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Workers' Memorial Day — April 28, 2006

Workers' Memorial Day, April 28, was established to remember those workers who died or were injured on the job. On average, nearly 16 workers in the United States die each day from injuries sustained at work (1), and 134 die from work-related diseases (2). Daily, an estimated 11,700 private-sector workers have a nonfatal work-related injury or illness, and more than half will require job transfer, work restrictions, or time away from their jobs as a result (3). More than 9,000 workers are treated in emergency departments each day, and approximately 200 of these workers are hospitalized (4). In 2003, workers' compensation costs for employers totaled \$81 billion (5).

Workers' Memorial Day also will commemorate the 35th anniversary of the creation of the National Institute for Occupational Safety and Health within the U.S. Department of Health and Human Services and the Occupational Safety and Health Administration within the U.S. Department of Labor. Additional information about workplace safety and health is available at <http://www.cdc.gov/niosh/homepage.html> or telephone, 800-356-4674.

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Nonfatal Occupational Injuries and Illnesses Among Workers Treated in Hospital Emergency Departments — United States, 2003

CDC's National Institute for Occupational Safety and Health (NIOSH) collects data on nonfatal occupational injuries and illnesses through the National Electronic Injury Surveillance System (NEISS), an emergency department (ED)-based surveillance system. This report summarizes data for 2003. The overall number and rate of occupational injuries and illnesses did not change substantially during the 5-year period since data were last reported in 1998 (1). In 2003, age-, sex-, and diagnosis-related patterns of injury and illness among workers treated in EDs (ED-treated injuries/illnesses) were similar to those reported in 1998. To achieve substantial decreases in these injuries and illnesses, prevention efforts must focus on effective, targeted workplace-safety interventions for diverse occupations.

The Consumer Product Safety Commission (CPSC) administers NEISS, a national stratified probability sample of U.S. hospitals with 24-hour EDs that tracks product-related injuries/illnesses that are not work related. In addition, CPSC collaborates with CDC to collect data for two

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adjunct programs: the NIOSH work-related injuries/illnesses program (NEISS-Work) (1,2) and the NEISS All-Injury Program (NEISS-AIP) (3). NEISS-Work tracks nonfatal work-related injuries and illnesses by using the CPSC ED surveillance system. These cases are in addition to the CPSC product-related cases, and the cases are mutually exclusive. NEISS-AIP collects data on all injuries, regardless of consumer-product involvement or work relatedness (i.e., it tracks all other types of injuries in addition). The case-capture criteria are similar but not identical for the two adjunct programs (e.g., NEISS-Work includes illnesses whereas NEISS-AIP does not). This report presents data solely from NEISS-Work, which tracks cases reported at 67* of the 101 hospitals in the CPSC NEISS sample.

Work-related injuries/illnesses were identified from ED chart review. A case was defined as work related if the injury or illness was sustained by a civilian noninstitutionalized worker while working for pay or other compensation, working on a farm, or volunteering for an organization (e.g., volunteer fire department), without regard to self-employment and full- or part-time work (2). Common illnesses (e.g., colds or other viral infections) or revisits to the same ED for a previously treated injury or illness were excluded. Cases were assigned statistical weights based on a sampling frame of national hospital ED visits in 2002 (SMG Marketing Group, Chicago, Illinois). The weights were summed to provide national estimates of the number of work-related ED-treated injuries/illnesses.

Rates for ED-treated injuries and illnesses were calculated using 2003 Current Population Survey (CPS) employment estimates of full-time equivalent (FTE) workers on the basis of total hours worked (i.e., one FTE = 2,000 hours worked per year and includes hours for all jobs worked by a person) (4). CPS is a monthly household survey of the U.S. civilian noninstitutionalized population aged ≥ 15 years that includes wage and salary workers, self-employed workers, part-time workers, and unpaid workers in family-operated enterprises; volunteers for organizations are excluded (4). The rate numerator and denominator populations are the same except that the NEISS-Work injury/illness estimates include volunteers. National injury/illness estimates are reported for all ages; rates are reported for workers aged ≥ 15 years.

The total number of injuries/illnesses reported for 2003 (3,402,200 [95% confidence interval (CI) = $\pm 772,500$] for all ages) and rate (2.5 [CI = ± 0.6] per 100 FTE workers aged ≥ 15 years) did not change significantly ($p > 0.05$) from the 1998 estimates (3,600,000 [CI = $\pm 600,000$]; rate: 2.9 [CI = ± 0.5])

* Because of hospital closures and other nonparticipation/nonresponse factors, the number of reporting hospitals can vary.

(1). Similarly, the injury/illness rate distribution by age and sex demonstrated the same trends (i.e., generally decreasing with increasing age). Although young males had higher rates than young females, rates by sex converged with increasing age (Figure 1).

The distribution of injury/illness diagnoses also was similar in 2003, compared with 1998. In 2003, a total of 2,702,100 (CI = $\pm 609,100$) injuries/illnesses (79%) occurred in five diagnostic categories: sprains and strains (27%); lacerations, punctures, amputations, and avulsions (24%); contusions, abrasions, and hematomas (18%); dislocations and fractures (7%); and burns (3%). The cases in these five diagnostic categories were primarily among workers aged 15–24 years (22%) and those aged 25–54 years (70%). Although workers aged 25–54 years had almost three fourths of the injuries/illnesses, the injury/illness rate of 3.7 (CI = ± 1.1) per 100 FTE workers for workers aged 15–24 years was twice that for workers aged 25–54 years (1.9 [CI = ± 0.4]) and three times that for workers aged ≥ 55 years (1.2 [CI = ± 0.2]). Age-specific rates in the diagnostic categories decreased with increasing age, with the exception of dislocations/fractures, for which rates were similar across age groups (aged 15–24 years: 0.23 per 100 FTE workers [CI = ± 0.05]; aged 25–54 years: 0.17 [CI = ± 0.04]; and aged ≥ 55 years: 0.19 [CI = ± 0.04]).

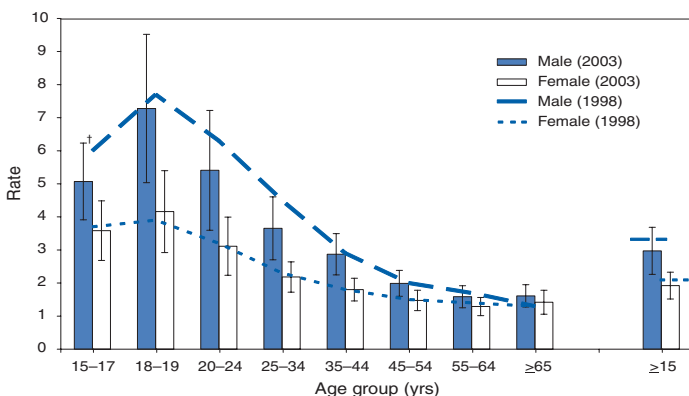
For NEISS, the injury/illness disposition (i.e., treated and released versus treated and hospitalized) is an indicator of severity. In 2003, nearly 97% of injured/ill workers were treated and released. Approximately 2% (81,600 [CI = $\pm 18,100$]) of the ED-treated cases resulted in the worker being hospitalized or transferred to another hospital (e.g., a higher-level trauma center or burn hospital) in which the injured/ill worker was

presumed to have been hospitalized. Among all hospitalized workers, fractures/dislocations were the most common diagnoses (35%). For patients requiring hospitalization, injury/illness rates were similar for males with increasing age, except for male workers aged ≥ 65 years (Figure 2). These oldest workers (6% of hospitalized males) had an apparent, although not statistically significant, hospitalization rate twice that of any younger male age group. Fractures were the predominant injury in hospitalized males aged ≥ 65 years (47%). The age-specific rates for ED-treated injuries/illnesses among females requiring hospitalization increased with age. Across age groups, males had hospitalization rates three to five times higher than females.

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Editorial Note: The findings in this report describe work-related nonfatal injuries and illnesses treated in U.S. hospital EDs. The findings from 2003 are comparable to earlier results from 1998 (1,2) and 1996 (5). These findings suggest that the ED-treated injury/illness numbers and rates, along with demographic and diagnosis trends, have remained nearly unchanged in recent years. Younger workers, particularly males, continue to have the highest overall rates of injury/illness. Hospitalization rates were more uniform across age groups (except for the oldest workers), and male workers had substantially higher hospitalization rates than females. Sprains/strains and tissue damage resulting from lacerations, punctures, amputations, avulsions, contusions, abrasions, and hematomas continued to represent the majority of ED-treated

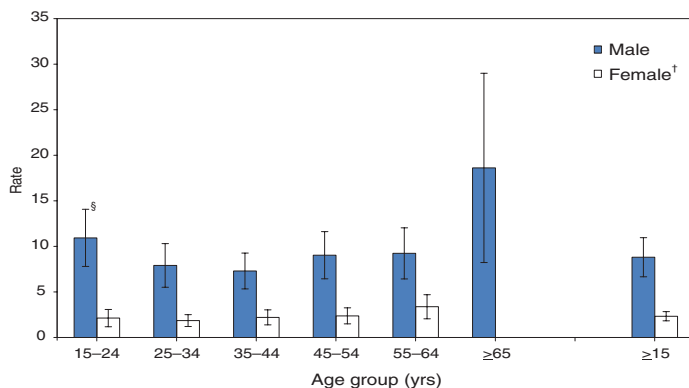
FIGURE 1. Estimated rates* of nonfatal occupational injuries and illnesses among workers treated in hospital emergency departments, by age group and sex of worker — United States, 1998 and 2003



* Per 100 full-time equivalent (FTE) workers; one FTE = 2,000 hours worked per year and includes hours for all jobs worked by a person.

† 95% confidence interval (CI). CIs not shown for 1998 but similar in magnitude to CIs for 2003.

FIGURE 2. Estimated rates* of nonfatal occupational injuries and illnesses requiring hospitalization/transfer among workers treated in hospital emergency departments, by age group and sex of worker — United States, 2003



* Per 10,000 full-time equivalent (FTE) workers; one FTE = 2,000 hours worked per year and includes hours for all jobs worked by a person.

† Rate for women aged ≥ 65 years did not meet minimum reporting requirements.

§ 95% confidence interval.

injuries/illnesses, which often required immediate medical attention but might have varied in severity.

The annual Survey of Occupational Injuries and Illnesses, conducted by the U.S. Bureau of Labor Statistics (BLS), provides another estimate of injury/illness burden. BLS reports the number and rate of work-related, nonfatal injuries and illnesses that private industry employers record under U.S. Department of Labor reporting rules. Although NEISS-Work uses these reporting rules as guidelines for identifying work-related injuries and illnesses, the two programs measure different aspects of the occupational injury/illness burden: the BLS survey is based on employer reports, and NEISS-Work is based on information provided by injured/ill workers at the time of ED treatment. Moreover, the BLS survey excludes self-employed persons, persons working for private households, government workers, and workers on farms with fewer than 11 employees. NEISS-Work includes all of these categories of workers. The BLS survey records injuries/illnesses treated in all medical venues, not only EDs. For each year during 2002–2004, BLS reported decreasing numbers and rates of nonfatal injuries and illnesses in private industry (4.7, 4.4, and 4.3 million cases [rates: 5.3, 5.0, and 4.8 cases per 100 FTE workers], respectively) (6). Similarly, during the years 1997–2001, before the Occupational Safety and Health Administration (OSHA) revised recordkeeping requirements in 2002 (resulting in a break in the series), general nonfatal injury and illness trends decreased among private industry employers (7). In contrast, findings from the NEISS-Work program indicate that ED-treated injuries/illnesses among all workers did not change significantly in 2003, compared with 1998.

The findings in this report are subject to at least four limitations. First, the small NEISS sample of 67 hospitals contributes to large standard errors (e.g., 10%–15%); thus, detecting statistically significant trends is difficult, compared with the BLS survey, which collects data from nearly 180,000 employers with mandatory reporting requirements (6). The percent relative standard errors for the BLS estimates were reported to be 1%, suggesting that some of the differences observed in the BLS data are statistically significant (8). Second, the large CIs in NEISS-Work estimates might obscure an actual decrease in ED-treated injuries/illnesses from 3.6 million in 1998 to 3.4 million in 2003. Third, NEISS captures only those injuries/illnesses among workers treated in hospital EDs. Data from 1988 suggest that only one third of all medically treated occupational injuries/illnesses among workers were treated in EDs (1). Recent trends in ED usage by workers are unknown and might have shifted, obscuring actual fluctuations in time-based trends. Finally, both the BLS survey and NEISS are subject to potential underreporting by

employers and injured/ill workers. The BLS survey is based on OSHA logs maintained by employers. Through NEISS, work relatedness is determined by chart review; neither a workers' compensation claim nor employer confirmation is required to indicate work relatedness. Thus, omission of work-related injury/illness details in the chart would result in underreporting that might or might not have varied during the 5-year period.

NEISS-Work is used to track progress toward *Healthy People 2010* objectives, which target a 30% reduction in the rate of ED-treated injuries/illnesses among workers aged 15–17 years from a 1998 baseline of 4.9 per 100 FTE workers to a target of 3.5 by the end of the current decade (9). The findings in this report suggest that young workers continue to be at high risk for occupational injuries and illnesses. NEISS-Work data did not indicate overall downward trends in injuries/illnesses as reported to BLS by private industry employers. Strategies to address age-specific safety (e.g., among young workers) (10) and general workplace safety concerns must continue to be developed and improved to effectively reduce injuries and illnesses.

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Fatalities Among Volunteer and Career Firefighters — United States, 1994–2004

Approximately 800,000 firefighters in the United States are volunteer firefighters and 300,000 are career firefighters (1). Volunteer firefighters primarily serve communities with fewer than 25,000 inhabitants, whereas most career firefighters serve communities of more than 25,000 persons (1). To characterize fatalities among volunteer and career firefighters, CDC analyzed data from the U.S. Fire Administration (USFA). This report summarizes the results of that analysis and, to illustrate the most common types of volunteer and career firefighter fatalities, describes two cases investigated by the National Institute for Occupational Safety and Health (NIOSH) Firefighter Fatality Investigation and Prevention Program.* Fifty-three percent (610 of 1,141[†]) of U.S. firefighters who died while on duty during 1994–2004 were volunteers, and 32% (368) were career firefighters. The remaining 15% (163) of deaths were among other firefighters (e.g., wildland, paid on-call, and part-time paid firefighters). Among volunteer firefighters, sudden cardiac death (e.g., from myocardial infarction or arrhythmia) and motor vehicle (MV) crashes during emergency response were the leading causes of fatality. Among career firefighters, sudden cardiac death and asphyxiation were leading causes of death. Adoption and enforcement of existing fire-service recommendations regarding fitness standards, mandatory medical evaluations with appropriate work restrictions, and emergency vehicle response protocols are needed to prevent these fatalities among firefighters.

Case Reports

Case 1: volunteer fatality. On July 28, 2003, at approximately 5:30 p.m., two members (aged 19 and 23 years) of a volunteer fire department responded to a trailer fire. With emergency lights on, traveling in a privately owned vehicle on a two-lane asphalt state road at an estimated 80 mph in a 55-mph zone, the driver drifted off the pavement and lost control of the vehicle. The vehicle overturned several times, struck a wooden utility pole, and ejected both unrestrained firefighters. The driver was killed, and the passenger was seriously injured. No adverse weather or road conditions were reported. The fire department's written protocol required that firefighters obey state and local traffic laws when responding in privately owned vehicles, including using seat belts.

Case 2: career fatality. On December 5, 2002, a male career captain aged 51 years responded to a fire in the attic of a two-story dwelling. After assisting with fire suppression on the second floor for approximately 5 minutes, he collapsed suddenly, and resuscitation efforts were unsuccessful. The autopsy revealed atherosclerotic and hypertensive cardiovascular disease with more than 85% narrowing of three coronary arteries. Thirteen years before his death, the captain had a myocardial infarction and subsequent angioplasty of his right coronary artery. The captain also had the following risk factors for coronary artery disease (CAD): age ≥ 45 years, male sex, family history of CAD, high cholesterol, high blood pressure, and overweight. Follow-up consisted of annual visits to his cardiologist, resting electrocardiograms, thallium-imaging exercise stress tests, and estimates of left ventricular function (e.g., left ventricular ejection fraction). These evaluations were consistently normal. However, 6 months before his death, new test results indicated new cardiac ischemia and a marked reduction of left ventricular function. No work restrictions were recommended by the cardiologist. Under these circumstances, the captain should have been issued work restrictions in accordance with National Fire Protection Association (NFPA) recommendations (2).

Firefighter Fatalities

USFA maintains a database of all on-duty firefighter deaths. On-duty death is defined as the death of any firefighter who died while on duty or after recently completing a call (within 24 hours) for an organized fire department.[§] Using death certificates and fire department interviews, USFA determines firefighter demographics and the circumstances and causes of each fatality and classifies them accordingly. Firefighters are classified as career, volunteer, paid on-call, part-time paid, or wildland firefighters. For this study, only deaths among firefighters classified as career or volunteer were included. Cases of sudden cardiac death (e.g., myocardial infarction or arrhythmia) were recorded in the database as "heart attacks." To determine which trauma cases were MV-related and to identify the type of vehicle involved, the narratives of the USFA database were reviewed. MV-related traumatic death was defined as a fatality associated with a vehicle (e.g., a vehicle collision, being struck or crushed by a vehicle, or a fall from a vehicle).

During 1994–2004, a total of 610 volunteer and 368 career firefighters died while on duty. Half of the deaths among volunteers were caused by heart attacks and 26% by MV-related trauma (Table). For career firefighters, 39% were caused

* Case reports are available from the NIOSH Firefighter Fatality Investigation and Prevention Program at <http://www.cdc.gov/niosh/fire>.

[†] Excludes the 343 career firefighters who died at the World Trade Center after the September 11, 2001, terrorist attack.

[§] Affiliated with a city, state, or territory, the federal government, or an industrial brigade.

TABLE. Number and percentage of fatalities among career and volunteer firefighters, by cause/contributing cause — United States, 1994–2004

Cause/Contributing cause	Career		Volunteer	
	No.	(%)	No.	(%)
Heart attack*	142	(39)	306	(50)
Stress/Overexertion	138	(97)	301	(98)
Other	4	(3)	5	(2)
Motor vehicle–related trauma	44	(12)	160	(26)
Vehicle collision/crash	30	(68)	116	(73)
Struck by vehicle	12	(27)	33	(20)
Other vehicle-related (e.g., crushed by or fell from a vehicle)	2	(5)	11	(7)
Asphyxiation	74	(20)	45	(7)
Caught/Trapped	56	(76)	31	(69)
Other (e.g., lost inside a structure or exposed to smoke)	18	(24)	14	(31)
All other†	108	(29)	99	(16)
Caught/Trapped	32	(30)	19	(19)
Fall	8	(7)	15	(15)
Exposure (e.g., to smoke)	9	(8)	14	(14)
Stress/Overexertion	16	(15)	14	(14)
Structure collapse	8	(7)	3	(3)
Other	35	(32)	34	(34)
Total	368		610	

* For example, myocardial infarction or arrhythmia.

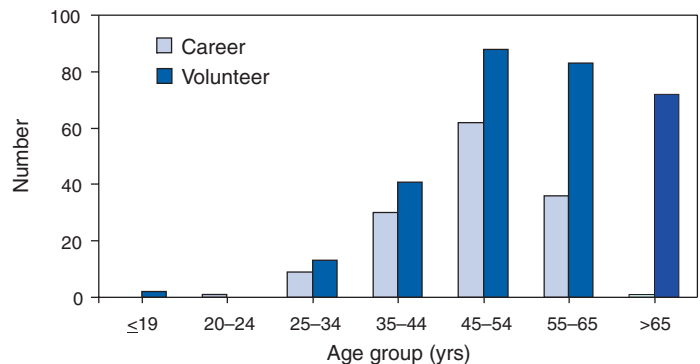
† Includes deaths caused by burns, cerebral vascular accidents, drownings, electrocution, heat exhaustion, and trauma.

by heart attacks, 29% by other causes (e.g., burns, cerebral vascular accident [CVA], or drowning), and 20% by asphyxiation (Table). For both volunteer and career firefighters, 97% of the decedents were male. The median age was 47 years (range: 15–81 years) for volunteers and 44 years (range: 20–67 years) for career firefighters. For both volunteer and career firefighters, most heart attack deaths occurred among persons aged 45–54 years (Figure 1). The majority of heart attack deaths were attributed to stress and overexertion in both volunteer (98%) and career (97%) firefighters (Table).

For career firefighters, being caught/trapped accounted for 76% of asphyxiation fatalities and 30% of other fatalities (e.g., burns, CVA, or drowning) (Table). MV-related trauma was the second most common type of fatality for volunteers. Seventy-three percent of MV-related traumatic deaths of volunteer firefighters were caused by vehicle collisions/crashes (Table). The greatest proportion of crashes (30%) involved privately owned vehicles (Figure 2). Tankers accounted for 26% of crashes. Eighty percent of the vehicle crashes occurred while firefighters were en route to calls, whereas 5% occurred during returns from calls.

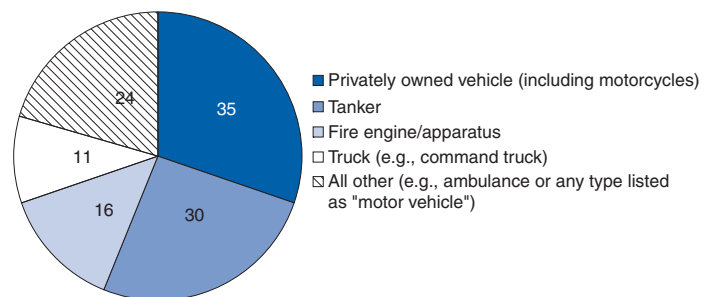
Reported by: S Proudfoot, MS, T Hales, MD, TW Struttman, MSPH, C Guglielmo, MS, Div of Safety Research, National Institute for Occupational Safety and Health; ML Ridenour, MPH, RS Noe, MPH, EIS officers, CDC.

FIGURE 1. Number of fatalities caused by heart attacks* among career and volunteer firefighters, by age group — United States, 1994–2004



* For example, myocardial infarction or arrhythmia.

FIGURE 2. Number* of vehicles involved in volunteer firefighter fatal crashes, by vehicle type — United States, 1994–2004



* N = 116.

Editorial Note: The findings in this report indicate that 610 volunteer and 368 career firefighters died while on duty during 1994–2004 and that heart attacks were the leading cause of fatality for both volunteer and career firefighters. Firefighting is physically demanding work requiring high levels of aerobic capacity (3). Therefore, fire departments are encouraged to require preplacement and annual medical evaluations in accordance with NFPA guidelines. NFPA 1582, *Standards on Comprehensive Occupational Medical Program for Fire Departments*, recommends exercise stress testing for asymptomatic firefighters who have two or more risk factors[‡] for CAD (2).

[‡] Risk factors are family history of a premature (age <60 years) myocardial infarction in a first degree relative, hypertension (defined as systolic blood pressure >140 mmHg or diastolic blood pressure >90 mmHg), diabetes mellitus, cigarette smoking, and hypercholesterolemia (defined as total cholesterol >240 mg/dL or high density lipoprotein <35 mg/dL).

Both volunteer and career firefighter organizations have developed fitness and wellness programs to prevent atherosclerotic heart disease (4,5). NFPA 1583, *Standard on Health-Related Fitness Programs for Firefighters*, outlines a complete health-related fitness program designed for fire departments (6).

The second leading cause of volunteer firefighter deaths was MV-related trauma, most often related to a crash in a privately owned vehicle en route to a call. Fire departments should enact and enforce policies requiring seat belt use, prohibiting speeding en route to calls, and requiring adherence to all traffic laws. Driver training should be provided to all drivers at least twice a year to meet the requirements of NFPA 1451, *Standard for a Fire Service Vehicle Operations Training Program* (7). USFA's *Emergency Vehicle Safety Initiative* provides best-practice guidelines for MV operations for firefighters (8). Community officials should encourage local fire departments to comply with these guidelines. Information on proper operation of privately owned vehicles by emergency service workers is available at http://www.vfis.com/risk/risk_pov.htm. In addition, states should continue to work toward enacting primary seat belt laws,** which have been demonstrated to increase seat belt use (9).

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, contains the minimum requirements for a fire-service-related occupational safety and health program (10). NFPA 1500 provides guidance to prevent firefighters from dying as a result of being caught/trapped during fire suppression in a structure (e.g., personnel accountability programs to ensure that incident commanders know where their crews are at all times while at the scene).

The findings in this report are subject to at least four limitations. First, because volunteer hours served are not reported to USFA consistently by volunteer fire departments, fatality rates could not be computed. Second, USFA might not capture data on all on-duty deaths; however, because benefits awards†† for firefighters depend on reporting to USFA, reporting rates are probably high. Third, the definition of on-duty heart attack death was not consistent throughout the study period. Before December 2003, a heart attack death was considered an on-duty death if the person became symptomatic at the fire scene and died within 24 hours; however,

since December 2003, a death within 24 hours after a response to a call, whether symptoms began at the scene, has been considered an on-duty death. Finally, the definition of "heart attack" used in the USFA database is broad, describing all events instead of specific cardiac events; prevention recommendations are different for myocardial infarction and arrhythmia.

To reduce the risk factors for cardiovascular disease, fire departments should consider mandating that all firefighters have an annual fitness and medical examination and participate in a department-based fitness program. NFPA 1583 provides the minimum requirements for health-related programs for firefighters (6). Physicians performing fitness exams should be knowledgeable about NFPA 1582 (2) and the physical demands of firefighting. Moreover, seat belt use and safe-driving practices or defensive-driving skills by firefighters are critical interventions to decrease MV fatalities. Fire departments should continue to promote a culture of safety for all as the foundation for effective response to the community.

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** Laws that allow a law enforcement officer to stop a vehicle and issue a citation when the officer observes a driver or passenger not wearing a safety belt; no other traffic offense is required to stop the vehicle.

†† A benefit award is a one-time financial payment to the eligible survivors of public safety officers whose deaths are the direct and proximate result of a traumatic injury sustained in the line of duty.

Health Hazard Evaluation of Police Officers and Firefighters After Hurricane Katrina — New Orleans, Louisiana, October 17–28 and November 30–December 5, 2005

In the weeks after Hurricane Katrina struck the U.S. Gulf Coast on August 29, 2005, reports of increased injuries and symptoms of physical illness and psychological strain among New Orleans police officers and firefighters prompted CDC to conduct a health hazard evaluation of these two groups. Questionnaires were distributed to members of the New Orleans Police Department (NOPD) and New Orleans Fire Department (NOFD) 7–13 weeks after the hurricane. This report summarizes the results of that evaluation, which determined that upper respiratory and skin rash symptoms were the most common physical symptoms reported by police officers and firefighters and lacerations and sprains were the most common injuries. In addition, approximately one third of the respondents reported either depressive symptoms or symptoms of posttraumatic stress disorder (PTSD), or both. These results underscore the need to incorporate the safety and health of emergency responders into existing disaster preparedness plans and to provide periodic responder training and education in tasks unique to disaster situations. Clinical follow-up of the physical and psychological health of emergency responders should be conducted to better understand, monitor, and treat their health conditions.

Investigators distributed survey questionnaires to NOPD members during October 17–28 and to NOFD members during November 30–December 5. The survey included questions about exposures to floodwater or floodwater sediment, work duties, housing status, physical and mental health symptoms, injuries, and whether medical care was sought. Respiratory and gastrointestinal symptoms were considered hurricane related if the respondent reported having the symptom every day or almost every day during the preceding 4 weeks and reported not having the symptom before Hurricane Katrina. A score of greater than 22 on the Center for Epidemiologic Studies Depression Scale was used to define major depressive symptoms (1), and the Veterans Administration checklist was used to define symptoms consistent with PTSD (2).

NOPD officials estimated that 1,650 police officers were employed by the department before Hurricane Katrina, and 1,200–1,400 police officers were on duty at the time of the interviews; 912 police officers completed the questionnaire, resulting in an estimated overall participation rate of 65%–76%. NOFD officials reported 683 firefighters on its most

recent (prehurricane) roster; 525 (77%) completed the questionnaire. Median age of participants was 37 years (range: 19–78 years) for police officers and 42 years (range: 20–64 years) for firefighters. Eighty percent of police officers and 96% of firefighters were male. Police officers had a median job tenure of 8 years (range: <1–41 years); median tenure for firefighters was 13 years (range: <1–40 years). Not all participants responded to all questions; the number of responses per question ranged from 845 to 912 for police officers and from 487 to 525 for firefighters.

Floodwater contact with the nose, mouth, or eye was reported by 51% of firefighters (254 of 500) and 30% of police officers (258 of 864); 52% of police officers (473 of 910) and 63% of firefighters (330 of 524) reported rescuing citizens from flooded areas. Sixty-nine percent of police officers (618 of 899) and 59% of firefighters (288 of 490) reported that they were not living with their families at the time of the survey (Table 1).

TABLE 1. Number and percentage of selected exposures, duties, and housing status of police officers and firefighters after Hurricane Katrina — New Orleans, Louisiana, October 17–28 and November 30–December 5, 2005

Exposure/Duty/ Housing status	Police officers		Firefighters	
	No.	(%)*	No.	(%)†
Exposure				
Floodwater contact with skin	687	(76)	401	(79)
Floodwater contact with nose, mouth, or eye	258	(30)	254	(51)
Flood sediment contact with skin	497	(56)	394	(76)
Duty				
Patrol	709	(78)	—§	—
Looting control	535	(59)	—	—
Crowd control	525	(58)	—	—
Floodwater rescue	473	(52)	330	(63)
Recovery of bodies	121	(13)	77	(15)
Evacuation	444	(49)	225	(43)
Gunfire incident response	364	(40)	69	(13)
Traffic control	257	(28)	—	—
Narcotics control	61	(7)	—	—
Special weapons and tactics (SWAT)	70	(8)	—	—
Fire suppression	—	—	423	(81)
Guard duty	—	—	110	(21)
Hostile community situation	—	—	217	(41)
Inspection	—	—	137	(26)
Equipment maintenance	—	—	168	(32)
Driving engine or ladder truck	—	—	244	(47)
Housing status				
Not currently living with family	618	(69)	288¶	(59)
Home not habitable	501	(55)	314	(60)
Home had repairable damage	381	(42)	192	(37)
Home not damaged	41	(5)	14	(3)

* Denominators ranged from 845 to 912 because of missing data.

† Denominators ranged from 487 to 517 because of missing data.

§ Not applicable.

¶ Includes persons who sometimes stayed with their families.

Police officers and firefighters reported similar prevalences of physical health symptoms. Approximately 28% of police officers (236 of 848) and 31% of firefighters (162 of 525) reported upper respiratory symptoms (i.e., head/sinus congestion or nose/throat irritation). Cough was reported by 21% of police officers (176 of 845) and 23% of firefighters (124 of 525). Skin rash was reported by 54% of police officers (493 of 909) and 49% of firefighters (258 of 525) (Table 2).

TABLE 2. Number and percentage of illness symptoms and injuries reported by police officers and firefighters after Hurricane Katrina — New Orleans, Louisiana, October 17–28 and November 30–December 5, 2005

Illness symptom*/ Injury	Police officers		Firefighters	
	No.	(%)†	No.	(%)§
Respiratory symptom				
Upper respiratory¶	236	(28)	162	(31)
Lower respiratory**	81	(9)	55	(11)
Cough††	176	(21)	124	(23)
Head/sinus congestion	186	(21)	145	(28)
Nose/throat irritation	153	(18)	92	(18)
Dry cough	115	(13)	89	(17)
Cough with phlegm	111	(13)	84	(16)
Shortness of breath with minimal activity	50	(6)	36	(7)
Wheezing/whistling in the chest	38	(4)	29	(6)
Chest tightness	33	(4)	17	(3)
Gastrointestinal symptom				
Diarrhea	40	(5)	9	(2)
Abdominal pain	25	(3)	9	(2)
Nausea or vomiting	19	(2)	7	(1)
Skin symptom				
Skin rash§§	493	(54)	258	(49)
Psychological symptom¶¶				
Posttraumatic stress disorder (PTSD)***	170	(19)	114	(22)
Major depressive symptoms†††	227	(26)	133	(27)
Injury				
Laceration	184	(20)	127	(24)
Sprain/Strain	120	(13)	130	(25)
Animal bite/sting	104	(11)	41	(8)
Fall	84	(9)	54	(10)
Burn	23	(3)	21	(4)
Eye injury	24	(3)	19	(4)
Vehicle crash	22	(2)	17	(3)
Assault	24	(3)	2	(<1)
Concussion	6	(1)	1	(<1)

* Respondents reported having the symptom every day or almost every day and reported not having the symptom before Katrina

† Denominators ranged from 845 to 912 because of missing data.

§ Denominator was 525 for all but depressive symptoms (n = 494).

¶ Head/sinus congestion, nose/throat irritation, or both.

** Shortness of breath, wheezing, and/or chest tightness.

†† Dry cough or cough with phlegm.

§§ Bumps, blisters, boils, itching, swelling, or redness.

¶¶ Symptoms reported by some respondents applied to more than one psychological condition.

*** Defined using the Veterans Administration PTSD checklist (2).

††† Defined as a score of greater than 22 on the Center for Epidemiologic Studies Depression scale.

Injuries most commonly reported by police officers and firefighters were lacerations (police officers: 20% [184 of 912] and firefighters: 24% [127 of 525]), sprains/strains (13% [120 of 912] and 25% [130 of 525]), falls (9% [84 of 912] and 10% [54 of 525]) and animal bites/stings (11% [104 of 911] and 8% [41 of 525]) (Table 2). Of 525 firefighters, 114 (22%) reported symptoms consistent with PTSD, and 133 of 494 (27) reported major depressive symptoms. Of 912 police officers, 19% (170) reported PTSD symptoms and 26% (227 of 888) reported major depressive symptoms. Among all police officers, 31% (279) reported seeing a health-care provider for post-hurricane illnesses and injuries; health-care utilization among firefighters was not assessed.

Reported by: BP Bernard, MD, RJ Driscoll, PhD, Div of Surveillance, Hazard Evaluations, and Field Studies, M Kitt, MD, Div of Respiratory Disease Studies, National Institute for Occupational Safety and Health; CA West, MSN, MPH, SW Tak, ScD, EIS officers, CDC.

Editorial Note: The findings from these surveys indicate that, 7–13 weeks after Hurricane Katrina, a substantial proportion of police officers and firefighters in New Orleans had injuries and symptoms of physical and mental illness. The prevalences of reported respiratory symptoms, skin rashes, and injuries were similar to those reported by Katrina relief workers through active CDC surveillance in the greater New Orleans area (3). The high prevalence of symptoms for PTSD and major depressive symptoms among police and firefighters is consistent with reports of increased risk for PTSD and depression after natural disasters (4,5). Police officers and firefighters also experienced stressors such as extended working hours, sleep deprivation, hostile communities, separation from their families, and destruction of their homes (6).

The relation between floodwater exposure and reported symptoms of illness is not clear. Hazards in floodwaters vary but can include varying amounts of sewage, household and industrial chemicals, petroleum products, pesticides, and flammable liquids. Floodwaters also can obscure physical hazards (e.g., storm debris or drainage openings); other threats are posed by displaced domestic animals (7,8).

The inherent dangers of the work of police officers and firefighters likely were compounded by the environmental hazards and personal stressors after Hurricane Katrina. In addition, certain police officers and firefighters were assigned to atypical activities (e.g., narcotic control officers who performed search and rescue operations) for which they might not have been adequately prepared. Full clinical diagnostic assessment of physical and psychological health is necessary to determine the breadth and scope of illness in persons with persistent symptoms. The National Institute for Occupational Safety and Health has prepared guidance for medical screening to assess the fitness of persons for deployment as recovery

workers after a hurricane (9). These guidelines also can be used as a part of periodic medical evaluations to assess whether emergency responders meet minimal physical requirements to perform work duties.

The findings in this report are subject to at least three limitations. First, only police officers and firefighters working at the time of the surveys were included, introducing the possibility of participation bias. Second, responses to traumatic events can provoke a range of reactions, including intensifying preexisting symptoms; therefore, new symptoms alone are not adequate to fully document physical or mental illness. Finally, even psychological symptoms persisting for ≥ 1 month might be normal and reversible acute stress and grief reactions; responses to the questionnaire alone are not sufficient to diagnose PTSD or major depression (10).

Reducing risks for illness and injury to police officers, firefighters, and other emergency responders requires combining the capabilities of multiple government and private response agencies. Safety and health guidelines for emergency responders should be incorporated into existing disaster preparedness plans. These should include periodic disaster response training and education in tasks unique to disaster situations. Additional information regarding safety management strategies and guidance for emergency workers is available at <http://www.cdc.gov/niosh/docs/2004-144>, and comprehensive information regarding prevention of worker illness and injury after hurricanes and other natural disasters is available at <http://www.cdc.gov/niosh/topics/flood>.

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Progress Toward Interruption of Wild Poliovirus Transmission — Worldwide, January 2005–March 2006

Progress toward global poliomyelitis eradication was made in 2005, despite the diversion of major financial and human resources to control outbreaks resulting from wild poliovirus (WPV) importations primarily from Nigeria. The number of countries with endemic polio has decreased to four,* compared with 125 in 1988, when the Polio Eradication Initiative was initiated by the World Health Assembly (1). In Africa and Asia, only eight of the 22 previously polio-free countries† that were reinfected since 2003 reported WPV transmission after July 2005, and transmission was curtailed substantially in all eight of these countries except Somalia (2,3). Of the three remaining polio-endemic countries in Asia (Afghanistan, India, and Pakistan), India and Pakistan also moved closer to eradication in 2005, reporting approximately half as many cases in 2005, compared with 2004.

Multiple innovations were implemented during 2005, including the relicensing and use of monovalent type 1

* The four countries currently on the polio-endemic list are Afghanistan, India, Nigeria, and Pakistan. Egypt and Niger were removed from the list in February 2006 after 12 months without indigenous WPV transmission. However, recent genetic evidence suggests residual low-level transmission in Niger.

† The eight reinfected countries with transmission after July 2005 were Angola, Bangladesh, Chad, Ethiopia, Indonesia, Nepal, Somalia, and Yemen. The 14 countries reinfected since 2003 without transmission after July 2005 were Benin, Botswana, Burkina Faso, Cameroon, Central African Republic, Côte d'Ivoire, Eritrea, Ghana, Guinea, Lebanon, Mali, Saudi Arabia, Sudan, and Togo.

(mOPV1) and type 3 (mOPV3) oral polio vaccines and, particularly in polio-endemic countries, increased numbers and improved quality of supplementary immunization activities (SIAs). New emphasis was placed on the systematic engagement of local leaders during SIAs and on development of SIA strategies for targeting mobile families at major train and bus transit sites. However, in certain hard-to-reach populations, SIA coverage remains inadequate to stop WPV circulation. By the end of 2005, northern Nigeria had emerged as the greatest risk for renewed international spread of WPVs; SIAs in certain areas continued to miss >40% of targeted children. This report describes global polio eradication strategies and WPV incidence during January 2005–March 2006 and outlines the greatest threats to achieving eradication.

Routine OPV Vaccination

Global routine vaccination coverage among infants with 3 doses of oral poliovirus vaccine (OPV3) was estimated at 80% in 2004,[§] the most recent year with fully reported data. OPV3 coverage in 2004 varied among World Health Organization (WHO) regions, from 69% in the African Region (up from 65% in 2003) to 94% in the European Region, with considerable variation between country-level estimates within each region. OPV3 coverage in 2004 in the four countries currently on the polio-endemic list was estimated at 39% in Nigeria, 65% in Pakistan, 66% in Afghanistan, and 70% in India. These are national estimates, and areas of lower coverage within each country have been reported, especially in regions with ongoing polio transmission (e.g., Bihar and Uttar Pradesh states in India and northern Nigeria).

Supplementary Immunization Activities (SIAs) with OPV

In 2005, a total of 234 SIAs with OPV (153 national immunization days [NIDs], 69 subnational immunization days [SNIDs], and 12 mop-up rounds[¶]) were conducted in 51 countries, administering 2.2 billion OPV doses to 371 million children aged <5 years. Of the total OPV doses used in SIAs, 473 million (22%) doses were mOPV1, and 8.4 million (4%) doses were mOPV3. Because of the substantial type-specific gains in immunity conferred by monovalent OPVs

compared with trivalent OPV (4,5), mOPV1 was rapidly relicensed and administered during SIAs in 12 countries.

Of the 234 SIAs, 59 were conducted in the six countries where polio was endemic during 2005: 17 SIAs in India (two NIDs and 15 SNIDs), 11 in Pakistan (eight NIDs and three SNIDs), 12 in Afghanistan (four NIDs, six SNIDs, and two mop-ups), seven in Egypt (six NIDs and one SNID), five NIDs in Niger, and seven in Nigeria (four NIDs and three SNIDs). Although use of mOPV has been effective in reducing type-specific WPV transmission in India, numerous rounds continue to ensure timely vaccination of new birth cohorts. Of the 22 previously polio-free countries reinfected since 2003, a total of 20 conducted 114 SIAs, of which 87 were NIDs, 19 were SNIDs, and eight were mop-ups. Many of these SIAs were conducted as synchronized SIAs across west and central African countries, including Sudan. Also in 2005, 25 polio-free countries conducted 61 SIAs, including 37 NIDs, to increase population immunity as a precaution to prevent the spread of possible virus importations.

Acute Flaccid Paralysis (AFP) Surveillance

In 2005, all WHO regions maintained the overall sensitivity of AFP surveillance to detect paralytic polio cases at certification-standard levels** (Table). AFP reporting continued to improve in the three regions with endemic poliovirus transmission (Africa, Eastern Mediterranean, and South-East Asia). A 43% increase in AFP reporting globally was observed, from 42,511 cases in 2004 to 61,606 cases in 2005, largely because of increased reporting from India (80% of the overall increase), Nigeria, and Pakistan. Although the certification target for AFP reporting (i.e., a nonpolio AFP rate of at least one case per 100,000 children aged <15 years) remains unchanged, in 2005 the Advisory Committee on Polio Eradication endorsed a new target of at least two cases per 100,000 children for all polio-endemic countries and countries at high risk for WPV importation (6). The intent of this recommendation was to accelerate the detection and response to circulating polioviruses.

The polio laboratory network is the foundation for AFP surveillance. During 2005, WHO fully accredited 97% of the 145 global poliovirus laboratory network laboratories, which analyzed more than 120,000 stool samples that year. Compared with 2004, the laboratory network workload increased by 50% in 2005. This increase was highest in the WHO South-East Asian Region (90%), followed by the Eastern Mediterranean Region (45%) and African Region (25%). Laboratory

[§]World Health Organization (WHO)/UNICEF estimates of OPV3 coverage, according to the 2005 summary of the WHO vaccine-preventable diseases monitoring system.

[¶]Subnational immunization days can vary in size and location within a given country, but most commonly target a region consisting of several states. Mop-up campaigns target children living in specific high-risk districts known to have experienced recent WPV circulation.

** Criteria for certification are as follows: 1) a nonpolio AFP rate of at least one case per 100,000 children aged <15 years, 2) 80% of AFP cases with adequate stool specimens, and 3) 100% of stool specimens processed in a laboratory accredited by WHO.

TABLE. Acute flaccid paralysis (AFP) surveillance data, 2005, and confirmed cases of poliomyelitis, 2005 and January–March 2006, by World Health Organization (WHO) region and country*

Region/Country	No. reported		% persons with AFP with adequate specimens [§]	No. virus-confirmed cases	
	AFP cases 2005	Nonpolio AFP rate [†] 2005		2005	January–March 2006
African	11,705	3.3	85	848	69
Angola	187	2.1	92	10	0
Cameroon	261	3.1	82	1	0
Chad	164	3.5	89	2	0
Eritrea	66	5.4	86	1	0
Ethiopia	950	2.7	79	22	1
Mali	172	2.9	81	3	0
Niger [¶]	316	4.0	85	10	3
Nigeria [¶]	4,836	6.5	85	799	65
Eastern Mediterranean	8,838	3.7	88	727	20
Afghanistan [¶]	823	5.4	92	9	3
Pakistan [¶]	4,021	5.3	87	28	2
Somalia	364	4.8	82	185	14
Sudan	501	3.2	86	27	0
Yemen	941	4.6	78	478	1
South-East Asian	31,461	5.1	83	373	18
Bangladesh	1,458	2.6	92	0	1
India [¶]	26,997	6.3	82	66	16
Indonesia	1,929	2.4	81	303	1
Nepal	228	2.2	85	4	0
American	2,150	1.2	79	—	—
European	1,537	1.1	82	—	—
Western Pacific	5,915	1.5	87	—	—
Worldwide	61,606	3.3	84	1,948	107

* Data reported to WHO as of March 31, 2006. Only countries with polio transmission in 2005 are included. When averaging global, regional, or national surveillance indicators, suboptimal performance-quality indicators in smaller areas might be masked.

[†] Per 100,000 children aged <15 years.

[§] Two stool specimens collected at an interval of ≥ 24 hours within 14 days of paralysis onset and adequately shipped to the laboratory.

[¶] Countries in which polio is endemic.

network strategies were adjusted to meet the increased demands. Overall, 95% of virus isolation results were reported within 28 days, and >95% of intratypic differentiation results were reported within 14 days.

WPV Incidence

As of March 31, 2006, a provisional total of 1,948 polio cases had been reported globally for 2005, compared with 1,255 cases in 2004 (Figure, Table). During both 2004 and 2005, Nigeria had the largest number of cases: 782 cases in 2004 (62% of all cases globally) and 799 cases in 2005 (41%). The 55% global increase in cases in 2005 resulted from three large outbreaks after importation of Nigeria polioviruses into previously polio-free countries: Yemen (478 cases), Indonesia (303), and Somalia (185). In 2005, for the first time, more

cases were reported from reinfected countries (53% of the total) than from polio-endemic countries; 94% of cases worldwide were caused by viruses that originated in northern Nigeria.

After completing 12 months without evidence of indigenous poliovirus transmission, Egypt and Niger were removed from the list of polio-endemic countries in February 2006. Interruption of WPV transmission in Egypt, where the natural risk factors for intense poliovirus transmission have been high, represents a major milestone for the Polio Eradication Initiative. Polio surveillance in Egypt has been highly sensitive, combining both AFP and environmental surveillance systems. The last indigenous poliovirus in Egypt was detected in a sewage sample collected in January 2005. All 10 cases reported from Niger during 2005 were caused by WPV directly imported from Nigeria. Recent genetic data from 2006, however, suggest residual low-level transmission in Niger, although this represents a substantial decrease from previous high levels of transmission.

Two large polio-endemic countries in Asia registered 50% declines in cases from 2004 to 2005. India reported 66 cases in 2005, down from 134 cases in 2004, and Pakistan reported 28 cases in 2005, down from 53 cases in 2004. Afghanistan reported nine cases in 2005, compared with four cases in 2004.

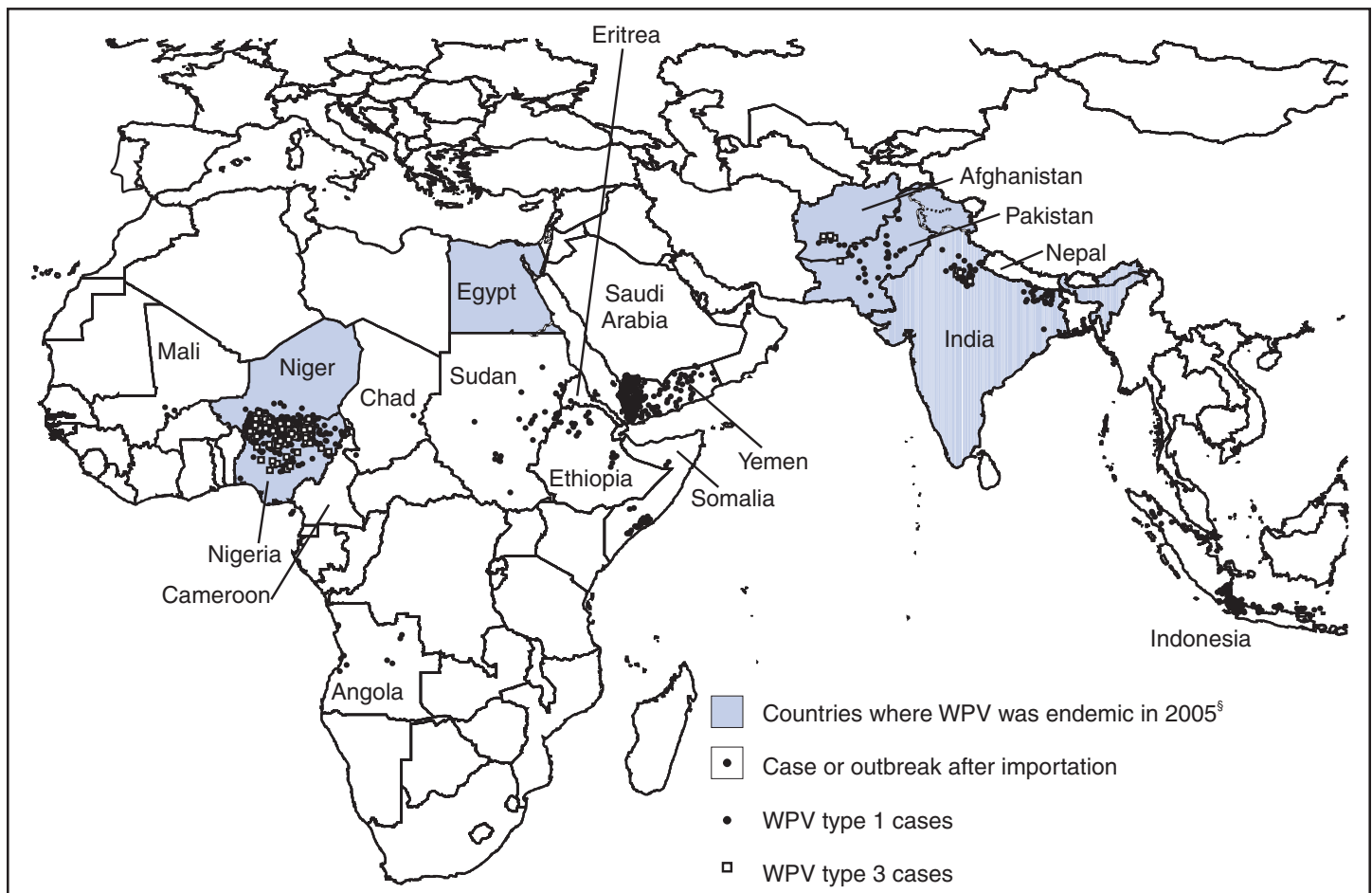
The 799 cases reported by Nigeria in 2005 were eight times the total number reported by the three polio-endemic Asian countries combined. Of these 799 cases, 746 (93%) were reported from

10 northern Nigerian states (of 37 total states), where both type 1 and type 3 poliovirus continued to circulate widely. Type 3 WPV was observed only in northern Nigeria, in two small foci in northern India, in southern Afghanistan, and in Pakistan near the southern Afghanistan border.

Also during 2005, the largest number of paralytic polio cases (46) known to be caused by circulating vaccine-derived poliovirus (cVDPV) occurred on a small island off East Java in Indonesia. As with other previously identified VDPV outbreaks, low OPV coverage enabled neurovirulent vaccine-derived poliovirus to emerge and circulate (6).

Reported by: Polio Eradication Group, World Health Organization, Geneva, Switzerland. Div of Viral Diseases and Global Immunization, National Center for Immunization and Respiratory Diseases, CDC.

FIGURE. Number of wild poliovirus (WPV) cases* — worldwide, 2005†



* Data reported to the World Health Organization as of March 31, 2006.

† Excludes polioviruses detected by environmental surveillance and vaccine-derived polioviruses.

§ Egypt and Niger were removed from the list of polio-endemic countries in 2006. However, recent genetic data suggest residual low-level indigenous transmission in Niger.

Editorial Note: Despite challenges during the past 2 years, the world has moved closer to eradicating polio. Although nationwide OPV vaccination was resumed in late 2004, widespread poliovirus circulation in northern Nigeria remains the greatest threat to global polio eradication. Data on OPV coverage of nonpolio AFP cases from the six northern states that contributed 65% of all polio cases in Nigeria indicate that >40% of children aged <5 years have never received OPV. Southern Nigeria was largely polio-free by the end of 2005; however, the continued epidemic in the north indicates that critical improvements in SIA coverage are needed in northern states.

On the basis of lessons learned from the 2003–2005 resurgence of polio in previously polio-free countries, and to limit the potential of further international spread of poliovirus, the Advisory Committee on Polio Eradication issued specific recommendations in October 2005 to guide the future response

to any circulating poliovirus in a previously polio-free area (6), calling for rapid and large-scale responses and use of type-specific mOPV. The WHO executive board endorsed these recommendations in early 2006.

With six or more large-scale SIAs each year in the remaining polio-affected countries, vaccination refusals present an ongoing challenge to achieving the high rates of OPV coverage needed. To ensure community acceptance and compliance, social mobilization, communication activities, and other interventions (e.g., administration of other vaccines and distribution of mosquito bednets) have become critical to the success of SIAs and will be a key priority in 2006. The cVDPV outbreak in Indonesia illustrates the risk for emergence of cVDPV in areas with low levels of population immunity, reinforcing the importance of ensuring uniformly high SIA coverage and the necessity to eventually stop all routine use of OPV once WPV is eradicated (5,7).

Key to achievement of a polio-free world is the continued support of the international polio partnership, which is necessary to allow full implementation of the new strategic approach, including use of mOPV, to interrupt transmission in remaining polio-endemic areas. The greatest risk to global polio eradication and to the polio-free status of most countries of the world is the ongoing uncontrolled poliovirus transmission in several northern Nigerian states. Aggressive response to the challenges posed by importations and ongoing transmission characterized global polio eradication activities in 2005. Eradication efforts will ultimately require ongoing commitment by governments and health workers at all levels to ensure that all children are appropriately vaccinated.

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Notice to Readers

Introduction to Public Health Surveillance

CDC and Rollins School of Public Health at Emory University will cosponsor the course, “Introduction to Public

Health Surveillance,” May 8–12, 2006, at Emory University. The course is designed for practicing state and local public health professionals.

The course will provide the theoretical and practical tools necessary to design, implement, and evaluate effective surveillance programs. Topics include an overview and history of surveillance systems; planning considerations; sources and collection of data; analysis, interpretation, and communication of data; surveillance systems technology; ethics and legalities; state and local concerns; and future considerations. Tuition is charged.

Additional information and applications are available from Emory University, Hubert Department of Global Health, 1518 Clifton Road N.E., Room 746, Atlanta, GA 30322; telephone 404-727-3485; fax 404-727-4590; at <http://www.sph.emory.edu/epicourses/>; or by e-mail pvaleri@sph.emory.edu.

Notice to Readers

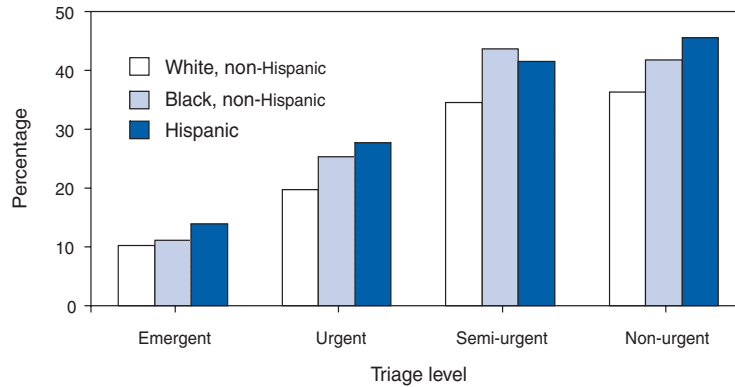
American Board of Disaster Medicine

Beginning in 2006, physicians can earn board certification in disaster medicine. The American Board of Physician Specialties (Atlanta, Georgia) has created the American Board of Disaster Medicine. This initiative is focused on various clinical specialties so that the collective board can provide a diverse knowledge base and advice to various organizations that engage in preparedness planning. The board will begin accepting applications from physicians on May 1, 2006, and plans to administer its first examination in the fall of 2006. Information regarding eligibility requirements for the American Board of Disaster Medicine is available at <http://www.abpsga.org>.

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Emergency Department Visits* with Waiting Time for a Physician of >1 Hour, by Race/Ethnicity and Triage Level — United States, 2003–2004



* In metropolitan statistical areas only.

Timely emergency care can be critical for patients who visit an emergency department. At least 10% of emergent cases (those in which patients should be seen in less than 15 minutes) and 20% of urgent cases (should be seen in 15–60 minutes) had to wait longer than 1 hour to see a physician. Blacks and Hispanics were more likely to wait for more than 1 hour in all cases other than emergent.

SOURCE: National Hospital Ambulatory Medical Care Survey, 2003–2004. Available at <http://www.cdc.gov/nchs/nhamcs.htm>.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending April 22, 2006 (16th Week)*

Disease	Current week	Cum 2006	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2005	2004	2003	2002	2001	
Anthrax	—	1	—	—	—	—	2	23	
Botulism:									
foodborne	—	—	0	18	16	20	28	39	
infant	—	21	1	87	87	76	69	97	
other (wound & unspecified)	2	14	0	25	30	33	21	19	CA (2)
Brucellosis	1	21	2	118	114	104	125	136	CA (1)
Chancroid	1	12	1	17	30	54	67	38	SC (1)
Cholera	—	—	0	6	5	2	2	3	
Cyclosporiasis§	1	12	6	734	171	75	156	147	IN (1)
Diphtheria	—	—	—	—	—	1	1	2	
Domestic arboviral diseases§§:									
California serogroup	—	—	0	78	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	12	3	734	537	362	511	261	NY (1)
human monocytic	—	43	1	451	338	321	216	142	
human (other & unspecified)	—	2	0	123	59	44	23	6	
<i>Haemophilus influenzae</i> ,**									
invasive disease (age <5 yrs):									
serotype b	—	2	0	10	19	32	34	—	
nonserotype b	3	31	4	128	135	117	144	—	NY (1), IN (1), FL (1)
unknown serotype	1	62	3	210	177	227	153	—	OH (1)
Hansen disease§	—	12	1	83	105	95	96	79	
Hantavirus pulmonary syndrome§	—	6	0	22	24	26	19	8	
Hemolytic uremic syndrome, postdiarrheal§	3	21	2	207	200	178	216	202	OH (1), GA (1), CA (1)
Hepatitis C viral, acute	7	216	35	803	713	1,102	1,835	3,976	NY (1), MI (1), AL (1), OK (1), WA (2), CA (1)
HIV infection, pediatric (age <13 yrs)§††	—	52	4	380	436	504	420	543	
Influenza-associated pediatric mortality§§,¶¶	3	23	1	49	—	N	N	N	PA (1), CA (2)
Listeria	10	146	10	867	753	696	665	613	NY (1), PA (1), OH (1), KS (1), GA (3), FL (1), AL (1), WA (1)
Measles	1	5***	1	65	37	56	44	116	NH (1)
Meningococcal disease,††† invasive:									
A, C, Y, & W-135	1	75	5	308	—	—	—	—	FL (1)
serogroup B	1	51	2	183	—	—	—	—	WA (1)
other serogroup	1	8	1	27	—	—	—	—	NC (1)
Mumps	130	813	5	307	258	231	270	266	PA (5), OH (1), MO (12), KS (109), FL (1), CO (1), AZ (1)
Plague	—	1	—	7	3	1	2	2	
Poliomyelitis, paralytic	—	—	—	1	—	—	—	—	
Psittacosis§	—	4	0	23	12	12	18	25	
Q fever§	—	32	1	129	70	71	61	26	
Rabies, human	—	—	0	2	7	2	3	1	
Rubella	—	1	0	11	10	7	18	23	
Rubella, congenital syndrome	—	—	—	1	—	1	1	3	
SARS-CoV§§	—	—	0	—	—	8	N	N	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	6	45	4	105	132	161	118	77	OH (2), IN (1), NC (3)
<i>Streptococcus pneumoniae</i> ,§									
invasive disease (age <5 yrs)	8	331	16	1,149	1,162	845	513	498	MA (1), NY (1), IN (1), MN (1), MO (1), AR (1), CO (2)
Syphilis, congenital (age <1 yr)	3	62	8	347	353	413	412	441	NC (1), TN (1), AZ (1)
Tetanus	—	4	0	25	34	20	25	37	
Toxic-shock syndrome (other than streptococcal)§	2	36	2	92	95	133	109	127	CA (2)
Trichinellosis	1	3	0	21	5	6	14	22	NY (1)
Tularemia§	1	4	1	137	134	129	90	129	KS (1)
Typhoid fever	4	64	5	315	322	356	321	368	FL (1), CA (3)
Vancomycin-intermediate <i>Staphylococcus aureus</i> §	—	1	—	2	—	N	N	N	
Vancomycin-resistant <i>Staphylococcus aureus</i> §	—	—	—	—	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 28 cases reported since October 2, 2005 (week 40), only 26 occurred during the current 2005–06 season.

*** One measles case was reported with unknown import status for the current week.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending April 22, 2006, and April 23, 2005 (16th Week)*

Reporting area	Hepatitis (viral, acute), by type										Legionellosis				
	A					B									
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max				Med	Max		
United States	50	75	244	1,050	1,234	48	92	552	1,168	1,627	19	40	117	343	320
New England	3	7	23	61	154	2	4	11	41	79	—	2	11	14	16
Connecticut	1	1	3	10	20	—	0	5	—	17	—	0	8	4	3
Maine	—	0	2	3	—	—	0	2	2	4	—	0	1	2	1
Massachusetts	—	4	14	28	113	—	3	10	32	50	—	1	5	6	9
New Hampshire	1	1	12	13	16	—	0	3	4	4	—	0	1	1	2
Rhode Island	1	0	4	2	5	2	0	2	3	—	—	0	10	—	1
Vermont†	—	0	2	5	—	—	0	2	—	4	—	0	3	1	—
Mid. Atlantic	—	11	24	52	208	4	9	54	107	197	4	11	53	93	94
New Jersey	—	2	11	13	40	—	2	7	29	46	—	1	13	6	13
New York (Upstate)	—	1	16	14	28	4	1	42	21	22	2	3	30	35	25
New York City	—	4	10	10	101	—	1	5	11	51	—	2	20	9	11
Pennsylvania	—	1	6	15	39	—	3	9	46	78	2	5	17	43	45
E.N. Central	3	6	17	77	121	6	8	26	87	173	5	7	26	64	77
Illinois	—	1	9	11	43	—	2	7	—	46	—	1	5	7	12
Indiana	—	1	10	5	5	3	0	17	10	7	—	0	6	2	7
Michigan	—	2	11	35	35	—	3	7	43	62	—	2	6	18	20
Ohio	3	1	4	25	23	3	2	8	32	47	5	3	19	35	32
Wisconsin	—	0	5	1	15	—	0	6	2	11	—	0	3	2	6
W.N. Central	1	2	29	37	41	2	5	14	34	70	2	1	12	11	10
Iowa	—	0	2	3	8	—	0	2	1	4	—	0	1	—	—
Kansas	—	0	5	15	6	—	0	3	3	8	1	0	1	1	1
Minnesota	—	0	29	2	3	1	0	9	2	—	—	0	10	—	1
Missouri	1	0	2	11	21	1	3	8	28	46	1	0	3	7	7
Nebraska†	—	0	3	3	3	—	0	2	—	11	—	0	2	2	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	1
South Dakota	—	0	1	3	—	—	0	1	—	1	—	0	6	1	—
S. Atlantic	4	12	34	167	177	16	23	61	319	487	5	9	20	93	67
Delaware	—	0	2	4	2	—	0	4	12	14	—	0	4	1	1
District of Columbia	—	0	2	1	2	—	0	4	4	—	—	0	2	4	1
Florida	2	5	18	63	67	11	9	19	136	170	5	2	8	46	26
Georgia	—	1	6	14	29	3	3	8	32	78	—	0	4	3	4
Maryland†	—	2	7	23	15	—	2	8	39	58	—	2	9	18	19
North Carolina	2	0	20	40	25	—	0	23	59	52	—	0	3	11	7
South Carolina†	—	1	3	6	8	—	2	9	15	44	—	0	2	1	1
Virginia†	—	1	11	15	27	—	1	18	9	61	—	1	8	8	5
West Virginia	—	0	2	1	2	2	0	14	13	10	—	0	3	1	3
E.S. Central	—	3	16	32	73	1	6	20	78	127	—	1	6	10	8
Alabama†	—	0	6	2	7	1	1	7	24	25	—	0	2	3	5
Kentucky	—	0	4	14	5	—	1	5	22	27	—	0	4	1	1
Mississippi	—	0	2	1	12	—	1	4	5	25	—	0	1	—	—
Tennessee†	—	2	8	15	49	—	2	12	27	50	—	1	4	6	2
W.S. Central	1	9	79	89	120	—	14	286	283	153	—	1	29	9	2
Arkansas	1	0	7	22	5	—	1	3	9	21	—	0	2	—	1
Louisiana	—	1	5	2	25	—	1	6	7	24	—	0	2	4	—
Oklahoma	—	0	2	4	2	—	0	5	1	15	—	0	3	1	—
Texas†	—	7	75	61	88	—	12	282	266	93	—	0	27	4	1
Mountain	1	6	19	89	105	9	7	39	84	153	2	1	8	13	26
Arizona	1	3	18	61	50	9	5	32	61	97	2	0	3	9	6
Colorado	—	1	4	15	10	—	1	5	9	11	—	0	3	1	6
Idaho†	—	0	3	3	13	—	0	2	4	5	—	0	2	—	1
Montana	—	0	1	1	6	—	0	7	—	—	—	0	1	—	1
Nevada†	—	0	2	3	6	—	1	4	9	11	—	0	2	3	5
New Mexico†	—	0	3	5	7	—	0	3	1	9	—	0	1	—	2
Utah	—	0	2	—	12	—	0	3	—	19	—	0	2	—	3
Wyoming	—	0	1	1	1	—	0	1	—	1	—	0	1	—	2
Pacific	37	15	149	446	235	8	9	56	135	188	1	1	9	36	20
Alaska	—	0	1	—	3	—	0	2	1	2	—	0	1	—	—
California	34	14	148	415	196	6	6	39	108	131	1	1	9	36	20
Hawaii	—	0	2	5	8	—	0	1	1	1	—	0	1	—	—
Oregon†	—	1	5	12	13	2	2	6	17	39	N	0	0	N	N
Washington	3	1	11	14	15	—	0	13	8	15	—	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	4	3	25	—	1	6	3	7	—	0	0	—	—
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.

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† Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Because of a technical problem with hardware, data from these states are not included this week.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending April 22, 2006, and April 23, 2005 (16th Week)*

Reporting area	Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max		
United States	41	288	1,283	1,373	1,895	7	24	119	246	340
New England	—	51	232	74	178	—	1	12	8	14
Connecticut	—	9	154	47	6	—	0	10	1	—
Maine	—	2	26	8	13	—	0	1	1	—
Massachusetts	—	17	164	1	140	—	0	4	5	11
New Hampshire	—	3	17	15	16	—	0	1	—	2
Rhode Island	—	0	12	—	1	—	0	8	—	1
Vermont†	—	1	5	3	2	—	0	2	1	—
Mid. Atlantic	38	160	928	972	1,175	1	5	15	34	90
New Jersey	—	25	310	154	420	—	0	7	—	22
New York (Upstate)	35	73	900	515	210	1	1	11	8	16
New York City	—	5	33	—	68	—	3	8	17	41
Pennsylvania	3	45	388	303	477	—	1	2	9	11
E.N. Central	—	14	155	38	90	—	2	6	33	27
Illinois	—	0	6	—	1	—	0	2	7	9
Indiana	—	0	4	—	2	—	0	3	5	3
Michigan	—	1	7	8	1	—	0	2	5	8
Ohio	—	1	5	7	15	—	0	3	11	3
Wisconsin	—	11	145	23	71	—	0	3	5	4
W.N. Central	1	12	99	33	47	—	0	30	6	14
Iowa	—	0	8	1	8	—	0	1	1	2
Kansas	—	0	3	—	2	—	0	1	—	1
Minnesota	1	7	96	30	36	—	0	29	2	3
Missouri	—	0	2	1	1	—	0	2	1	8
Nebraska†	—	0	2	1	—	—	0	2	—	—
North Dakota	—	0	0	—	—	—	0	1	1	—
South Dakota	—	0	1	—	—	—	0	1	1	—
S. Atlantic	—	33	124	201	358	4	6	16	87	75
Delaware	—	9	37	76	134	—	0	1	2	1
District of Columbia	—	0	2	6	1	—	0	2	—	2
Florida	—	1	5	11	9	2	1	6	14	16
Georgia	—	0	1	—	1	2	1	6	24	13
Maryland†	—	16	87	97	167	—	1	9	21	23
North Carolina	—	0	5	8	15	—	0	8	10	9
South Carolina†	—	0	3	2	6	—	0	2	3	3
Virginia†	—	3	22	1	25	—	0	9	12	7
West Virginia	—	0	42	—	—	—	0	2	1	1
E.S. Central	—	0	4	—	6	—	1	2	7	7
Alabama†	—	0	1	—	—	—	0	1	3	2
Kentucky	—	0	1	—	1	—	0	2	1	2
Mississippi	—	0	0	—	—	—	0	1	1	—
Tennessee†	—	0	4	—	5	—	0	2	2	3
W.S. Central	—	1	7	1	18	1	1	30	11	31
Arkansas	—	0	2	—	—	—	0	2	—	2
Louisiana	—	0	1	—	2	—	0	1	—	1
Oklahoma	—	0	0	—	—	1	0	6	2	2
Texas†	—	0	7	1	16	—	1	29	9	26
Mountain	—	0	4	2	2	—	0	9	6	16
Arizona	—	0	4	2	—	—	0	9	1	2
Colorado	—	0	1	—	—	—	0	3	4	8
Idaho†	—	0	1	—	—	—	0	0	—	—
Montana	—	0	0	—	—	—	0	1	1	—
Nevada†	—	0	2	—	—	—	0	2	—	—
New Mexico†	—	0	1	—	—	—	0	1	—	1
Utah	—	0	1	—	1	—	0	2	—	4
Wyoming	—	0	1	—	1	—	0	1	—	1
Pacific	2	3	18	52	21	1	4	12	54	66
Alaska	—	0	1	—	1	—	0	1	4	2
California	2	2	18	52	18	1	3	10	39	55
Hawaii	N	0	0	N	N	—	0	4	—	4
Oregon†	—	0	3	—	2	—	0	2	4	2
Washington	—	0	3	—	—	—	0	5	7	3
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 April 22, 2006, and April 23, 2005 (16th Week)*

Reporting area	<i>Streptococcus pneumoniae</i> , invasive disease Drug resistant, all ages					Syphilis, primary and secondary					Varicella (chickenpox)				
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max				Med	Max		
United States	40	49	325	988	1,062	62	171	314	2,238	2,346	455	659	3,079	15,269	8,592
New England	—	1	17	9	62	1	4	17	61	54	5	34	1,131	408	1,042
Connecticut	U	0	0	U	U	—	0	11	15	3	U	0	0	U	U
Maine	N	0	0	N	N	—	0	2	3	1	—	6	20	85	107
Massachusetts	—	1	6	—	50	1	2	5	35	43	—	11	86	2	911
New Hampshire	—	0	0	—	—	—	0	2	4	3	5	7	1,110	135	—
Rhode Island	—	0	11	1	6	—	0	6	3	4	—	0	0	—	—
Vermont†	—	0	4	8	6	—	0	1	1	—	—	5	25	186	24
Mid. Atlantic	4	2	15	48	108	10	20	34	306	313	84	117	183	1,943	1,739
New Jersey	N	0	0	N	N	5	2	7	51	41	—	0	0	—	—
New York (Upstate)	3	1	10	14	39	2	2	15	46	22	—	0	0	—	—
New York City	U	0	0	U	U	2	11	21	143	206	—	0	0	—	—
Pennsylvania	1	2	9	34	69	1	4	9	66	44	84	117	183	1,943	1,739
E.N. Central	10	12	38	256	251	4	19	42	253	161	276	155	542	6,505	2,313
Illinois	—	0	2	7	2	—	10	32	103	49	—	1	5	4	30
Indiana	3	3	21	57	75	—	1	5	24	18	N	0	347	N	N
Michigan	—	1	4	9	17	4	2	8	43	23	80	88	231	1,850	1,442
Ohio	7	7	32	183	157	—	4	11	69	64	196	40	424	4,378	633
Wisconsin	N	0	0	N	N	—	1	3	14	7	—	9	41	273	208
W.N. Central	—	1	191	18	21	1	4	9	52	73	27	16	84	701	68
Iowa	N	0	0	N	N	—	0	1	2	4	N	0	0	N	N
Kansas	N	0	0	N	N	—	0	2	9	6	—	0	0	—	—
Minnesota	—	0	191	—	—	—	1	4	7	18	—	0	0	—	—
Missouri	—	1	3	18	18	1	3	8	33	43	22	13	82	661	3
Nebraska†	—	0	1	—	1	—	0	1	1	2	—	0	1	—	—
North Dakota	—	0	1	—	—	—	0	1	—	—	3	0	25	18	10
South Dakota	—	0	1	—	2	—	0	1	—	—	2	1	12	22	55
S. Atlantic	26	22	51	528	442	25	44	184	556	553	15	54	843	1,531	756
Delaware	—	0	2	—	1	—	0	2	8	5	—	1	5	28	10
District of Columbia	1	0	3	19	11	1	2	9	34	31	—	0	6	14	6
Florida	19	13	36	300	229	8	15	29	221	230	—	0	0	—	—
Georgia	6	7	19	169	162	1	8	143	42	75	—	0	0	—	—
Maryland†	—	0	0	—	—	5	5	19	89	84	—	0	0	—	—
North Carolina	N	0	0	N	N	8	5	17	100	73	—	0	0	—	—
South Carolina†	—	0	0	—	—	—	1	7	20	23	—	14	45	346	187
Virginia†	N	0	0	N	N	2	3	12	42	30	—	13	797	485	94
West Virginia	—	2	10	40	39	—	0	1	—	2	15	21	70	658	459
E.S. Central	—	4	14	75	74	8	10	20	168	129	—	0	0	—	—
Alabama†	N	0	0	N	N	4	3	12	84	57	—	0	0	—	—
Kentucky	—	0	5	11	13	1	1	8	20	8	N	0	0	N	N
Mississippi	—	0	0	—	—	—	0	5	11	17	—	0	0	—	—
Tennessee†	—	3	13	64	61	3	4	11	53	47	N	0	0	N	N
W.S. Central	—	1	7	36	75	4	24	37	381	378	20	168	1,705	3,367	1,423
Arkansas	—	0	3	6	6	—	1	6	27	15	20	1	99	283	—
Louisiana	—	1	5	30	69	4	3	17	39	63	—	0	17	80	97
Oklahoma	N	0	0	N	N	—	1	6	22	12	—	0	0	—	—
Texas†	N	0	0	N	N	—	16	31	293	288	—	157	1,606	3,004	1,326
Mountain	—	1	27	18	29	—	7	17	103	132	28	45	97	814	1,251
Arizona	N	0	0	N	N	—	3	13	58	39	—	0	0	—	—
Colorado	N	0	0	N	N	—	1	3	10	18	28	35	74	646	856
Idaho†	N	0	0	N	N	—	0	3	1	9	—	0	0	—	—
Montana	—	0	1	—	—	—	0	1	—	5	—	0	0	—	—
Nevada†	—	0	27	1	2	—	2	6	22	38	—	0	2	—	—
New Mexico†	—	0	0	—	—	—	1	4	12	18	—	3	27	159	108
Utah	—	0	6	—	12	—	0	2	—	5	—	3	38	—	246
Wyoming	—	0	3	17	15	—	0	0	—	—	—	0	3	9	41
Pacific	—	0	0	—	—	9	33	55	358	553	—	0	0	—	—
Alaska	—	0	0	—	—	—	0	4	5	3	—	0	0	—	—
California	N	0	0	N	N	—	29	53	272	489	—	0	0	—	—
Hawaii	—	0	0	—	—	—	0	2	7	1	N	0	0	N	N
Oregon†	N	0	0	N	N	—	0	6	4	10	N	0	0	N	N
Washington	N	0	0	N	N	9	2	11	70	50	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	—	26
Puerto Rico	N	0	0	N	N	5	4	16	43	42	—	6	47	77	231
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). Because of a technical problem with hardware, data from these states are not included this week.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending April 22, 2006, and April 23, 2005 (16th Week)*

Reporting area	West Nile virus disease [†]									
	Neuroinvasive					Non-neuroinvasive				
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
	Med	Max				Med	Max			
United States	—	1	154	1	1	—	2	203	—	4
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	3	—	—	N	0	3	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	6	—	—	—	0	4	—	—
Delaware	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	1	—	—	—	0	1	—	—
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	1	—	—
West Virginia	—	0	0	—	—	N	0	0	N	N
E.S. Central	—	0	10	1	—	—	0	5	—	—
Alabama [§]	—	0	1	—	—	—	0	2	—	—
Kentucky	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	9	1	—	—	0	5	—	—
Tennessee [§]	—	0	3	—	—	—	0	1	—	—
W.S. Central	—	0	32	—	—	—	0	22	—	2
Arkansas	—	0	3	—	—	—	0	2	—	—
Louisiana	—	0	20	—	—	—	0	9	—	2
Oklahoma	—	0	6	—	—	—	0	3	—	—
Texas [§]	—	0	16	—	—	—	0	13	—	—
Mountain	—	0	16	—	1	—	0	39	—	—
Arizona	—	0	8	—	1	—	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	90	—	2
Alaska	—	0	0	—	—	—	0	0	—	—
California	—	0	50	—	—	—	0	89	—	2
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). Because of a technical problem with hardware, data from these states are not included this week.

TABLE III. Deaths in 122 U.S. cities,* week ending April 22, 2006 (16th Week)

Reporting Area	All causes, by age (years)							Reporting Area	All causes, by age (years)						
	All Ages	≥65	45-64	25-44	1-24	<1	P&I [†] Total		All Ages	≥65	45-64	25-44	1-24	<1	P&I [†] Total
New England	603	419	133	29	13	9	57	S. Atlantic	1,259	807	286	97	41	28	74
Boston, MA	143	97	29	9	4	4	12	Atlanta, GA	130	77	36	13	3	1	7
Bridgeport, CT	23	14	6	2	1	—	2	Baltimore, MD	184	107	44	18	8	7	16
Cambridge, MA	17	14	3	—	—	—	—	Charlotte, NC	129	86	29	8	3	3	13
Fall River, MA	29	24	4	1	—	—	5	Jacksonville, FL	210	139	49	10	10	2	5
Hartford, CT	78	48	24	4	2	—	9	Miami, FL	72	46	13	11	2	—	4
Lowell, MA	30	21	6	3	—	—	3	Norfolk, VA	47	29	9	3	2	4	1
Lynn, MA	9	7	2	—	—	—	2	Richmond, VA	68	39	21	4	3	1	2
New Bedford, MA	25	18	6	1	—	—	—	Savannah, GA	39	26	8	4	—	1	3
New Haven, CT	47	35	6	1	4	1	9	St. Petersburg, FL	57	35	14	3	2	3	8
Providence, RI	65	44	15	4	1	1	5	Tampa, FL	193	142	30	11	5	5	10
Somerville, MA	4	3	1	—	—	—	—	Washington, D.C.	112	64	32	12	3	1	1
Springfield, MA	49	34	11	1	—	3	3	Wilmington, DE	18	17	1	—	—	—	4
Waterbury, CT	29	21	7	1	—	—	3	E.S. Central	964	637	212	72	21	22	68
Worcester, MA	55	39	13	2	1	—	4	Birmingham, AL	214	131	51	22	3	7	18
Mid. Atlantic	2,053	1,428	412	141	37	35	111	Chattanooga, TN	125	89	24	11	—	1	11
Albany, NY	48	37	6	2	—	3	1	Knoxville, TN	133	93	33	5	1	1	7
Allentown, PA	19	15	2	—	2	—	—	Lexington, KY	79	56	13	5	3	2	9
Buffalo, NY	81	53	21	1	3	3	2	Memphis, TN	133	81	30	13	5	4	10
Camden, NJ	32	20	9	2	1	—	2	Mobile, AL	82	58	16	3	1	4	3
Elizabeth, NJ	13	9	3	1	—	—	1	Montgomery, AL	62	48	10	2	2	—	5
Erie, PA	48	38	7	3	—	—	3	Nashville, TN	136	81	35	11	6	3	5
Jersey City, NJ	45	31	6	8	—	—	—	W.S. Central	1,347	814	351	107	43	32	59
New York City, NY	992	709	200	60	12	11	52	Austin, TX	90	49	23	13	4	1	5
Newark, NJ	59	32	12	12	3	—	3	Baton Rouge, LA	17	14	2	1	—	—	—
Paterson, NJ	6	3	2	—	1	—	—	Corpus Christi, TX	U	U	U	U	U	U	U
Philadelphia, PA	377	232	85	36	9	15	20	Dallas, TX	228	122	64	25	10	7	10
Pittsburgh, PA [§]	26	18	5	2	1	—	1	El Paso, TX	55	40	10	3	—	2	3
Reading, PA	37	30	4	3	—	—	6	Fort Worth, TX	85	55	22	2	3	3	2
Rochester, NY	133	101	25	4	2	1	15	Houston, TX	372	215	101	31	12	13	10
Schenectady, NY	26	19	4	2	1	—	1	Little Rock, AR	60	32	21	5	2	—	3
Scranton, PA	27	21	4	2	—	—	—	New Orleans, LA [¶]	U	U	U	U	U	U	U
Syracuse, NY	31	22	6	1	2	—	2	San Antonio, TX	228	146	53	16	11	2	15
Trenton, NJ	24	13	7	2	—	2	—	Shreveport, LA	54	34	14	5	1	—	8
Utica, NY	13	9	4	—	—	—	2	Tulsa, OK	158	107	41	6	—	4	3
Yonkers, NY	16	16	—	—	—	—	—	Mountain	1,158	754	250	81	49	23	103
E.N. Central	2,254	1,547	482	141	39	45	160	Albuquerque, NM	121	78	30	9	3	1	11
Akron, OH	65	39	17	5	4	—	2	Boise, ID	52	39	9	1	1	2	6
Canton, OH	46	31	13	1	—	1	4	Colorado Springs, CO	75	56	14	1	3	1	3
Chicago, IL	323	202	73	29	9	10	39	Denver, CO	94	54	18	11	8	3	8
Cincinnati, OH	74	49	20	1	2	2	9	Las Vegas, NV	269	169	65	20	10	5	21
Cleveland, OH	269	201	45	15	2	6	7	Ogden, UT	37	28	7	2	—	—	3
Columbus, OH	229	148	54	17	5	5	18	Phoenix, AZ	207	123	50	18	13	2	17
Dayton, OH	126	94	26	5	1	—	9	Pueblo, CO	29	21	6	1	1	—	4
Detroit, MI	211	119	58	24	8	2	16	Salt Lake City, UT	121	82	17	11	6	5	12
Evansville, IN	73	50	14	6	1	2	3	Tucson, AZ	153	104	34	7	4	4	18
Fort Wayne, IN	85	67	12	4	—	2	3	Pacific	1,900	1,355	383	95	38	29	175
Gary, IN	14	8	4	1	1	—	—	Berkeley, CA	14	13	1	—	—	—	1
Grand Rapids, MI	61	50	10	1	—	—	9	Fresno, CA	171	118	36	9	4	4	9
Indianapolis, IN	192	125	49	11	2	5	11	Glendale, CA	23	21	1	—	1	—	6
Lansing, MI	52	39	11	1	1	—	5	Honolulu, HI	31	22	5	4	—	—	—
Milwaukee, WI	120	88	22	5	1	4	10	Long Beach, CA	75	50	15	7	2	1	14
Peoria, IL	44	33	5	5	—	1	2	Los Angeles, CA	366	255	80	16	8	7	41
Rockford, IL	47	32	11	1	1	2	2	Pasadena, CA	25	18	5	2	—	—	2
South Bend, IN	58	47	7	4	—	—	2	Portland, OR	98	65	22	5	2	4	4
Toledo, OH	108	72	29	4	1	2	5	Sacramento, CA	278	207	59	9	3	—	29
Youngstown, OH	57	53	2	1	—	1	4	San Diego, CA	169	119	34	9	4	3	14
W.N. Central	713	460	162	48	19	24	63	San Francisco, CA	111	73	26	7	4	1	4
Des Moines, IA	64	53	8	—	1	2	11	San Jose, CA	208	155	32	14	4	3	32
Duluth, MN	30	22	8	—	—	—	2	Santa Cruz, CA	29	22	6	1	—	—	2
Kansas City, KS	31	18	8	3	2	—	2	Seattle, WA	135	95	26	6	3	5	9
Kansas City, MO	93	55	24	3	4	7	7	Spokane, WA	62	43	13	4	1	1	5
Lincoln, NE	33	25	5	3	—	—	3	Tacoma, WA	105	79	22	2	2	—	3
Minneapolis, MN	78	48	19	6	3	2	4	Total	12,251**	8,221	2,671	811	300	247	870
Omaha, NE	99	72	15	8	1	3	18								
St. Louis, MO	158	85	48	13	6	6	8								
St. Paul, MN	60	34	14	6	2	4	7								
Wichita, KS	67	48	13	6	—	—	1								

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.

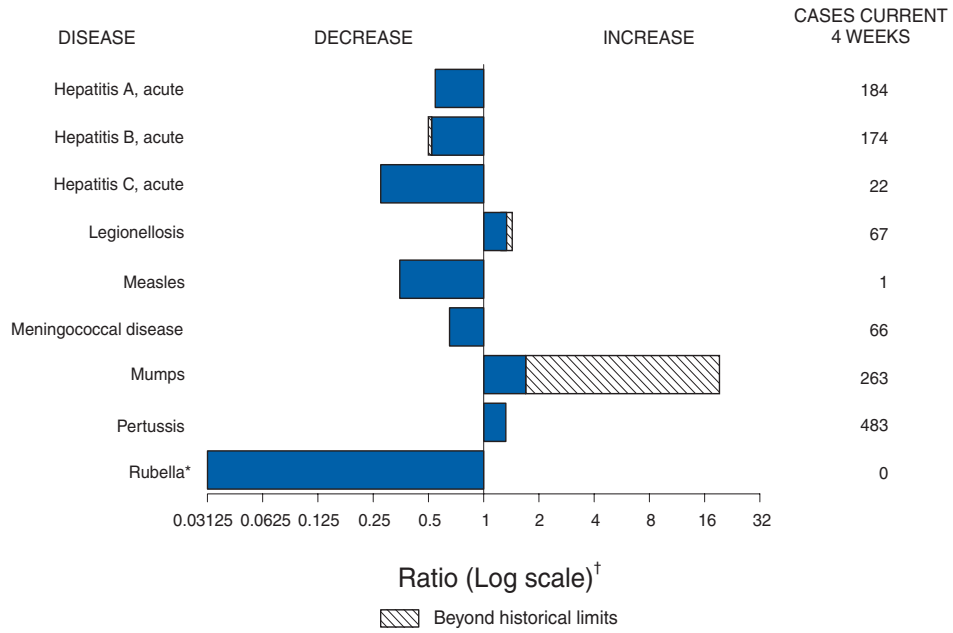
† Pneumonia and influenza.

§ 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 April 22, 2006, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 16 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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