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Update: Multistate Outbreak of Monkeypox — Illinois, Indiana, Kansas, Missouri, Ohio, and Wisconsin, 2003

CDC and state and local health departments continue to investigate cases of monkeypox among persons who had close contact with wild or exotic mammalian pets or persons with monkeypox (*1*). This report updates epidemiologic, laboratory, and animal data for U.S. cases.

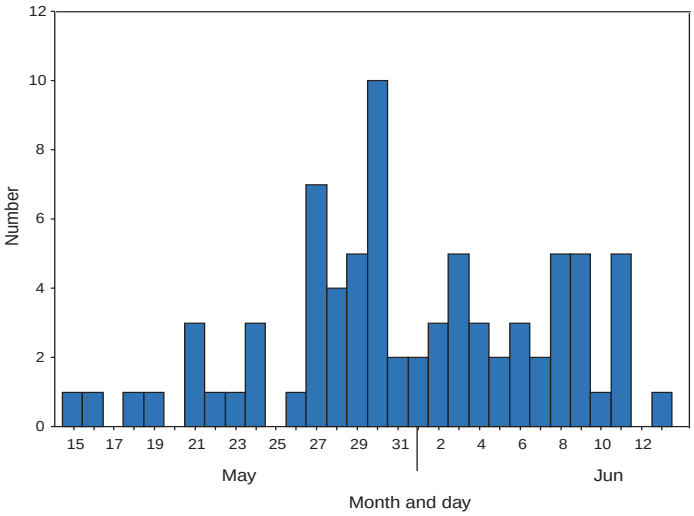
Epidemiologic investigation

As of June 18, a total of 87 cases of monkeypox have been reported to CDC from Wisconsin (n = 38), Indiana (n = 24), Illinois (n = 19), Ohio (n = 4), Kansas (n = 1), and Missouri (n = 1). Of the 87 cases, 41 (47%) were among males. The median age for the 82 patients for whom age data were available was 28 years (range:1–55 years). Data on symptom onset were available for 78 persons (Figure). Among the 75 patients for whom data were available, 20 (27%) were hospitalized. The majority of patients were not seriously ill; some were hospitalized to facilitate proper isolation.

Of the 87 monkeypox cases, 20 (23%) were laboratory confirmed at CDC (Table). Among these 20 patients, one was a child hospitalized with severe encephalitis 3 days after developing a vesicular rash, which was originally thought to be varicella-zoster virus (VZV). However, diagnostic testing for VZV and for herpes simplex virus in serum, cerebrospinal fluid, and skin lesion biopsy was negative. A skin lesion biopsy was positive for monkeypox DNA by polymerase chain reaction (PCR) and for orthopox antigens by immunohistochemical (IHC) testing.

The majority of patients had direct or close contact with wild or exotic mammals such as prairie dogs (*Cynomys* sp.). In one instance, 28 children attending a day care facility in Indiana were potentially exposed to two prairie dogs that subsequently became ill and died; 12 (43%) reported handling or petting the prairie dogs, and seven (25%) subsequently became ill with symptoms consistent with monkeypox infection. Laboratory evaluation of these children is in progress.

FIGURE. Number* of persons with monkeypox, by date of first symptom onset — Illinois, Indiana, Kansas, Missouri, Ohio, and Wisconsin, May 15–June 13, 2003



*N = 78.

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TABLE. Number and percentage of 20 laboratory-confirmed monkeypox cases, by selected characteristics — United States, 2003

Characteristic	No.	(%)
State		
Illinois	5	(25)
Indiana	6	(30)
Wisconsin	9	(45)
Age (yrs)		
6–18	7	(35)
19–48	13	(65)
Sex		
Female	8	(40)
Male	12	(60)
Clinical features		
Rash*	19	(95)
Fever	17	(85)
Respiratory symptoms†	16	(80)
Lymphadenopathy	11	(55)
Hospitalized	12	(60)
Smallpox vaccination status§	2	(15)

* For one case, rash could not be confirmed.
† Includes at least one of the following symptoms: cough, shortness of breath, sore throat, and nasal congestion.
§ Data on previous history of smallpox vaccination was available for 13 (65%) of the 20 laboratory-confirmed cases.

Laboratory Investigation

Clinical specimens obtained from 82 patients in Illinois, Indiana, Ohio, and Wisconsin were forwarded to CDC for testing. Twenty (74%) of 27 patients with skin rash-lesion specimens were laboratory confirmed for monkeypox by viral isolation, PCR, electron microscopy, and/or IHC; four were negative for monkeypox virus; one patient was found to have varicella by PCR testing; and two are pending. Two health-care workers in Wisconsin who were suspected initially of acquiring disease by human-to-human transmission had no evidence of monkeypox-specific DNA signatures in blood and nasopharyngeal and/or oropharyngeal swabs; culture results are pending. These persons did not have a rash, and IgM testing has not revealed any anti-orthopoxvirus immune reactivity.

Animal Investigation

Traceback investigations of animals are ongoing to identify how monkeypox virus was introducted into the United States. Preliminary results have determined that an animal vendor in Wisconsin (distributor A) sold prairie dogs to the index patient in Wisconsin; this vendor had obtained prairie dogs from an animal vendor in Illinois (distributor B), who had housed prairie dogs and Gambian giant rats (*Cricetomys* sp.) in close proximity. Because Gambian giant rats often are imported from regions of Africa where monkeypox is endemic,

traceback investigations of the Gambian giant rats were initiated. These investigations identified a shipment of animals from Ghana, including Gambian giant rats that were delivered to a Texas animal importer (distributor C) on April 9. Distributor C's Gambian giant rats were sold subsequently to an Iowa animal vendor on April 15 (distributor D) who in turn supplied them to distributor B. The shipment of animals from Ghana contained approximately 800 small mammals of nine different species, including six genera of African rodents that might have been the source of introduction of monkeypox. These rodent genera included rope squirrels (*Funiscuirus* sp.), tree squirrels (*Heliosciurus* sp.), Gambian giant rats, brushtail porcupines (*Atherurus* sp.), dormice (*Graphiurus* sp.), and striped mice (*Hybomys* sp.). Laboratory testing of animals from the April 9 importation from Africa is underway to determine which, if any, animals in the shipment might have introduced the virus into the United States.

On the basis of the epidemiologic link between the shipment from Ghana and distributor B, trace-forward investigations have been initiated to locate animal vendors and owners who purchased imported African rodents from the April 9 shipment or purchased prairie dogs from distributors A, B, C, and D after April 15. In addition to routine sales by animal vendors, animals also were sold or traded at "swap meets" (i.e., gatherings of animal traders, exhibitors, and buyers). An investigation of distributor B revealed that infected prairie dogs from this animal vendor might have been sold or traded at swap meets to unidentified buyers in Schaumburg, Illinois, on April 20, May 3, and May 18; Indianapolis, Indiana, on April 27 and May 18; and Columbus, Ohio, on April 19. In addition, distributor A sold infected prairie dogs at a swap meet in Wausau, Wisconsin, on May 11. In several instances, identifying individuals who purchased animals has been impossible. Invoices and other records are incomplete for many of these sales, especially those transacted at swap meets.

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Editorial Note: Preliminary findings from these investigations suggest that the primary route of monkeypox transmission to humans is from close contact with infected wild and exotic mammalian pets. Person-to-person transmission has not been identified in this outbreak. Investigations are underway to assess the possibility of secondary transmission among health-care workers and household contacts exposed to patients with laboratory-confirmed monkeypox infection.

Compared with previous reports of monkeypox among persons in central Africa (*2*), the illness associated with the current outbreak in the United States has been relatively mild. Monkeypox infection in adults has been described rarely in Africa; among adults, previous vaccination against smallpox might attenuate clinical illness (*3*). The report of encephalitis in a child indicates the potentially serious consequences of the disease.

Because suspected cases of monkeypox might actually represent varicella infections, patients should be assessed for history of varicella or having received varicella vaccine. Rash illness suspected to be monkeypox should be confirmed by laboratory evaluation, particularly if use of smallpox vaccine is being considered for purposes of monkeypox outbreak control. CDC has issued interim recommendations for use of smallpox vaccine, cidofovir, and vaccinia immune globulin (VIG) for prevention and treatment in the setting of outbreaks of monkeypox infections (*4*).

Health-care providers, veterinarians, and public health officials who suspect monkeypox in animals or humans should report such cases to their state and local health departments. CDC requests that reports of suspect cases from state health departments be directed to the CDC Emergency Operations Center, telephone 770-488-7100. Additional information about monkeypox, including a revised interim case definition (Box), is available at http://www.cdc.gov/ncidod/monkeypox.

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BOX. Updated interim case definition for human cases of monkeypox, June 17, 2003

Clinical Criteria

- Rash (macular, papular, vesicular, or pustular; generalized or localized; discrete or confluent)
- Fever (subjective or measured temperature ≥99.3° F [≥37.4° C])
- Other signs and symptoms:
  - — Chills and/or sweats
  - — Headache
  - — Backache
  - — Lymphadenopathy
  - — Sore throat
  - — Cough
  - — Shortness of breath

Epidemiologic Criteria

- Exposure* to an exotic or wild mammalian pet† obtained on or after April 15, 2003, with clinical signs of illness (e.g., conjunctivitis, respiratory symptoms, and/or rash)

or

- Exposure to an exotic or wild mammalian pet with or without clinical signs of illness that has been in contact with either a mammalian pet§ or a human with monkeypox

or

- Exposure¶ to a suspect, probable, or confirmed human case

Laboratory Criteria

- Isolation of monkeypox virus in culture
- Demonstration of monkeypox virus DNA by polymerase chain reaction testing in a clinical specimen
- Demonstration of virus morphologically consistent with an orthopoxvirus by electron microscopy in the absence of exposure to another orthopoxvirus
- Demonstration of presence of orthopoxvirus in tissue using immunohistochemical testing methods in the absence of exposure to another orthopoxvirus

Case Classification

- Suspect case
  - — Meets one of the epidemiologic criteria

    and
  - — Fever or unexplained rash and two or more other signs or symptoms with onset of first sign or symptom ≤21 days after last exposure meeting epidemiologic criteria

- Probable case
  - — Meets one of the epidemiologic criteria

    and
  - — Fever and vesicular-pustular rash with onset of first sign or symptom ≤21 days after last exposure meeting epidemiologic criteria

- Confirmed case
  - — Meets one of the laboratory criteria

Exclusion Criteria

A case may be excluded as a suspect or probable monkeypox case if:

- An alternative diagnosis can fully explain the illness**

or

- The case was reported on the basis of contact with an ill wild or exotic mammalian pet that was subsequently determined not to have monkeypox (e.g., another etiology fully explains the illness) provided other possible epidemiologic exposure criteria are not present

or

- The case was reported on the basis of contact with wild or exotic mammalian pet with or without signs of illness that had been in contact with an ill animal or person that was determined subsequently not to have monkeypox provided other possible epidemiologic exposure criteria are not present

or

- The case was reported on the basis of contact with a person who was subsequently determined not to have monkeypox provided other possible epidemiologic exposure criteria are not present

or

- A suspect case without a rash does not develop a rash within 6 days of initial identification or examination of the case

* Includes living in a household, petting or handling, or visiting a pet holding facility (e.g., pet store, veterinary clinic, or pet distributor).
† Includes prairie dogs, Gambian giant rats, and rope squirrels. Exposure to other exotic or nonexotic mammalian pets will be considered on a case-by-case basis; assessment should include the likelihood of contact with a mammal with monkeypox and the compatibility of clinical illness with monkeypox.
§ Includes living in a household or originating from the same pet holding facility as another animal with monkeypox.
¶ Includes skin-to-skin or face-to-face contact.
** Factors that might be considered in assigning alternate diagnoses include the strength of the epidemiologic exposure criteria for monkeypox, the specificity of the diagnostic test, and the compatibility of the clinical presentation and course of illness for the alternative diagnosis.

Foodborne Transmission of Hepatitis A — Massachusetts, 2001

Hepatitis A virus (HAV) is transmitted typically from person to person by the fecal-oral route. Foodborne transmission occurs when an HAV-infected food handler contaminates food during preparation (*1–3*) or when food is contaminated during harvesting or processing before reaching the food service establishment or home (*4,5*). Postexposure prophylaxis (PEP) with immune globulin (IG) can prevent hepatitis A among exposed persons if administered within 14 days of exposure. However, the decision about whether to implement PEP for persons who eat food prepared by an infected food handler depends on an assessment of the duties performed by the food handler and personal hygiene while potentially infectious, which are often difficult to determine. This report summarizes the investigation of an outbreak of foodborne hepatitis A in Massachusetts in which a food handler with hepatitis A, who was considered unlikely to transmit HAV, was implicated as the source. The findings underscore challenges faced by local and state health departments when determining whether PEP is appropriate.

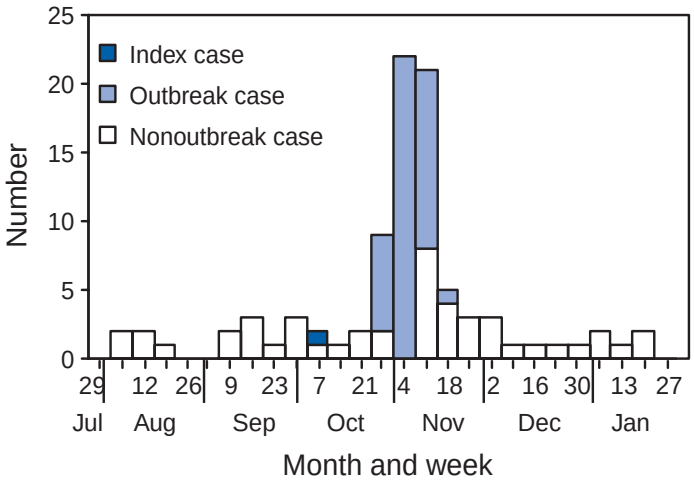
On October 26, 2001, the Massachusetts Department of Public Health (MDPH) was notified that a worker at restaurant A in county X had hepatitis A with symptom onset on October 17. On the basis of the date of symptom onset, the worker was considered to have been potentially infectious during October 3–24. The worker's primary responsibility was managerial, but the worker also prepared menu items (primarily sandwiches that were not cooked after preparation) as needed and had worked most recently on October 18. During an interview, the worker reported frequent hand washing and diligent glove use while handling food; supervisors validated the worker's hygiene practices. On the basis of the worker's reported hygiene practices, work duties, and lack of gastrointestinal symptoms, health officials considered HAV contamination of food prepared by this food handler unlikely and did not issue a public notification or recommend PEP for restaurant patrons. The worker denied any change in bowel habits; however, assessment was difficult because the worker had a colostomy and normally produced unformed stool that collected in an ostomy appliance. The worker reported that the appliance was secured under several layers of clothing and was never changed at work.

On October 26, the restaurant's owners closed and cleaned the restaurant voluntarily. On October 27, an inspection by MDPH found no sanitary code violations. None of the 20 food handlers at the restaurant had symptoms of hepatitis A, although none was tested serologically for evidence of recent HAV infection. The restaurant reopened after 19 food handlers received IG and one was excluded from work.

On November 20, MDPH was notified of six cases of hepatitis A among residents of county X, all with illness onsets during November 8–15. By December 3, a total of 46 persons had been reported in county X, with illness onsets during October 29–November 26 (Figure), compared with no cases during the same period in 2000. The median age of patients was 38 years (range: 5–76 years); 31 (67%) were males. Of the patients who could recall where they had eaten during their hepatitis A incubation period (2–6 weeks before illness onset), 35 (76%) of 46 reported eating at restaurant A, 15 (35%) of 43 at restaurant B, 16 (35%) of 46 at restaurant C, and nine (20%) of 45 at restaurant D. Eating at other restaurants was reported less frequently.

A matched case-control study was conducted to determine whether persons with hepatitis A were more likely than neighborhood controls to have eaten at one of the four restaurants. A case-patient was defined as a resident of county X who had illness onset during October 18–November 29 and had laboratory confirmation of HAV infection (positive IgM anti-HAV). Potential controls were identified by using a web-based neighbor search, matched by age group (2–13 years, 14–22 years, 23–40 years, 41–54 years, and ≥55 years) and interviewed by telephone. Potential controls who reported previous hepatitis A vaccination, possible hepatitis A illness during October 18–November 29, or a history of physician-diagnosed hepatitis A were excluded from participation. One neighborhood control was recruited for each of 43 (93%) case-patients; no neighborhood control was found for the remaining three case-patients. Controls were asked about eating food from restaurants from October 1 (4 weeks before the earliest illness onset of any case-patient) to November 12 (2 weeks before

FIGURE. Number of hepatitis A cases, by week of illness onset — County X, Massachusetts, July 29, 2001–January 27, 2002



the latest illness onset of any case-patient). An exact conditional logistic regression model was used to determine the relation between restaurant patronage and illness; illness was associated with eating food from restaurant A (odds ratio = 29.4; 95% confidence interval = 5.1–infinity) but not food from restaurants B, C, or D. A total of 32 (74%) of the 43 case-patients and seven (16%) of neighborhood controls reported having eaten food from restaurant A. An epidemiologic study to determine whether any specific foods served at restaurant A were associated with illness was not performed.

Sequence analysis of a segment of HAV RNA isolated from 28 case-patients was performed by using a reverse transcriptase-polymerase chain reaction method (*6*). A total of 25 sequences were identical, including all 21 from case-patients who reported eating food prepared at restaurant A. The remaining four patients reported not eating food from restaurant A during their incubation period. Three additional persons who did not eat at restaurant A had nonidentical viral RNA sequences.

Two case-patients were food handlers at restaurant Z, also in Massachusetts. Each had worked at restaurant Z when they were potentially infectious and prepared foods that were not cooked after handling. On November 27, after interviewing food handlers and inspecting restaurant Z, local health officials issued a public notice offering IG to customers who ate uncooked or cold food prepared at restaurant Z during November 14–23. Approximately 1,600 persons responded to the public notice and were administered IG at a clinic held at a local hospital.

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Editorial Note: The probable source of the hepatitis A outbreak described in this report was a food handler in restaurant A who worked while infectious and contaminated food that was not cooked subsequently. Although the food handler with hepatitis A was the probable source, transmission from another food handler in restaurant A with unidentified or unreported HAV infection cannot be excluded. This outbreak investigation highlights difficulties faced by public health officials when making hepatitis A PEP decisions. In this investigation, determining the risk for transmission to patrons from the implicated food handler, who handled uncooked foods while potentially infectious, was based on an assessment of self-reported activities such as gastrointestinal symptoms, personal hygiene, and glove use. The factors that led to transmission despite reportedly good hygiene cannot be determined.

During 1992–2001, approximately 230,000 cases of hepatitis A were reported in the United States (*7*). Although food handlers are not at higher risk for HAV infection because of their occupation, approximately 8% of adults reported with hepatitis A are identified annually as food handlers (CDC, unpublished data, 2003), indicating that thousands of food handlers have hepatitis A each year. Unlike the majority of persons with hepatitis A who transmit HAV only to close contacts, an HAV-infected food handler potentially can transmit HAV to many others and cause a substantial economic burden to public health. The estimated societal cost of a single foodborne outbreak of hepatitis A involving 43 cases was approximately $800,000; >90% of these costs were incurred by the public health department (*8*). Considerable effort is involved in determining the risk for transmission from an HAV-infected food handler to customers.

An interview that includes detailed questions about job duties, work dates, clinical symptoms, and hygiene is the basis for determining the need for PEP. CDC guidelines recommend that PEP can be considered if 1) during the time when the food handler was probably infectious, the food handler both directly handled uncooked foods or foods after cooking and had diarrhea or poor hygiene practices; and 2) patrons can be identified and treated within 2 weeks after the exposure (*9*). However, because good personal hygiene is subjective and difficult to corroborate or might not prevent disease transmission completely, a food handler's report of good hygiene should not be the only criterion for determining whether patron notification and PEP are needed. Other factors that might affect personal hygiene and the potential for HAV transmission should be examined, including the presence of underlying medical conditions. For the outbreak described in this report, the worker's ostomy might have compromised hygiene. HAV transmission from a food handler with a colostomy has been identified previously (D. Perrotta, Ph.D., Texas Department of Health, personal communication, 2003).

A better understanding is needed regarding hygiene practices, clinical symptoms, and viral characteristics that contribute to HAV transmission by contaminated food. However, prevention measures that can reduce the risk for transmission of HAV and other enteric pathogens also should be emphasized, including regular and thorough hand washing, reducing bare-hand contact with foods that are not cooked subsequently, restricting ill food handlers from working directly with food or food equipment, and providing a sick leave policy so workers can discontinue working while ill (*10*). Hepatitis A vaccination should be encouraged for persons who are both recommended for routine vaccination (i.e., men who have sex with men, illicit-drug users, and persons who plan

travel to countries in which hepatitis A is endemic) and are employed as food handlers.

The factors that led to HAV transmission in this outbreak cannot be determined. Until the determinants of HAV transmission through contaminated food are understood better, decisions about providing PEP to customers of food service establishments will continue to be based on data obtained during case interviews and on the judgment and experience of public health officials. Food handlers acquire HAV infection from others within their communities, and reducing food handler transmission of HAV will be achieved ultimately through routine vaccination of persons at risk for HAV infection within these communities.

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Progress Toward Poliomyelitis Eradication — Nigeria, January 2002–March 2003

Since 1988, when the World Health Assembly resolved to eradicate poliomyelitis globally, the annual estimated incidence of polio has decreased >99% (*1,2*). Nigeria is the most populous country in Africa (estimated 2000 population: 127 million) and a major poliovirus reservoir. This report summarizes progress toward polio eradication in Nigeria during January 2002–March 2003, highlighting progress in acute flaccid paralysis (AFP) surveillance and evidence of wild poliovirus (WPV) circulation in areas of lower vaccination coverage. The findings underscore the importance of achieving high-quality supplementary immunization activities (SIAs).

Routine Vaccination

National routine vaccination services remain inadequate. In 2000, an estimated 38% of infants aged <1 year received 3 doses of oral polio vaccine (OPV) (*3*), and in 2001, an estimated 25% of infants aged <1 year received 3 doses of OPV (World Health Organization [WHO] and United Nations Children's Fund [UNICEF], unpublished data, 2003).

Supplementary Immunization Activities

Supplementary OPV vaccination activities targeting children aged ≤59 months have been conducted annually in Nigeria since National Immunization Days (NIDs)* were begun in 1996 (*4*). During 2002–2003, the frequency of SIA rounds in Nigeria has been sustained. In 2002, three rounds of NIDs, two rounds of Subnational Immunization Days (SNIDs)†, and additional mop-up rounds were conducted. As of May 2003, five rounds of SNIDs and additional mop-up rounds had been completed; one SNID covering eight states in which polio is endemic and two NIDs are scheduled for October and November. NIDs were conducted in October and November 2002, reaching approximately 36.0 and 38.9 million children aged <5 years, respectively. SNIDs in high-risk areas were conducted in April and May 2002 and in January, March, and April 2003. The first series of SNIDs targeted eight northcentral and northeastern states in January and March, reaching approximately 12.5 million children aged <5 years, and six states in April, reaching approximately 5.2 million children aged <5 years. In March and April, a second series of SNID rounds was conducted in four northwestern states, reaching approximately 3.8 and 3.7 million children aged <5 years, respectively. In February and March 2003, two mop-up rounds were conducted in response to an outbreak in Nasarawa, a state in which no WPV had been isolated for >12 months. In May and June 2003, additional mop-up activities were implemented in 16 local government areas (LGAs) in Benue, Kogi, and Nasarawa states. During 2001–2002, the number of national and international staff trained and deployed to plan, implement, and monitor SIAs increased

* Mass campaigns during a short period (days) in which 2 doses of OPV are administered to all children in the target group (usually those aged <5 years) regardless of previous vaccination history.
† Campaigns similar to NIDs but confined to part of the country.

threefold, and independent monitoring of SIA quality indicators and of social mobilization activities also was intensified and expanded.

National polio eradication programs analyze the OPV vaccination status (routine and supplemental doses) of children aged <5 years with nonpolio AFP as a proxy for OPV coverage in the general population. During March 2002–February 2003, the proportion of children aged <5 years with nonpolio AFP who received ≥3 doses of OPV was <60% (median: 44%; range: 37%–59%) in 12 of the 20 northern states and >80% in two states. By contrast, during the same period, the proportion of children aged <5 years with nonpolio AFP who received ≥3 doses of OPV was ≥80% (median: 86%; range: 83%–95%) in seven of the 17 southern states and <60% in one state. Although >90% of children targeted were reached with OPV during the 2002 NIDs and three of the five rounds of SNIDs conducted as of March 2003, some LGAs have failed to reach ≥80% of target children. During the January and March 2003 SNIDs conducted in eight northern states (Bauchi, Borno, Gombe, Jigawa, Kaduna, Kano, Katsina, and Yobe), the number of LGAs reporting coverage of <80% increased from 43 (21%) of 203 in January to 72 (35%) of 203 in March. Coverage in these LGAs was low because vaccinators missed some houses and persons in these areas were poorly informed about SIAs.

Surveillance for AFP

AFP surveillance quality is evaluated by two key indicators: annual reporting rate (target: nonpolio AFP rate of ≥1 case per 100,000 children aged <15 years) and completeness of specimen collection (target: two adequate stool specimens from ≥80% of all persons with AFP). In 2002, the nonpolio AFP rate was ≥1.0 in all 36 states and the Federal Capital Territory of Abuja. During 2001–2002, the nonpolio AFP rate increased from 3.8 to 5.7, and the adequate stool specimen collection rate increased from 68% to 84% (Table). In 2002, in 35 (95%) of 37 states, collection of two adequate stool specimens was ≥80%. During January–March 2003, the annualized nonpolio AFP rate was 4.2; two adequate stool specimens were collected for 91% of persons with AFP, and 33 (89%) of 37 states had adequate stool specimen collection rates of ≥80%.

The AFP surveillance system is supported by two national WHO-accredited laboratories, one each in Ibadan (Oyo state) and Maiduguri (Borno state). During 2001–2002, the number of stool specimens processed by these laboratories increased from 3,935 to 6,164. The rate of isolating nonpolio enteroviruses (NPEVs) is a combined indicator of the quality of stool specimen transport and sensitivity of laboratory processing. In 2002, the NPEV isolation rate was 15% at the Ibadan and 18% at the Maiduguri laboratory (anticipated minimum: ≥10%). During January–March 2003, NPEV isolation rates at both laboratories were 13% and 8%, respectively.

Wild Poliovirus Incidence

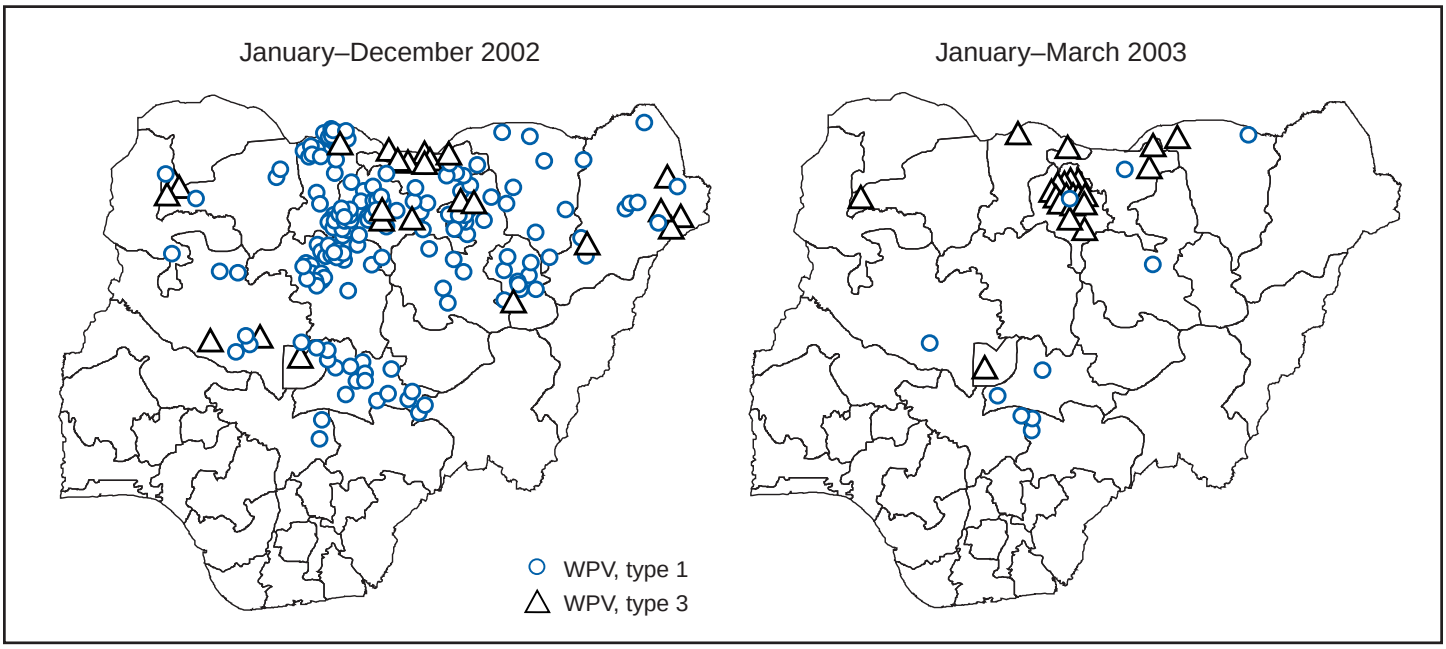
During 2001–2002, improvements in AFP surveillance were associated with an increase in the number of WPV cases detected, from 56 in 2001 to 202 in 2002 (Table). As of March 31, 2003, a total of 32 WPV cases had been detected. Since July 2001, no WPVs have been isolated in 17 southern states (Abia, Akwa Ibom, Anambra, Bayelsa, Cross River, Delta, Ebonyi, Edo, Ekiti, Enugu, Imo, Lagos, Ogun, Ondo, Osun, Oyo, and Rivers), or from four central states (Adamawa, Kwara, Plateau, and Taraba). Genetic analysis of WPV isolates has demonstrated the disappearance of lineages, suggesting that many chains of transmission have been broken. However, intense WPV transmission continued in the northern states during 2002–2003 (Figure). During 2002, five northern states (Bauchi, Jigawa, Kaduna, Kano, and Katsina) accounted for 133 (66%) of 202 WPV isolates. Kano state alone accounted for 51 (25%) of 202 WPVs detected during 2002 and for 16 (50%) of 32 WPVs detected during January–March 2003. In previous years in Nigeria, transmission peaked during September–November, but during 2002, a broader peak in transmission occurred during April–November, encompassing 178 (88%) of 202 cases; of 202 confirmed cases detected in 2002, a total of 95 (47%) were among children

TABLE. Number of confirmed wild poliovirus (WPV) cases and key surveillance indicators, by year — Nigeria, January 2001–March 2003*

Year	No. confirmed WPV cases	Serotype distribution of WPV isolates†			No. AFP§ cases	Nonpolio AFP rate¶	% persons with AFP with adequate stool specimens**
		Type 1	Type 2	Type 3			
2001	56	35	0	22	1,940	3.8	67
2002	202	174	0	28	3,010	5.7	84
2003	31	10	0	21	421	4.2	91

* As of March 31, 2003.
† In 2001, one specimen tested had both type 1 and type 3 isolated.
§ Acute flaccid paralysis.
¶ Per 100,000 children aged <15 years (minimum expected annual rate: one case per 100,000); rate for 2003 is annualized.
** Two stool specimens collected at an interval of at least 24 hours, within 14 days of paralysis onset, and adequately shipped to the laboratory.

FIGURE. Distribution of wild poliovirus (WPV) isolates from acute flaccid paralysis cases — Nigeria, January–December 2002 and January–March 2003*



* As of March 31, 2003.

aged <2 years; of 167 patients for whom vaccination status was reported, 33 (20%) had never received OPV.

Reported by: *Federal Ministry of Health; Country Office of the World Health Organization, Abuja, Nigeria. Vaccine Preventable Diseases, World Health Organization Regional Office for Africa, Harare, Zimbabwe. Vaccines and Biologicals Dept, World Health Organization, Geneva, Switzerland. Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Global Immunization Div, National Immunization Program, CDC.*

Editorial Note: During 2002–2003, AFP surveillance improved substantially in Nigeria. The genetic sequencing data from polioviruses isolated indicate that several genetic lineages have been eliminated. Demonstration of the absence of wild virus circulation in 14 southern states since 2001 is encouraging and provides evidence that implementation of similar high-quality eradication activities can interrupt transmission in the northern states. Other achievements during 2001–2002 include increased frequency and improved implementation of SIA monitoring and regular analysis of SIA quality indicators.

Despite progress, Nigeria remains one of three global poliovirus reservoirs (along with northern India and Pakistan) whose low routine OPV vaccination coverage and high population density favor poliovirus transmission. Several factors raise concern about the quality of SIA implementation. During January–March 2003, despite sustained implementation of SIAs targeting high-risk states, the number of areas in which OPV coverage was <80% increased. During 2002, the number of persons with confirmed WPV increased approximately fourfold, and 20% of these persons had never received OPV. The detection of substantial numbers of confirmed cases outside the peak transmission season in 2002 and the isolation of WPV type 3 from 22 patients during January–March 2003 (i.e., during the seasonal low point of transmission) suggest a persistent gap in population immunity in northern states. Improved SIA monitoring has attributed low vaccination coverage to houses being missed by vaccinators and pockets of poorly informed parents. These findings indicate a need for higher quality vaccination activities overall, including better planning, more coordinated social mobilization and communication activities, and continued intensive monitoring. For SIAs to be improved, the high degree of political commitment that exists at the national level should be translated into greater involvement and accountability at the state and LGA levels.

In addition to SIA activities, the government of Nigeria is working with partners to strengthen routine vaccination. In 2002, with the support of WHO and UNICEF, the country developed a 5-year cold chain rehabilitation plan. With a grant from the Global Alliance for Vaccines and Immunization vaccine fund in 2002, the Ministry of Health (MOH) is developing new interventions, including training of health-care workers in charge of vaccination services at state and local government areas and a review of the vaccine distribution system. MOH also has received technical support from newly recruited national consultants to assist in planning,

implementation, and monitoring of the vaccination services at the state level.

Upcoming planned activities include SNIDs in September 2003 in the northern states (the extent to be determined at a meeting of an expert advisory group in July) and NIDs in October and November 2003. Close collaboration between the government and its global partners has been critical in sustaining eradication activities in Nigeria and will continue to be essential to achieve polio eradication[§].

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[§] Polio eradication efforts in Nigeria are supported by the governments of Nigeria, Japan, the Netherlands, and Norway; the European Union; the International Development Agency, Canada; the Department for International Development, United Kingdom; the U.S. Agency for International Development and Basic Support for Institutionalizing Child Survival (BASICS); Rotary International; UNICEF; WHO; and CDC.

Update: Severe Acute Respiratory Syndrome — United States, June 18, 2003

CDC continues to work with state and local health departments, the World Health Organization (WHO), and other partners to investigate cases of severe acute respiratory syndrome (SARS). This report updates reported SARS cases worldwide and in the United States and summarizes changes in travel recommendations for provinces in China with the exclusion of Beijing, where a travel advisory remains.

During November 1, 2002–June 18, 2003, a total of 8,465 probable SARS cases were reported to WHO from 29 countries, including 75 from the United States; 801 deaths (case-fatality proportion: 9.5%) have been reported, with no SARS-related deaths reported from the United States (*1*). In the United States, a total of 409 SARS cases have been reported from 42 states and Puerto Rico, with 334 (82%) cases classified as suspect SARS and 75 (18%) classified as probable SARS (i.e., more severe illnesses characterized by the presence of pneumonia or acute respiratory distress syndrome) (*2*). Serologic testing for antibody to SARS-associated coronavirus (SARS-CoV) infection has been completed for 136 suspect and 45 probable cases. None of the suspect cases and eight (18%) of the probable cases have demonstrated antibodies to SARS-CoV, all of which have been described previously (*3,4*). Of the eight laboratory-confirmed SARS patients in the United States, seven had traveled to areas with documented or suspected community transmission of SARS within the 10 days before illness onset. Of these, four reported travel to Hong Kong Special Administrative Region, China; two to Toronto, Canada; and one to both Singapore and Taiwan. The remaining laboratory-confirmed SARS patient is the spouse of a laboratory-confirmed SARS patient that had traveled to Hong Kong.

On June 17, CDC downgraded its travel advisory for Mainland China to alert status for all provinces except Beijing, where the travel advisory remains in effect (*5*). These changes reflect data reported to the World Health Organization by the Chinese Ministry of Health which indicate that SARS transmission in Mainland China (other than in Beijing) is limited to a small number of specific settings through direct person-to-person spread; no evidence exists of ongoing community transmission, and monitoring by the Ministry of Health indicates that no new outbreaks of illness in these provinces.

Reported by: *State and local health departments. SARS Investigative Team, CDC.*

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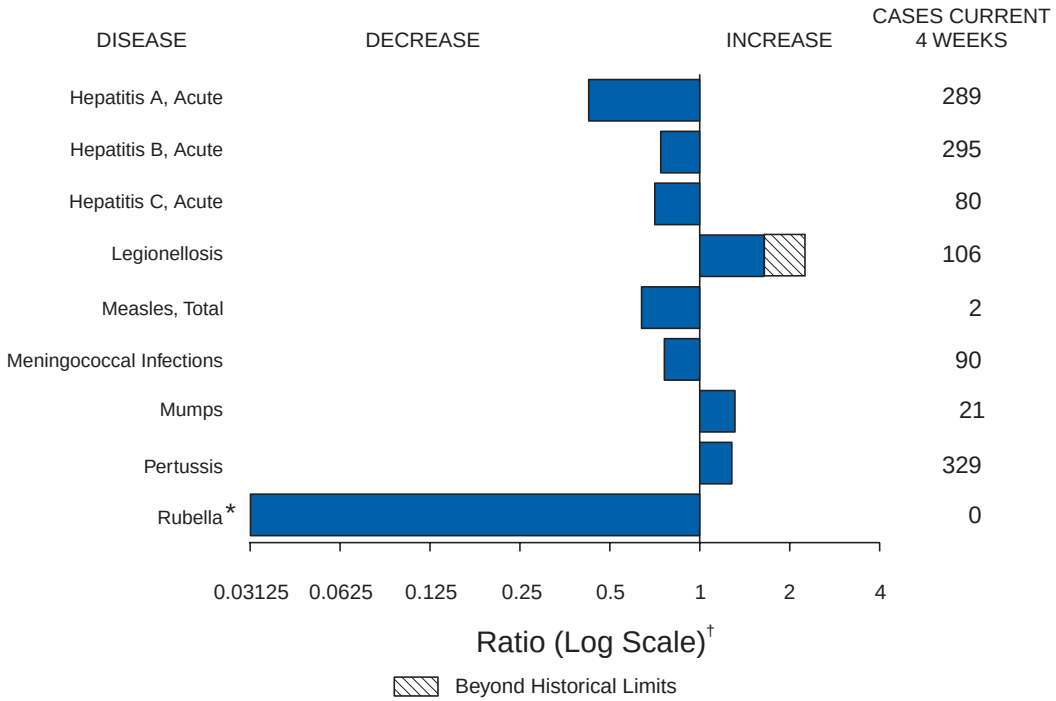
FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals June 14, 2003, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 24 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending June 14, 2003 (24th Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	1	Hansen disease (leprosy)†	22	40
Botulism:	-	-	Hantavirus pulmonary syndrome†	12	10
foodborne	7	6	Hemolytic uremic syndrome, postdiarrheal†	55	59
infant	27	32	HIV infection, pediatric†§	108	64
other (wound & unspecified)	11	7	Measles, total	17¶	14**
Brucellosis†	33	51	Mumps	99	142
Chancroid	16	37	Plague	-	-
Cholera	-	2	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	14	72	Psittacosis†	6	11
Diphtheria	-	-	Q fever†	42	22
Ehrlichiosis:	-	-	Rabies, human	-	1
human granulocytic (HGE)†	33	51	Rubella	3	6
human monocytic (HME)†	40	32	Rubella, congenital	-	1
other and unspecified	3	4	Streptococcal toxic-shock syndrome†	100	72
Encephalitis/Meningitis:	-	-	Tetanus	4	11
California serogroup viral†	-	-	Toxic-shock syndrome	64	51
eastern equine†	-	-	Trichinosis	3	10
Powassan†	-	-	Tularemia†	10	22
St. Louis†	-	-	Yellow fever	-	-
western equine†	-	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update May 25, 2003.
¶ Of 17 cases reported, 15 were indigenous and two were imported from another country.
** Of 14 cases reported, seven were indigenous and seven were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 14, 2003, and June 15, 2002 (24th Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	19,482	16,491	365,361	372,113	1,458	2,076	829	951	-	-
NEW ENGLAND	654	627	12,091	12,154	-	-	51	45	-	-
Maine	27	19	771	662	N	N	5	2	-	-
N.H.	15	15	692	725	-	-	6	10	-	-
Vt.	6	6	444	345	-	-	10	8	-	-
Mass.	277	313	4,883	4,917	-	-	18	15	-	-
R.I.	51	49	1,420	1,190	-	-	9	5	-	-
Conn.	278	225	3,881	4,315	N	N	3	5	-	-
MID. ATLANTIC	4,098	3,436	39,509	40,587	-	-	116	137	-	-
Upstate N.Y.	274	239	8,685	7,243	N	N	35	27	-	-
N.Y. City	1,976	1,812	14,265	14,027	-	-	33	56	-	-
N.J.	787	665	6,074	5,729	-	-	5	11	-	-
Pa.	1,061	720	10,485	13,588	N	N	43	43	-	-
E.N. CENTRAL	1,982	1,773	64,019	69,326	3	12	177	269	-	-
Ohio	303	311	16,422	17,879	-	-	32	61	-	-
Ind.	259	206	7,506	7,606	N	N	20	20	-	-
Ill.	959	814	18,681	21,823	-	2	18	54	-	-
Mich.	359	360	14,249	14,339	3	10	38	49	-	-
Wis.	102	82	7,161	7,679	-	-	69	85	-	-
W.N. CENTRAL	358	269	21,676	20,646	1	-	82	96	-	-
Minn.	74	55	4,455	4,841	N	N	38	35	-	-
Iowa	41	41	2,398	2,420	N	N	13	11	-	-
Mo.	177	116	7,975	6,595	-	-	7	15	-	-
N. Dak.	-	-	513	584	N	N	4	6	-	-
S. Dak.	7	2	1,155	995	-	-	16	5	-	-
Nebr.¶	25	23	1,905	1,994	1	-	3	17	-	-
Kans.	34	32	3,275	3,217	N	N	1	7	-	-
S. ATLANTIC	5,488	5,341	71,984	69,825	2	1	124	128	-	-
Del.	106	95	1,438	1,257	N	N	3	1	-	-
Md.	558	815	7,481	7,078	2	1	9	5	-	-
D.C.	595	264	1,264	1,503	-	-	3	3	-	-
Va.	481	344	8,482	7,689	-	-	13	2	-	-
W. Va.	42	39	1,154	1,130	N	N	2	1	-	-
N.C.	581	399	11,999	11,028	N	N	15	18	-	-
S.C.	330	420	6,803	6,667	-	-	2	2	-	-
Ga.	736	920	15,120	14,353	-	-	47	48	-	-
Fla.	2,059	2,045	18,243	19,120	N	N	30	48	-	-
E.S. CENTRAL	841	749	24,276	24,186	N	N	48	58	-	-
Ky.	79	122	3,771	4,007	N	N	10	1	-	-
Tenn.	374	324	8,603	7,530	N	N	14	27	-	-
Ala.	185	143	6,313	7,609	-	-	21	26	-	-
Miss.	203	160	5,589	5,040	N	N	3	4	-	-
W.S. CENTRAL	2,125	1,801	47,585	49,695	-	-	38	29	-	-
Ark.	65	123	3,292	3,342	-	-	1	4	-	-
La.	368	431	7,891	8,592	N	N	1	8	-	-
Okla.	92	94	5,028	4,787	N	N	4	3	-	-
Tex.	1,600	1,153	31,374	32,974	-	-	32	14	-	-
MOUNTAIN	722	553	21,543	22,913	1,020	1,437	41	63	-	-
Mont.	10	6	989	740	N	N	8	4	-	-
Idaho	13	10	1,127	1,141	N	N	7	17	-	-
Wyo.	4	3	463	410	-	-	1	6	-	-
Colo.	159	107	4,423	6,463	N	N	9	16	-	-
N. Mex.	52	34	3,183	3,617	1	5	2	6	-	-
Ariz.	341	235	6,868	6,652	997	1,409	2	6	-	-
Utah	31	30	2,115	1,056	5	6	9	5	-	-
Nev.	112	128	2,375	2,834	17	17	3	3	-	-
PACIFIC	3,214	1,942	62,678	62,781	431	626	152	126	-	-
Wash.	214	228	7,157	6,730	N	N	14	9	-	-
Oreg.	126	178	3,366	3,056	-	-	18	17	-	-
Calif.	2,815	1,496	49,854	49,396	431	626	120	99	-	-
Alaska	12	9	1,716	1,632	-	-	-	-	-	-
Hawaii	47	31	585	1,967	-	-	-	1	-	-
Guam	2	1	-	303	-	-	-	-	-	-
P.R.	514	502	664	1,397	N	N	N	N	-	-
V.I.	15	53	-	85	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

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

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update May 25, 2003.

¶ For Nebraska, data for hepatitis A, B, and C; meningococcal disease; pertussis; streptococcal disease (invasive, group A); and *Streptococcus pneumoniae* (invasive) were collected by using the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 14, 2003, and June 15, 2002 (24th Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	560	774	80	44	59	8	6,346	7,896	137,938	158,034
NEW ENGLAND	31	63	10	10	6	1	441	707	2,997	3,570
Maine	4	3	1	-	-	-	54	71	87	46
N.H.	6	5	-	-	-	-	15	22	49	59
Vt.	-	2	-	-	-	-	38	50	37	49
Mass.	10	32	2	7	6	1	200	373	1,205	1,559
R.I.	1	5	-	-	-	-	51	52	424	429
Conn.	10	16	7	3	-	-	83	139	1,195	1,428
MID. ATLANTIC	60	90	3	-	18	2	1,284	1,728	15,970	18,710
Upstate N.Y.	25	36	1	-	10	-	371	469	3,322	3,722
N.Y. City	3	6	-	-	-	-	468	660	5,449	5,677
N.J.	5	16	-	-	-	-	112	202	3,552	3,499
Pa.	27	32	2	-	8	2	333	397	3,647	5,812
E.N. CENTRAL	123	196	9	10	8	1	1,044	1,324	28,707	33,277
Ohio	35	31	9	4	8	1	360	355	9,247	9,751
Ind.	17	17	-	-	-	-	-	-	2,860	3,288
Ill.	18	67	-	4	-	-	234	397	8,267	11,065
Mich.	27	31	-	2	-	-	287	359	5,876	6,498
Wis.	26	50	-	-	-	-	163	213	2,457	2,675
W.N. CENTRAL	80	92	8	5	9	-	654	744	7,261	7,962
Minn.	29	27	7	4	-	-	257	260	1,099	1,382
Iowa	11	19	-	-	-	-	97	102	532	551
Mo.	23	17	N	N	1	-	158	202	3,716	3,879
N. Dak.	2	3	-	-	2	-	13	11	23	33
S. Dak.	4	7	-	-	-	-	22	28	87	111
Nebr.	6	12	1	1	-	-	53	65	631	702
Kans.	5	7	-	-	6	-	54	76	1,173	1,304
S. ATLANTIC	51	67	25	10	-	-	1,055	1,163	35,144	40,505
Del.	-	3	N	N	N	N	15	22	538	760
Md.	-	5	-	-	-	-	51	43	3,494	3,960
D.C.	1	-	-	-	-	-	17	19	968	1,229
Va.	18	18	2	-	-	-	132	91	3,908	4,712
W. Va.	1	2	-	-	-	-	14	16	385	451
N.C.	5	9	6	-	-	-	N	N	6,789	7,596
S.C.	-	-	-	-	-	-	49	30	3,645	4,077
Ga.	10	19	2	5	-	-	390	359	7,398	7,724
Fla.	16	11	14	5	-	-	387	583	8,019	9,996
E.S. CENTRAL	27	35	-	-	4	-	146	142	11,705	13,691
Ky.	9	9	-	-	4	-	N	N	1,593	1,572
Tenn.	10	19	-	-	-	-	61	65	3,478	4,234
Ala.	6	3	-	-	-	-	85	77	3,788	4,816
Miss.	2	4	-	-	-	-	-	-	2,846	3,069
W.S. CENTRAL	52	33	13	-	10	2	110	60	19,372	22,052
Ark.	3	2	-	-	-	-	61	56	1,750	2,069
La.	-	1	-	-	-	-	3	-	4,948	5,303
Okla.	4	5	-	-	-	-	46	3	1,918	2,080
Tex.	45	25	13	-	10	2	-	1	10,756	12,600
MOUNTAIN	60	60	10	7	4	2	541	576	4,403	4,962
Mont.	2	8	-	-	-	-	28	32	55	40
Idaho	17	6	5	2	-	-	71	31	37	37
Wyo.	2	2	-	1	-	-	7	10	24	27
Colo.	17	15	1	3	4	2	153	193	1,024	1,584
N. Mex.	1	4	3	1	-	-	19	71	521	682
Ariz.	11	8	N	N	N	N	93	78	1,784	1,612
Utah	9	9	1	-	-	-	121	102	190	93
Nev.	1	8	-	-	-	-	49	59	768	887
PACIFIC	76	138	2	2	-	-	1,071	1,452	12,379	13,305
Wash.	19	15	1	-	-	-	85	173	1,300	1,336
Oreg.	15	33	1	2	-	-	141	166	439	374
Calif.	41	68	-	-	-	-	792	1,029	10,259	11,057
Alaska	1	4	-	-	-	-	36	38	245	273
Hawaii	-	18	-	-	-	-	17	46	136	265
Guam	N	N	-	-	-	-	-	3	-	31
P.R.	-	1	-	-	-	-	10	8	70	215
V.I.	-	-	-	-	-	-	-	-	-	21
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 14, 2003, and June 15, 2002 (24th Week)*

Reporting area	*Haemophilus influenzae*, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype B		Non-serotype B		Unknown serotype		A	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	759	891	5	16	112	149	17	11	2,637	4,524
NEW ENGLAND	55	60	-	-	7	7	3	1	114	166
Maine	2	1	-	-	-	-	1	-	5	6
N.H.	7	4	-	-	-	-	-	-	6	10
Vt.	6	3	-	-	-	-	-	-	4	-
Mass.	26	27	-	-	7	3	1	1	59	78
R.I.	3	9	-	-	-	-	1	-	11	21
Conn.	11	16	-	-	-	4	-	-	29	51
MID. ATLANTIC	150	166	-	2	18	25	5	-	477	576
Upstate N.Y.	58	64	-	2	9	8	-	-	50	90
N.Y. City	21	36	-	-	5	7	-	-	141	198
N.J.	30	38	-	-	4	5	-	-	67	90
Pa.	41	28	-	-	-	5	5	-	219	198
E.N. CENTRAL	104	185	1	2	18	31	-	-	259	535
Ohio	39	47	-	-	7	5	-	-	49	141
Ind.	23	28	-	1	2	6	-	-	19	27
Ill.	29	70	-	-	7	12	-	-	81	155
Mich.	11	7	1	1	2	-	-	-	89	117
Wis.	2	33	-	-	-	8	-	-	21	95
W.N. CENTRAL	57	27	-	-	6	2	5	3	79	164
Minn.	23	17	-	-	6	2	1	1	20	23
Iowa	-	1	-	-	-	-	-	-	17	35
Mo.	21	7	-	-	-	-	4	2	24	46
N. Dak.	1	-	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	-	-	-	-	-	-	-	-	4	6
Kans.	11	1	-	-	-	-	-	-	14	50
S. ATLANTIC	173	196	-	3	18	24	-	2	656	1,271
Del.	-	-	-	-	-	-	-	-	4	8
Md.	39	50	-	1	4	1	-	-	66	136
D.C.	-	-	-	-	-	-	-	-	20	44
Va.	16	14	-	-	4	2	-	-	35	40
W. Va.	7	4	-	-	-	-	-	1	11	10
N.C.	14	21	-	-	-	3	-	-	33	122
S.C.	2	6	-	-	-	2	-	-	18	41
Ga.	41	43	-	-	5	8	-	-	272	266
Fla.	54	58	-	2	5	8	-	1	197	604
E.S. CENTRAL	47	29	1	1	6	8	-	-	69	145
Ky.	2	3	-	-	-	-	-	-	12	32
Tenn.	27	14	-	-	4	5	-	-	38	56
Ala.	16	6	1	1	1	2	-	-	11	23
Miss.	2	6	-	-	1	1	-	-	8	34
W.S. CENTRAL	33	33	-	2	5	6	-	-	267	435
Ark.	4	1	-	-	1	-	-	-	2	22
La.	6	3	-	-	1	1	-	-	21	42
Okla.	22	27	-	-	3	5	-	-	9	20
Tex.	1	2	-	2	-	-	-	-	235	351
MOUNTAIN	102	111	3	3	27	25	3	3	192	286
Mont.	-	-	-	-	-	-	-	-	2	9
Idaho	2	2	-	-	1	1	-	-	-	20
Wyo.	1	2	-	-	-	-	-	-	1	2
Colo.	18	19	-	-	4	2	-	-	28	42
N. Mex.	13	18	-	-	4	4	1	1	8	8
Ariz.	55	52	3	1	12	14	-	1	115	158
Utah	8	12	-	1	5	3	-	-	17	20
Nev.	5	6	-	1	1	1	2	1	21	27
PACIFIC	38	84	-	3	7	21	1	2	524	946
Wash.	3	2	-	1	2	1	1	-	27	85
Oreg.	28	32	-	-	3	3	-	-	30	39
Calif.	2	29	-	2	2	14	-	2	461	801
Alaska	-	1	-	-	-	1	-	-	5	7
Hawaii	5	20	-	-	-	2	-	-	1	14
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	9	98
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 14, 2003, and June 15, 2002 (24th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	2,802	3,292	1,466	861	493	357	210	204	2,982	3,822
NEW ENGLAND	111	125	-	16	15	17	8	19	235	461
Maine	2	3	-	-	-	2	1	2	-	-
N.H.	10	9	-	-	1	2	2	2	7	26
Vt.	1	3	-	11	1	1	-	-	4	4
Mass.	86	74	-	5	6	8	3	12	14	401
R.I.	4	14	-	-	1	-	-	1	109	22
Conn.	8	22	U	U	6	4	2	2	101	8
MID. ATLANTIC	550	734	80	49	93	90	36	42	2,251	2,631
Upstate N.Y.	46	63	27	25	33	17	9	12	993	1,069
N.Y. City	180	392	-	-	8	18	7	12	1	37
N.J.	215	123	-	4	2	16	5	5	307	752
Pa.	109	156	53	20	50	39	15	13	950	773
E.N. CENTRAL	195	262	109	53	101	92	20	30	70	227
Ohio	69	39	6	-	61	35	5	9	18	20
Ind.	10	16	-	-	6	4	1	3	4	3
Ill.	1	49	7	11	3	13	4	7	-	15
Mich.	93	136	96	41	31	26	10	7	1	5
Wis.	22	22	-	1	-	14	-	4	47	184
W.N. CENTRAL	127	101	118	416	18	24	6	8	52	48
Minn.	16	7	3	-	2	2	2	-	30	26
Iowa	4	11	-	1	4	6	-	1	6	6
Mo.	81	55	114	408	8	8	1	5	11	13
N. Dak.	-	1	-	-	1	-	-	1	-	-
S. Dak.	1	-	-	-	-	1	-	-	-	-
Nebr.	12	16	1	7	2	7	3	-	1	1
Kans.	13	11	-	-	1	-	-	1	4	2
S. ATLANTIC	808	777	83	88	133	74	49	28	239	331
Del.	3	8	-	-	2	5	N	N	39	47
Md.	50	68	8	6	25	9	6	4	143	188
D.C.	1	7	-	-	1	2	-	-	3	10
Va.	59	102	1	-	9	6	6	2	14	18
W. Va.	7	13	1	1	3	-	2	-	1	3
N.C.	77	105	5	14	12	5	9	3	20	38
S.C.	69	40	19	4	3	5	1	3	1	3
Ga.	266	202	3	37	11	7	14	6	5	1
Fla.	276	232	46	26	67	35	11	10	13	23
E.S. CENTRAL	185	170	45	59	28	11	9	8	16	19
Ky.	36	25	7	2	9	6	1	2	3	8
Tenn.	80	70	9	13	12	-	1	3	8	2
Ala.	32	37	5	3	6	5	5	3	1	5
Miss.	37	38	24	41	1	-	2	-	4	4
W.S. CENTRAL	133	494	962	94	47	10	32	13	69	59
Ark.	2	58	-	8	-	-	-	-	-	-
La.	28	56	23	39	-	4	-	-	3	3
Okla.	24	10	-	-	2	2	1	3	-	-
Tex.	79	370	939	47	45	4	31	10	66	56
MOUNTAIN	286	228	30	26	28	14	14	17	6	6
Mont.	8	3	1	-	1	1	1	-	-	-
Idaho	-	3	-	-	3	-	-	2	2	2
Wyo.	17	12	-	5	1	-	-	-	-	-
Colo.	43	37	22	3	7	3	6	2	1	-
N. Mex.	13	49	-	1	2	1	2	2	-	1
Ariz.	153	79	4	3	6	3	5	8	-	1
Utah	22	17	-	2	6	5	-	3	2	1
Nev.	30	28	3	12	2	1	-	-	1	1
PACIFIC	407	401	39	60	30	25	36	39	44	40
Wash.	25	29	7	12	3	1	1	3	-	-
Oreg.	59	71	6	7	N	N	1	2	12	5
Calif.	314	293	25	41	27	24	34	30	31	34
Alaska	7	5	1	-	-	-	-	-	1	1
Hawaii	2	3	-	-	-	-	-	4	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	13	74	-	-	-	-	-	2	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 14, 2003, and June 15, 2002 (24th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	376	516	1,001	1,011	2,315	3,055	2,057	2,624	156	271
NEW ENGLAND	7	32	41	58	213	295	191	360	-	1
Maine	1	1	5	2	2	3	21	22	-	-
N.H.	1	5	3	5	16	5	5	10	-	-
Vt.	-	1	-	4	29	52	14	58	-	-
Mass.	5	14	26	32	160	222	74	118	-	1
R.I.	-	2	2	4	5	1	24	27	-	-
Conn.	-	9	5	11	1	12	53	125	-	-
MID. ATLANTIC	79	130	97	129	237	136	201	460	13	29
Upstate N.Y.	21	18	22	28	119	89	138	245	1	-
N.Y. City	40	76	19	20	-	9	1	10	4	6
N.J.	4	21	13	19	18	-	62	65	6	10
Pa.	14	15	43	62	100	38	-	140	2	13
E.N. CENTRAL	33	74	130	152	180	363	33	33	4	5
Ohio	7	11	39	48	107	182	12	5	3	2
Ind.	-	2	24	22	28	22	2	7	-	-
Ill.	13	31	30	33	-	54	4	7	-	3
Mich.	12	22	25	24	21	33	15	9	1	-
Wis.	1	8	12	25	24	72	-	5	-	-
W.N. CENTRAL	19	34	74	84	128	242	262	221	7	37
Minn.	11	12	16	20	47	70	13	11	-	-
Iowa	2	2	13	13	25	86	33	27	1	1
Mo.	1	8	32	32	27	49	4	16	5	35
N. Dak.	-	1	-	-	2	5	29	17	-	-
S. Dak.	1	-	1	2	2	5	20	47	-	-
Nebr.	-	5	5	12	2	3	58	-	-	1
Kans.	4	6	7	5	23	24	105	103	1	-
S. ATLANTIC	104	114	153	152	192	190	1,078	1,141	98	137
Del.	-	1	7	6	1	2	23	9	-	-
Md.	29	37	13	4	26	23	147	192	26	17
D.C.	5	6	-	-	-	1	-	-	-	-
Va.	7	11	11	20	33	83	248	265	1	4
W. Va.	4	2	1	-	5	6	38	79	-	1
N.C.	8	8	19	16	70	19	338	295	58	74
S.C.	2	4	9	14	7	26	74	36	9	27
Ga.	18	15	18	18	23	13	167	185	-	12
Fla.	31	30	75	74	27	17	43	80	4	2
E.S. CENTRAL	7	8	42	53	56	83	28	137	25	39
Ky.	1	2	7	8	15	25	16	13	-	1
Tenn.	4	2	10	19	26	36	-	108	19	16
Ala.	2	2	12	14	12	15	12	16	3	5
Miss.	-	2	13	12	3	7	-	-	3	17
W.S. CENTRAL	42	17	249	120	178	737	136	51	5	20
Ark.	3	1	9	20	-	390	25	-	-	-
La.	1	2	22	24	4	5	-	-	-	-
Okla.	2	-	8	14	12	27	111	49	2	13
Tex.	36	14	210	62	162	315	-	2	3	7
MOUNTAIN	14	19	43	57	435	383	49	97	4	3
Mont.	-	-	2	2	-	2	8	4	1	1
Idaho	1	-	6	3	18	42	1	-	1	-
Wyo.	-	-	2	-	71	6	1	12	1	1
Colo.	10	9	13	18	176	160	5	-	-	-
N. Mex.	-	1	3	1	22	47	2	5	-	-
Ariz.	2	3	13	18	92	90	29	75	1	-
Utah	1	3	-	1	46	25	2	-	-	-
Nev.	-	3	4	14	10	11	1	1	-	1
PACIFIC	71	88	172	206	696	626	79	124	-	-
Wash.	10	9	14	37	160	174	-	-	-	-
Oreg.	7	3	33	31	181	62	2	1	-	-
Calif.	52	68	122	131	351	379	74	97	-	-
Alaska	-	2	1	1	-	2	3	26	-	-
Hawaii	2	6	2	6	4	9	-	-	-	-
Guam	-	-	-	1	-	2	-	-	-	-
P.R.	-	1	2	3	-	2	20	39	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 14, 2003, and June 15, 2002 (24th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	12,460	14,148	10,114	6,834	3,081	2,650	1,183	1,517	200	162
NEW ENGLAND	597	760	117	113	165	204	13	65	1	1
Maine	41	63	4	3	18	16	-	-	-	-
N.H.	39	44	4	4	16	23	-	-	N	N
Vt.	20	30	5	-	13	9	5	3	1	1
Mass.	325	440	70	82	113	75	N	N	N	N
R.I.	36	32	4	5	5	8	8	3	-	-
Conn.	136	151	30	19	-	73	-	59	U	U
MID. ATLANTIC	1,363	1,993	877	526	466	453	75	72	53	46
Upstate N.Y.	337	472	135	68	218	189	36	65	41	40
N.Y. City	397	536	154	193	62	106	U	U	U	U
N.J.	116	455	122	163	29	93	N	N	N	N
Pa.	513	530	466	102	157	65	39	7	12	6
E.N. CENTRAL	1,659	2,259	728	733	685	574	263	110	87	58
Ohio	526	560	128	313	199	128	177	4	62	-
Ind.	198	164	54	35	61	29	86	104	20	23
Ill.	465	818	370	257	168	180	-	2	-	-
Mich.	280	358	123	66	240	168	N	N	N	N
Wis.	190	359	53	62	17	69	N	N	5	35
W.N. CENTRAL	744	930	336	544	199	152	109	317	29	27
Minn.	215	208	41	99	97	74	-	220	25	25
Iowa	136	142	22	48	N	N	N	N	N	N
Mo.	189	336	146	59	42	33	7	5	2	1
N. Dak.	17	21	1	16	6	-	3	1	2	1
S. Dak.	29	30	8	148	16	9	-	1	-	-
Nebr.	63	61	85	120	19	14	-	25	N	N
Kans.	95	132	33	54	19	22	99	65	N	N
S. ATLANTIC	3,060	3,169	3,287	2,227	531	410	596	704	4	15
Del.	27	22	125	6	6	1	1	3	N	N
Md.	320	289	239	371	175	58	-	-	-	12
D.C.	15	34	29	27	9	5	2	-	-	1
Va.	325	323	163	410	62	44	N	N	N	N
W. Va.	32	42	-	2	26	8	38	34	4	2
N.C.	420	443	355	132	59	80	N	N	U	U
S.C.	161	186	204	41	23	27	66	118	N	N
Ga.	581	522	980	553	63	87	168	185	N	N
Fla.	1,179	1,308	1,192	685	108	100	321	364	N	N
E.S. CENTRAL	763	806	436	572	110	61	80	84	-	-
Ky.	134	124	53	61	27	10	11	10	N	N
Tenn.	257	204	148	26	83	51	69	74	N	N
Ala.	220	227	154	261	-	-	-	-	N	N
Miss.	152	251	81	224	-	-	-	-	-	-
W.S. CENTRAL	1,604	1,357	3,040	1,021	342	165	29	135	24	13
Ark.	177	208	39	89	3	4	7	5	-	-
La.	76	287	83	214	1	1	22	130	9	4
Okla.	123	132	396	157	49	25	N	N	15	-
Tex.	1,228	730	2,522	561	289	135	N	N	-	9
MOUNTAIN	844	876	396	253	298	332	17	30	2	2
Mont.	45	40	2	1	1	-	-	-	-	-
Idaho	85	56	10	2	11	5	N	N	N	N
Wyo.	46	24	1	3	1	6	4	10	-	-
Colo.	216	222	61	48	104	69	-	-	-	-
N. Mex.	63	117	77	50	67	64	13	20	-	-
Ariz.	240	260	207	121	104	170	-	-	N	N
Utah	88	55	22	13	9	18	-	-	2	2
Nev.	61	102	16	15	1	-	-	-	-	-
PACIFIC	1,826	1,998	897	845	285	299	1	-	-	-
Wash.	196	179	71	51	26	18	-	-	N	N
Oreg.	168	162	41	38	N	N	N	N	N	N
Calif.	1,381	1,513	779	732	231	254	N	N	N	N
Alaska	39	32	4	2	-	-	-	-	N	N
Hawaii	42	112	2	22	28	27	1	-	-	-
Guam	-	22	-	17	-	-	-	3	-	-
P.R.	47	153	1	11	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 14, 2003, and June 15, 2002 (24th Week)*

Reporting area	Syphilis: Primary & secondary		Syphilis: Congenital		Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
UNITED STATES	3,042	2,939	154	187	4,210	5,433	107	144	6,486
NEW ENGLAND	88	50	1	-	112	185	8	9	1,105
Maine	4	-	1	-	4	9	-	-	607
N.H.	8	-	-	-	5	7	1	-	-
Vt.	-	1	-	-	3	1	-	-	400
Mass.	61	37	-	-	67	88	2	7	95
R.I.	10	1	-	-	12	26	2	-	3
Conn.	5	11	-	-	21	54	3	2	-
MID. ATLANTIC	349	333	30	27	847	941	17	36	9
Upstate N.Y.	16	17	5	1	101	132	3	3	N
N.Y. City	196	193	18	10	493	456	7	18	-
N.J.	67	63	7	15	153	220	6	10	-
Pa.	70	60	-	1	100	133	1	5	9
E.N. CENTRAL	433	579	37	29	487	538	8	15	3,291
Ohio	105	68	2	-	89	89	-	4	805
Ind.	20	29	6	1	52	50	4	1	-
Ill.	162	215	13	23	230	256	-	5	-
Mich.	138	256	16	5	97	111	4	3	2,055
Wis.	8	11	-	-	19	32	-	2	431
W.N. CENTRAL	75	53	2	-	180	240	2	6	35
Minn.	21	24	-	-	75	99	-	3	N
Iowa	4	2	-	-	11	14	1	-	N
Mo.	28	12	2	-	16	71	1	1	-
N. Dak.	-	-	-	-	-	3	-	-	35
S. Dak.	1	-	-	-	13	10	-	-	-
Nebr.	1	5	-	-	14	9	-	2	-
Kans.	20	10	-	-	51	34	-	-	-
S. ATLANTIC	801	698	28	42	769	1,066	25	16	1,251
Del.	4	8	-	-	-	7	-	-	13
Md.	130	77	3	5	97	111	6	3	-
D.C.	25	22	1	1	-	-	-	-	14
Va.	38	32	1	1	71	117	10	-	309
W. Va.	-	-	-	-	10	10	-	-	777
N.C.	77	149	9	9	106	135	4	-	N
S.C.	50	59	3	5	65	80	-	-	138
Ga.	173	128	2	9	106	205	3	4	-
Fla.	304	223	9	12	314	401	2	9	N
E.S. CENTRAL	152	255	10	13	289	346	3	4	-
Ky.	21	41	1	2	53	56	-	4	N
Tenn.	68	103	4	4	87	128	1	-	N
Ala.	54	83	4	5	109	107	2	-	-
Miss.	9	28	1	2	40	55	-	-	-
W.S. CENTRAL	388	371	26	43	582	865	-	15	492
Ark.	19	17	-	3	45	54	-	-	-
La.	51	57	-	-	-	-	-	-	3
Okla.	22	28	-	1	61	69	-	-	N
Tex.	296	269	26	39	476	742	-	15	489
MOUNTAIN	132	149	14	7	119	161	3	6	303
Mont.	-	-	-	-	-	4	-	-	N
Idaho	6	1	-	-	1	2	-	-	N
Wyo.	-	-	-	-	2	2	-	-	26
Colo.	7	25	2	1	27	35	3	3	-
N. Mex.	25	16	-	-	-	20	-	-	-
Ariz.	84	100	12	6	70	78	-	-	3
Utah	4	2	-	-	13	13	-	2	274
Nev.	6	5	-	-	6	7	-	1	-
PACIFIC	624	451	6	26	825	1,091	41	37	-
Wash.	34	22	-	1	95	106	2	3	-
Oreg.	16	5	-	-	36	45	3	2	-
Calif.	573	419	6	25	656	848	36	32	-
Alaska	-	-	-	-	26	26	-	-	-
Hawaii	1	5	-	-	12	66	-	-	-
Guam	-	6	-	-	-	30	-	-	-
P.R.	86	115	1	16	-	33	-	-	115
V.I.	-	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending June 14, 2003 (24th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	443	290	91	38	15	9	57
Boston, Mass.	164	102	37	11	7	7	19
Bridgeport, Conn.	37	25	10	2	-	-	2
Cambridge, Mass.	18	13	4	1	-	-	2
Fall River, Mass.	17	12	3	2	-	-	3
Hartford, Conn.	36	25	8	2	-	1	8
Lowell, Mass.	19	14	2	3	-	-	1
Lynn, Mass.	9	4	1	2	2	-	1
New Bedford, Mass.	23	17	4	2	-	-	3
New Haven, Conn.	U	U	U	U	U	U	U
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	1	1	-	-	-	-	1
Springfield, Mass.	46	33	8	5	-	-	5
Waterbury, Conn.	18	9	3	3	3	-	1
Worcester, Mass.	55	35	11	5	3	1	11
MID. ATLANTIC	1,972	1,369	434	97	31	34	93
Albany, N.Y.	45	31	9	3	-	2	-
Allentown, Pa.	18	14	4	-	-	-	-
Buffalo, N.Y.	86	61	21	3	-	1	3
Camden, N.J.	44	24	11	5	1	3	3
Elizabeth, N.J.	19	16	3	-	-	-	-
Erie, Pa.	50	41	7	2	-	-	4
Jersey City, N.J.	42	25	12	2	1	2	-
New York City, N.Y.	979	679	221	47	15	10	41
Newark, N.J.	61	32	19	4	1	5	3
Paterson, N.J.	12	8	4	-	-	-	2
Philadelphia, Pa.	205	135	50	13	6	1	11
Pittsburgh, Pa.§	28	19	7	2	-	-	3
Reading, Pa.	16	11	2	2	1	-	-
Rochester, N.Y.	145	118	20	3	2	2	8
Schenectady, N.Y.	27	21	4	1	1	-	2
Scranton, Pa.	34	31	2	1	-	-	1
Syracuse, N.Y.	68	47	16	3	-	2	6
Trenton, N.J.	48	24	14	4	1	5	2
Utica, N.Y.	16	11	4	1	-	-	-
Yonkers, N.Y.	29	21	4	1	2	1	4
E.N. CENTRAL	1,894	1,274	408	117	38	57	117
Akron, Ohio	5	3	2	-	-	-	5
Canton, Ohio	40	31	8	1	-	-	3
Chicago, Ill.	362	216	86	32	14	14	16
Cincinnati, Ohio	74	50	16	3	2	3	8
Cleveland, Ohio	124	83	28	8	2	3	6
Columbus, Ohio	190	131	42	9	4	4	6
Dayton, Ohio	132	95	26	7	4	-	10
Detroit, Mich.	161	90	49	12	2	8	12
Evansville, Ind.	36	27	5	4	-	-	-
Fort Wayne, Ind.	69	52	14	2	-	1	2
Gary, Ind.	22	12	4	4	-	2	-
Grand Rapids, Mich.	60	45	7	3	-	5	8
Indianapolis, Ind.	168	110	38	9	4	7	13
Lansing, Mich.	51	38	8	1	1	3	1
Milwaukee, Wis.	131	94	25	6	2	4	11
Peoria, Ill.	50	34	11	3	1	1	3
Rockford, Ill.	43	29	5	8	-	1	3
South Bend, Ind.	36	22	9	3	2	-	1
Toledo, Ohio	73	56	15	1	-	1	5
Youngstown, Ohio	67	56	10	1	-	-	4
W.N. CENTRAL	538	364	116	26	16	16	43
Des Moines, Iowa	40	33	4	2	1	-	7
Duluth, Minn.	24	16	6	1	-	1	1
Kansas City, Kans.	26	18	6	1	1	-	2
Kansas City, Mo.	104	59	30	6	3	6	6
Lincoln, Nebr.	43	32	6	3	2	-	-
Minneapolis, Minn.	59	38	13	5	2	1	3
Omaha, Nebr.	110	78	21	4	-	7	12
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	41	31	9	-	1	-	7
Wichita, Kans.	91	59	21	4	6	1	5
S. ATLANTIC	1,358	849	327	107	50	25	68
Atlanta, Ga.	160	102	32	15	9	2	3
Baltimore, Md.	186	101	58	18	3	6	17
Charlotte, N.C.	98	65	26	5	1	1	-
Jacksonville, Fla.	174	115	37	13	9	-	12
Miami, Fla.	114	67	27	13	3	4	6
Norfolk, Va.	54	35	14	-	5	-	1
Richmond, Va.	57	30	17	3	4	3	3
Savannah, Ga.	48	35	9	3	1	-	5
St. Petersburg, Fla.	62	38	17	4	1	2	3
Tampa, Fla.	189	132	40	9	4	4	11
Washington, D.C.	201	119	47	24	9	2	6
Wilmington, Del.	15	10	3	-	1	1	1
E.S. CENTRAL	859	545	177	77	38	21	67
Birmingham, Ala.	148	100	29	11	7	-	17
Chattanooga, Tenn.	50	29	12	6	1	2	6
Knoxville, Tenn.	98	65	26	5	1	1	-
Lexington, Ky.	48	31	10	5	2	-	4
Memphis, Tenn.	234	142	49	15	16	12	21
Mobile, Ala.	87	55	16	11	3	2	5
Montgomery, Ala.	32	24	5	3	-	-	7
Nashville, Tenn.	162	99	30	21	8	4	7
W.S. CENTRAL	1,349	850	308	118	47	26	83
Austin, Tex.	83	51	18	8	3	3	4
Baton Rouge, La.	32	25	5	1	1	-	-
Corpus Christi, Tex.	39	20	12	4	2	1	4
Dallas, Tex.	164	94	39	22	5	4	10
El Paso, Tex.	68	49	14	4	1	-	1
Ft. Worth, Tex.	133	94	24	8	6	1	7
Houston, Tex.	387	231	83	42	17	14	22
Little Rock, Ark.	73	47	16	6	2	2	2
New Orleans, La.	42	26	11	5	-	-	-
San Antonio, Tex.	189	124	52	8	4	1	11
Shreveport, La.	57	32	21	2	2	-	11
Tulsa, Okla.	82	57	13	8	4	-	11
MOUNTAIN	921	635	173	77	20	16	46
Albuquerque, N.M.	115	87	14	11	2	1	3
Boise, Idaho	43	34	5	2	1	1	2
Colo. Springs, Colo.	71	49	14	8	-	-	4
Denver, Colo.	97	58	27	8	2	2	8
Las Vegas, Nev.	289	189	63	24	9	4	15
Ogden, Utah	25	14	6	2	1	2	-
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	23	16	5	2	-	-	-
Salt Lake City, Utah	115	85	18	7	-	5	9
Tucson, Ariz.	143	103	21	13	5	1	5
PACIFIC	1,100	772	221	68	18	21	83
Berkeley, Calif.	22	17	3	-	-	2	2
Fresno, Calif.	114	79	19	9	6	1	7
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	76	53	13	6	1	3	5
Long Beach, Calif.	73	46	20	6	-	1	3
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	29	21	6	2	-	-	5
Portland, Oreg.	122	91	22	6	2	1	10
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	149	101	33	10	1	4	12
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	189	148	30	5	3	3	24
Santa Cruz, Calif.	43	30	8	3	1	1	1
Seattle, Wash.	110	68	27	12	1	2	4
Spokane, Wash.	56	35	14	5	-	2	7
Tacoma, Wash.	117	83	26	4	3	1	3
TOTAL	10,434¶	6,948	2,255	725	273	225	657

U: Unavailable. -:No reported cases.

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

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

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