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Severe Acute Respiratory Syndrome — Singapore, 2003

The Singapore Ministry of Health (MOH), with assistance from the World Health Organization (WHO), has been investigating an outbreak of severe acute respiratory syndrome (SARS). This is a novel condition caused by the SARS-associated coronavirus (SARS-CoV) and is characterized by both an atypical pneumonia and efficient nosocomial transmission. This report summarizes epidemiologic features of this outbreak in Singapore, including the influence of super spreaders* and the national prevention and control strategy.†

On March 6, 2003, MOH was notified about three persons who had traveled to Hong Kong during late February and were admitted during a 5-day period to local hospitals for pneumonia (*1*). These patients included Case 1 and a traveling companion. They had been guests at Hotel M (Kowloon, Hong Kong) on February 20 and 21, coinciding with the stay of a person with SARS who transmitted disease to at least 13 guests (*2*). On March 14, MOH was notified about six persons, including two health-care workers (HCWs), who were admitted to Tan Tock Seng Hospital (TTSH) for atypical pneumonia; all had close contact with Case 1. Since late March, the outbreak has been characterized by nosocomial transmission caused by persons who were not immediately recognized as having SARS. The first major extension of this illness outside the health-care setting was from a recent probable SARS patient to two taxi drivers and the patient's coworkers in a wholesale market.

In Singapore, suspect and probable cases are identified and reported by using a modification of the WHO case definition that expands contact to include any health-care setting. Surveillance for suspect cases includes any fever and/or respiratory symptoms among HCWs, clusters of cases of community-acquired pneumonia, unexplained respiratory deaths, and individual cases with no contact but that are clinically suspicious for SARS. An independent, hospital-based surveillance system is being established for community-acquired pneumonia, but the threshold to monitor and investigate any unexplained febrile illness or pneumonia with laboratory testing for SARS-CoV and other etiologies is increasingly low. Source and contact tracing is conducted for probable cases and highly suspicious suspect cases on the basis of epidemiologic and clinical criteria. All persons who were household, social, hospital, and occupational contacts during the 10 days before symptom onset are traced to identify the source of infection; such contacts identified during the period from symptom onset to hospital isolation are traced to identify exposed persons for home quarantine.

Summary Statistics

As of April 30, a total of 201 probable cases of SARS and 722 suspect cases have been reported (Figure 1). The date of isolation of the last autochthonous probable case was April 28. Of the 201 persons with probable SARS, the median age was 36 years (range: 4–90 years; one was aged <12 years); 132 (66%) were female. The probable patients are Singaporean

* Persons who directly infected ≥10 other persons.
† This report is being published concurrently in the *Weekly Epidemiological Record*.

INSIDE

411 Update: Severe Acute Respiratory Syndrome — United States, 2003
413 Nicotine Poisoning After Ingestion of Contaminated Ground Beef — Michigan, 2003
416 Adults Who Have Never Seen a Health-Care Provider for Chronic Joint Symptoms — United States, 2001
419 Update: Adverse Events Following Civilian Smallpox Vaccination — United States, 2003
420 Notices to Readers

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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(81%), Filipino (8%), Chinese (5%), Indonesian (3%), Malaysian (2%), and Indian (1%). All persons with probable cases were hospitalized; 143 (71%) have been discharged after a median hospital stay of 11 days (range: 3–46 days). Twenty-two (11%) patients have required mechanical ventilation, and 25 have died (case-fatality proportion: 12.5%). Of the decedents, the median age was 53 years (range: 24–90 years), 14 (56%) were male, and 96% were Singaporean. A total of 26 persons with probable SARS have had virus, viral nucleic acid, or antibody to SARS-CoV detected in body fluids. Of the 84 (42%) HCWs with probable SARS, 49 were nurses; 13, physicians; and 22, persons with other occupations (attendants, radiographers, housekeepers, a porter, and a cleaning supervisor); no SARS cases have been reported among laboratory workers or pathologists. Of the eight travelers who acquired probable SARS outside Singapore, one (Case 1) has resulted in additional cases.

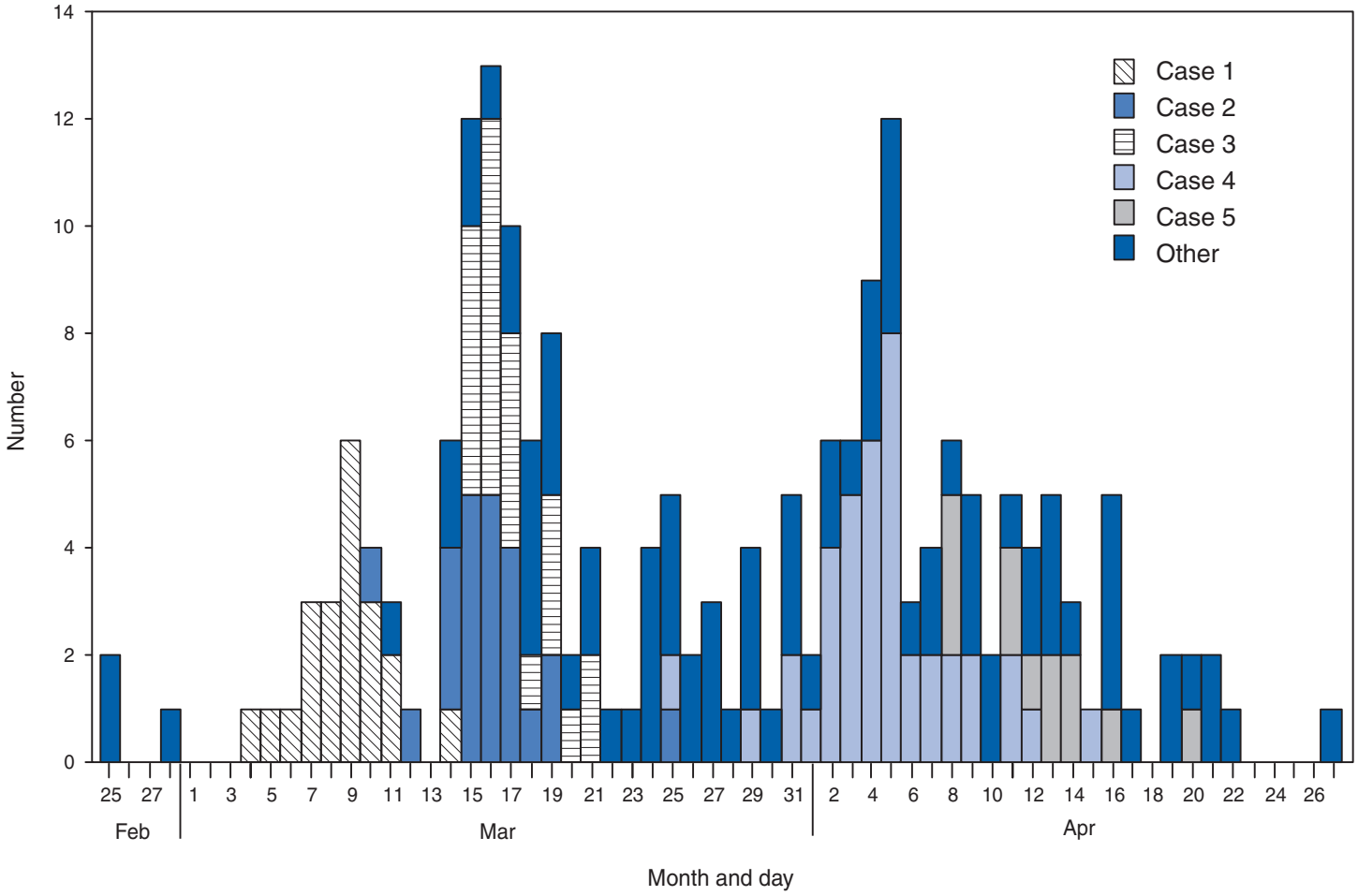
For 21 probable cases with well-defined point exposures, the mean incubation period was 5.2 days (±2.5 days) (median: 5 days; range: 1–10 days; 95th percentile = 9 days). For 94 probable cases, the mean incubation period was 5 days (±2.5 days) (median: 4.3 days; 95th percentile = 9.7 days) using the midpoint for well-defined exposures. A total of 172 probable cases are linked through chains of transmission to Case 1 (Figure 2). Two (1%) cases do not have an associated link with another probable case. Twelve (6%) patients have a link to a health-care facility; of these, eight are HCWs, and four are visitors. Of these 12 cases, six might be associated with two inpatients who have yet to be included in the case count; preliminary retrospective investigation suggests that these inpatients have probable cases of SARS. One probable case and seven other probable cases associated with it are linked to the wholesale market cluster. On the basis of surveillance reports, 153 (76%) infections were acquired in a health-care facility; the remainder either have household, multiple, or unknown exposures. Overall, 162 (81%) probable SARS cases had no evidence of transmission to other persons with clinically identifiable illness (Figure 3).

Super Spreaders of SARS

Five persons with probable SARS cases have been categorized as super spreaders of SARS. These patients appear to have infected ≥10 HCWs, family and social contacts, or visitors to the health-care facilities where the patients were hospitalized.

Case 1. A person aged 22 years visited Hong Kong for a shopping trip and resided at Hotel M during February 20–25. On February 25, the visitor developed a fever with a dry cough and, on March 1, was hospitalized on Ward 5A of

FIGURE 1. Number of probable cases of severe acute respiratory syndrome,* by date of fever onset and reported source of infection — Singapore, February 25–April 30, 2003



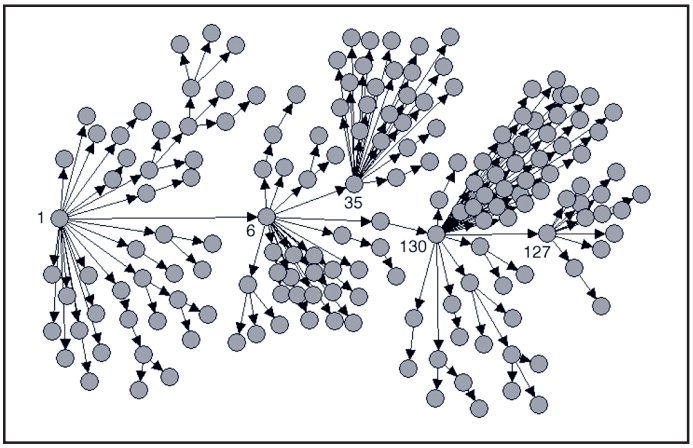
* n = 201.

TTSH with a patchy infiltrate on chest radiograph. The patient's platelet count was 105,000/mm^3 (normal: 130,000–150,000/mm^3); a white blood count was 3,800/mm^3 (normal: 4,000/mm^3). On March 4, the patient was transferred to the intensive-care unit (ICU) because of decreased blood oxygen saturation. During March 6–11, the patient was admitted to and remained in isolation on Ward 5A. On March 11, the patient was transferred to Ward 8A. This patient was directly linked to probable SARS infection in 21 persons (nine HCWs and 12 family members and visitors) and to suspected SARS in three persons. Of the ill family members and visitors, the patient's mother, father, and a visitor died. SARS-CoV infection in this patient was confirmed by virus isolation, nucleic acid testing, and serology.

Case 2. A nurse aged 27 years, who had attended to Case 1 on TTSH Ward 5A, became ill on March 7 and was admitted to Ward 8A on March 10 with fever and sore throat. A white blood count was 2,300/mm^3; platelets were 93,000/mm^3; and bilateral infiltrates were seen on chest radiograph. The patient had vomiting but no diarrhea. On March 13, the nurse was isolated. This patient is directly linked to probable SARS infection in 23 persons (11 HCWs and 12 family members and visitors) and to suspected SARS in five persons.

Case 3. A person aged 53 years with diabetes and ischemic heart disease was admitted on TTSH Ward 8A on March 10 for polymicrobial sepsis with diarrhea. The patient stayed in the same six-person room as Case 2. On March 12, the patient had fever and dyspnea requiring mechanical ventilation and was transferred to the coronary care unit for severe congestive heart failure. On March 20, the patient was isolated. The patient died on March 29. This patient was directly linked to probable SARS infection in 23 persons (18 HCWs and five family members and visitors) and to suspected SARS in 18 persons.

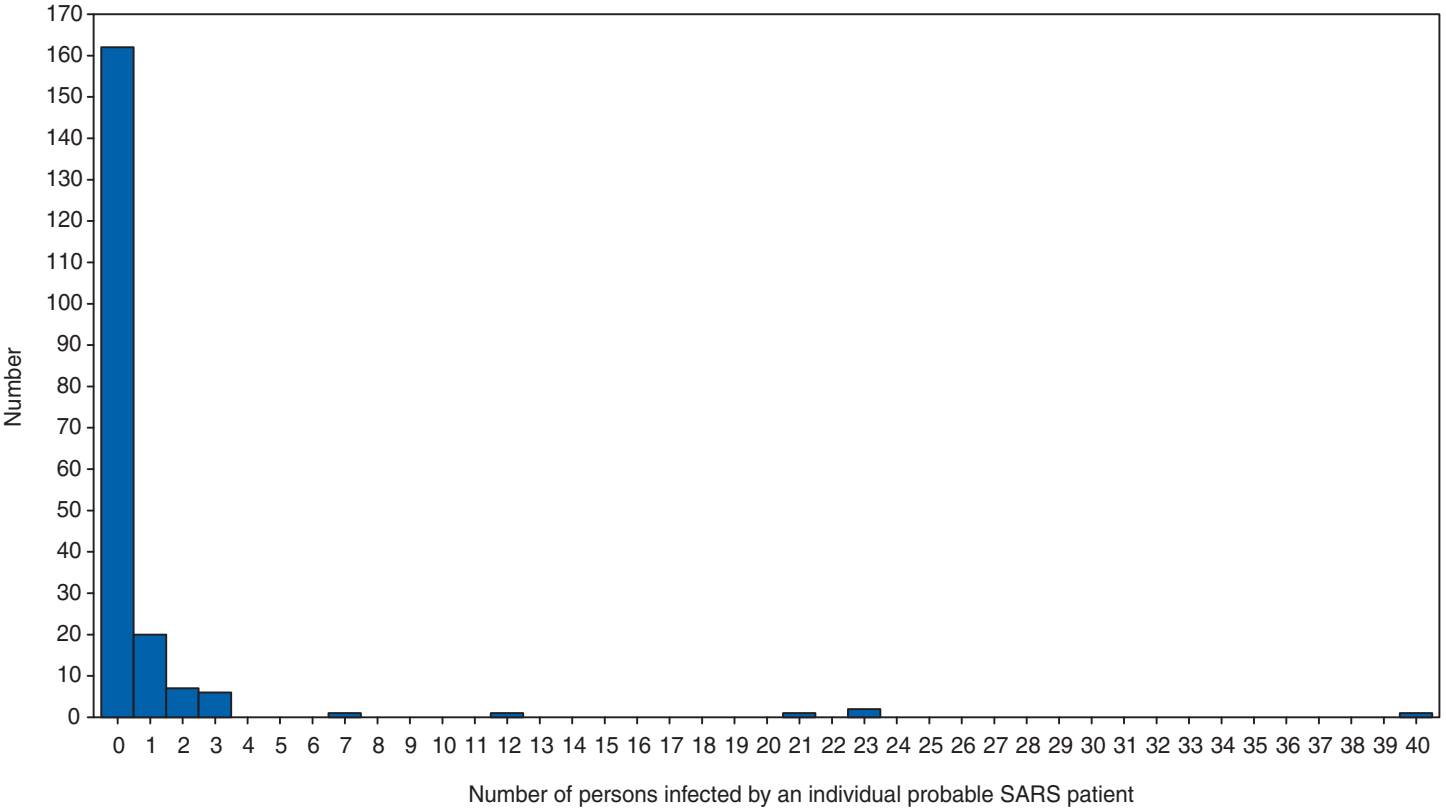
FIGURE 2. Probable cases of severe acute respiratory syndrome, by reported source of infection* — Singapore, February 25–April 30, 2003



* Patient 1 represents Case 1; Patient 6, Case 2; Patient 35, Case 3; Patient 130, Case 4; and Patient 127, Case 5. Excludes 22 cases with either no or poorly defined direct contacts or who were cases translocated to Singapore and the seven contacts of one of these cases.
Reference: Bogatti SP. Netdraw 1.0 Network Visualization Software. Harvard, Massachusetts: Analytic Technologies, 2002.

Case 4. A person aged 60 years was admitted to TTSH Ward 5A from March 5 to March 20 for chronic kidney disease and diabetes. On March 24, the patient was readmitted to Singapore General Hospital (SGH) Ward 57 for steroid-induced gastritis and gastrointestinal bleeding with melena. The patient had a low-grade fever, and a chest radiograph was normal. On March 28, the patient had high fever (101.8° F [38.8° C]); a repeated chest radiograph remained normal. The patient was treated with antibiotics and, on March 29, was transferred to Ward 58. Tests showed the patient had *Escherichia coli* bacteremia. On March 30, a chest radiograph was again normal. On April 3, the patient was administered another antibiotic and defervesced. However, on April 4, a chest radiograph showed signs of pneumonia, SARS was considered, and the patient was isolated. A total of 62 persons with probable or suspected SARS (comprising 25 HCWs, 20 inpatients, and 17 family and social contacts) were linked to this case. This patient is linked to 40 patients with probable SARS (37 HCWs and visitors) because of direct contact and might be linked to the remaining probable cases because they

FIGURE 3. Number of direct secondary cases from probable cases of severe acute respiratory syndrome — Singapore, February 25–April 30, 2003



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traveled the same corridor used by the patient. SARS-CoV infection in this patient was confirmed by nucleic acid testing of a throat swab and stool.

Case 5. A vegetable hawker aged 64 years visited Case 4 (the 64-year-old's sibling) in SGH on March 31. The 64-year-old had a history of ischemic heart disease and left ventricular failure. On April 5, the patient had onset of illness with coryza, myalgia, cough, and temperature of 99.9° F (37.7° C). On April 8, the patient was admitted to National University Hospital through the emergency department from his general practitioner's office. The patient had suspected congestive cardiac failure secondary to acute myocardial infarction; the patient had a blood pressure of 80/50 mm and temperature of 95.0° F (35.0° C). The patient was briefly admitted to Ward 64 before being intubated for increased respiratory distress and transferred to the ICU. On April 9, the patient was transferred to TTSH after the history of the patient's visit to SGH was obtained. On April 12, the patient died. This patient is directly linked to infection in 15 persons (five HCWs and two inpatients; two family members; one visitor; two taxi drivers who transported the patient to and from the vegetable stall on April 5 and April 8, respectively; two hawkers in the same wholesale market where the patient worked; and a visitor to the emergency department). Illness in 12 of these persons was consistent with the probable case definition for SARS. SARS-CoV infection in this patient was confirmed by nucleic acid testing of a throat swab and buffy coat sample.

In addition to illness caused by these super spreaders, a few smaller clusters of transmission from probable cases have been identified. This includes an eight-person cluster involving a vegetable hawker, his dead wife, and six other family members whose onset dates and links are being verified; a four-person cluster of cases in a long-term–care facility associated with a patient discharged from TTSH on March 23 after 15 days on Ward 7D; and a three-person cluster of secondary cases in National University Hospital initiated by a visitor to TTSH who visited Ward 8A where Cases 2 and 3 were staying.

Control Measures

In Singapore, infection-control measures have been expanded as the epidemiologic and clinical features that underlie continuing transmission have been recognized. On March 22, TTSH/Communicable Disease Center was designated as the hospital for intake and solitary isolation of all suspect and probable SARS cases. All HCWs attending to patients with suspected or probable SARS are required to wear gloves, gowns, goggles, and N95 or equivalent respirators; positive air purifying respirators (PAPR) are required for high-risk or aerosol-generating procedures. Similar measures have been recommended for HCWs evaluating any person with a febrile illness. By April 9, all staff at SGH were required to adhere to temperature checks for fever twice daily; this initiative has been extended to all HCWs in Singapore. Other measures include stopping hospital visitations, except for pediatric, obstetric, and selected other patients. For these patients, visitors are limited to a single person who must wear a mask and pass a temperature check; all other visits are by videoconference. An audit of infection-control practices is ongoing.

On March 24, MOH invoked the Infectious Diseases Act to quarantine all contacts who have been exposed to SARS patients. This legislation allows mandatory home quarantine for 10 days, which is now enforced by CISCO, a Singapore Security Agency. CISCO serves the quarantine order and installs an electronic picture (ePIC) camera at the home of each contact. All inpatients who are discharged from a hospital with previous SARS cases are under telephone surveillance for 21 days; all probable SARS inpatients and selected suspect SARS inpatients who have recovered and are discharged are on home quarantine for 14 days. Patients requiring readmission are admitted only to the same hospital of original admission. A dedicated private ambulance service is sanctioned to transport all suspect or probable cases to the SARS designated hospital, including all febrile persons on home quarantine or from the airport or seaports.

On April 20, after the identification of a cluster of illness among employees of a large wholesale market, the market was closed for 15 days and the vendors placed in home quarantine. On April 24, the Infectious Disease Act was amended with penalties for violations 1) to require persons who might have an infectious disease to go to a designated treatment center and to prohibit them from going to public places; 2) to prohibit breaking home quarantine with the possibility of electronic tagging and forced detention for violators; and 3) to permit contaminated areas to be quarantined and any suspected sources of infection to be destroyed. In addition, persons throughout the country have been requested to monitor body temperature and stay home or seek medical care if any signs or symptoms suggestive of SARS appear.

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Editorial Note: The experience with SARS in Singapore is analogous to that in Hong Kong, Vietnam, and Canada, where the first cases were associated with a large number of health-care–associated infections. During the early phase of the outbreak in Singapore, the original imported case and a nurse contact were associated with two large clusters. However, subsequent clustering was associated with cases that either had atypical clinical presentations masking their infections or were otherwise not rapidly identified because of lack of an initial history of direct contact with a known SARS case. Consequently, these patients became hidden reservoirs of infection on the wards of health-care facilities or in the community. SARS patients with chronic illnesses occurring concurrently with fever and/or pneumonia with a plausible diagnosis are the most challenging to the public health and health-care systems. This was the situation for Cases 3, 4, and 5 described in this report, who were retrospectively identified as SARS cases despite heightened clinical vigilance for new cases. Because of this spectrum of clinical presentations, MOH has adopted a strategy to quickly identify febrile or symptomatic persons with chronic illnesses or any recent health-care–facility contact as suspected cases for isolation.

Super spreaders have been described with other diseases such as rubella, laryngeal tuberculosis, and Ebola (*3*). This phenomenon might be the result of a combination of host, environment, and virus interactions. A common feature of the super spreaders described in this report was nosocomial transmission, with hospitals serving as sources for disease amplification. This has implicated the adequacy of infection-control measures although the last super spreader also spread disease among his social contacts, and the super spreader reported from Hong Kong spread virus in Hotel M. Moreover, many secondary cases reported only limited contact with these patients. Additional data on the natural history of infection are needed to understand factors that might be associated with this phenomenon. Regardless of whether this phenomenon is the result of other transmission routes, inadequate infection-control measures, or more viral shedding by a patient, transmission of SARS virus is highly efficient in some circumstances.

The preliminary reports from Hong Kong and Vietnam described transmission after direct contact with probable cases. Although this appears to be true for the majority of cases, initial contact tracing and isolation measures based on this assumption were too narrowly defined to prevent secondary transmission in Singapore. On the basis of descriptions of transmission resulting from undefined or limited contact (e.g., in corridors, elevators, and taxis and to visitors to the same inpatient ward) coupled with recent reports of prolonged environmental contamination, a much more expanded policy for contact tracing and home quarantine has been instituted in Singapore. The national prevention and control strategy for SARS focuses on 1) eliminating nosocomial transmission through substantially enhanced infection-control practices, 2) preventing additional importations of infection through health screening and travel advisories at the airport and seaports, and 3) stopping community transmission through education, contact tracing, and quarantine measures. Indicators of the effectiveness of this approach include the lack of nosocomial transmission on SARS-specific wards in TTSH/Communicable Disease Center since the designation of those wards on March 22 and in the remainder of the hospitals since April 17, and no further transmission of infection from imported cases.

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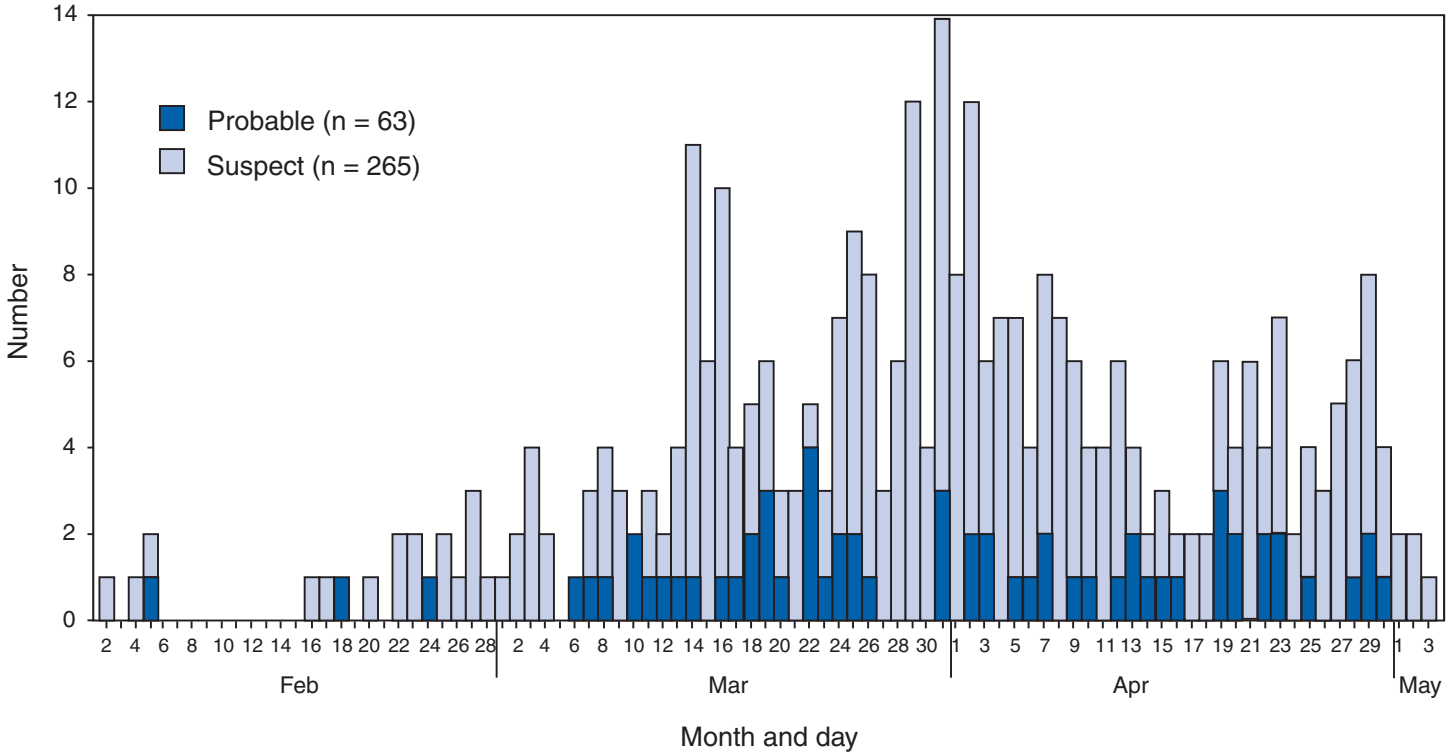
Update: Severe Acute Respiratory Syndrome — United States, 2003

CDC, in collaboration with state and local health departments, the World Health Organization (WHO), and other partners, continues to investigate cases of severe acute respiratory syndrome (SARS). During November 1, 2002–May 7, 2003, a total of 6,903 SARS cases were reported to WHO from 29 countries, including the United States; 495 deaths (case-fatality proportion: 7.2%) have been reported (*1*). This report updates information on reported U.S. SARS cases.

As of May 7, a total of 328 SARS cases in the United States have been reported from 38 states, of which 265 (81%) were classified as suspect SARS, and 63 (19%) were classified as probable SARS (more severe illnesses characterized by the presence of pneumonia or acute respiratory distress syndrome) (Figure 1, Table) (*2*). Of the 63 probable SARS patients, 42 (67%) were hospitalized, and three (5%) required mechanical ventilation. No SARS-related deaths have been reported in the United States.

Laboratory testing to evaluate infection with the SARS-associated coronavirus (SARS-CoV) has been completed for 69 cases. Six cases of laboratory-confirmed infection with SARS-CoV have been identified; all were probable cases, as

FIGURE 1. Number of reported cases* of severe acute respiratory syndrome, by classification and date of illness onset — United States, 2003



* N = 328.

described previously (*3,4*). No new SARS-CoV confirmed cases have been identified since the last update. Negative findings (i.e., the absence of antibody to SARS-CoV in convalescent serum obtained >21 days after symptom onset) have been documented for 63 cases (49 suspect and 14 probable).

Of the 63 probable SARS patients, one (2%) was a health-care worker who provided care to a SARS patient, and one (2%) was a household contact of a SARS patient (*5*). The remaining 61 (97%) probable SARS patients had traveled to areas with documented or suspected community transmission of SARS during the 10 days before illness onset (*2*). Among the probable SARS patients with travel exposure, 36 (59%) had traveled to mainland China; 19 (31%) to Hong Kong Special Administrative Region, China; five (8%) to Singapore; three (5%) to Hanoi, Vietnam; and seven (12%) to Toronto, Canada (Figure 2). Eight (13%) probable patients had visited two or more areas with SARS during the 10 days before illness onset. Of the six probable SARS patients with positive SARS-CoV laboratory results, two had traveled to Hong Kong; one to Hong Kong and Thailand; one to Hong Kong and Guangdong, China; one to Singapore; and one to Toronto.

Since the last update (*6*), the epidemiology of SARS in the United States has not changed markedly; the majority of cases continue to be associated with travel and secondary spread to contacts (e.g., family members and health-care workers) is limited. However, the collection and testing of convalescent serum is an ongoing priority to precisely characterize the epidemiology of SARS in the United States and worldwide.

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

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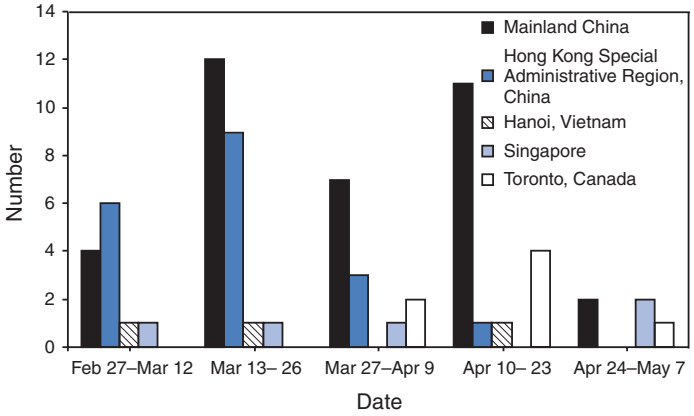
TABLE. Number* and percentage of reported severe acute respiratory syndrome (SARS) cases, by selected characteristics — United States, 2003

Characteristic	Probable cases† (n = 63) No.	(%)§	Suspect cases† (n = 265) No.	(%)§
Age (yrs)				
0–4	8	(13)	41	(15)
5–9	0	(0)	12	(4)
10–17	4	(6)	9	(3)
18–64	37	(59)	178	(67)
≥65	13	(21)	22	(8)
Unknown	1	(2)	3	(1)
Sex				
Female	27	(43)	127	(48)
Male	35	(56)	134	(51)
Unknown	1	(2)	4	(2)
Race				
White	29	(46)	147	(55)
Black	0	(0)	5	(2)
Asian	27	(43)	93	(35)
Other	2	(3)	2	(1)
Unknown	5	(8)	18	(7)
Exposure				
Travel¶	61	(97)	240	(91)
Close contact	1	(2)	21	(8)
Health-care worker	1	(2)	4	(2)
Hospitalized >24 hrs**				
Yes	42	(67)	63	(24)
No	21	(33)	198	(75)
Unknown	0	(0)	4	(2)
Required mechanical ventilation				
Yes	3	(5)	1	(0)
No	57	(91)	260	(98)
Unknown	3	(5)	4	(2)
SARS-associated coronarivus laboratory findings				
Confirmed	6	(10)	0	(0)
Negative	14	(22)	49	(18)
Undetermined††	43	(68)	216	(82)

* N = 328.
† CDC. Updated interim U.S. case definition of severe acute respiratory syndrome (SARS). Available at http://www.cdc.gov/ncidod/sars/casedefinition.htm.
§ Percentages may not total 100% because of rounding.
¶ To mainland China; Hong Kong Special Administrative Region, China; Hanoi, Vietnam; Singapore; Toronto, Canada; or Taiwan.
** As of May 7, no deaths of SARS patients have been reported in the United States.
†† Collection and/or laboratory testing of specimens has not been completed.

FIGURE 2. Number* of probable U.S. severe acute respiratory syndrome (SARS) patients reporting travel to areas with community transmission of SARS, by date of illness onset† — United States, February 27–May 7, 2003



* N = 61. The total number of visits to areas with documented or suspected community transmission of SARS exceeds the number of probable SARS patients reporting travel exposure because some patients traveled to two or more of these areas.
† The CDC case definition has been revised periodically to include new areas with documented or suspected community transmission of SARS. The case definition has included the following areas: Guangdong province, China, since March 17, and expanded to include all of mainland China on March 29; Hong Kong, Singapore, and Hanoi since March 17; Toronto since April 18; and Taiwan since April 30.

Nicotine Poisoning After Ingestion of Contaminated Ground Beef — Michigan, 2003

On January 3, 2003, the Michigan Department of Agriculture's (MDA) Food and Dairy Division and the U.S. Department of Agriculture (USDA) were notified by a supermarket of a planned recall of approximately 1,700 pounds of ground beef because of customer complaints of illness after eating the product. On January 10, the supermarket notified MDA that their laboratory had determined that the contaminant in the ground beef returned by customers with reported illness was nicotine. This report summarizes the investigation of these cases, which identified approximately 100 affected persons, and discusses actions taken to prevent additional illness, including the arrest of a person charged with deliberately poisoning the ground beef at the supermarket.

The recall was prompted by complaints from four families comprising 18 persons who became ill immediately after eating product sold on December 31 or January 1. Reported symptoms included burning of the mouth, nausea, vomiting, and dizziness. One person reported having been seen in the

emergency department (ED) and treated for atrial fibrillation. The recalled product had been ground in the store using ground beef purchased from an out-of-state processor inspected by USDA, Food Safety Inspection Service. MDA made routine notifications about the recall to local and state health departments. The product recall was issued on January 3 for beef with a sell-by date of January 1 and January 2, followed by a press release on January 8, which expanded the recall to beef with a sell-by date of January 3. After the initial recall notices, approximately 36 persons reported to the supermarket that they or their families had experienced illness after eating the product, and approximately 120 persons returned recalled product.

Company officials submitted samples of ground beef provided by the ill families to a private laboratory, where product testing for foodborne pathogens was negative. Additional testing for chemical contamination was conducted at a large regional medical center. On January 10, company officials notified MDA and USDA that nicotine had been presumptively identified in the ground beef samples tested by the second laboratory, which reported an assay result 1 week later of approximately 300 mg/kg nicotine in the submitted samples. The high nicotine concentrations found in the tested meat products prompted concerns of intentional contamination with a pesticide, which sometimes contain nicotine as an additive. USDA and the Federal Bureau of Investigation joined the investigation because interstate commerce could have been involved and intentional contamination was suspected. Because a legal investigation was initiated, federal authorities requested that information be released to the public only as necessary to avoid compromising any future criminal case. On January 17, the supermarket issued another press release and recall notice stating the implicated product contained an unspecified, nonbacterial contaminant that could not be made safe by cooking.

Contamination of the product was believed to have occurred at a single store rather than the meat processing plant. The product was distributed directly from the plant to many other stores, including other stores in the supermarket chain; neither the processing plant nor any other store in the supermarket chain received complaints of illness. No nicotine-containing pesticides were reportedly used or sold in the store where the recalled product was sold.

On January 23, the local health department alerted hospital EDs and selected medical practices serving the area where the store was located. On January 24, after receiving confirmatory test results, the company issued another press release naming nicotine as the contaminant. This announcement was published and broadcast by local media.

The local health department conducted an epidemiologic investigation, including interviews of persons reporting illness, to assess the consistency of the clinical presentation and to establish a case definition. A case was defined as one or more symptoms (i.e., burning sensation to lips, mouth or throat, dizziness, nausea, vomiting, abdominal pain, diarrhea, sweating, blurred vision, headache, body numbness, unusual fatigue or anxiety, insomnia, tachypnea or dyspnea, and tachycardia or tachyarrythmias) in persons who ate ground beef product purchased from the supermarket on either December 31, 2002, or January 1, 2003, with symptom onset occurring within 2 hours of eating the product.

A total of 148 interviews were conducted with persons who reported they had experienced illness after eating the product and of family members and friends who also might have eaten the contaminated meat. Of those interviewed, 92 persons had illness consistent with the case definition. Patients had a median age of 31 years (range: 1–76 years), and 46 (50%) were female; 65% of the patients lived in the town where the implicated store was located. The majority of illness occurred during the time that the contaminated product was sold. Cases were identified as late as 49 days after the last date of potential sale, indicating that some persons froze and then ate the contaminated product after the first recall was issued. Of the 92 patients, four (3%) sought medical treatment, including two who reported to their personal physicians with complaints of vomiting and stomach pains and two who were evaluated in EDs. The two who were treated in the EDs included a man aged 39 years with atrial fibrillation and a woman aged 31 years who had nausea, vomiting, and complaint of rectal bleeding. Information is being collected on an additional 16 persons to assess whether their illnesses are consistent with the case definition, including a pregnant woman aged 24 years who was hospitalized for 1 day with episodic vomiting.

On February 12, a grand jury returned an indictment for arrest of a person accused of poisoning 200 pounds of meat at the supermarket with an insecticide called Black Leaf 40, which has a main ingredient of nicotine. The person was an employee of the supermarket at the time of the contamination.

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Editorial Note: Deliberate contamination of food during its production and preparation has been reported infrequently (*1,2*). Unintentional contamination of food by chemicals occurs sporadically, including reports of contamination by pesticides (*3,4*). Unintentional poisoning by nicotine has been reported, usually among children who eat cigarettes (*5*), in suicide attempts (*6*), or among tobacco workers who experience "green tobacco sickness" (*7*). One homicide by nicotine was reported to have occurred in Eastern Europe (*8*).

Acute nicotine toxicity is associated with overstimulation of nicotinic receptors. Burning in the throat with nausea and vomiting occurs quickly after ingestion. More toxic manifestations include cardiac tachyarrythmias, seizures, and hypertensive crisis. The lethal dose of nicotine in adults is from 0.5 to 1.0 mg/kg of body weight or a total dose of 30–60 mg. Toxic symptoms might been seen at doses as low as 2–5 mg of nicotine; however, persons might have widely different levels of tolerance to the toxic effects of nicotine. Small children might develop symptoms after exposure to as little as 1 mg of nicotine. Nicotine is used in a limited number of pesticides because of its toxic properties; nine nicotine-containing pesticides are registered for use in Michigan, and none of the product labels list nicotine at more than 14%. Black Leaf 40 contained 40% nicotine, and the EPA canceled its product registration in 1992 because of its toxicity.

This investigation involved the private sector (i.e., the food retailer) and five government agencies, including local and state public health departments, the state agriculture department, and two federal agencies. Public health officials undertook an epidemiologic investigation that involved contacting affected persons and providing information to the public and clinicians about the health threat. It also was necessary to conduct a legal investigation in a rapid and relatively closed manner. Frequent contacts among the parties allowed for negotiation and consensus around most issues.

This incident underscores the importance of ensuring the safety and security of food supplies. Vigilance and heightened awareness for human poisonings caused by hazardous levels of chemical in the food supply are essential. Clinicians should immediately report clusters of poisonings to public health officials, especially when presenting symptoms are unusual. Public health response capabilities addressing hazardous chemicals in food and other media need to be strengthened. Multiple agency coordination and cooperation between health, agriculture, and law enforcement officials at the local, state, and federal levels are critical for the detection and response to similar events, whether they are intentional or unintentional (*9*).

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Adults Who Have Never Seen a Health-Care Provider for Chronic Joint Symptoms — United States, 2001

Arthritis and chronic joint symptoms (CJS) are a leading cause of disability among adults in the United States (*1,2*). For some forms of arthritis, early diagnosis and aggressive treatment are essential to limit permanent joint damage and disability (*3*). Because CJS can signal inflammatory arthritis, patients with CJS should consult a health-care provider to rule out rheumatoid arthritis and other forms of inflammatory arthritis. To characterize persons with CJS who do not see a health-care provider, CDC analyzed data from the 2001 Behavioral Risk Factor Surveillance System (BRFSS). This report summarizes the results of the analysis, which indicate that, during 2001, approximately 10.3 million adults (21.7% of adults with CJS), including 2.0 million with activity limitations, never had seen a health-care provider for their joint symptoms. These persons are missing opportunities to limit joint damage and disability and to improve health and functional status.

BRFSS is a random-digit–dialed telephone survey of the noninstitutionalized U.S. population aged ≥18 years. BRFSS is administered in all 50 states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands (*4*). Respondents were classified as having CJS if they responded "yes" to two questions: "In the past 12 months, have you had pain, aching, stiffness, or swelling in or around a joint?" and "Were these symptoms present on most days for at least a month?" Respondents who did not know, were not sure, or refused to answer were classified as not having CJS. Having seen a health-care provider was determined by asking, "Have you ever seen a doctor, nurse, or other health professional for these joint symptoms?" The following question addressed activity limitations: "Are you now limited in any way in any activities because of joint symptoms?" The median response rate for the 2001 BRFSS was 51.4%. Data were weighted by age and sex to reflect each state's most recent adult population estimates. SUDAAN was used to calculate point estimates and 95% confidence intervals. Logistic regression modeling was used to produce age-adjusted odds ratios for each variable and for a full model that adjusted for all variables.

In 2001, an estimated 47.5 million adults had CJS. Of these, approximately 10.3 million (21.7%) never had seen a health-care provider about their joint symptoms, including 2.0 million who reported activity limitations because of such symptoms. Prevalence of never having seen a health-care provider about joint symptoms was highest among younger persons; males; Hispanics; and those with a high school education or less; excellent, very good, or good health; no health insurance; no personal doctor; or no activity limitation because of joint symptoms (Table 1). These variables were significantly associated with never having seen a health-care provider in age-adjusted analysis and in the full model, which also showed that respondents who engaged in recommended physical activity levels* were less likely to see a health-care provider. Additional models compared those with activity limitations who did and did not seek medical care. Lack of health insurance and having no personal doctor were strongly associated with not seeing a health-care provider for CJS.

The median state prevalence for persons never having seen a health-care provider for symptoms was 21.1% and ranged from 13.5% in Puerto Rico to 37.2% in Guam (Table 2). Prevalence was highest in the south and west and lowest in the northeast and Puerto Rico (Figure).

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Editorial Note: This report provides the first state-specific estimates that describe the prevalence among persons with CJS of not seeing a health-care provider for their joint symptoms. Approximately one fifth of the estimated 47.5 million U.S. adults with CJS never have seen a health-care provider for their joint symptoms. Possible explanations for these findings are that those not seeking medical care might have milder disease and opt for self-treatment. Some might face barriers

* Recommended activity is moderate physical activity ≥5 days per week for ≥30 minutes per day, vigorous activity ≥3 days per week for ≥20 minutes per day, or both.

TABLE 1. Estimated prevalence of adults aged ≥18 years with chronic joint symptoms (CJS) who have never seen a health-care provider* for CJS, by selected characteristics — Behavioral Risk Factor Surveillance System, United States†, 2001

Characteristic	Prevalence of never having seen a health-care provider for CJS			Odds of never having seen a health-care provider for CJS			
	No. (in thousands)	%	(95% CI§)	Age-adjusted OR¶	(95% CI)	Full model OR**	(95% CI)
Age (yrs)							
18–44	4,462	27.7	(27.5–27.9)	—	—	1.00	
45–64	3,821	20.3	(20.0–20.7)	—	—	0.87	(0.79–0.97)
≥65	2,013	16.1	(15.7–16.5)	—	—	0.70	(0.62–0.79)
Sex††							
Male	4,912	24.5	(24.3–24.8)	1.28	(1.18–1.38)	1.17	(1.07–1.28)
Female	5,429	19.6	(19.4–19.9)	1.00		1.00	
Race/Ethnicity††							
White, non-Hispanic	7,441	20.5	(20.3–20.7)	1.00		1.00	
Black, non-Hispanic	824	20.2	(19.8–20.7)	0.94	(0.82–1.08)	0.87	(0.75–1.02)
Hispanic	1,282	31.3	(30.6–32.0)	1.62	(1.36–1.93)	1.32	(1.09–1.60)
Other	680	24.6	(23.8–25.4)	1.18	(0.97–1.44)	1.20	(0.95–1.51)
Education level (yrs)††							
≤8	792	27.1	(25.8–28.3)	1.68	(1.36–2.08)	1.46	(1.16–1.85)
9–11 years	1,217	24.8	(24.0–25.5)	1.31	(1.12–1.52)	1.35	(1.13–1.62)
High school or equivalent	3,528	22.3	(22.0–22.6)	1.14	(1.03–1.27)	1.16	(1.03–1.30)
13–15	2,561	19.7	(19.4–20.0)	0.94	(0.85–1.05)	0.96	(0.85–1.09)
≥16	2,202	20.2	(20.0–20.5)	1.00		1.00	
Physical activity§§							
Recommended	4,039	22.8	(22.6–23.1)	1.06	(0.95–1.19)	0.81	(0.71–0.92)
Insufficient	2,616	21.6	(21.3–21.8)	1.03	(0.92–1.16)	0.89	(0.79–1.01)
Inactive	1,978	19.8	(19.4–20.3)	1.00		1.00	
Body mass index¶¶							
1.0–18.4 (underweight)	170	22.0	(21.1–23.0)	1.14	(0.85–1.52)	1.19	(0.86–1.65)
18.5–24.9 (normal)	3,276	22.8	(22.6–23.1)	1.19	(1.07–1.32)	1.02	(0.91–1.14)
25.0–29.9 (overweight)	3,691	21.9	(21.6–22.2)	1.18	(1.06–1.30)	1.02	(0.91–1.14)
≥30.0 (obese)	2,637	19.6	(19.2–20.0)	1.00		1.00	
Health status††							
Excellent, very good, good	7,754	24.4	(24.3–24.6)	1.57	(1.43–1.73)	1.29	(1.16–1.45)
Fair/poor	2,510	15.9	(15.4–16.5)	1.00		1.00	
Has health insurance††							
Yes	8,157	19.6	(19.4–19.8)	1.00		1.00	
No	2,163	36.4	(35.8–36.9)	2.04	(1.82–2.28)	1.65	(1.44–1.89)
Has personal doctor††							
Yes	7,673	18.8	(18.6–19.0)	1.00		1.00	
No	2,563	38.8	(38.4–39.2)	2.44	(2.21–2.70)	2.11	(1.87–2.38)
Limited due to joint symptoms††							
Yes	1,977	9.1	(8.5– 9.6)	1.00		1.00	
No	8,328	32.4	(31.9–32.9)	4.68	(4.26–5.14)	4.71	(4.25–5.23)
Total	**10,342**	**21.7**	**(21.5–21.9)**				

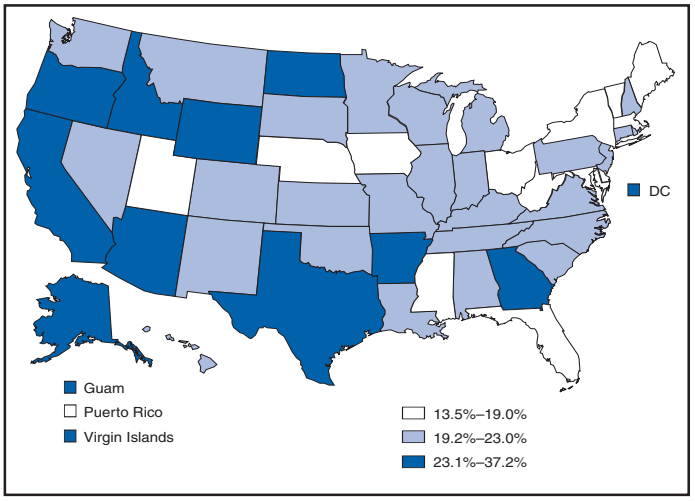
* Includes doctor, nurse, and other health-care professional.
† Estimates exclude the Virgin Islands, Puerto Rico, and Guam.
§ Confidence interval.
¶ Odds ratio.
** Full model adjusted for age, sex, race/ethnicity, education, physical activity, body mass index, health status, insurance status, has personal doctor, and limited activities due to joint symptoms.
†† Statistically significant differences at p<0.05 for ORs.
§§ Leisure-time physical activity was created by using a set of questions on exercise, recreation, and physical activity (other than job duties) during the previous month. Recommended activity is moderate physical activity ≥5 days per week for ≥30 minutes per day, vigorous activity ≥3 days per week for ≥20 minutes per day, or both. Physical activity includes leisure-time, household tasks, and transportation. Insufficient activity is some activity but not enough to meet recommendations. Inactive is no reported moderate or vigorous physical activity.
¶¶ Categorized according to the National Institutes of Health scheme (http://www.nhlbi.nih.gov/guidelines/obesity/prctgd_b.pdf).

TABLE 2. Weighted number and percentage adults aged ≥18 years with chronic joint symptoms (CJS) who have never been seen by a health-care provider* for CJS, by area — Behavioral Risk Factor Surveillance System, United States, 2001

Area	Prevalence of never having seen a health-care provider for CJS		
	No. (in thousands)	%	(95% CI†)
Alabama	189	20.5	(19.6–21.4)
Alaska	23	23.1	(21.9–24.4)
Arizona	208	23.7	(22.5–24.8)
Arkansas	132	23.7	(22.7–24.8)
California	1,228	26.6	(25.6–27.2)
Colorado	156	21.8	(20.8–22.9)
Connecticut	116	20.9	(20.3–21.5)
Delaware	25	16.9	(16.1–17.8)
District of Columbia	18	24.6	(23.2–25.2)
Florida	490	18.7	(18.0–19.3)
Georgia	314	23.7	(22.9–24.5)
Guam	5	37.2	(35.4–38.9)
Hawaii	22	19.6	(18.9–20.3)
Idaho	67	26.4	(25.3–27.1)
Illinois	468	21.2	(20.1–22.2)
Indiana	234	20.6	(19.8–21.4)
Iowa	96	18.6	(17.9–19.3)
Kansas	102	21.7	(21.0–22.4)
Kentucky	194	21.1	(20.4–21.9)
Louisiana	146	21.2	(20.6–21.9)
Maine	40	16.5	(15.6–17.4)
Maryland	134	17.1	(16.4–17.7)
Massachusetts	181	17.5	(16.9–17.9)
Michigan	424	22.2	(21.3–23.0)
Minnesota	197	21.0	(20.3–21.8)
Mississippi	120	23.4	(22.4–24.2)
Missouri	221	21.2	(20.4–22.0)
Montana	36	19.3	(18.3–20.3)
Nebraska	50	19.0	(18.4–19.7)
Nevada	81	21.5	(20.1–22.8)
New Hampshire	41	20.6	(19.8–21.3)
New Jersey	292	22.8	(22.1–23.5)
New Mexico	61	20.3	(19.5–21.0)
New York	583	18.7	(17.9–19.4)
North Carolina	262	19.2	(18.5–19.9)
North Dakota	24	23.9	(22.7–24.6)
Ohio	375	18.8	(18.0–19.7)
Oklahoma	133	20.9	(20.1–21.7)
Oregon	177	25.5	(24.4–26.6)
Pennsylvania	442	19.3	(18.5–20.1)
Puerto Rico	83	13.5	(12.9–14.1)
Rhode Island	33	19.4	(18.5–19.9)
South Carolina	152	22.3	(21.4–23.2)
South Dakota	22	19.2	(18.5–19.6)
Tennessee	239	22.5	(21.3–23.3)
Texas	876	28.2	(27.6–28.9)
Utah	66	18.7	(17.8–19.5)
Vermont	20	18.0	(17.1–18.5)
Virginia	253	22.3	(21.1–22.8)
Virgin Island	3	31.3	(29.9–32.0)
Washington	233	21.0	(20.1–21.6)
West Virginia	78	18.5	(17.6–19.3)
Wisconsin	245	21.4	(20.4–22.3)
Wyoming	20	24.3	(23.4–25.2)

* Includes doctor, nurse, or other health-care professional.
† Confidence interval.

FIGURE. Percentage of adults with chronic joint symptoms (CJS) who have never seen a doctor, nurse, or other health-care provider* for CJS, by state/territory — Behavioral Risk Factor Surveillance System, United States, 2001



* Includes doctor, nurse, or other health-care professional.

to treatment, such as not having health insurance or a personal doctor; however, most persons had both. In addition, persons with CJS who have co-morbidities might not get care for joint symptoms because arthritis usually is not life threatening and might be given lower priority by patients and doctors. Finally, the belief that arthritis is a normal part of aging and the lack of awareness that effective interventions are available for arthritis might play a role (*5*).

The findings in this report are subject to at least five limitations. First, data are self-reported and not confirmed through medical record review. Second, the sample is drawn from the civilian, noninstitutionalized adult population and excludes those in the military and in institutions. Third, BRFSS is a telephone survey that excludes those who have no phone service. Fourth, the median response rate was 51.4%; however, demographic distribution in the BRFSS sample was similar to the distribution based on the U.S. census estimates (e.g., sex, age, and racial/ethnic data). Finally, some who meet the CJS definition might have acute self-limited injuries instead (CDC, unpublished data, 2001).

The findings in this report are based on large, representative state-level samples whose sizes ranged from 871 to 8,628, with a total sample size of 212,510. Among persons who did not see health-care providers for their joint symptoms, some are missing opportunities to limit joint damage and disability and to improve their health and functional status. In addition to making it possible to diagnose and treat inflammatory arthritis, early care seeking for symptoms helps patients

obtain appropriate management (e.g., advice about physical therapy, medication, weight reduction, and physical activity). Health-care providers also might refer patients to self-management courses such as the Arthritis Self-Help Course, an educational program that provides information about arthritis, medications, joint protection, exercise, and pain management. This course has helped persons with arthritis reduce pain and clinical visits (*6*).

This report provides a baseline national estimate of 78.3% for the national health objective for 2010, which calls for increasing the proportion of adults who have seen a health-care provider for their chronic joint symptoms (objective 2-7) (*7*) and indicates that a large group of persons might benefit from intervention.

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Update: Adverse Events Following Civilian Smallpox Vaccination — United States, 2003

During January 24–April 25, 2003, smallpox vaccine was administered to 34,541 civilian health-care and public health workers in 54 jurisdictions to prepare the United States for a possible terrorist attack using smallpox virus. This report updates information on vaccine-associated adverse events among civilians vaccinated since the beginning of the program and among contacts of vaccinees, received by CDC from the Vaccine Adverse Event Reporting System (VAERS) as of April 25.

In this vaccination program, CDC, the Food and Drug Administration, and state health departments are conducting surveillance for vaccine-associated adverse events among civilian vaccinees (*1*). As part of the vaccination program, civilian vaccinees receive routine follow-up, and reported adverse events after vaccination receive follow-up as needed. The U.S. Department of Defense is conducting surveillance for vaccine-associated adverse events among military vaccinees and providing follow-up care to those persons with reported adverse events.

Adverse events that have been associated with smallpox vaccination are classified on the basis of evidence supporting the reported diagnoses. Cases verified by virologic testing are classified as confirmed (Table 1). Cases are classified as probable if possible alternative etiologies are investigated and excluded and supportive information for the diagnosis is found. Cases are classified as suspected if they have clinical features compatible with the diagnosis, but either further investigation is required or investigation of the case did not provide supporting evidence for the diagnosis. All reports of events that follow vaccination are accepted (i.e., events associated temporally); however, reported adverse events are not necessarily associated causally with vaccination, and some or all of these events might be coincidental. This report includes cases that are either under investigation or have a reported final diagnosis. Because of ongoing discussions of final case definitions, numbers and classifications of adverse events might change and will be updated regularly in *MMWR*.

As of April 25, a total of 15 cases of myopericarditis have been reported (Table 1); four new or reclassified cases were recorded during April 19–25. One new case of acute myocardial infarction (MI) also was reported.

During April 19–25, one new case of inadvertent inoculation (nonocular) was reported. During the vaccination program, no cases of eczema vaccinatum, erythema multiforme major, fetal vaccinia, postvaccinial encephalitis or encephalomyelitis, progressive vaccinia, or pyogenic infection of the vaccination site have been reported (Table 1).

During April 19–25, in addition to MI, nine other serious adverse events were reported: one case of respiratory distress, one case of coronary artery disease, one case of angina, one case of persistent fatigue, one case of premature ventricular contractions, and four cases of headache (Table 2). Also during this period, 44 other nonserious events were reported (Table 2). Among the 413 vaccinees with reported other nonserious adverse events during January 24–April 25, the most common signs and symptoms were fever (n = 84), rash (n = 75), headache (n = 67), pain (n = 66), and fatigue (n = 62)

TABLE 1. Number of cases* of selected adverse events associated with smallpox vaccination among civilians, by type — United States, January 24–April 25, 2003

Adverse events	No. new cases (April 19–25)			Total (January 24–April 25)		
	Suspected†	Probable§	Confirmed¶	Suspected	Probable	Confirmed
Eczema vaccinatum	—**	—	—	—	—	—
Erythema multiforme major (Stevens-Johnson syndrome)	—	—	NA††	—	—	NA
Fetal vaccinia	—	—	—	—	—	—
Generalized vaccinia	—	—	—	8	—	1
Inadvertent inoculation (nonocular)	1	—	—	26	—	2
Myocarditis/Pericarditis	4	—	—	14	1	—
Ocular vaccinia	—	—	—	—	—	2
Postvaccinial encephalitis or encephalomyelitis	—	—	NA	—	—	NA
Progressive vaccinia	—	—	—	—	—	—
Pyogenic infection of vaccination site	—	—	—	—	—	—

* Under investigation or completed as of April 25, 2003; numbers and classifications of adverse events will be updated regularly in *MMWR* as more information becomes available.
† Events are classified as suspected if they have clinical features compatible with the diagnosis, but either further investigation is required or additional investigation of the case did not provide supporting evidence for the diagnosis and did not identify an alternative diagnosis.
§ Events are classified as probable if possible alternative etiologies are investigated and excluded and supportive information for the diagnosis is found.
¶ Events are classified as confirmed if virologic tests are positive.
** No cases reported.
†† Not applicable.

TABLE 2. Number of cases* of other adverse events reported after smallpox vaccination among civilians, by severity — United States, January 24–April 25, 2003

Adverse events	No. new cases (April 19–25)	Total (January 24–April 25)
Other serious adverse events†	10§	55
Other nonserious adverse events¶	44	413

* Under investigation or completed as of April 25, 2003; numbers and classifications of adverse events will be updated regularly in *MMWR* as more information becomes available.
† Events that result in hospitalization, permanent disability, life-threatening illness, or death. These events are temporally associated with vaccination but are not necessarily causally associated with vaccination.
§ Includes one case of acute myocardial infarction, one case of respiratory distress, one case of coronary artery disease, one case of angina, one case of persistent fatigue, one case of premature ventricular contractions, and four cases of headache.
¶ Include expected self-limited responses to smallpox vaccination (e.g., fatigue, headache, pruritis, local reaction at vaccination site, regional lymphadenopathy, lymphangitis, fever, myalgia and chills, and nausea); additional events are temporally associated with smallpox vaccination but are not necessarily causally associated with vaccination.

TABLE 3. Vaccinia immune globulin release and vaccinia transmission to contacts — United States, January 24–April 25, 2003

Events	No. new cases (April 19–25)	Total (January 24–April 25)
Vaccinia immune globulin release	0	1
Vaccinia transmission to contacts*		
Health-care settings	0	0
Other settings	0	0

* No cases of transmission from civilian vaccinees have been reported. Fourteen cases of transmission from military personnel to civilian contacts have been reported.

(Table 2). All of these commonly reported events are consistent with mild expected reactions following receipt of smallpox vaccine. Several vaccinees reported multiple signs and symptoms.

During this reporting period, no vaccinia immune globulin was released for civilian vaccinees. No cases of vaccine transmission from civilian vaccinees to their contacts have been reported during the vaccination program (Table 3). A total of 14 cases of transmission from military personnel to civilian contacts have been reported. Surveillance for adverse events during the civilian and military smallpox vaccination programs is ongoing; regular surveillance reports will be published in *MMWR*.

Reported by: *Smallpox vaccine adverse events coordinators; National Immunization Program, CDC.*

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Notice to Readers

National Arthritis Month — May 2003

May is National Arthritis Month. Arthritis, chronic joint symptoms, and other rheumatic conditions are the leading cause of disability in the United States and affected approximately 70 million adults in 2001 (*1,2*). The theme for the month is "More Life, Less Limits," and the Arthritis Foundation will be urging persons to take a more active role in improving their joint health. By talking to a health-care provider, increasing physical activity, or losing weight, persons

with arthritis can continue to live an active life with fewer limitations. CDC, the Arthritis Foundation, and other organizations continue to implement the *National Arthritis Action Plan: A Public Health Strategy* (*3*) to promote progress toward reaching the arthritis-related national health objectives for 2010 (objective 2.1–2.8) (*4*).

Additional information about arthritis, National Arthritis Month, the *National Arthritis Action Plan*, and local arthritis programs and services is available from the Arthritis Foundation, telephone 800-283-7800, or at http://www.arthritis.org.

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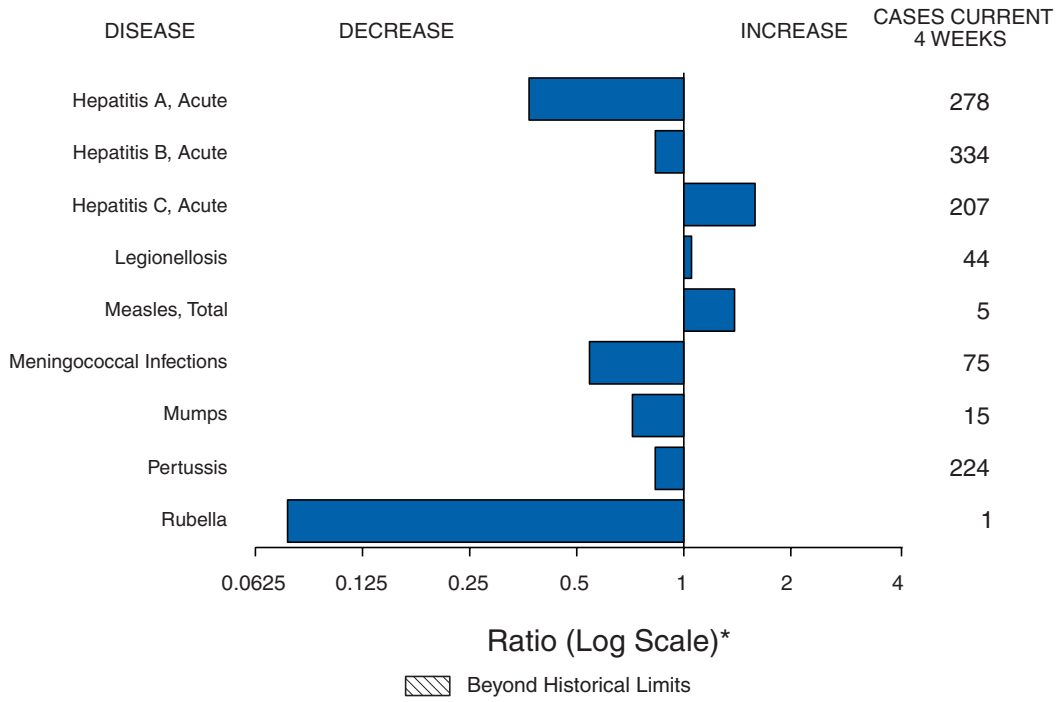
Notice to Readers

Special Mothers' Day Issue of *Pediatrics*

The May supplement to the journal *Pediatrics* entitled "Maternal Influences on Child Health: Pre-conception, Prenatal and Early Childhood" focuses on how mothers can influence their children's health before, during, and after pregnancy. Sponsored by CDC, the supplement takes a multidisciplinary approach to improving maternal and child health, highlighting research that relates to obstetrics and pediatrics. Topics include immunization, birth defects, developmental disabilities, reproductive health, human immunodeficiency virus/acquired immunodeficiency syndrome, injury control, chronic disease, nutrition, health education, and psychology.

The supplement should be informative for a wide audience, including pediatricians, obstetricians, public health researchers, and the general public. Abstracts of articles in this supplement are available at http://www.pediatrics.org. Additional information about the issue is available from CDC, telephone 404-639-8165, e-mail, ecl7@cdc.gov.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 3, 2003, with historical data



* 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 May 3, 2003 (18th Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	1	Hansen disease (leprosy)†	19	26
Botulism:	-	-	Hantavirus pulmonary syndrome†	5	4
foodborne	5	5	Hemolytic uremic syndrome, postdiarrheal†	38	36
infant	16	21	HIV infection, pediatric†§	91	56
other (wound & unspecified)	7	5	Measles, total	9¶	6**
Brucellosis†	17	27	Mumps	71	99
Chancroid	12	30	Plague	-	-
Cholera	-	3	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	12	32	Psittacosis†	4	10
Diphtheria	-	-	Q fever†	23	12
Ehrlichiosis:	-	-	Rabies, human	-	1
human granulocytic (HGE)†	12	19	Rubella	1	3
human monocytic (HME)†	15	5	Rubella, congenital	-	2
other and unspecified	-	2	Streptococcal toxic-shock syndrome†	54	56
Encephalitis/Meningitis:	-	-	Tetanus	1	5
California serogroup viral†	-	-	Toxic-shock syndrome	39	37
eastern equine†	-	-	Trichinosis	2	8
Powassan†	-	-	Tularemia†	5	5
St. Louis†	-	-	Yellow fever	-	1
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 April 27, 2003.
¶ Of nine cases reported, eight were indigenous and one was imported from another country.
** Of six cases reported, four were indigenous and two were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 3, 2003, and May 4, 2002 (18th 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	15,551	12,786	262,612	278,598	1,210	1,367	561	705	-	-
NEW ENGLAND	501	448	9,307	9,122	-	-	32	34	-	-
Maine	23	8	664	490	N	N	2	1	-	-
N.H.	12	12	520	568	-	-	2	9	-	-
Vt.	6	5	357	260	-	-	6	7	-	-
Mass.	227	236	3,669	3,572	-	-	15	9	-	-
R.I.	39	40	1,122	909	-	-	5	5	-	-
Conn.	194	147	2,975	3,323	N	N	2	3	-	-
MID. ATLANTIC	3,357	2,473	28,103	30,087	-	-	70	102	-	-
Upstate N.Y.	180	187	6,263	5,096	N	N	24	21	-	-
N.Y. City	1,625	1,477	9,646	10,326	-	-	19	39	-	-
N.J.	602	542	3,561	4,392	-	-	3	6	-	-
Pa.	950	267	8,633	10,273	N	N	24	36	-	-
E.N. CENTRAL	1,394	1,325	43,374	51,829	2	8	104	210	-	-
Ohio	230	262	10,881	13,622	-	-	20	49	-	-
Ind.	227	155	5,122	5,732	N	N	7	17	-	-
Ill.	595	558	12,209	16,348	-	1	10	38	-	-
Mich.	275	282	10,567	10,395	2	7	24	42	-	-
Wis.	67	68	4,595	5,732	-	-	43	64	-	-
W.N. CENTRAL	288	193	15,494	15,514	-	-	58	62	-	-
Minn.	57	44	3,078	3,651	N	N	30	21	-	-
Iowa	34	39	1,243	1,691	N	N	8	5	-	-
Mo.	137	64	5,899	4,923	-	-	6	10	-	-
N. Dak.	-	-	397	447	N	N	3	5	-	-
S. Dak.	7	2	863	751	-	-	9	4	-	-
Nebr.	22	21	1,559	1,559	-	-	2	12	-	-
Kans.	31	23	2,455	2,492	N	N	-	5	-	-
S. ATLANTIC	4,565	4,278	50,675	51,771	1	1	97	108	-	-
Del.	81	81	1,082	923	N	N	1	1	-	-
Md.	415	638	5,444	5,185	1	1	9	4	-	-
D.C.	478	202	741	1,153	-	-	-	3	-	-
Va.	427	276	6,194	5,555	-	-	9	1	-	-
W. Va.	33	23	851	820	N	N	-	1	-	-
N.C.	519	338	7,866	7,836	N	N	10	16	-	-
S.C.	316	321	4,836	5,124	-	-	2	2	-	-
Ga.	613	786	10,152	10,772	-	-	42	40	-	-
Fla.	1,683	1,613	13,509	14,403	N	N	24	40	-	-
E.S. CENTRAL	623	600	17,826	18,506	N	N	35	46	-	-
Ky.	67	109	2,876	3,083	N	N	8	1	-	-
Tenn.	270	252	6,246	5,802	N	N	8	24	-	-
Ala.	143	117	4,332	5,825	-	-	16	17	-	-
Miss.	143	122	4,372	3,796	N	N	3	4	-	-
W.S. CENTRAL	1,661	1,452	34,775	37,216	-	-	21	12	-	-
Ark.	48	97	2,292	2,396	-	-	1	4	-	-
La.	195	363	5,215	6,254	N	N	-	2	-	-
Okla.	75	77	3,662	3,631	N	N	3	2	-	-
Tex.	1,343	915	23,606	24,935	-	-	17	4	-	-
MOUNTAIN	586	434	14,768	17,509	890	914	29	40	-	-
Mont.	8	6	410	677	N	N	4	3	-	-
Idaho	10	8	916	735	N	N	6	11	-	-
Wyo.	3	3	319	301	-	-	1	5	-	-
Colo.	128	95	2,670	4,914	N	N	6	7	-	-
N. Mex.	44	28	2,043	2,665	-	4	-	5	-	-
Ariz.	272	176	5,365	5,381	876	892	3	5	-	-
Utah	27	22	1,347	677	3	4	7	1	-	-
Nev.	94	96	1,698	2,159	11	14	2	3	-	-
PACIFIC	2,576	1,583	48,290	47,044	317	444	115	91	-	-
Wash.	180	171	5,356	4,968	N	N	12	-	-	-
Oreg.	108	152	2,682	2,374	-	-	12	11	-	-
Calif.	2,246	1,235	38,901	36,986	317	444	91	79	-	-
Alaska	9	2	1,227	1,253	-	-	-	-	-	-
Hawaii	33	23	124	1,463	-	-	-	1	-	-
Guam	2	1	-	-	-	-	-	-	-	-
P.R.	437	377	421	17	N	N	N	N	-	-
V.I.	13	50	-	64	-	-	-	-	-	-
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 April 27, 2003.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 3, 2003, and May 4, 2002 (18th 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	319	452	46	18	34	5	4,563	5,940	98,890	119,234
NEW ENGLAND	20	33	5	1	3	1	350	550	2,333	2,732
Maine	3	2	-	-	-	-	38	59	64	26
N.H.	5	2	-	-	-	-	14	17	39	43
Vt.	-	1	-	-	-	-	24	38	30	37
Mass.	6	18	-	1	3	1	164	289	936	1,175
R.I.	1	3	-	-	-	-	42	36	337	325
Conn.	5	7	5	-	-	-	68	111	927	1,126
MID. ATLANTIC	19	35	2	-	8	2	831	1,285	10,990	14,042
Upstate N.Y.	12	25	1	-	5	-	269	343	2,405	2,739
N.Y. City	3	2	-	-	-	-	347	490	3,695	4,237
N.J.	4	8	-	-	-	-	56	149	1,894	2,683
Pa.	N	N	1	-	3	2	159	303	2,996	4,383
E.N. CENTRAL	73	135	8	2	5	-	718	1,033	20,151	24,959
Ohio	18	20	8	2	5	-	263	282	6,311	7,369
Ind.	8	9	-	-	-	-	-	-	2,036	2,498
Ill.	15	47	-	-	-	-	144	305	5,786	8,365
Mich.	17	25	-	-	-	-	208	289	4,462	4,784
Wis.	15	34	-	-	-	-	103	157	1,556	1,943
W.N. CENTRAL	44	62	4	4	6	-	461	537	5,215	6,111
Minn.	15	20	3	3	-	-	163	186	774	1,076
Iowa	5	14	-	-	-	-	70	79	246	406
Mo.	15	14	N	N	N	N	121	155	2,758	2,934
N. Dak.	1	-	-	-	1	-	9	6	13	22
S. Dak.	2	1	-	-	-	-	16	20	59	86
Nebr.	5	8	1	1	-	-	46	44	488	544
Kans.	1	5	-	-	5	-	36	47	877	1,043
S. ATLANTIC	38	36	12	7	-	-	846	891	24,863	30,369
Del.	-	2	N	N	N	N	14	16	424	574
Md.	1	1	-	-	-	-	38	33	2,581	2,980
D.C.	1	-	-	-	-	-	13	16	551	954
Va.	4	6	-	-	-	-	80	54	2,851	3,597
W. Va.	1	1	-	-	-	-	8	9	286	343
N.C.	7	8	2	-	-	-	N	N	4,304	5,543
S.C.	-	-	-	-	-	-	31	13	2,664	3,094
Ga.	11	10	2	4	-	-	353	266	5,182	5,674
Fla.	13	8	8	3	-	-	309	484	6,020	7,610
E.S. CENTRAL	19	17	-	-	3	-	98	108	8,590	10,442
Ky.	8	3	-	-	3	-	N	N	1,197	1,207
Tenn.	7	10	-	-	-	-	41	49	2,607	3,210
Ala.	3	1	-	-	-	-	57	59	2,570	3,705
Miss.	1	3	-	-	-	-	-	-	2,216	2,320
W.S. CENTRAL	23	12	8	-	5	1	72	40	14,062	16,595
Ark.	2	1	-	-	-	-	41	40	1,206	1,472
La.	-	-	-	-	-	-	3	-	3,355	3,913
Okla.	2	2	-	-	-	-	28	-	1,376	1,605
Tex.	19	9	8	-	5	1	-	-	8,125	9,605
MOUNTAIN	33	38	5	2	4	1	381	410	3,203	3,864
Mont.	1	8	-	-	-	-	16	25	29	38
Idaho	9	1	3	-	-	-	50	19	31	30
Wyo.	1	1	-	1	-	-	5	7	17	21
Colo.	8	8	1	-	4	1	104	139	726	1,273
N. Mex.	1	3	1	1	-	-	15	49	342	510
Ariz.	8	5	N	N	N	N	71	56	1,415	1,284
Utah	5	6	-	-	-	-	91	68	122	64
Nev.	-	6	-	-	-	-	29	47	521	644
PACIFIC	50	84	2	2	-	-	806	1,086	9,483	10,120
Wash.	16	7	1	-	-	-	57	127	1,000	1,011
Oreg.	8	26	1	2	-	-	92	133	326	302
Calif.	26	37	-	-	-	-	623	763	7,942	8,403
Alaska	-	3	-	-	-	-	27	25	188	215
Hawaii	-	11	-	-	-	-	7	38	27	189
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	10	2	35	5
V.I.	-	-	-	-	-	-	-	-	-	18
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 May 3, 2003, and May 4, 2002 (18th 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	537	746	4	10	80	130	14	9	1,798	3,479
NEW ENGLAND	43	52	-	-	2	4	3	2	66	138
Maine	2	1	-	-	-	-	1	-	2	4
N.H.	6	4	-	-	-	-	-	-	4	7
Vt.	5	3	-	-	-	-	-	-	2	-
Mass.	18	26	-	-	2	2	1	2	39	66
R.I.	2	8	-	-	-	-	1	-	9	18
Conn.	10	10	-	-	-	2	-	-	10	43
MID. ATLANTIC	86	135	-	1	12	22	3	-	246	455
Upstate N.Y.	34	52	-	1	6	7	-	-	35	66
N.Y. City	14	32	-	-	4	7	-	-	108	160
N.J.	16	32	-	-	2	5	-	-	36	72
Pa.	22	19	-	-	-	3	3	-	67	157
E.N. CENTRAL	59	141	1	1	10	26	-	-	194	424
Ohio	25	41	-	-	5	5	-	-	36	104
Ind.	13	16	-	-	1	5	-	-	12	21
Ill.	14	54	-	-	3	11	-	-	63	146
Mich.	7	6	1	1	1	-	-	-	70	89
Wis.	-	24	-	-	-	5	-	-	13	64
W.N. CENTRAL	42	20	-	-	5	2	4	2	61	129
Minn.	18	14	-	-	5	2	-	1	14	19
Iowa	-	1	-	-	-	-	-	-	15	26
Mo.	15	3	-	-	-	-	4	1	16	28
N. Dak.	-	-	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	-	-	-	-	-	-	-	-	3	6
Kans.	8	1	-	-	-	-	-	-	13	46
S. ATLANTIC	128	193	-	3	12	28	-	1	479	992
Del.	-	-	-	-	-	-	-	-	3	8
Md.	30	41	-	-	4	1	-	-	54	108
D.C.	-	-	-	-	-	-	-	-	14	33
Va.	12	9	-	-	2	2	-	-	30	29
W. Va.	3	2	-	-	-	-	-	-	5	9
N.C.	10	14	-	-	-	2	-	-	26	105
S.C.	3	3	-	-	-	1	-	-	18	25
Ga.	25	33	-	-	3	7	-	-	181	203
Fla.	45	91	-	3	3	15	-	1	148	472
E.S. CENTRAL	43	25	1	1	6	6	-	-	49	111
Ky.	2	3	-	-	-	-	-	-	11	26
Tenn.	23	12	-	-	4	3	-	-	25	44
Ala.	16	5	1	1	1	2	-	-	9	13
Miss.	2	5	-	-	1	1	-	-	4	28
W.S. CENTRAL	27	27	-	2	4	5	-	-	136	231
Ark.	4	1	-	-	1	-	-	-	2	17
La.	6	2	-	-	1	-	-	-	13	18
Okla.	17	22	-	-	2	5	-	-	6	13
Tex.	-	2	-	2	-	-	-	-	115	183
MOUNTAIN	84	81	2	2	22	17	3	2	128	217
Mont.	-	-	-	-	-	-	-	-	1	7
Idaho	-	1	-	-	-	-	-	-	-	18
Wyo.	-	1	-	-	-	-	-	-	1	2
Colo.	15	16	-	-	4	2	-	-	15	32
N. Mex.	11	15	-	-	3	4	1	-	7	6
Ariz.	47	35	2	1	11	8	-	1	78	113
Utah	7	10	-	1	4	2	-	-	11	14
Nev.	4	3	-	-	-	1	2	1	15	25
PACIFIC	25	72	-	-	7	20	1	2	439	782
Wash.	3	1	-	-	2	1	1	-	21	54
Oreg.	18	30	-	-	3	4	-	-	27	38
Calif.	2	23	-	-	2	12	-	2	387	669
Alaska	-	1	-	-	-	1	-	-	4	7
Hawaii	2	17	-	-	-	2	-	-	-	14
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	9	50
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 May 3, 2003, and May 4, 2002 (18th 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	2,066	2,416	897	731	291	234	140	154	1,586	2,107
NEW ENGLAND	77	85	-	12	10	8	7	14	143	194
Maine	-	1	-	-	-	1	-	2	-	-
N.H.	6	5	-	-	1	1	2	2	4	17
Vt.	1	2	-	6	1	-	-	-	3	2
Mass.	65	54	-	6	3	4	3	7	11	162
R.I.	3	10	-	-	1	-	-	1	66	7
Conn.	2	13	-	-	4	2	2	2	59	6
MID. ATLANTIC	353	582	48	41	42	67	21	28	1,152	1,594
Upstate N.Y.	33	44	22	20	21	17	7	9	645	776
N.Y. City	132	288	-	-	6	13	6	7	-	23
N.J.	151	129	-	5	2	12	3	4	147	262
Pa.	37	121	26	16	13	25	5	8	360	533
E.N. CENTRAL	151	196	194	43	60	72	13	21	41	74
Ohio	50	27	5	-	30	30	2	9	11	8
Ind.	4	9	1	-	3	2	1	1	4	2
Ill.	1	31	6	10	3	11	3	2	-	6
Mich.	79	113	182	33	24	20	7	6	-	-
Wis.	17	16	-	-	-	9	-	3	26	58
W.N. CENTRAL	96	81	88	311	12	17	4	4	25	20
Minn.	8	2	1	-	2	1	2	-	16	13
Iowa	4	11	-	1	4	5	-	1	4	3
Mo.	58	44	87	307	3	6	-	1	3	4
N. Dak.	-	1	-	-	1	-	-	1	-	-
S. Dak.	1	-	-	-	-	1	-	-	-	-
Nebr.	15	13	-	3	1	4	2	-	-	-
Kans.	10	10	-	-	1	-	-	1	2	-
S. ATLANTIC	642	577	74	107	93	26	37	32	160	166
Del.	2	5	-	3	-	3	N	N	26	27
Md.	37	57	6	6	17	5	5	3	92	99
D.C.	1	6	-	-	1	-	-	-	3	6
Va.	38	67	-	-	6	2	4	1	10	6
W. Va.	7	11	-	1	N	N	1	-	-	-
N.C.	51	77	3	8	9	3	7	2	17	18
S.C.	52	32	23	3	4	4	1	2	1	1
Ga.	234	138	3	31	8	5	10	4	2	1
Fla.	220	184	39	55	48	4	9	20	9	8
E.S. CENTRAL	112	110	28	79	9	6	5	8	10	8
Ky.	25	15	7	2	-	4	-	2	2	3
Tenn.	42	46	3	12	7	-	1	3	5	-
Ala.	28	24	4	2	1	2	3	3	-	3
Miss.	17	25	14	63	1	-	1	-	3	2
W.S. CENTRAL	107	346	421	90	24	9	14	9	11	22
Ark.	2	47	-	7	-	-	-	-	-	-
La.	26	22	18	16	-	3	-	-	2	1
Okla.	14	1	-	-	2	2	1	3	-	-
Tex.	65	276	403	67	22	4	13	6	9	21
MOUNTAIN	199	146	18	11	17	10	12	11	5	4
Mont.	8	3	1	-	-	1	1	-	-	-
Idaho	-	3	-	-	2	-	-	-	1	1
Wyo.	2	8	-	2	1	-	-	-	-	-
Colo.	27	27	13	2	2	2	5	2	1	-
N. Mex.	9	25	-	-	1	1	2	-	-	1
Ariz.	116	48	3	-	6	3	4	7	-	1
Utah	16	12	-	-	3	3	-	2	2	-
Nev.	21	20	1	7	2	-	-	-	1	1
PACIFIC	329	293	26	37	24	19	27	27	39	25
Wash.	24	19	4	6	2	1	1	3	-	-
Oreg.	43	55	4	8	N	N	1	2	9	1
Calif.	253	211	18	23	22	18	25	21	29	24
Alaska	7	5	-	-	-	-	-	-	1	-
Hawaii	2	3	-	-	-	-	-	1	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	13	35	-	-	-	-	-	-	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 May 3, 2003, and May 4, 2002 (18th 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	277	336	683	862	1,472	2,143	1,320	2,264	87	104
NEW ENGLAND	7	22	35	51	166	243	131	268	-	1
Maine	1	1	5	4	1	3	11	17	-	-
N.H.	1	4	3	5	12	3	3	8	-	-
Vt.	-	1	-	3	24	38	9	50	-	-
Mass.	5	11	21	27	128	190	56	85	-	1
R.I.	-	1	2	4	1	1	12	18	-	-
Conn.	-	4	4	8	-	8	40	90	-	-
MID. ATLANTIC	54	89	52	105	133	105	112	309	7	14
Upstate N.Y.	16	13	13	23	75	73	83	179	-	1
N.Y. City	27	51	12	18	-	-	1	9	3	3
N.J.	3	14	8	14	7	-	28	38	3	1
Pa.	8	11	19	50	51	32	-	83	1	9
E.N. CENTRAL	28	52	83	113	120	255	11	16	1	2
Ohio	6	9	29	39	79	138	4	3	1	2
Ind.	-	2	14	16	12	15	2	3	-	-
Ill.	11	18	13	20	-	40	1	3	-	-
Mich.	10	18	20	19	15	29	4	3	-	-
Wis.	1	5	7	19	14	33	-	4	-	-
W.N. CENTRAL	11	26	57	64	85	204	198	155	2	12
Minn.	8	9	13	15	33	67	11	7	-	-
Iowa	2	2	9	9	23	63	24	16	1	-
Mo.	-	6	26	26	17	42	4	11	1	12
N. Dak.	-	1	-	-	-	5	17	13	-	-
S. Dak.	-	-	1	2	2	5	20	32	-	-
Nebr.	-	3	4	7	1	3	49	-	-	-
Kans.	1	5	4	5	9	19	73	76	-	-
S. ATLANTIC	78	64	127	190	147	144	669	785	71	64
Del.	-	1	7	5	1	2	16	9	-	-
Md.	24	25	12	3	17	19	2	143	11	9
D.C.	5	2	-	-	-	1	-	-	-	-
Va.	7	7	6	15	33	63	168	199	1	1
W. Va.	2	1	1	-	1	3	23	56	-	-
N.C.	6	7	16	14	54	14	247	203	47	39
S.C.	1	2	6	12	5	24	48	22	9	9
Ga.	8	10	13	13	17	8	116	120	-	5
Fla.	25	9	66	128	19	10	49	33	3	1
E.S. CENTRAL	6	5	26	34	35	60	16	125	5	8
Ky.	1	1	-	4	8	15	10	9	-	-
Tenn.	3	1	8	12	15	30	-	108	4	6
Ala.	2	1	8	9	9	8	6	8	-	1
Miss.	-	2	10	9	3	7	-	-	1	1
W.S. CENTRAL	26	2	141	89	74	481	107	444	-	2
Ark.	3	-	8	13	-	285	25	-	-	-
La.	1	2	19	10	4	3	-	-	-	-
Okla.	2	-	6	9	2	15	82	29	-	-
Tex.	20	-	108	57	68	178	-	415	-	2
MOUNTAIN	10	14	24	51	319	289	28	69	1	1
Mont.	-	-	2	2	-	2	5	4	-	-
Idaho	1	-	2	2	9	28	1	-	-	-
Wyo.	-	-	1	-	57	5	-	3	-	-
Colo.	7	7	4	16	124	132	-	-	-	-
N. Mex.	-	-	3	1	17	32	1	4	-	-
Ariz.	1	2	9	16	79	70	21	57	1	-
Utah	1	2	-	1	25	12	-	-	-	-
Nev.	-	3	3	13	8	8	-	1	-	1
PACIFIC	57	62	138	165	393	362	48	93	-	-
Wash.	8	4	12	29	100	118	-	-	-	-
Oreg.	5	2	28	22	96	22	-	-	-	-
Calif.	44	52	97	109	196	214	44	68	-	-
Alaska	-	1	1	1	-	2	4	25	-	-
Hawaii	-	3	-	4	1	6	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	2	2	-	-	20	24	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 May 3, 2003, and May 4, 2002 (18th 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	8,149	9,666	6,494	4,488	2,106	1,927	944	915	140	100
NEW ENGLAND	410	505	94	86	127	109	3	4	1	1
Maine	25	53	4	2	13	16	-	-	-	-
N.H.	25	26	2	4	11	21	-	-	N	N
Vt.	10	20	2	-	11	6	3	3	1	1
Mass.	226	286	59	60	91	59	N	N	N	N
R.I.	27	20	3	4	1	7	-	1	-	-
Conn.	97	100	24	16	-	-	-	-	-	-
MID. ATLANTIC	764	1,385	360	342	279	340	45	49	39	34
Upstate N.Y.	210	318	98	51	163	142	23	45	30	29
N.Y. City	271	393	117	143	33	82	U	U	U	U
N.J.	65	303	72	75	15	72	N	N	N	N
Pa.	218	371	73	73	68	44	22	4	9	5
E.N. CENTRAL	1,106	1,648	406	565	473	468	196	74	63	41
Ohio	370	399	91	273	149	101	145	-	50	-
Ind.	79	103	32	22	30	19	51	72	8	15
Ill.	343	606	176	177	94	147	-	2	-	-
Mich.	172	282	75	54	183	140	N	N	N	N
Wis.	142	258	32	39	17	61	N	N	5	26
W.N. CENTRAL	499	654	249	405	164	117	98	250	14	19
Minn.	149	147	31	47	80	61	-	163	14	17
Iowa	98	103	19	35	N	N	N	N	N	N
Mo.	131	244	81	45	32	26	7	4	-	1
N. Dak.	13	9	-	7	6	-	3	-	-	1
S. Dak.	21	27	8	127	13	5	-	1	-	-
Nebr.	38	37	82	94	18	9	-	21	N	N
Kans.	49	87	28	50	15	16	88	61	N	N
S. ATLANTIC	2,247	2,154	2,413	1,543	387	284	501	421	4	2
Del.	16	15	100	5	4	1	-	3	N	N
Md.	210	179	191	231	135	43	-	-	-	-
D.C.	12	26	20	19	8	4	2	28	-	1
Va.	194	213	90	325	36	33	N	N	N	N
W. Va.	18	20	-	2	16	7	25	24	4	1
N.C.	320	273	226	102	36	60	N	N	U	U
S.C.	108	112	89	18	14	24	47	90	N	N
Ga.	508	328	843	381	45	74	156	151	N	N
Fla.	861	988	854	460	93	38	271	125	N	N
E.S. CENTRAL	460	489	304	343	75	50	58	69	-	-
Ky.	90	81	44	54	16	6	4	8	N	N
Tenn.	152	139	97	19	59	44	54	61	N	N
Ala.	156	147	121	138	-	-	-	-	N	N
Miss.	62	122	42	132	-	-	-	-	-	-
W.S. CENTRAL	667	828	1,610	397	139	80	29	27	18	1
Ark.	89	98	20	61	2	1	7	4	-	-
La.	62	155	72	80	1	1	22	23	7	1
Okla.	68	78	212	89	32	15	N	N	11	-
Tex.	448	497	1,306	167	104	63	N	N	-	-
MOUNTAIN	545	585	303	172	239	247	13	21	1	2
Mont.	33	21	1	1	1	-	-	-	-	-
Idaho	62	41	7	2	10	5	N	N	N	N
Wyo.	9	19	1	2	-	6	3	8	-	-
Colo.	138	161	49	38	75	52	-	-	-	-
N. Mex.	47	81	60	45	54	49	10	13	-	-
Ariz.	168	154	155	61	92	124	-	-	N	N
Utah	58	41	16	12	7	11	-	-	1	2
Nev.	30	67	14	11	-	-	-	-	-	-
PACIFIC	1,451	1,418	755	635	223	232	1	-	-	-
Wash.	137	97	63	26	23	-	-	-	N	N
Oreg.	128	113	25	31	N	N	N	N	N	N
Calif.	1,136	1,119	663	558	189	210	N	N	N	N
Alaska	35	20	4	2	-	-	-	-	N	N
Hawaii	15	69	-	18	11	22	1	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	47	76	1	1	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 May 3, 2003, and May 4, 2002 (18th Week)*

Reporting area	Syphilis: Primary & secondary Cum. 2003	Syphilis: Primary & secondary Cum. 2002	Syphilis: Congenital Cum. 2003	Syphilis: Congenital Cum. 2002	Tuberculosis Cum. 2003	Tuberculosis Cum. 2002	Typhoid fever Cum. 2003	Typhoid fever Cum. 2002	Varicella (Chickenpox) Cum. 2003
UNITED STATES	2,205	2,155	125	138	2,723	3,809	77	97	4,492
NEW ENGLAND	60	29	1	-	76	126	6	7	849
Maine	3	-	1	-	-	5	-	-	474
N.H.	6	-	-	-	3	5	-	-	-
Vt.	-	1	-	-	-	1	-	-	293
Mass.	42	19	-	-	47	59	1	6	80
R.I.	6	1	-	-	5	19	2	-	2
Conn.	3	8	-	-	21	37	3	1	-
MID. ATLANTIC	255	225	24	21	624	652	11	29	4
Upstate N.Y.	7	8	8	1	71	97	3	3	N
N.Y. City	143	130	9	7	379	331	5	12	-
N.J.	52	48	7	12	107	155	3	9	-
Pa.	53	39	-	1	67	69	-	5	4
E.N. CENTRAL	297	441	31	19	294	361	4	14	2,329
Ohio	72	51	2	-	43	52	-	4	509
Ind.	12	23	3	-	40	34	1	1	-
Ill.	99	162	12	17	143	182	-	4	-
Mich.	110	197	14	2	62	69	3	3	1,469
Wis.	4	8	-	-	6	24	-	2	351
W.N. CENTRAL	54	40	2	-	140	161	-	4	14
Minn.	13	18	-	-	58	72	-	2	N
Iowa	3	2	-	-	10	-	-	-	N
Mo.	23	10	2	-	16	51	-	1	-
N. Dak.	-	-	-	-	-	3	-	-	14
S. Dak.	-	-	-	-	9	8	-	-	-
Nebr.	-	3	-	-	9	1	-	1	-
Kans.	15	7	-	-	38	26	-	-	-
S. ATLANTIC	590	494	22	31	556	752	22	8	950
Del.	4	6	-	-	-	7	-	-	7
Md.	103	58	2	3	67	75	3	2	-
D.C.	6	14	1	-	-	-	-	-	7
Va.	30	11	1	-	66	66	10	-	228
W. Va.	-	-	-	-	7	8	-	-	643
N.C.	60	111	5	9	76	103	4	-	N
S.C.	40	43	3	4	46	43	-	-	65
Ga.	123	81	2	6	84	137	3	3	-
Fla.	224	170	8	9	210	313	2	3	N
E.S. CENTRAL	113	217	10	12	219	241	3	2	-
Ky.	18	34	1	2	37	42	-	2	N
Tenn.	46	88	4	4	69	94	1	-	N
Ala.	43	71	4	4	84	70	2	-	-
Miss.	6	24	1	2	29	35	-	-	-
W.S. CENTRAL	294	273	17	34	239	659	-	6	216
Ark.	14	15	-	1	37	42	-	-	-
La.	33	45	-	-	-	-	-	-	3
Okla.	19	23	-	1	34	50	-	-	N
Tex.	228	190	17	32	168	567	-	6	213
MOUNTAIN	96	115	13	5	84	95	3	6	130
Mont.	-	-	-	-	-	-	-	-	N
Idaho	6	1	-	-	1	2	-	-	N
Wyo.	-	-	-	-	2	2	-	-	17
Colo.	6	13	2	1	25	24	3	3	-
N. Mex.	14	15	-	-	-	11	-	-	-
Ariz.	63	78	11	4	47	43	-	-	-
Utah	3	2	-	-	9	8	-	2	113
Nev.	4	6	-	-	-	5	-	1	-
PACIFIC	446	321	5	16	491	762	28	21	-
Wash.	23	18	-	1	76	74	-	-	-
Oreg.	15	5	-	-	24	28	2	2	-
Calif.	408	294	5	15	366	588	26	19	-
Alaska	-	-	-	-	19	23	-	-	-
Hawaii	-	4	-	-	6	49	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	58	8	1	-	-	24	-	-	111
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 May 3, 2003 (18th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	457	346	76	25	5	5	47
Boston, Mass.	161	115	35	8	3	-	13
Bridgeport, Conn.	38	33	3	1	-	1	5
Cambridge, Mass.	20	17	3	-	-	-	4
Fall River, Mass.	25	24	1	-	-	-	4
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	36	29	3	4	-	-	5
Lynn, Mass.	13	9	3	1	-	-	2
New Bedford, Mass.	16	10	3	2	-	1	1
New Haven, Conn.	24	16	3	3	1	1	2
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	U	U	U	U	U	U	U
Springfield, Mass.	42	29	8	3	1	1	6
Waterbury, Conn.	32	26	4	1	-	1	-
Worcester, Mass.	50	38	10	2	-	-	5
MID. ATLANTIC	2,197	1,547	448	134	40	28	130
Albany, N.Y.	57	42	10	4	1	-	6
Allentown, Pa.	19	19	-	-	-	-	1
Buffalo, N.Y.	96	65	22	4	3	2	9
Camden, N.J.	32	21	8	-	-	3	1
Elizabeth, N.J.	18	12	4	2	-	-	2
Erie, Pa.	36	29	5	1	1	-	2
Jersey City, N.J.	33	22	7	2	-	2	-
New York City, N.Y.	1,127	803	231	58	22	13	45
Newark, N.J.	57	29	16	9	2	1	6
Paterson, N.J.	16	13	1	2	-	-	2
Philadelphia, Pa.	264	161	70	26	3	4	10
Pittsburgh, Pa.§	26	21	2	3	-	-	1
Reading, Pa.	26	21	4	1	-	-	2
Rochester, N.Y.	143	110	24	7	2	-	14
Schenectady, N.Y.	38	31	4	2	1	-	5
Scranton, Pa.	27	24	1	1	1	-	1
Syracuse, N.Y.	76	59	14	2	1	-	17
Trenton, N.J.	65	37	17	7	1	3	1
Utica, N.Y.	17	11	4	1	1	-	4
Yonkers, N.Y.	24	17	4	2	1	-	1
E.N. CENTRAL	1,927	1,263	425	126	52	56	108
Akron, Ohio	2	2	-	-	-	-	2
Canton, Ohio	53	39	9	4	1	-	3
Chicago, Ill.	349	200	87	30	18	14	18
Cincinnati, Ohio	94	64	24	2	3	1	8
Cleveland, Ohio	121	76	32	6	4	3	4
Columbus, Ohio	151	103	29	9	2	3	12
Dayton, Ohio	121	83	31	3	3	1	12
Detroit, Mich.	188	84	62	24	6	12	11
Evansville, Ind.	43	30	9	2	2	-	2
Fort Wayne, Ind.	70	46	18	6	-	-	3
Gary, Ind.	17	9	5	3	-	-	-
Grand Rapids, Mich.	59	40	12	3	2	2	7
Indianapolis, Ind.	210	150	38	10	6	6	5
Lansing, Mich.	43	38	2	1	1	1	7
Milwaukee, Wis.	96	73	15	6	-	2	3
Peoria, Ill.	47	29	12	-	2	4	1
Rockford, Ill.	45	34	8	1	-	2	3
South Bend, Ind.	53	40	6	4	1	2	2
Toledo, Ohio	89	63	15	8	1	2	4
Youngstown, Ohio	76	60	11	4	-	1	1
W.N. CENTRAL	664	471	124	38	16	15	49
Des Moines, Iowa	76	58	13	3	1	1	12
Duluth, Minn.	34	31	3	-	-	-	2
Kansas City, Kans.	43	22	16	4	1	-	2
Kansas City, Mo.	106	71	21	8	3	3	6
Lincoln, Nebr.	43	35	7	1	-	-	3
Minneapolis, Minn.	79	52	15	4	2	6	3
Omaha, Nebr.	77	57	15	2	-	3	5
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	59	49	6	3	1	-	8
Wichita, Kans.	147	96	28	13	8	2	8
S. ATLANTIC	1,185	763	262	101	32	27	81
Atlanta, Ga.	127	70	37	11	5	4	5
Baltimore, Md.	191	113	50	20	6	2	18
Charlotte, N.C.	102	61	23	11	1	6	3
Jacksonville, Fla.	118	84	24	7	3	-	8
Miami, Fla.	121	82	21	14	3	1	7
Norfolk, Va.	42	35	5	2	-	-	3
Richmond, Va.	65	40	17	5	2	1	7
Savannah, Ga.	52	38	8	2	2	2	3
St. Petersburg, Fla.	63	45	7	5	1	5	5
Tampa, Fla.	185	124	42	10	5	4	19
Washington, D.C.	101	56	26	14	4	1	1
Wilmington, Del.	18	15	2	-	-	1	2
E.S. CENTRAL	854	572	189	49	26	18	67
Birmingham, Ala.	184	118	46	9	6	5	11
Chattanooga, Tenn.	62	42	15	2	1	2	4
Knoxville, Tenn.	88	57	18	6	6	1	5
Lexington, Ky.	67	42	16	4	4	1	4
Memphis, Tenn.	135	82	41	7	2	3	7
Mobile, Ala.	106	83	14	6	1	2	5
Montgomery, Ala.	56	41	9	5	1	-	12
Nashville, Tenn.	156	107	30	10	5	4	19
W.S. CENTRAL	1,502	968	324	126	45	39	98
Austin, Tex.	82	47	22	6	3	4	11
Baton Rouge, La.	57	37	12	3	5	-	-
Corpus Christi, Tex.	63	50	9	3	-	1	3
Dallas, Tex.	228	134	57	19	6	12	17
El Paso, Tex.	78	58	13	5	2	-	2
Ft. Worth, Tex.	116	71	29	10	3	3	9
Houston, Tex.	362	218	78	44	11	11	19
Little Rock, Ark.	60	37	15	5	2	1	2
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	251	165	51	21	10	4	17
Shreveport, La.	57	44	7	2	2	2	5
Tulsa, Okla.	148	107	31	8	1	1	13
MOUNTAIN	786	541	146	63	15	20	59
Albuquerque, N.M.	114	83	25	3	-	3	5
Boise, Idaho	48	33	10	3	2	-	3
Colo. Springs, Colo.	75	56	12	6	1	-	7
Denver, Colo.	113	68	22	10	6	7	5
Las Vegas, Nev.	246	162	46	27	5	5	16
Ogden, Utah	27	14	8	4	1	-	1
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	38	28	7	3	-	-	4
Salt Lake City, Utah	125	97	16	7	-	5	18
Tucson, Ariz.	U	U	U	U	U	U	U
PACIFIC	1,254	876	237	85	35	21	127
Berkeley, Calif.	U	U	U	U	U	U	U
Fresno, Calif.	118	77	27	8	5	1	13
Glendale, Calif.	15	13	1	1	-	-	1
Honolulu, Hawaii	79	64	11	1	3	-	6
Long Beach, Calif.	67	45	15	3	2	2	9
Los Angeles, Calif.	246	168	50	17	11	-	18
Pasadena, Calif.	U	U	U	U	U	U	U
Portland, Oreg.	119	93	17	7	-	2	8
Sacramento, Calif.	151	96	32	14	4	5	20
San Diego, Calif.	156	106	25	14	5	6	24
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	U	U	U	U	U	U	U
Santa Cruz, Calif.	32	25	5	2	-	-	4
Seattle, Wash.	123	85	25	8	2	3	12
Spokane, Wash.	39	25	9	3	2	-	3
Tacoma, Wash.	109	79	20	7	1	2	9
TOTAL	10,826¶	7,347	2,231	747	266	229	766

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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