	15	22
Utah	—	0	5	—	—	—	0	1	—	2	5	6	31	38	22
Wyoming	—	0	2	—	3	—	0	1	—	—	3	1	12	13	6
Pacific	2	4	15	9	13	—	0	2	—	2	68	102	407	606	717
Alaska	—	0	3	2	1	—	0	0	—	—	2	1	5	16	10
California	2	3	15	7	12	—	0	1	—	2	57	77	282	481	556
Hawaii	—	0	0	—	—	—	0	0	—	—	—	5	15	36	63
Oregon†	—	0	1	—	—	—	0	1	—	—	2	8	25	52	41
Washington	U	0	0	U	U	N	0	0	N	N	7	8	116	21	47
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	2	U	1
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	1	4	11	14	N	0	0	N	N	—	7	23	5	56
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2005 and 2006 are provisional.
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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

	Shiga toxin-producing *E. coli* (STEC)†					Shigellosis					Streptococcal disease, invasive, group A				
	Current	Previous 52 weeks		Cum	Cum	Current	Previous 52 weeks		Cum	Cum	Current	Previous 52 weeks		Cum	Cum
Reporting area	week	Med	Max	2006	2005	week	Med	Max	2006	2005	week	Med	Max	2006	2005
United States	9	51	158	99	208	90	274	463	1,295	1,600	75	81	149	790	871
New England	2	4	13	9	19	1	5	16	40	35	2	3	8	21	31
Connecticut	—	1	4	—	8	—	1	4	4	5	U	0	0	U	U
Maine	—	0	5	—	1	—	0	1	—	—	—	0	2	3	2
Massachusetts	2	2	8	9	9	—	3	10	31	24	—	2	6	11	23
New Hampshire	—	0	2	—	—	—	0	4	1	3	—	0	2	4	2
Rhode Island	—	0	2	—	—	—	0	6	3	1	2	0	3	2	—
Vermont§	—	0	2	—	1	1	0	4	1	2	—	0	2	1	4
Mid. Atlantic	—	6	35	—	24	5	22	69	87	164	20	15	38	138	183
New Jersey	—	1	6	—	8	—	5	16	16	51	—	2	9	9	42
New York (Upstate)	4	2	33	7	9	5	4	53	38	29	12	4	26	43	57
New York City	—	0	2	—	1	—	7	22	26	74	—	3	9	21	27
Pennsylvania	—	2	8	—	6	—	2	48	7	10	8	5	12	65	57
E.N. Central	1	8	33	25	52	5	16	78	96	128	8	15	41	148	179
Illinois	—	1	7	—	11	—	6	24	14	33	—	3	9	20	50
Indiana	—	1	7	6	2	2	1	56	15	9	—	1	12	23	15
Michigan	—	1	8	4	9	2	4	14	31	61	—	6	15	39	64
Ohio	1	2	14	9	18	1	3	11	25	11	8	4	14	53	33
Wisconsin	—	2	15	6	12	—	3	9	11	14	—	1	8	13	17
W.N. Central	4	7	39	22	31	10	38	64	156	120	8	5	13	38	46
Iowa	—	1	10	4	5	—	1	9	2	15	N	0	0	N	N
Kansas	—	1	4	—	3	1	4	20	15	4	4	1	5	21	4
Minnesota	4	2	23	18	4	3	2	6	16	4	—	1	8	—	15
Missouri	2	1	7	8	11	5	22	45	99	72	1	1	6	9	15
Nebraska§	—	0	4	1	6	1	1	9	12	18	1	0	4	5	6
North Dakota	—	0	2	—	—	—	0	2	1	1	2	0	3	3	2
South Dakota	—	0	5	—	2	—	1	17	11	6	—	0	2	—	4
S. Atlantic	—	7	39	11	34	32	45	117	373	234	24	19	37	227	182
Delaware	—	0	2	—	—	—	0	2	—	1	—	0	2	1	—
District of Columbia	—	0	1	—	—	—	0	2	3	1	—	0	2	4	2
Florida	—	1	31	10	11	20	23	66	173	108	4	5	12	58	59
Georgia	—	0	6	—	6	11	12	34	122	61	7	3	9	59	37
Maryland	—	1	5	—	5	1	2	8	22	11	5	4	9	44	47
North Carolina	—	0	11	9	9	—	2	22	39	26	7	1	13	28	19
South Carolina§	—	0	2	—	—	—	2	6	14	14	1	1	3	14	9
Virginia§	—	2	9	—	3	—	2	9	—	12	—	2	11	13	7
West Virginia	—	0	1	—	—	—	0	1	—	—	—	0	5	6	2
E.S. Central	—	3	12	4	9	9	19	54	83	169	1	3	11	31	34
Alabama§	—	0	3	—	3	6	3	20	19	31	N	0	0	N	N
Kentucky	—	1	9	4	—	—	6	31	39	8	—	1	3	7	8
Mississippi	—	0	2	—	—	—	2	7	15	13	—	0	0	—	—
Tennessee§	2	1	3	7	6	3	4	47	10	117	1	3	8	24	26
W.S. Central	—	2	9	—	7	3	61	122	120	323	4	6	18	58	41
Arkansas	—	0	2	—	1	2	1	3	8	12	—	0	2	1	6
Louisiana	—	0	2	—	3	—	2	11	13	30	—	0	2	4	3
Oklahoma	—	0	3	—	1	1	10	41	20	66	4	2	13	39	20
Texas§	—	1	4	—	2	—	45	106	79	215	—	3	15	14	12
Mountain	—	6	15	7	22	8	16	53	93	99	8	12	36	115	153
Arizona	—	0	4	—	2	2	9	29	42	44	1	4	16	38	71
Colorado	—	1	6	7	4	5	3	18	18	13	3	4	17	45	48
Idaho§	—	1	8	—	5	—	0	4	3	—	1	0	2	1	1
Montana	—	0	2	—	1	—	0	1	—	—	—	0	0	—	—
Nevada§	—	0	4	—	2	—	1	6	9	18	—	0	6	—	—
New Mexico§	—	0	3	2	2	—	2	9	9	16	1	1	6	11	19
Utah	—	1	7	1	5	1	1	4	11	8	1	2	6	18	13
Wyoming	—	0	3	—	1	—	0	1	1	—	1	0	1	2	1
Pacific	2	6	52	21	10	17	40	136	247	328	—	2	8	14	22
Alaska	—	0	3	—	2	—	0	3	—	5	—	0	0	—	—
California	—	1	6	16	2	15	34	97	182	294	—	0	0	—	—
Hawaii	—	0	4	—	1	—	1	4	10	5	—	2	8	14	22
Oregon§	1	1	47	8	—	—	2	28	40	15	N	0	0	N	N
Washington	2	1	40	5	5	2	2	38	15	9	N	0	0	N	N
American Samoa	U	0	0	U	U	U	0	2	U	—	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	—	—	0	1	—	—	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2005 and 2006 are provisional.
† Includes *E. coli* O157:H7; Shiga toxin positive, serogroup non-O157; and Shiga toxin positive, not serogrouped.
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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

Reporting area	*Streptococcus pneumoniae*, invasive disease Drug resistant, all ages					Syphilis, primary and secondary					Varicella (chickenpox)				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2006	Cum 2005
United States	52	49	90	515	551	85	167	214	1,105	1,250	916	607	1,787	7,324	4,493
New England	—	2	12	4	29	4	4	15	30	35	5	34	1,129	180	514
Connecticut	U	0	0	U	U	2	0	11	4	1	U	0	0	U	U
Maine	N	0	0	N	N	2	0	1	3	1	—	5	20	19	63
Massachusetts	—	1	6	—	27	—	2	5	20	30	—	22	86	—	439
New Hampshire	—	0	0	—	—	—	0	2	3	2	2	5	1,110	63	—
Rhode Island	—	0	7	—	—	—	0	6	—	1	—	0	0	—	—
Vermont[†]	—	0	2	4	2	—	0	1	—	—	3	2	25	98	12
Mid. Atlantic	1	2	10	25	64	10	20	33	135	159	125	115	210	1,092	672
New Jersey	N	0	0	N	N	2	2	7	26	20	—	0	0	—	—
New York (Upstate)	1	1	9	7	24	4	2	15	20	10	—	0	0	—	—
New York City	U	0	0	U	U	2	12	21	72	106	—	0	0	—	—
Pennsylvania	—	2	9	18	40	2	4	8	17	23	125	115	210	1,092	672
E.N. Central	19	11	31	126	103	11	17	40	134	78	461	128	494	3,420	1,638
Illinois	—	0	2	4	—	1	8	32	39	21	—	2	5	3	13
Indiana	7	2	16	23	25	1	1	5	14	9	N	0	245	N	N
Michigan	—	1	3	8	10	3	2	8	29	5	82	81	231	935	1,153
Ohio	12	7	20	91	68	6	4	11	41	39	379	31	348	2,378	346
Wisconsin	N	0	0	N	N	—	1	3	11	4	—	9	27	104	126
W.N. Central	2	1	15	13	11	2	4	9	23	44	42	13	70	370	22
Iowa	N	0	0	N	N	—	0	1	—	2	N	0	0	N	N
Kansas	N	0	0	N	N	1	0	2	5	3	—	0	0	—	—
Minnesota	—	0	15	—	—	—	1	5	2	8	—	0	0	—	—
Missouri	2	0	3	13	10	1	2	8	16	30	37	9	69	344	1
Nebraska[†]	—	0	1	—	—	—	0	1	—	1	—	0	1	—	—
North Dakota	—	0	1	—	—	—	0	1	—	—	5	0	25	13	2
South Dakota	—	0	1	—	1	—	0	1	—	—	—	1	23	13	19
S. Atlantic	27	21	41	293	235	31	41	89	269	285	130	46	563	571	422
Delaware	—	0	2	—	—	—	0	2	6	2	—	0	4	4	6
District of Columbia	—	0	4	8	3	—	2	9	13	15	—	0	6	3	—
Florida	14	11	34	147	131	10	15	29	127	130	—	0	0	—	—
Georgia	12	5	19	117	87	—	8	46	—	22	—	0	0	—	—
Maryland	—	0	0	—	—	6	6	19	44	41	—	0	0	—	—
North Carolina	N	0	0	N	N	8	4	17	46	48	—	0	0	—	—
South Carolina[†]	—	0	0	—	—	—	1	7	11	12	9	9	41	113	99
Virginia[†]	N	0	0	N	N	7	3	11	22	14	102	7	553	131	23
West Virginia	1	2	8	21	14	—	0	1	—	1	19	18	67	320	294
E.S. Central	2	3	14	25	36	7	10	19	96	82	—	0	0	—	—
Alabama[†]	N	0	0	N	N	4	3	11	47	42	—	0	0	—	—
Kentucky	—	0	5	3	6	—	1	4	6	3	N	0	0	N	N
Mississippi	—	0	0	—	—	—	0	5	11	11	—	0	0	—	—
Tennessee[†]	2	3	13	22	30	3	4	11	32	26	N	0	0	N	N
W.S. Central	—	1	8	16	53	16	24	38	207	221	80	136	964	1,075	541
Arkansas	—	0	3	5	6	1	1	6	14	10	2	0	32	79	—
Louisiana	—	1	7	11	47	2	3	17	14	29	—	1	32	28	8
Oklahoma	N	0	0	N	N	4	0	6	14	9	—	0	0	—	—
Texas[†]	N	0	0	N	N	9	17	31	165	173	78	133	932	968	533
Mountain	1	1	28	13	20	1	8	17	62	65	73	51	114	616	684
Arizona	N	0	0	N	N	1	3	13	34	20	—	0	0	—	—
Colorado	N	0	0	N	N	—	1	3	4	11	35	35	87	422	458
Idaho[†]	N	0	0	N	N	—	0	3	1	6	—	0	0	—	—
Montana	—	0	1	—	—	—	0	3	—	3	—	0	0	—	—
Nevada[†]	—	0	27	—	1	—	2	7	18	13	—	0	0	—	—
New Mexico[†]	—	0	0	—	—	—	1	3	4	10	7	3	12	39	54
Utah	—	0	6	5	13	—	0	1	1	2	31	8	38	149	144
Wyoming	1	0	3	8	6	—	0	0	—	—	—	0	5	6	28
Pacific	—	0	0	—	—	3	33	56	149	281	—	0	0	—	—
Alaska	—	0	0	—	—	—	0	2	—	2	—	0	0	—	—
California	N	0	0	N	N	2	28	54	105	249	—	0	0	—	—
Hawaii	—	0	0	—	—	—	0	2	4	2	N	0	0	N	N
Oregon[†]	N	0	0	N	N	1	0	6	3	1	N	0	0	N	N
Washington	N	0	0	N	N	—	3	11	37	27	N	0	0	N	N
American Samoa	—	0	0	—	—	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	—	0	0	—	—	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	3	16	15	20	—	9	47	20	86
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2005 and 2006 are provisional.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2006, and March 5, 2005 (9th Week)*

	West Nile virus disease†									
	Neuroinvasive					Non-neuroinvasive				
	Current	Previous 52 weeks		Cum	Cum	Current	Previous 52 weeks		Cum	Cum
Reporting area	week	Med	Max	2006	2005	week	Med	Max	2006	2005
United States	—	1	154	—	—	—	1	202	—	2
New England	—	0	3	—	—	—	0	2	—	—
Connecticut	—	0	2	—	—	—	0	1	—	—
Maine	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	3	—	—	—	0	1	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island	—	0	1	—	—	—	0	0	—	—
Vermont§	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	—	0	9	—	—	—	0	3	—	—
New Jersey	—	0	1	—	—	—	0	2	—	—
New York (Upstate)	—	0	6	—	—	—	0	1	—	—
New York City	—	0	2	—	—	—	0	2	—	—
Pennsylvania	—	0	3	—	—	—	0	2	—	—
E.N. Central	—	0	39	—	—	—	0	18	—	—
Illinois	—	0	25	—	—	—	0	16	—	—
Indiana	—	0	2	—	—	—	0	1	—	—
Michigan	—	0	14	—	—	—	0	3	—	—
Ohio	—	0	9	—	—	—	0	4	—	—
Wisconsin	—	0	3	—	—	—	0	2	—	—
W.N. Central	—	0	26	—	—	—	0	80	—	—
Iowa	—	0	3	—	—	—	0	5	—	—
Kansas	—	0	2	—	—	N	0	2	N	N
Minnesota	—	0	5	—	—	—	0	5	—	—
Missouri	—	0	4	—	—	—	0	3	—	—
Nebraska§	—	0	9	—	—	—	0	24	—	—
North Dakota	—	0	4	—	—	—	0	15	—	—
South Dakota	—	0	7	—	—	—	0	33	—	—
S. Atlantic	—	0	5	—	—	—	0	4	—	—
Delaware	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—
Florida	—	0	2	—	—	—	0	4	—	—
Georgia	—	0	3	—	—	—	0	3	—	—
Maryland	—	0	2	—	—	—	0	1	—	—
North Carolina	—	0	1	—	—	—	0	1	—	—
South Carolina§	—	0	1	—	—	—	0	0	—	—
Virginia§	—	0	0	—	—	—	0	0	—	—
West Virginia	—	0	0	—	—	N	0	0	N	N
E.S. Central	—	0	10	—	—	—	0	5	—	—
Alabama§	—	0	1	—	—	—	0	2	—	—
Kentucky	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	9	—	—	—	0	5	—	—
Tennessee§	—	0	3	—	—	—	0	1	—	—
W.S. Central	—	0	32	—	—	—	0	21	—	2
Arkansas	—	0	3	—	—	—	0	2	—	—
Louisiana	—	0	20	—	—	—	0	8	—	2
Oklahoma	—	0	6	—	—	—	0	3	—	—
Texas§	—	0	16	—	—	—	0	13	—	—
Mountain	—	0	16	—	—	—	0	39	—	—
Arizona	—	0	8	—	—	—	0	8	—	—
Colorado	—	0	5	—	—	—	0	13	—	—
Idaho§	—	0	2	—	—	—	0	3	—	—
Montana	—	0	3	—	—	—	0	9	—	—
Nevada§	—	0	3	—	—	—	0	8	—	—
New Mexico§	—	0	3	—	—	—	0	4	—	—
Utah	—	0	6	—	—	—	0	8	—	—
Wyoming	—	0	2	—	—	—	0	1	—	—
Pacific	—	0	50	—	—	—	0	89	—	—
Alaska	—	0	0	—	—	—	0	0	—	—
California	—	0	50	—	—	—	0	88	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—
Oregon§	—	0	1	—	—	—	0	2	—	—
Washington	—	0	0	—	—	—	0	0	—	—
American Samoa	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2005 and 2006 are provisional.
† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE III. Deaths in 122 U.S. cities,* week ending March 4, 2006 (9th Week)

Reporting Area	All causes, by age (years) All Ages	≥65	45-64	25-44	1-24	<1	P&I† Total
New England	576	424	70	24	9	19	68
Boston, MA	143	94	6	—	3	10	18
Bridgeport, CT	41	31	6	3	—	1	5
Cambridge, MA	14	11	2	1	—	—	2
Fall River, MA	30	24	4	2	—	—	4
Hartford, CT	71	54	8	5	2	2	16
Lowell, MA	30	21	8	1	—	—	3
Lynn, MA	5	4	1	—	—	—	—
New Bedford, MA	22	18	3	1	—	—	3
New Haven, CT	23	15	4	2	1	1	2
Providence, RI	69	52	10	2	1	4	5
Somerville, MA	2	1	—	1	—	—	—
Springfield, MA	45	34	8	3	—	—	—
Waterbury, CT	28	23	1	1	2	1	4
Worcester, MA	53	42	9	2	—	—	6
Mid. Atlantic	2,341	1,674	468	117	48	33	141
Albany, NY	42	30	6	5	—	1	5
Allentown, PA	21	18	2	1	—	—	1
Buffalo, NY	94	67	16	7	3	1	10
Camden, NJ	26	16	7	2	1	—	—
Elizabeth, NJ	22	15	5	2	—	—	3
Erie, PA	56	46	8	1	—	1	2
Jersey City, NJ	40	27	6	6	—	1	—
New York City, NY	1,162	851	228	53	22	8	61
Newark, NJ	40	19	17	3	1	—	4
Paterson, NJ	17	12	2	1	—	2	—
Philadelphia, PA	386	240	96	23	12	14	18
Pittsburgh, PA§	28	15	11	—	1	1	2
Reading, PA	52	43	5	2	1	1	6
Rochester, NY	150	116	26	6	2	—	18
Schenectady, NY	17	13	4	—	—	—	1
Scranton, PA	29	25	3	1	—	—	1
Syracuse, NY	89	65	14	3	5	2	7
Trenton, NJ	39	28	10	—	—	1	1
Utica, NY	12	10	1	1	—	—	—
Yonkers, NY	19	18	1	—	—	—	1
E.N. Central	2,073	1,337	505	121	44	66	145
Akron, OH	41	26	8	4	3	—	4
Canton, OH	44	32	12	—	—	—	5
Chicago, IL	342	175	111	26	11	19	31
Cincinnati, OH	71	48	14	4	—	5	5
Cleveland, OH	226	165	44	5	4	8	8
Columbus, OH	227	139	63	12	5	8	20
Dayton, OH	103	76	18	7	1	1	12
Detroit, MI	176	102	50	14	6	4	11
Evansville, IN	53	40	9	4	—	—	3
Fort Wayne, IN	68	53	9	3	—	3	6
Gary, IN	30	13	9	6	—	2	1
Grand Rapids, MI	41	28	6	2	2	3	5
Indianapolis, IN	191	106	58	19	6	2	15
Lansing, MI	28	22	4	1	—	1	1
Milwaukee, WI	97	61	26	5	2	3	2
Peoria, IL	49	32	14	1	—	2	5
Rockford, IL	61	46	12	1	2	—	4
South Bend, IN	62	48	13	—	—	1	2
Toledo, OH	87	62	17	4	1	3	1
Youngstown, OH	76	63	8	3	1	1	4
W.N. Central	646	431	153	34	10	18	49
Des Moines, IA	92	65	21	5	—	1	10
Duluth, MN	32	26	3	2	—	1	2
Kansas City, KS	24	11	8	4	1	—	2
Kansas City, MO	109	70	24	9	2	4	8
Lincoln, NE	29	23	6	—	—	—	3
Minneapolis, MN	64	36	19	3	1	5	6
Omaha, NE	77	60	14	2	—	1	7
St. Louis, MO	111	65	36	4	2	4	6
St. Paul, MN	55	40	10	2	2	1	2
Wichita, KS	53	35	12	3	2	1	3
S. Atlantic	1,371	858	333	113	33	31	79
Atlanta, GA	134	73	43	12	3	3	5
Baltimore, MD	127	67	41	13	3	3	11
Charlotte, NC	115	78	25	8	1	3	14
Jacksonville, FL	171	108	42	14	4	—	2
Miami, FL	85	60	13	7	2	3	7
Norfolk, VA	48	32	9	5	1	1	4
Richmond, VA	77	45	20	8	3	1	5
Savannah, GA	69	46	15	3	1	4	3
St. Petersburg, FL	106	68	20	9	2	7	9
Tampa, FL	257	183	53	13	5	3	14
Washington, D.C.	169	90	48	20	8	3	5
Wilmington, DE	13	8	4	1	—	—	—
E.S. Central	824	559	181	53	20	11	68
Birmingham, AL	226	151	48	18	5	4	21
Chattanooga, TN	102	74	22	3	2	1	9
Knoxville, TN	79	50	17	8	2	2	1
Lexington, KY	68	43	19	3	1	2	1
Memphis, TN	98	66	23	5	4	—	16
Mobile, AL	51	39	8	3	1	—	4
Montgomery, AL	44	29	11	3	1	—	5
Nashville, TN	156	107	33	10	4	2	11
W.S. Central	1,841	1,209	425	112	50	45	93
Austin, TX	93	60	23	6	2	2	5
Baton Rouge, LA	30	16	6	4	1	3	1
Corpus Christi, TX	48	31	10	2	4	1	2
Dallas, TX	204	126	54	13	4	7	10
El Paso, TX	136	99	25	7	3	2	6
Fort Worth, TX	157	102	36	12	4	3	11
Houston, TX	482	294	122	28	20	18	19
Little Rock, AR	102	68	22	5	6	1	1
New Orleans, LA¶	U	U	U	U	U	U	U
San Antonio, TX	338	243	68	19	6	2	32
Shreveport, LA	106	67	27	8	—	4	2
Tulsa, OK	145	103	32	8	—	2	4
Mountain	1,059	710	227	55	30	37	81
Albuquerque, NM	134	94	25	9	4	2	13
Boise, ID	55	41	9	1	2	2	5
Colorado Springs, CO	79	67	12	—	—	—	4
Denver, CO	101	66	15	7	3	10	5
Las Vegas, NV	275	180	69	16	7	3	18
Ogden, UT	30	21	7	2	—	—	2
Phoenix, AZ	220	139	51	12	10	8	22
Pueblo, CO	37	29	6	1	1	—	4
Salt Like City, UT	128	73	33	7	3	12	8
Tucson, AZ	U	U	U	U	U	U	U
Pacific	1,742	1,256	344	75	36	27	143
Berkeley, CA	16	13	2	—	1	—	—
Fresno, CA	257	208	39	7	2	1	25
Glendale, CA	3	2	—	1	—	—	—
Honolulu, HI	59	41	12	3	1	2	—
Long Beach, CA	86	63	20	2	—	1	11
Los Angeles, CA	75	55	12	3	3	2	9
Pasadena, CA	18	15	2	1	—	—	2
Portland, OR	162	106	43	6	4	3	9
Sacramento, CA	176	129	31	9	4	3	17
San Diego, CA	185	128	35	6	7	5	17
San Francisco, CA	110	81	19	6	3	1	11
San Jose, CA	233	159	57	11	2	4	27
Santa Cruz, CA	29	22	4	3	—	—	—
Seattle, WA	148	95	37	6	6	4	6
Spokane, WA	59	48	6	4	—	1	4
Tacoma, WA	126	91	25	7	3	—	5
Total	12,473**	8,458	2,706	704	280	287	867

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.

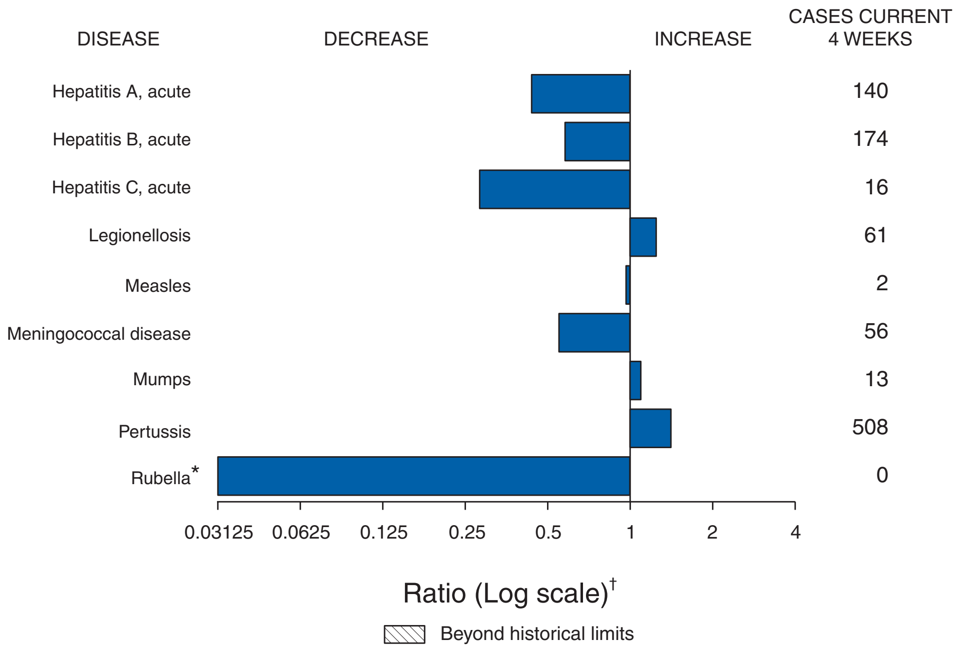
† Pneumonia and influenza.

§ 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.

¶ Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.

** Total includes unknown ages.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals March 4, 2006, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 9 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.

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