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Estimated Influenza Vaccination Coverage Among Adults and Children — United States, September 1–November 30, 2004

Because of the unexpected reduction in the amount of available inactivated influenza vaccine for the 2004–05 influenza season, on October 5, 2004, the Advisory Committee on Immunization Practices (ACIP) recommended that the vaccine be reserved for persons in certain priority groups and asked others to defer or forego vaccination (1). To assess the use of influenza vaccine and the primary reasons reported for not receiving vaccine, beginning November 1, questions were added to the ongoing Behavioral Risk Factor Surveillance System (BRFSS) survey. This report analyzes data collected during December 1–11 on self-reported vaccination during September 1–November 30, which indicated that persons in nonpriority groups had largely deferred vaccination and that, among unvaccinated adults in priority groups, one fourth tried to get vaccine but were unable to do so. Vaccination coverage was suboptimal for persons in all assessed priority groups. Because influenza activity peaks in February or later in most years (2), persons in priority groups should continue to seek vaccination.

BRFSS is a monthly, state-based, random-digit-dialed telephone survey of the U.S. civilian, noninstitutionalized population aged ≥ 18 years, with an average of 20,000 completed surveys per month (3,4). In previous influenza seasons, the BRFSS survey included two questions on influenza vaccination coverage among adults: “During the past 12 months, have you had a flu shot?” and “During the past 12 months, have you had a flu vaccine that was sprayed in your nose?” Questions on health-risk status were limited, and no information was collected on the timing of vaccination or on influenza vaccination among children.

Beginning November 1, the two influenza vaccination questions were also asked regarding a randomly selected child in the household. In addition, new questions for adults and children were asked to determine 1) the month and year of the

most recent influenza vaccination, 2) whether persons were vaccinated for influenza during the 2003–04 influenza season, 3) the primary reason vaccination was not received, and 4) whether the respondent (or a child in the household) was in one of the following ACIP-designated priority groups for vaccination: persons aged ≥ 65 years or aged 6–23 months, persons aged 2–64 years with one or more conditions that increase risk for influenza complications, health-care workers with patient contact, and household contacts of children aged < 6 months*. For adults, conditions considered as increasing risk for influenza complications were asthma, other lung problems, heart problems, diabetes, kidney problems, weakened immune system, anemia, and pregnancy. For children, these conditions (with the exception of pregnancy) and aspirin therapy were considered as increasing risk for influenza complications. Children aged 6 months–8 years are recommended to have 2 doses of influenza vaccine if they have never been vaccinated for influenza (2). However, in this survey, assessment of 1 versus 2 doses was not made, and children

* Certain additional priority groups cited by ACIP were not included in the survey, including residents of nursing homes and long-term-care facilities, out-of-home caregivers for children aged < 6 months, and child household contacts of children aged < 6 months.

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were counted among those vaccinated if they received any influenza vaccination.

The analyses were based on 16,713 interviews conducted during December 1–11 and thus represent partial influenza season estimates. Data were available for 48 states and the District of Columbia; data for Nevada and New Mexico were not available. Because BRFSS data collection is ongoing, response rates for December are not yet available. The median response rate for states/areas for the preceding month (November 2004) was 52.3% (range: 23.2%–76.8%) based on CASRO guidelines. For 2003, the last year for which yearly response rates are available, the median response rate for states/areas was 53.2% (range: 34.4%–80.5%). Although response rates have declined over time, when BRFSS data are compared with census data and other surveys, BRFSS data have a minimal bias and are reliable (3,4). Estimates were adjusted to account for differential probabilities in the sample selection, the age- and sex-specific population from the 2003 census for each state, and the size of the state population. Statistical analysis software was used to account for the complex sampling design and to calculate standard errors and confidence intervals.

Vaccination Coverage Among Adults

Among adults in all priority groups, 34.8% reported receiving an influenza vaccination during September 1–November 30, compared with 4.4% of adults aged 18–64 years who were not in a priority group (Table 1). Coverage was highest (51.1%) among persons aged ≥ 65 years, followed by health-care workers with patient contact (34.2%) and adults aged 18–64 years with high-risk conditions (19.3%). The percentage of persons reporting that they obtained an influenza vaccination during September 1–November 30 was smaller in each of these groups than the percentage who said they obtained a vaccination during the previous influenza season, September 1, 2003–March 31, 2004. Among persons aged ≥ 65 years who reported receiving influenza vaccine during the 2003–04 influenza season, 71.7% reported also being vaccinated during the 2004–05 influenza season. State-specific, self-reported vaccination coverage among adults in priority groups ranged from 18.0% to 60.3%, with a median of 37.6% (Figure). Among all vaccinated adults, 1.6% reported receiving FluMist[®], the live attenuated influenza vaccine (LAIV) approved for use by healthy persons aged 5–49 years who are not pregnant and not contacts of severely immunocompromised persons.

Among adults in priority groups who had not yet received influenza vaccine, 23.3% reported that they attempted to

TABLE 1. Percentage of adults reporting receiving influenza vaccination*, by vaccination priority status† — Behavioral Risk Factor Surveillance System, United States, 2003–04 and 2004–05 influenza seasons

Vaccination priority status	Reporting vaccination thus far for the 2004–05 season			Reporting vaccination for the 2003–04 season		
	No. surveyed	%	(95% CI [§])	No. surveyed	%	(95% CI)
Persons aged 18–64 years with high-risk conditions [¶]	2,602	19.3	(±2.6)	2,592	43.1	(±3.7)
Persons aged ≥65 years	4,287	51.1	(±2.7)	4,267	67.7	(±2.6)
Health-care workers with patient contact ^{**}	1,089	34.2	(±5.2)	1,082	49.0	(±5.2)
Total persons in priority groups^{††} ^{§§}	7,816	34.8	(±1.9)	7,782	53.8	(±2.1)
Nonpriority-group persons aged 18–64 years	8,792	4.4	(±0.7)	8,767	23.9	(±1.6)

* Interviews were conducted during December 1–11, 2004. Data reflect partial-season estimates for the 2004–05 influenza season.

† Does not include persons in the following additional vaccination priority groups: residents of nursing homes and long-term-care facilities and out-of-home caregivers for children aged <6 months.

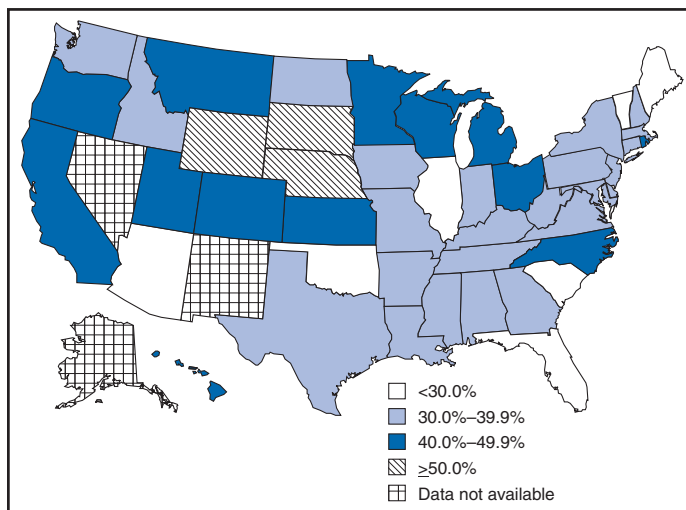
§ Confidence interval.

¶ Asthma, other lung problems, heart problems, diabetes, kidney problems, weakened immune system, anemia, or pregnancy.

** Self-reported description might include doctors, nurses, laboratory workers, and office receptionists.

†† Persons can be included in more than one priority group.

§§ Includes persons with children aged <6 months in the household; stable estimates for this group could not be estimated separately because of its small sample size.

FIGURE. Percentage of adults in priority groups* reporting receiving influenza vaccination†, by state — Behavioral Risk Factor Surveillance System, United States, September 1–November 30, 2004

* Includes persons aged 18–64 years with asthma, other lung problems, heart problems, diabetes, kidney problems, weakened immune system, anemia, or pregnancy; persons aged ≥65 years; health-care workers with patient contact; and persons with children aged <6 months in the household. (Does not include residents of nursing homes and long-term-care facilities and out-of-home caregivers for children aged <6 months.)

† Interviews were conducted during December 1–11, 2004.

obtain vaccination but could not; among persons aged ≥65 years, the proportion was 32.5% (Table 2). Among adults not in a priority group who had not received vaccine, 10.4% reported that they attempted to obtain vaccination but could not. Among adults in priority groups, 10.0% of adults said they were saving the vaccine for others, and 6.5% thought that they were not eligible to receive the vaccine.

Vaccination Coverage Among Children

A substantially greater proportion of children in priority groups received at least one influenza vaccination this season compared with other children; 36.6% of children aged 6–23 months and 26.8% of children aged 2–17 years with high-risk conditions were vaccinated, compared with 8.9% of children aged 2–17 years with no high-risk condition (Table 3). Among those children aged 2–17 years with high-risk conditions who were vaccinated for influenza during the 2003–04 influenza season, 51.6% also have been vaccinated thus far this season.

Among respondents with an unvaccinated child aged 6–23 months, 62.9% reported that they thought the vaccine was not needed, 8.4% reported that they tried but could not obtain vaccination for the child, 1.0% thought the child was ineligible for influenza vaccination, and 0.3% said they were saving the vaccine for those who needed it (Table 4). For respondents with an unvaccinated child aged 2–17 years with a high-risk condition, 38.4% reported that they thought vaccination was not needed, 14.4% reported that they tried but could not obtain vaccination, 12.5% thought their child was not eligible, and 10.3% said they were saving the vaccine for others.

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TABLE 2. Primary reasons reported for adults not receiving influenza vaccination*, by vaccination priority status† — Behavioral Risk Factor Surveillance System, United States, 2004–05 influenza season

Vaccination priority status	No. surveyed	Saving vaccine for others		Tried but could not get vaccine		Thought was not eligible		Thought vaccine was not needed§		Concerned about vaccine¶		Lack of access**		Other reason	
		% (95% CI††)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)				
Persons aged 18–64 years with high-risk conditions§§	1,949	10.7 (±2.5)	20.7 (±3.2)	7.7 (±2.6)	27.2 (±3.8)	10.0 (±2.5)	5.0 (±1.5)	18.9 (±4.0)							
Persons aged ≥65 years	1,994	6.4 (±1.9)	32.5 (±3.7)	4.2 (±2.0)	26.1 (±3.5)	8.7 (±2.0)	5.4 (±1.8)	16.7 (±3.2)							
Health-care workers with patient contact¶¶	676	14.3 (±4.7)	18.5 (±4.7)	6.9 (±3.0)	26.7 (±5.4)	11.9 (±5.1)	4.4 (±2.2)	17.3 (±6.1)							
Total persons in priority groups*** †††	4,579	10.0 (±1.6)	23.3 (±2.1)	6.5 (±1.5)	27.5 (±2.5)	9.9 (±1.8)	5.0 (±1.0)	18.0 (±2.5)							
Nonpriority-group persons aged 18–64 years	8,087	11.1 (±1.2)	10.4 (±1.1)	11.3 (±1.5)	43.2 (±2.1)	6.4 (±1.1)	3.3 (±0.9)	14.3 (±1.7)							

* Interviews were conducted during December 1–11, 2004. Data reflect partial-season estimates for the 2004–05 influenza season.

† Does not include persons in the following additional vaccination priority groups: residents of nursing homes and long-term-care facilities and out-of-home caregivers for children aged <6 months.

§ Includes the responses: thought vaccine was not needed, doctor did not recommend vaccination, did not know should be vaccinated, thought influenza is not that serious, and had influenza already during the 2004–05 influenza season.

¶ Includes the responses: concerned about side effects, concerned vaccine can cause influenza, and concerned vaccine does not work.

** Includes the responses: plan to get vaccinated later this season, vaccination costs too much, and inconvenient to get vaccinated.

†† Confidence interval.

§§ Asthma, other lung problems, heart problems, diabetes, kidney problems, weakened immune system, anemia, or pregnancy.

¶¶ Self-reported description might include doctors, nurses, laboratory workers, and office receptionists.

*** Persons can be included in more than one priority group.

††† Includes persons with children aged <6 months in the household; stable estimates for this group could not be estimated separately because of its small sample size.

TABLE 3. Percentage of children aged 6 months–17 years reported receiving influenza vaccination*, by vaccination priority status — Behavioral Risk Factor Surveillance System, United States, 2003–04 and 2004–05 influenza seasons

Vaccination priority status	Reporting vaccination thus far for the 2004–05 season			Reporting vaccination for the 2003–04 season		
	No. surveyed	% (95% CI†)		No. surveyed	% (95% CI)	
Children aged 6–23 months	380	36.6 (±9.5)		—§	—	—
Children aged 2–17 years with high-risk conditions¶	484	26.8 (±7.8)		482	41.7 (±8.4)	
Nonpriority-group children and others aged 2–17 years**	3,804	8.9 (±2.2)		3,868	20.3 (±2.8)	

* Interviews were conducted during December 1–11, 2004. Data reflect partial-season estimates for the 2004–05 influenza season.

† Confidence interval.

§ Many children in this age group would have been aged <6 months during the typical vaccination period for the 2003–04 influenza season and not eligible for influenza vaccination.

¶ Asthma, other lung problems, heart problems, diabetes, kidney problems, weakened immune system, anemia, or aspirin therapy.

** Includes children aged 2–17 years who might be in additional priority groups, such as those with rare conditions not included in the survey and household contacts or out-of-home caregivers for children aged <6 months.

TABLE 4. Primary reasons reported for children aged 6 months–17 years not receiving influenza vaccination*, by vaccination priority status — Behavioral Risk Factor Surveillance System, United States, 2004–05 influenza season

Vaccination priority status	No. surveyed	Saving vaccine for others		Tried but could not get vaccine		Thought was not eligible		Thought vaccine was not needed†		Other reasons§	
		% (95% CI¶)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)			
Children aged 6–23 months	194	0.3 (±0.5)	8.4 (±5.3)	1.0 (±1.0)	62.6 (±14.1)	27.7 (±12.2)					
Children aged 2–17 years with high-risk conditions**	337	10.3 (±5.6)	14.4 (±7.4)	12.5 (±7.1)	38.4 (±10.4)	24.4 (±8.2)					
Nonpriority-group children and others aged 2–17 years††	3,340	7.7 (±1.8)	8.5 (±1.9)	9.2 (±2.0)	54.5 (±3.3)	20.2 (±2.7)					

* Interviews were conducted during December 1–11, 2004. Data reflect partial-season estimates for the 2004–05 influenza season.

† Includes the responses: thought child did not need vaccine, doctor did not recommend vaccination, did not know child should be vaccinated, thought influenza is not that serious, and child had influenza already during the 2004–05 influenza season.

§ Includes the responses: concerned about side effects, concerned vaccine can cause influenza, concerned vaccine does not work, plan to get child vaccinated later this season, vaccination costs too much, inconvenient to get vaccinated, and other reasons not listed.

¶ Confidence interval.

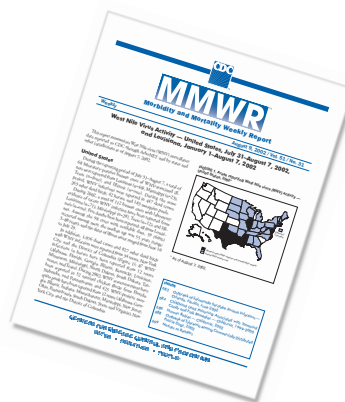
** Asthma, other lung problems, heart problems, diabetes, kidney problems, weakened immune system, anemia, or aspirin therapy.

†† Includes children aged 2–17 years who might be in additional priority groups, such as those with rare conditions not included in the survey and household contacts or out-of-home caregivers for children aged <6 months.

o·rig·i·nal: *adj*

(ə-'rij-ən-'l) 1 : being the first instance or source from which a copy, reproduction, or translation can be made;

see also *MMWR*.



know what matters.



Editorial Note: Influenza vaccination coverage data from the period September 1–November 30 suggest that persons in influenza vaccine priority groups are receiving vaccine at higher rates than persons in nonpriority groups at this point in the 2004–05 season. However, these early estimates of vaccine coverage among priority groups are below the vaccination rates for the full 2003–04 season for these groups. Efforts to vaccinate these persons should continue as vaccine becomes available.

Data from the 2003 National Immunization Survey (NIS) indicate that vaccination coverage among children aged 6–23 months for the 2002–03 influenza season was substantially lower (7.4%) than the 2004–05 partial season coverage indicated by BRFSS data (36.6%) (5). In 2002, ACIP first encouraged influenza vaccination of children aged 6–23 months and close contacts of children aged <2 years, when feasible. In April 2004, ACIP strengthened that encouragement into a recommendation that all children aged 6–23 months be vaccinated annually for influenza (2). However, the majority (62.6%) of respondents with unvaccinated children aged 6–23 months did not think vaccination was needed for those children, indicating that further efforts are needed to educate the public about the new influenza vaccination recommendation for young children.

The findings in this report are subject to at least four limitations. First, BRFSS is a land-line telephone-based survey and excludes those segments of the population without telephones or who use only cellular telephones. Second, data are self reported and subject to recall bias, particularly for questions that require recall over a longer period; therefore, for certain behaviors, prevalence estimates might be under- or overestimated. Third, certain influenza vaccine priority groups were not considered in the survey, including institutionalized adults and adult caretakers of children aged <6 months outside of the home (e.g., child care workers). Finally, because interviewing is not yet completed for December, these estimates might be subject to nonresponse bias if the responses from those who will be interviewed later in the month differ substantially from the results in this report. However, these vaccination coverage estimates are higher than estimates from BRFSS data collected in November and are consistent with public health messages encouraging those in priority groups to seek vaccination and asking others to forego vaccination.

Estimates from BRFSS data of vaccination coverage for certain priority groups differ from those obtained by the influenza survey of the Harvard School of Public Health (HSPH), also published in this issue (6). The methodologies used in these surveys differ in at least three important respects, which might contribute to the differences in results. First, the interviews were conducted at different times and provide estimates of vaccination coverage at different points in the

2004–05 influenza season. BRFSS was conducted during December 1–11; the HSPH survey was conducted during October 29–November 9. Second, BRFSS data were collected individually by 48 states and the District of Columbia and reflect the combined responses of more than 16,713 adults; the HSPH survey was a national survey of 1,227 adults. Finally, the two surveys differed in how they measured the impact of the vaccine shortage on vaccination coverage. BRFSS asked a single, open-ended question of adults and one of adults residing with children to assess the primary reason persons had not received vaccination as of the date of interview. HSPH used a more extensive series of questions to assess the impact of the shortage.

Influenza vaccination coverage estimates from this survey, when applied to U.S. population estimates for each of the priority and nonpriority groups, indicate that an estimated 45 million doses of influenza vaccine had been administered to noninstitutionalized persons as of November 30; approximately 73% of these doses were obtained by persons in priority groups. An estimated 58 million doses of inactivated vaccine and up to 3 million doses of LAIV are expected to be available for the United States for this influenza season. Thus, adequate doses of vaccine appear to remain to meet the anticipated demand among priority groups for influenza vaccination, based on 2003–04 coverage estimates from this survey. Although the survey did not assess coverage among institutionalized persons in priority groups, this projection also suggests that vaccine should be available to meet the demand of the nation's approximately 1.5 million nursing home residents. In addition, use of LAIV is an option for the vaccination of persons in certain priority groups (e.g., health-care workers who do not work with severely immunocompromised persons and household contacts of children aged <6 months). LAIV is approved by the Food and Drug Administration for use among healthy persons aged 5–49 years who are not pregnant.

Geographic differences in vaccine distribution and demand exist. To ensure that all available vaccine is used, state or local public health officials who determine that all persons in priority groups seeking vaccine have received vaccination and additional vaccine remains on hand might choose to recommend limited expansion of vaccination eligibility in their areas. Such expansion might include persons aged 50–65 years, household contacts of persons in priority groups, or other populations considered at increased risk by state or local officials. However, even if such a recommendation is made, private providers with large volumes of unused vaccine should, wherever practical, work with the state to transfer these doses to other states with unmet needs among persons in the ACIP priority groups.

CDC continues to work with manufacturers, distributors, and state immunization programs to distribute vaccine to those states with unmet demand among the priority groups. Until the demand for vaccine has been met for all persons in ACIP priority groups in all states, vaccine held in the public sector should continue to be shared with those states whose vaccine supply is not sufficient to cover their priority groups. Persons with questions regarding influenza vaccine availability should contact their state and local health departments.

References

1. CDC. Interim influenza vaccination recommendations, 2004–05 influenza season. *MMWR* 2004;53:923–4.
2. CDC. Prevention and control of influenza: recommendations from the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2004;53(No. RR-6).
3. CDC. Public health surveillance for behavioral risk factors in a changing environment. *MMWR* 2003;52(No. RR-9).
4. Nelson D, Holtzman D, Bolen J, Stanwyck C, Mack K. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Soz Präventivmed* 2001;46(Suppl 1):S3–S42.
5. CDC. Childhood influenza-vaccination coverage—United States, 2002–03 influenza season. *MMWR* 2004;53:863.
6. CDC. Experiences with obtaining influenza vaccination among persons in priority groups during a vaccine shortage—United States, October–November, 2004. *MMWR* 2004;53:1153–5.

Experiences with Obtaining Influenza Vaccination Among Persons in Priority Groups During a Vaccine Shortage — United States, October–November, 2004

After the announcement that the supply of inactivated influenza vaccine available to the U.S. public for the 2004–05 influenza season would be reduced by approximately one half, the Advisory Committee on Immunization Practices (ACIP) recommended that the remaining vaccine supply should be reserved for 1) certain groups of persons at high risk for serious health problems from influenza, 2) health-care workers involved in direct patient care, and 3) close contacts of children aged <6 months (1). To determine what proportion of persons at increased risk for influenza complications had been vaccinated as of the day of the survey, what proportion sought vaccination but did not receive it because of the shortage, and what factors might be dissuading persons at high risk from seeking influenza vaccination, Harvard School of Public Health (HSPH), in collaboration with International Communications Research, conducted a national survey. This report summarizes the results of that survey, which indicated that approximately 63% of persons aged ≥ 65 years and 46% of chronically ill adults who tried to get the

influenza vaccine were able to do so. More than half of adults at high risk did not try to get the influenza vaccine. Because available supplies of inactivated influenza vaccine are targeted to high-risk groups, persons in these groups should continue to pursue vaccination.

HSPH provides CDC with technical assistance for public health communication by monitoring the response of the general public to public health threats. National polling on what the public knows, believes, and experiences in regard to seeking and receiving influenza vaccination during a national vaccine shortage is the basis of the data presented in this report.

During October 29–November 9, 2004, telephone interviews were conducted to assess experiences of respondents with obtaining the influenza vaccine. The survey was conducted by International Communications Research as part of an omnibus survey. The omnibus survey is a national, biweekly telephone survey that can include questions on several topics; however, because of the length of the questionnaire, the omnibus survey regarding influenza vaccination only included the HSPH questions. Respondents were asked 1) if they tried to get the influenza vaccine during the preceding 3 months, 2) if so, whether they were able to get the vaccine, and 3) whether they experienced any problems while trying to get the vaccine. Respondents who did not try to get the vaccine were asked why they did not. Respondents were also asked about their willingness to receive an imported influenza vaccine not licensed for general use in the United States. Parents of children aged 6–23 months were asked these questions about their children in that age group.

The questionnaire was administered to adults aged ≥ 18 years who were selected by using a fully replicated, stratified, single-stage, random-digit-dialing sample of households nationally*. Within each household, an adult respondent was randomly selected by asking for the adult with the most recent birthday. A total of 1,227 adults completed interviews. This group included an oversample of parents with children aged 6–23 months. A total of 249 interviews were completed with this latter group. Parents were asked vaccine-related questions about each of their children in the age group.

The data analysis targeted three groups at high risk included among those prioritized by ACIP for influenza vaccination in 2004: 1) persons aged ≥ 65 years, 2) persons aged 18–64 years with underlying chronic medical conditions, and 3) children aged 6–23 months. The data were weighted to account for the disproportionate probability of household selection attributable to multiple telephone lines and the probability associated with the random selection of an individual household

* Similar questions were asked in the Behavioral Risk Factor Surveillance System survey reported in this issue of *MMWR* (2).

member. Following the application of the above weight, the sample was post-stratified and balanced by age, sex, race/ethnicity, education, region, census division, and metropolitan status to be nationally representative. Statistical software was used to calculate standard errors for weighted data. Confidence intervals (CIs) also were calculated.

Adults in Priority Groups

Among adult respondents, 242 (19%) were aged ≥65 years; 306 (25%) had been told by a doctor that they had one of the following health conditions: heart or lung disease, asthma, kidney disease, diabetes, or a disease that causes decreased immunity (e.g., cancer or HIV/AIDS). For this analysis, these groups were combined and referenced as adults at high risk (n = 427), unless otherwise noted.

Among adults aged ≥65 years, 119 (49%) tried to get the influenza vaccine during the preceding 3 months. Among those in this age group who tried to get the vaccine, 75 (63%) were able to get the vaccine, and 44 (37%) were unable to do so. A total of 113 (37%) adults with a chronic illness tried to get the vaccine; among those who tried to get the vaccine, 52 (46%) were able to get it, whereas 61 (54%) reported being unable to do so (Table 1).

Respondents were asked to rate problems as either major problems they experienced when trying to get the vaccine, minor problems, or not problems at all (Table 2). The leading problems experienced by the 81 adults at high risk who tried and could not get the vaccine included the following: 1) no vaccine was available when they tried to get it (55 [68%] cited this as a major problem) and 2) finding a place where they could get the vaccine was difficult (41 [50%]).

TABLE 1. Percentage of respondents who reported that they tried to get the influenza vaccine during the preceding 3 months, by priority group — Project on the Public and Biological Security, Harvard School of Public Health, United States, 2004

Priority group	%	(95% CI*)
Persons aged ≥65 years (n = 242)		
Did not try to get vaccine	51	(42–59)
Tried to get the influenza vaccine	49	(41–56)
<i>Could not get the vaccine</i>	37	(28–46)
<i>Received the vaccine</i>	63	(54–72)
Persons with chronic illness (n = 306)		
Did not try to get vaccine	63	(56–70)
Tried to get the influenza vaccine	37	(29–44)
<i>Could not get the vaccine</i>	54	(45–63)
<i>Received the vaccine</i>	46	(37–55)
Children aged 6–23 months (n = 249)		
Did not try to get vaccine	50	(39–59)
Tried to get the influenza vaccine	50	(39–59)
<i>Could not get the vaccine</i>	24	(16–32)
<i>Received the vaccine</i>	76	(68–84)

* Confidence interval.

TABLE 2. Percentage of adults with a chronic health condition or those aged ≥65 years who tried and were unable to get influenza vaccination, by major problem cited — Project on the Public and Biological Security, Harvard School of Public Health, United States, 2004

Problem cited	%	(95% CI*)
There was no vaccine available when you went to get it.	68	(55–82)
It was hard to find a place where you could get the vaccine.	50	(37–64)
The times that the vaccine was available were inconvenient.	24	(12–36)
The health-care provider told you that you should not get one because there were shortages and you were not at high risk for having a serious case of influenza.	15	(5–24)
The vaccine was expensive.	4	(0–10)
The health-care provider told you that you should not get one for medical reasons.	4	(1–8)

* Confidence interval.

Among the 427 adults at high risk as defined above, 257 (60%) (CI = 54%–66%) reported that they did not try to get the influenza vaccine during the preceding 3 months. Awareness of the influenza vaccine shortage was an important reason cited for not trying to get the vaccine: 82 of these 257 (32%) (CI = 24%–40%) said either that they were waiting until more vaccine was available or that they believed that, because of shortages, they could not get the vaccine. Other major reasons included 1) believing that they were not at high risk for getting a serious case of influenza (53 [21%]; CI = 14%–27%), 2) not believing that the vaccine would be effective in preventing them from getting influenza (45 [18%]; CI = 11%–25%), and 3) concerns that they could get influenza from the vaccine (46 [18%]; CI = 12%–25%).

Children Aged 6–23 Months

Of parents with children aged 6–23 months, 125 (50%) (CI = 39%–59%) tried to get the vaccine for their child; 95 (76%) of those parents who tried to get the vaccine for their child reported that they were able to get the influenza vaccine, and 30 (24%) reported that they were unable to do so (Table 1).

Few problems were reported by parents who tried to get the vaccine. A total of 14 (11%) (CI = 1%–17%) parents who tried to get the vaccine for their child reported problems, including 1) difficulty finding vaccine, 2) inconvenient times, and 3) a health-care provider advising against their child receiving vaccine because of the shortages or for a medical reason.

For children aged 6–23 months, the leading reasons for not trying to get inactivated influenza vaccine reported by parents were 1) not believing their children were at risk for a serious

case of influenza (26 [21%]; CI = 10%–37%); 2) concern about the side effects (24 [19%]; CI = 6%–32%); 3) being told by a health-care provider that the child should not get the vaccine because of the shortages and because the child was not at high risk for having a serious case of influenza (22 [18%]; CI = 7%–34%); and 4) not believing that the influenza vaccine was effective (16 [13%]; CI = 4%–22%).

Importation of Influenza Vaccine Not Licensed by FDA

To ease the vaccine shortage in the United States, the U.S. government has announced its intention to import from Germany influenza vaccine not licensed by the Food and Drug Administration (FDA). The vaccine, FluarixTM (GlaxoSmithKline, Dresden, Germany), although fully licensed for use in Germany, is not approved for general use in the United States and is therefore considered to be investigational. Respondents were asked if they would be willing to take the vaccine after being told that the vaccine was investigational. Fifty-six percent (CI = 49%–63%) of adults at high risk said they would be willing to receive this vaccine if no other vaccine were available. U.S. persons who elect to receive investigational vaccines are required to sign a form. With this requirement imposed, willingness to take the vaccine decreased to 40% (CI = 34%–46%) among adults at high risk.

Reported by: *RJ Blendon, ScD, CM DesRoches, DrPH, JM Benson, MA, KJ Weldon, Harvard School of Public Health, Boston, Massachusetts.*

Editorial Note: The findings in this report suggest that, during the current vaccine shortage, approximately 63% of persons aged ≥ 65 years and 46% of chronically ill adults who tried to get the influenza vaccine were able to do so. However, more than half of adults at high risk did not try to get the influenza vaccine. For many of these respondents, this was because of perceived shortages, underscoring the need to continue to encourage these groups to pursue vaccination. Efforts to vaccinate these groups should include measures to educate them about the severity of influenza and the effectiveness of the vaccine and address unwarranted fears of getting influenza from the vaccine. Finally, the reluctance expressed by adults in priority groups about receiving imported influenza vaccine not licensed by FDA suggests the need for educational efforts to provide reassurance that this vaccine is approved for use in Germany by government agencies similar to the FDA.

In 2004, for the first time, ACIP recommended that children aged 6–23 months be vaccinated. The findings in this report suggest that parents of children in this age group who tried to get the vaccine for their children experienced fewer

difficulties in getting the vaccine than persons aged ≥ 65 years or those with chronic illnesses.

The findings in this report are subject to at least two limitations. First, because the study was conducted as part of an omnibus survey, the data are not collected in a way that allows for the calculation of the response rate. However, studies have indicated that when the results from a survey with a long field period and high response rate are compared with a survey with a field time that is similar to the HSPH survey, few statistically significant differences are observed between responses from the two surveys when the data are statistically reweighted (3–6). Second, the survey sample included only noninstitutionalized persons. Nursing home residents, who are excluded from the sample, might receive the influenza vaccine at a different rate than those in the study sample.

The results of the HSPH survey differ from those of the Behavioral Risk Factor Surveillance System (BRFSS) survey, also published in this issue (2). Important differences in survey methodologies might contribute to the differences in results. The primary differences are that 1) the surveys were conducted during different periods (i.e., October 29–November 9 for HSPH and December 1–11 for BRFSS); 2) somewhat different questions were asked; and 3) the HSPH data came from a single, national sample, but BRFSS data were collected individually by 48 states and the District of Columbia. Despite these differences, both surveys demonstrate a substantial need for the influenza vaccine that has not been met.

Assuming that an adequate vaccine supply will be available for persons in priority groups this season, health-care providers should continue to emphasize 1) the need for these groups to get vaccinated this season and 2) the availability of vaccine allowing all persons in these groups to get vaccinated. Influenza vaccine should continue to be directed to areas most affected by the shortage.

References

1. US Department of Health and Human Services, CDC. Interim influenza vaccination recommendations, 2004–05 season. Available at <http://www.cdc.gov/flu/protect/whoshouldget.htm>.
2. CDC. Estimated influenza vaccination coverage among adults and children—United States, September 1–November 30, 2004. *MMWR* 2004;53:1147–53.
3. Blendon RJ, Benson JM, DesRoches CM, Weldon KJ. Using opinion surveys to track the public's response to a bioterrorist attack. *Journal of Health Communication* 2003;8:83–92.
4. Pew Research Center for the People and the Press. Polls face growing resistance, but still representative: survey experiment shows. Washington, DC: Pew Research Center for the People and the Press; 2004. Available at <http://www.people-press.org/reports/display.php3?ReportID=221>.
5. Keeter S, Miller C, Kohut A, Groves RM, Presser S. Consequences of reducing nonresponse in a national telephone survey. *Public Opinion Quarterly* 2000;64:125–48.
6. Curtin R, Presser S, Singer E. The effect of response rate changes on the Index of Consumer Sentiment. *Public Opinion Quarterly* 2000;64:413–28.

Experiences with Influenza-Like Illness and Attitudes Regarding Influenza Prevention — United States, 2003–04 Influenza Season

Despite advances in medical treatment, influenza results in approximately 36,000 deaths each year in the United States (1). Vaccination has been a mainstay of influenza prevention, with annual vaccination recommended for adults and children at high risk; efforts to interrupt person-to-person transmission are also important. In October 2003, CDC recommended that health-care facilities implement a Universal Respiratory Hygiene Strategy, including providing masks or facial tissues in waiting rooms to persons with respiratory symptoms (2). To gather information on influenza-like illness (ILI) and attitudes regarding prevention of ILI (including use of vaccine and respiratory hygiene), CDC and 11 Emerging Infections Programs (EIPs) conducted a random-digit-dialed telephone survey of noninstitutionalized U.S. civilian adults in February 2004. This report summarizes the results of that survey, which determined that 43% of adults and 69% of children aged 6 months–17 years with ILI visited a health-care provider for the illness. Eight percent of adults with ILI reported having been asked by a health-care provider to wear a mask; 82% said they would wear a mask if requested. With the limited availability of influenza vaccine this season, the use of masks by persons with cough illnesses in health-care settings, a component of the Universal Respiratory Hygiene Strategy, might be a helpful and acceptable method for decreasing influenza transmission.

EIP is a population-based network consisting of CDC, state health departments, and local collaborators to assess the impact of emerging infections and evaluate methods for their prevention and control (3). For this survey, data were collected from a stratified random sample of telephone-equipped households in all 11 EIP surveillance areas* that covered selected counties of certain states and the entire populations of others. During February 6–22, 2004, a total of 200 eligible households in each area were selected by list-assisted random-digit-dialing from a sampling frame of possible telephone numbers filtered to eliminate unused or business exchanges. When an adult in an eligible household declined to partici-

pate or could not be contacted after six attempts, a substitute number was selected randomly from the list. The survey was confidential, and respondents gave consent for participation. One English-speaking adult aged ≥ 18 years was interviewed in each participating household. The survey assessed ILI by self-report, visits to health-care providers, prescription of medication for self-reported ILI, attitudes about vaccination against influenza, and willingness to take measures that might prevent influenza transmission. Questions addressed the period October 1, 2003, through the time of the interview in February 2004. Data were weighted to reflect the age, sex, and racial/ethnic distributions of the population of each area. Proportions, risk ratios, and confidence intervals were calculated by statistical software.

A total of 2,231 surveys were completed. Among eligible respondents, 48.7% consented to participate. The median age of respondents was 43 years (range: 18–97 years), and 51.3% were female. The proportion of surveyed adults who responded “yes” to the question “Have you had an illness you thought was the flu at any time since October?” was 17.8% (Table 1). Of these, 53.2% reported having a sudden high fever with cough or sore throat. For the 811 households with at least one child aged 6 months–17 years at the time of interview, one child was randomly selected; of these, 23.9% had ILI from October 2003 through the time of the interview. Among children with reported ILI, 68.9% had symptoms of fever with cough and/or sore throat. On average, reported ILI occurrence among children and adults peaked during December 2003.

Of those for whom ILI was reported, 43.3% of adults and 69.2% of children visited a health-care provider for the illness (Table 1). The provider reportedly told 64.5% of these adults and 47.6% of these children that they had influenza; 37.2% of adults with a clinical diagnosis of influenza were tested for influenza, compared with 65.0% of children. Of adults who visited a provider, 85.9% received a prescription for medication, most commonly an antibiotic (33.1%).

Approximately 8.2% of adults who visited a health-care provider for ILI said they were asked to wear a mask; 82.4% of all respondents said they would wear a mask while waiting at the doctor’s office or hospital if asked to by their health-care provider (Table 2). Fewer respondents agreed with the statements “people with a cough should wear a mask while waiting to see a health-care provider” and “people who are sick and able to spread germs should wear a mask in public” (62.8% and 59.0%, respectively).

Approximately 70% of all respondents said they believed the influenza vaccine for the 2003–04 season was “somewhat” or “very effective,” 32.8% said they believed the influenza vaccine causes influenza, and 10.7% reported experiencing prob-

* EIP surveillance areas include the entire states of Connecticut, Georgia, Maryland, Minnesota, New Mexico, Oregon, Tennessee, and Texas, and selected counties in California (Alameda, Contra Costa, and San Francisco), Colorado (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson), New York (Albany, Columbia, Erie, Genesee, Greene, Livingston, Monroe, Montgomery, Niagara, Ontario, Orleans, Rensselaer, Saratoga, Schenectady, Schoharie, Wayne, Wyoming, and Yates), and Tennessee (Cheatham, Davidson, Dickson, Hamilton, Knox, Robertson, Rutherford, Shelby, Sumner, Williamson, and Wilson).

TABLE 1. Prevalence of self-reported influenza-like illness (ILI), treatment, and disease burden among adults and children — Emerging Infections Program Population Survey, United States, 2004*

Status	Adults (n = 2,231)		Children (n = 811)	
	%†	(95% CI‡)	%	(95% CI)
Reported ILI	17.8	(14.8–20.7)	23.9¶	(19.3–28.6)
Visited health-care provider	43.3	(34.0–52.6)	69.2¶	(60.0–78.4)
Received prescription medication at health-care–provider visit**	85.9	(79.3–92.5)	—††	—
Anti-influenza medication	14.7	(1.4–28.1)	—	—
Antibiotic	33.1	(17.7–48.4)	—	—
Other (e.g., decongestant or antitussive)	25.0	(10.8–39.3)	—	—
Unknown	27.2	(13.7–40.6)	—	—
Hospitalized for self-reported influenza	0.1	(-0.2–0.5)	0.5¶	(-0.3–1.2)
Missed work or school because of ILI in self or family member	15.9	(13.2–18.6)	—	—
Attended work or school while ill with ILI symptoms	82.7	(71.8–93.6)	—	—

* The survey was conducted among residents of the entire states of Connecticut, Georgia, Maryland, Minnesota, New Mexico, Oregon, Tennessee, and Texas, and among residents of selected counties in California (Alameda, Contra Costa, and San Francisco), Colorado (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson), New York (Albany, Columbia, Erie, Genesee, Greene, Livingston, Monroe, Montgomery, Niagara, Ontario, Orleans, Rensselaer, Saratoga, Schenectady, Schoharie, Wayne, Wyoming, and Yates), and Tennessee (Cheatham, Davidson, Dickson, Hamilton, Knox, Robertson, Rutherford, Shelby, Sumner, Williamson, and Wilson).

† Percentages were weighted to reflect the age, sex, and racial/ethnic distributions of the population in each area.

‡ Confidence interval.

¶ Randomly selected child aged 6 months–17 years.

** Medications classified during analysis based on names provided by respondents.

†† Data not available.

TABLE 2. Prevalence of selected attitudes and beliefs regarding measures to prevent influenza and other respiratory illnesses — Emerging Infections Program Population Survey, United States, 2004

Attitude/Belief	%*	(95% CI†)
Willing to vaccinate children against influenza annually (if children live in household)	63.8	(58.8–68.7)
Willing to wear mask while waiting to see health-care provider	82.4	(79.8–85.0)
Believe persons with cough should wear mask while waiting to see health-care provider	62.8	(59.5–66.1)
Believe persons who are ill and able to spread germs should wear mask in public	59.0	(55.7–62.4)
Believe influenza vaccine is somewhat or very effective	71.3	(68.3–74.3)
Believe influenza vaccine causes influenza	32.8	(29.6–36.1)

* Percentages were weighted to reflect the age, sex, and racial/ethnic distributions of the population in each area.

† Confidence interval.

lems obtaining influenza vaccine because of limited supply. Sixty percent of respondents said they planned to seek influenza vaccine during the 2004–05 influenza season, including one third of those who said they were not vaccinated during 2003–04. Among respondents from households with children, 63.8% said they would be willing to have their child or children vaccinated against influenza annually.

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Editorial Note: The 2003–04 influenza season was notable for several reasons: 1) in certain states, the season began as early as October; 2) a suboptimal antigenic match between the dominant influenza A (H3N2) subtype circulating in the community (Fujian/411/2002) and that in the vaccine (Panama/2007/99) occurred; and 3) early reports of deaths among children helped create a high demand for vaccine (4). Because of these factors, the media focused substantial attention on influenza and vaccination. This setting provided an opportunity to evaluate the acceptability of influenza prevention measures among the public.

Droplets of respiratory secretions are believed to be the primary means of person-to-person influenza transmission; spread can also occur through direct person-to-person contact or through fomites (5). For periods of increased respiratory-infection activity, the Universal Respiratory Hygiene Strategy recommends that health-care facilities provide masks or facial tissues to persons who are coughing and that hand-hygiene agents (e.g., alcohol-based hand gels) be readily available (2).

Use of surgical masks by health-care professionals to protect against infection with influenza and other respiratory pathogens is also an established component of hospital infection control (6); however, its effectiveness in preventing transmission from influenza patients to others in outpatient settings has not been determined (4). Hand washing has been demonstrated to be effective in reducing respiratory illness, and alcohol-based hand sanitizers can kill influenza viruses on hands; however, studies of hand-hygiene measures on influenza transmission are lacking (5,7). Likewise, few published data are available on the public's willingness to wear masks or use other measures to prevent transmission of respiratory illnesses.

The survey results indicated that at least 8% of respondents with ILI had been asked by their health-care providers to wear a mask while waiting to be examined, and more than 80% of respondents indicated a willingness to do so in the future. Information about the acceptability of such intervention measures might be useful in managing large outbreaks, including pandemic influenza. Although only 8% of those visiting a health-care provider for ILI were asked to wear a mask, many of those visits might have been to doctors' offices; mask usage might be higher in other health-care settings. Use of tissues for reducing droplet spread and use of hand-hygiene agents were not evaluated in this survey. With the limited availability of influenza vaccine this season, the use of masks by persons with cough illnesses in health-care settings and other components of the Universal Respiratory Hygiene Strategy (e.g., tissues and alcohol-based hand sanitizers) might help decrease influenza transmission.

The survey findings suggest that children were disproportionately affected by ILI during the 2003–04 season. Reported ILI was one third more common among children than adults, and reported symptoms in children were more frequently consistent with the ILI surveillance case definition (temperature $>100.0^{\circ}\text{F}$ [$>37.8^{\circ}\text{C}$] and cough or sore throat in the absence of a known cause other than influenza). Health-care use (including provider visits, influenza testing, and hospitalization) was more common among children than adults with reported ILI. Recent recommendations for providing influenza vaccine to all young children were designed to address the substantial disease burden among this age group (1). More than one half of respondents from households with children said they would participate in annual influenza vaccination of children.

The findings in this report are subject to at least two limitations. First, certain sampling factors (low response rate, limited sampling area, and restriction to English-speaking

respondents) might mean that some of the results are not representative of the entire U.S. population. Second, self-reported ILI symptoms are not specific for influenza; because other etiologic agents can cause influenza-like symptoms, the true incidence of influenza is expected to be lower (8).

In addition to indicating that persons with respiratory illness might be willing to wear masks in health-care settings, the results of this survey also suggest opportunities for improving vaccination coverage. Although a majority of respondents said they believed the 2003–04 influenza vaccine was "somewhat" or "very effective," at least one tenth reported problems obtaining vaccine, and nearly one third reported believing that influenza vaccine causes influenza. Educational efforts about the effectiveness of influenza vaccination and improved supply and distribution of vaccine might improve vaccination coverage levels.

Acknowledgments

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References

1. CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2004;53(No. RR-6).
2. CDC. Respiratory hygiene/cough etiquette in health-care settings. Atlanta, GA: US Department of Health and Human Services, CDC; 2003. Available at <http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm>.
3. Pinner RW, Rebman CA, Schuchat A, Hughes JM. Disease surveillance and the academic, clinical, and public health communities. *Emerg Infect Dis* 2003;9:781–7.
4. CDC. Update: influenza activity—United States and worldwide, 2003–04 season, and composition of the 2004–05 influenza vaccine. *MMWR* 2004;53:547–52.
5. Bridges CB, Kuehnert MJ, Hall CB. Transmission of influenza: implications for control in health care settings. *Clin Infect Dis* 2003;37:1094–101.
6. CDC. Guidelines for preventing health-care-associated pneumonia, 2003: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee. *MMWR* 2004;53(No. RR-3).
7. Healthcare Infection Control Practices Advisory Committee and Hand-Hygiene Task Force; Society for Healthcare Epidemiology of America; Association for Professionals in Infection Control and Epidemiology; Infection Diseases Society of America. Guideline for hand hygiene in healthcare settings. *J Am Coll Surg* 2004;198:121–7.
8. CDC. Considerations for distinguishing influenza-like illness from inhalational anthrax. *MMWR* 2001;50:984–6.

Brief Report

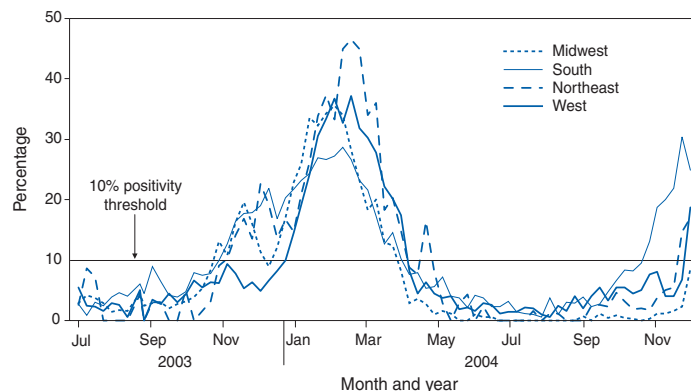
Respiratory Syncytial Virus Activity — United States, 2003–2004

Respiratory syncytial virus (RSV) is a major cause of lower respiratory tract infections (LRTIs) (i.e., bronchiolitis and pneumonia) among young children, resulting in an estimated 51,000–82,000 hospitalizations annually (1). RSV causes severe disease among older adults and persons of all ages with compromised respiratory, cardiac, or immune systems, and can exacerbate chronic cardiac and pulmonary conditions (1–4). In temperate climates, RSV infections occur primarily during annual winter season outbreaks. This report summarizes trends in RSV activity reported to the National Respiratory and Enteric Virus Surveillance System (NREVSS) during July 2003–June 2004 and presents preliminary data from the weeks ending July 3–December 4, 2004, indicating the onset of the 2004–05 RSV season. Health-care providers should consider RSV in the differential diagnosis for persons of all ages with LRTIs, implement appropriate isolation precautions to prevent nosocomial transmission (5), and provide appropriate immune prophylaxis to eligible children, including certain premature infants or children and infants with chronic lung and heart disease (6).

NREVSS is a voluntary, laboratory-based surveillance system of 87 clinical and public health laboratories in 40 states and the District of Columbia. The laboratories report weekly to CDC the number of specimens tested and number positive for several respiratory and enteric viruses by antigen detection and virus isolation methods. During July 2003–June 2004, of 172,247 tests for RSV reported, 21,236 (12%) were positive.

Widespread RSV activity* began the week ending November 1, 2003, and continued for 22 weeks until April 3, 2004. Activity peaked during February for all regions† (Figure). Regional RSV activity occurred earliest in the South (35 sites reporting; median weeks of onset and conclusion: November 1, 2003, and March 27, 2004, respectively), later in the Northeast (seven sites; December 6, 2003, and March 27, 2004) and the Midwest (20 sites; December 6, 2003, and March 27,

FIGURE. Percentage of specimens testing positive by antigen detection for respiratory syncytial virus, by region* and week of report — United States, July 2003–November 2004



* *Northeast:* Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *Midwest:* Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *South:* Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; and *West:* Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

2004), and latest in the West (16 sites; December 27, 2003, and April 3, 2004).

Although 93% of RSV detections were reported from the weeks ending November 1, 2003–April 3, 2004, sporadic detections were reported throughout the year. During May–October 2004, laboratories in 33 states with at least one laboratory per region reported RSV detections.

For the current reporting period (July 3–December 4, 2004), 84 laboratories in 42 states reported testing for RSV. Since November 6, a total of 50 participating laboratories have reported RSV detections. Preliminary 2004–05 data suggest that the annual outbreak has begun in two regions—in the South during the week ending October 30 and in the Northeast during the week ending November 27 (Figure).

Because RSV infection only confers partial protection from subsequent infection, reinfections occur throughout life (3,4). As a result, health-care providers should consider RSV as a cause of acute respiratory disease in all age groups during community outbreaks, particularly in young children. Rapid diagnostic techniques for clinical use vary in sensitivity and specificity. Certain assays are sensitive for diagnosis in infants and young children, but few are sensitive for diagnosis in older children and adults. Polymerase chain reaction–based assays with enhanced product detection systems can be sufficiently sensitive to detect most infections in all age groups (7,8). Accurate diagnosis of RSV infection is crucial for appropriate infection control, to rule out cocirculating viruses (e.g., influenza viruses) and to avoid inappropriate use of

*Widespread RSV activity is defined by NREVSS as the first of 2 consecutive weeks, when 50% of participating laboratories report RSV detections or isolations and when a mean percentage of specimens positive by antigen detection is >10%.

† *Northeast:* Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *Midwest:* Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *South:* Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; *West:* Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

antimicrobial agents. Infants and children at risk for serious RSV infection should receive monthly doses of humanized murine anti-RSV monoclonal antibody throughout the RSV season (6). Infants and children at risk include those aged <24 months with chronic lung disease who have required medical therapy (e.g., supplemental oxygen, bronchodilator, diuretic, or corticosteroid therapy) within 6 months of RSV season onset and those with hemodynamically significant heart disease, and preterm infants born at <32 weeks' gestation or preterm infants born at 32–35 weeks' gestation with at least two additional risk factors (e.g., child care attendance, exposure to environmental pollutants, school-aged siblings, congenital abnormalities of the airways, or neuromuscular disease) during their first RSV season. Because the onset of RSV activity can vary between regions and communities, physicians and health-care facilities should consult their local clinical laboratories for the latest data on RSV activity (9).

Additional information and updates on RSV trends are available at <http://www.cdc.gov/ncidod/dvrd/revb/nrevss/index.htm>.

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References

1. Shay DK, Holman RC, Newman RD, Liu LL, Stout JW, Anderson LJ. Bronchiolitis-associated hospitalizations among U.S. children, 1980–1996. *JAMA* 1999;282:1440–6.
2. Welliver RC. Review of epidemiology and clinical risk factors for severe respiratory syncytial virus (RSV) infection. *J Pediatr* 2003;143 (5 Suppl):S112–7.
3. Falsey AR, Walsh EE. Respiratory syncytial virus infection in adults. *Clin Microbiol Rev* 2000;13:371–84.
4. Dowell SF, Anderson LJ, Gary HE Jr, et al. Respiratory syncytial virus is an important cause of community-acquired lower respiratory infection among hospitalized adults. *J Infect Dis* 1996;174:456–62.
5. CDC. Guidelines for preventing health-care-associated pneumonia, 2003: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee. *MMWR* 2004;53(No. RR-3).
6. Meissner HC, Long SS, American Academy of Pediatrics Committee on Infectious Diseases and Committee on Fetus and Newborn. Revised indications for the use of palivizumab and respiratory syncytial virus immune globulin intravenous for the prevention of respiratory syncytial virus infections. *Pediatrics* 2003;112(6 Pt 1):1447–52.
7. Falsey AR, Formica MA, Treanor JJ, Walsh EE. Comparison of quantitative reverse transcription-PCR to viral culture for assessment of respiratory syncytial virus shedding. *J Clin Microbiol* 2003;41:4160–5.
8. Weinberg GA, Erdman DD, Edwards KM, et al. Superiority of reverse-transcription polymerase chain reaction to conventional viral culture in the diagnosis of acute respiratory tract infections in children. *J Infect Dis* 2004;189:706–10.
9. Mullins JA, LaMonte AC, Bresee JS, Anderson LJ. Substantial variability in community respiratory syncytial virus season timing. *Pediatr Infect Dis J* 2003;22:857–62.

Notice to Readers

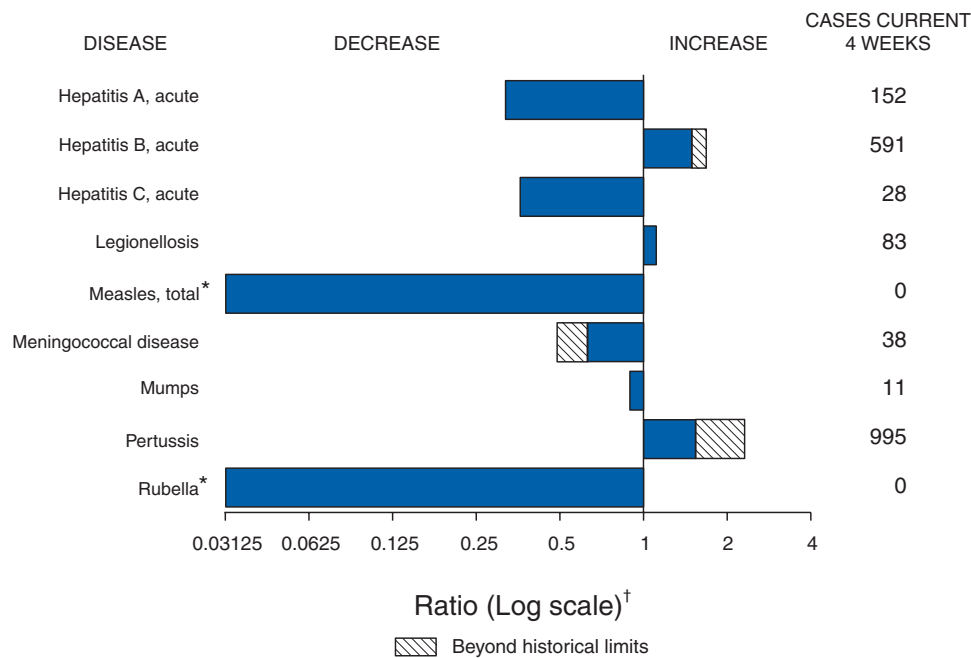
Where To Find Information on Influenza and Influenza Vaccine

To help the public locate the latest information about influenza, CDC has created a comprehensive website, available at <http://www.cdc.gov/flu>. The site contains information targeted to health-care professionals, as well as CDC influenza fact sheets and health education materials intended for the general public. The site is updated as new information becomes available.

CDC has also launched 800-CDC-INFO (800-232-4636), a new, central hotline with recorded information available in English and Spanish, available 24 hours a day, 7 days a week. Hotline callers can select voice messages on various influenza-related topics, with the option to transfer for additional information. The number for hearing impaired persons is 800-243-7889 (TTY/TDD).

Any information CDC receives about problems finding influenza vaccine will be shared with state health officials to help direct available vaccine to persons and places where it is needed.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals December 11, 2004, with historical data



* No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 49 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 December 11, 2004 (49th Week)*

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	HIV infection, pediatric ^{¶¶}	149	193
Botulism:	-	-	Influenza-associated pediatric mortality ^{**}	-	NA
foodborne	19	19	Measles, total	29 ^{††}	53 ^{§§}
infant	75	69	Mumps	221	208
other (wound & unspecified)	12	28	Plague	2	1
Brucellosis [†]	109	93	Poliomyelitis, paralytic	-	-
Chancroid	37	52	Psittacosis [†]	10	12
Cholera	4	1	Q fever [†]	67	61
Cyclosporiasis [†]	208	66	Rabies, human	4	2
Diphtheria	-	1	Rubella	11	7
Ehrlichiosis:	-	-	Rubella, congenital syndrome	-	1
human granulocytic (HGE) [†]	347	310	SARS-associated coronavirus disease ^{†**}	-	8
human monocytic (HME) [†]	303	262	Smallpox ^{† ¶¶}	-	NA
human, other and unspecified	30	45	<i>Staphylococcus aureus</i> :	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA) ^{† ¶¶}	-	NA
California serogroup viral ^{†§}	86	108	Vancomycin-resistant (VRSA) ^{† ¶¶}	1	NA
eastern equine ^{†§}	5	14	Streptococcal toxic-shock syndrome [†]	94	142
Powassan ^{†§}	-	-	Tetanus	23	18
St. Louis ^{†§}	8	41	Toxic-shock syndrome	117	114
western equine ^{†§}	-	-	Trichinosis	5	4
Hansen disease (leprosy) [†]	78	82	Tularemia [†]	100	80
Hantavirus pulmonary syndrome [†]	19	23	Yellow fever	-	-
Hemolytic uremic syndrome, postdiarrheal [†]	138	160			

-: No reported cases.
 * Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).
 † Not notifiable in all states.
 § Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).
 ¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 28, 2004.
 ¶¶ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.
 †† Of 29 cases reported, 13 were indigenous, and 16 were imported from another country.
 §§ Of 53 cases reported, 31 were indigenous, and 22 were imported from another country.
 ¶¶ Not previously notifiable.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending December 11, 2004, and December 6, 2003 (49th Week)*

Reporting area	AIDS		Chlamydia [†]		Coccidioidomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile [§]	
	Cum. 2004 [¶]	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	39,097	41,489	821,684	812,668	5,676	3,919	3,180	3,265	875	2,866
NEW ENGLAND	1,318	1,433	27,764	26,221	-	-	161	183	-	31
Maine	48	52	1,970	1,884	N	N	20	19	-	-
N.H.	44	36	1,652	1,495	-	-	30	24	-	2
Vt.**	16	16	968	1,000	-	-	24	31	-	-
Mass.	495	598	12,722	10,503	-	-	56	76	-	12
R.I.	131	101	3,189	2,799	-	-	4	16	-	5
Conn.	584	630	7,263	8,540	N	N	27	17	-	12
MID. ATLANTIC	9,011	9,678	101,140	101,192	-	-	512	426	17	223
Upstate N.Y.	1,406	978	21,127	18,896	N	N	178	126	5	-
N.Y. City	4,804	5,200	31,691	32,883	-	-	109	121	2	57
N.J.	1,360	1,451	13,617	14,952	-	-	33	19	1	21
Pa.	1,441	2,049	34,705	34,461	N	N	192	160	9	145
E.N. CENTRAL	3,311	3,878	141,489	147,451	13	7	928	986	61	150
Ohio	617	778	32,659	39,729	N	N	217	168	11	84
Ind.	364	516	17,424	15,983	N	N	83	105	5	15
Ill.	1,559	1,708	40,010	45,218	-	-	90	98	28	30
Mich.	614	707	35,137	29,821	13	7	146	139	12	14
Wis.	157	169	16,259	16,700	-	-	392	476	5	7
W.N. CENTRAL	802	767	50,654	47,575	6	3	396	560	85	696
Minn.	206	160	9,444	10,002	N	N	130	145	13	48
Iowa	65	83	5,900	5,274	N	N	83	119	13	81
Mo.	338	363	19,633	17,293	3	1	72	50	26	39
N. Dak.	18	3	1,373	1,503	N	N	12	12	2	94
S. Dak.	11	14	2,371	2,440	-	-	40	41	6	151
Nebr.**	54	49	4,797	4,422	3	2	28	24	7	194
Kans.	110	95	7,136	6,641	N	N	31	169	18	89
S. ATLANTIC	11,845	11,367	158,886	152,355	-	5	498	375	57	191
Del.	143	199	2,784	2,824	N	N	-	4	-	12
Md.	1,363	1,438	18,256	15,710	-	5	22	26	8	49
D.C.	911	862	3,198	2,974	-	-	13	13	1	3
Va.	615	848	20,177	17,860	-	-	59	44	4	19
W. Va.	86	85	2,624	2,429	N	N	6	4	-	1
N.C.	1,080	1,042	27,095	24,319	N	N	75	49	3	16
S.C.**	709	753	18,175	13,646	-	-	15	8	-	3
Ga.	1,558	1,827	27,244	33,632	-	-	175	113	12	27
Fla.	5,380	4,313	39,333	38,961	N	N	133	114	29	61
E.S. CENTRAL	1,833	1,871	53,850	51,721	4	1	118	127	60	91
Ky.	232	199	6,145	7,483	N	N	43	24	1	11
Tenn.**	722	795	20,855	19,189	N	N	29	39	13	21
Ala.	442	442	10,186	13,531	-	-	23	54	15	25
Miss.	437	435	16,664	11,518	4	1	23	10	31	34
W.S. CENTRAL	4,332	4,519	99,258	100,204	2	-	74	117	209	611
Ark.	184	171	6,784	7,387	1	-	17	18	12	23
La.	865	607	20,808	19,210	1	-	5	4	81	101
Okla.	202	203	9,532	10,383	N	N	20	19	11	56
Tex.**	3,081	3,538	62,134	63,224	N	N	32	76	105	431
MOUNTAIN	1,415	1,441	47,099	45,826	3,648	2,328	161	131	232	871
Mont.	6	13	2,164	2,186	N	N	34	18	2	75
Idaho	18	25	2,555	2,365	N	N	27	27	-	-
Wyo.	18	6	1,027	904	2	1	4	5	2	92
Colo.	313	342	11,460	12,200	N	N	57	36	39	621
N. Mex.	178	99	5,235	6,909	21	9	13	12	30	74
Ariz.	550	634	15,895	12,343	3,531	2,275	18	6	128	7
Utah	72	69	3,484	3,526	36	9	6	19	6	-
Nev.	260	253	5,279	5,393	58	34	2	8	25	2
PACIFIC	5,230	6,535	141,544	140,123	2,003	1,575	332	360	154	2
Wash.	373	490	16,593	15,605	N	N	36	58	-	-
Oreg.	282	242	7,936	7,061	-	-	32	36	-	-
Calif.	4,383	5,688	109,039	108,789	2,003	1,575	262	265	154	2
Alaska	56	19	3,344	3,534	-	-	-	1	-	-
Hawaii	136	96	4,632	5,134	-	-	2	-	-	-
Guam	2	5	560	564	-	-	-	-	-	-
P.R.	642	1,024	3,401	2,484	N	N	N	N	-	-
V.I.	18	33	272	391	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	32	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 2003 and 2004 are provisional and cumulative (year-to-date).

[†] Chlamydia refers to genital infections caused by *C. trachomatis*.[§] Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).[¶] Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 28, 2004.

** Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 11, 2004, and December 6, 2003 (49th Week)*

Reporting area	<i>Escherichia coli</i> , Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003				
UNITED STATES	2,342	2,481	263	233	175	146	17,383	18,062	291,633	310,299
NEW ENGLAND	159	148	42	44	17	13	1,606	1,549	6,375	6,865
Maine	11	10	1	3	-	-	123	179	207	208
N.H.	23	18	5	3	-	-	45	39	125	115
Vt.	12	18	-	-	-	-	159	116	83	87
Mass.	68	65	10	9	17	13	716	808	2,957	2,745
R.I.	11	1	1	-	-	-	117	106	781	899
Conn.	34	36	25	29	-	-	446	301	2,222	2,811
MID. ATLANTIC	281	238	58	23	29	33	3,604	3,615	32,756	38,711
Upstate N.Y.	120	89	43	12	14	17	1,312	1,017	6,822	7,413
N.Y. City	36	7	-	-	-	-	912	1,147	10,170	12,820
N.J.	52	31	4	2	5	-	403	485	5,558	7,480
Pa.	73	111	11	9	10	16	977	966	10,206	10,998
E.N. CENTRAL	426	556	40	32	28	20	2,628	3,078	60,021	65,806
Ohio	98	129	9	16	20	20	766	858	16,969	21,036
Ind.	56	83	-	-	-	-	-	-	6,430	6,270
Ill.	69	120	2	2	2	-	504	882	17,714	20,337
Mich.	80	90	11	-	6	-	666	745	14,705	12,869
Wis.	123	134	18	14	-	-	692	593	4,203	5,294
W.N. CENTRAL	482	437	43	52	18	20	2,062	1,986	16,068	16,594
Minn.	112	128	20	21	1	1	791	756	2,810	2,919
Iowa	122	102	-	-	-	-	279	259	1,042	1,228
Mo.	91	83	17	18	8	1	541	490	8,452	8,200
N. Dak.	15	13	-	4	7	8	23	45	91	94
S. Dak.	33	28	2	4	-	-	73	81	276	213
Nebr.	69	48	4	5	-	-	147	138	971	1,489
Kans.	40	35	-	-	2	10	208	217	2,426	2,451
S. ATLANTIC	163	142	38	45	65	43	2,570	2,600	71,816	75,888
Del.	2	11	N	N	N	N	39	47	836	1,064
Md.	20	17	5	3	4	1	128	113	7,676	7,488
D.C.	1	1	-	-	-	-	63	53	2,388	2,371
Va.	35	37	17	13	-	-	509	342	7,960	8,266
W. Va.	3	5	-	-	-	-	45	49	859	797
N.C.	-	-	-	-	48	34	N	N	14,064	14,014
S.C.	7	2	-	-	-	-	57	134	8,867	7,927
Ga.	25	26	8	7	-	-	671	814	12,013	16,587
Fla.	70	43	8	22	13	8	1,058	1,048	17,153	17,374
E.S. CENTRAL	96	81	3	2	9	6	345	376	23,170	26,028
Ky.	29	27	1	2	6	6	N	N	2,664	3,333
Tenn.	31	34	2	-	3	-	157	175	7,857	7,989
Ala.	26	16	-	-	-	-	188	201	6,277	8,757
Miss.	10	4	-	-	-	-	-	-	6,372	5,949
W.S. CENTRAL	73	94	3	4	9	4	313	283	38,890	41,435
Ark.	15	12	1	-	-	-	120	142	3,412	3,923
La.	4	3	-	-	-	-	49	13	9,967	10,926
Okla.	19	28	-	-	4	-	144	128	4,050	4,283
Tex.	35	51	2	4	5	4	N	N	21,461	22,303
MOUNTAIN	238	310	35	27	-	7	1,455	1,534	10,246	9,798
Mont.	16	17	-	-	-	-	80	109	68	111
Idaho	50	80	16	16	-	-	181	195	88	68
Wyo.	9	4	7	1	-	-	25	22	58	42
Colo.	50	66	2	4	-	7	490	436	2,515	2,677
N. Mex.	9	13	6	5	-	-	68	51	751	1,099
Ariz.	27	38	N	N	N	N	166	240	3,815	3,415
Utah	50	69	3	-	-	-	326	346	538	374
Nev.	27	23	1	1	-	-	119	135	2,413	2,012
PACIFIC	424	475	1	4	-	-	2,800	3,041	32,291	29,174
Wash.	142	115	-	1	-	-	378	353	2,524	2,566
Oreg.	67	100	1	3	-	-	417	392	1,188	939
Calif.	204	246	-	-	-	-	1,844	2,125	27,013	23,974
Alaska	1	5	-	-	-	-	88	85	473	526
Hawaii	10	9	-	-	-	-	73	86	1,093	1,169
Guam	N	N	-	-	-	-	-	2	92	63
P.R.	1	3	-	-	-	-	125	327	252	256
V.I.	-	-	-	-	-	-	-	-	80	86
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	3	U

N: Not notifiable. U: Unavailable. - : No reported cases.

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 11, 2004, and December 6, 2003 (49th Week)*

Reporting area	<i>Haemophilus influenzae</i> , invasive								Hepatitis	
	All ages		Age <5 years						(viral, acute), by type	
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,712	1,742	14	25	101	101	153	193	5,336	7,092
NEW ENGLAND	156	139	1	2	6	5	4	4	989	320
Maine	13	4	-	-	-	-	-	1	11	18
N.H.	19	13	-	1	2	-	1	-	26	17
Vt.	8	9	-	-	-	-	1	-	8	6
Mass.	62	68	1	1	-	5	2	2	856	183
R.I.	6	9	-	-	1	-	-	1	22	15
Conn.	48	36	-	-	3	-	-	-	66	81
MID. ATLANTIC	381	364	1	3	5	3	37	47	656	1,747
Upstate N.Y.	122	127	1	3	5	3	5	9	109	131
N.Y. City	76	64	-	-	-	-	14	11	259	435
N.J.	73	67	-	-	-	-	4	11	138	201
Pa.	110	106	-	-	-	-	14	16	150	980
E.N. CENTRAL	272	290	1	3	6	5	37	53	513	650
Ohio	101	67	1	-	2	-	16	11	49	159
Ind.	52	49	-	-	4	-	1	9	92	69
Ill.	64	104	-	-	-	-	11	22	184	178
Mich.	20	23	-	3	-	5	6	1	136	199
Wis.	35	47	-	-	-	-	3	10	52	45
W.N. CENTRAL	103	112	2	2	4	7	12	13	168	171
Minn.	44	52	1	2	4	7	1	2	32	44
Iowa	1	-	1	-	-	-	-	-	51	29
Mo.	36	38	-	-	-	-	7	10	42	57
N. Dak.	4	4	-	-	-	-	-	-	1	2
S. Dak.	-	1	-	-	-	-	-	-	4	-
Nebr.	9	2	-	-	-	-	2	-	11	13
Kans.	9	15	-	-	-	-	2	1	27	26
S. ATLANTIC	385	386	1	2	23	18	24	23	952	1,625
Del.	-	-	-	-	-	-	-	-	5	8
Md.	64	96	-	1	5	8	-	1	104	171
D.C.	-	2	-	-	-	-	-	-	7	43
Va.	38	52	-	-	-	-	1	6	124	101
W. Va.	17	15	-	-	1	-	3	-	6	14
N.C.	57	36	1	-	6	3	1	2	101	105
S.C.	4	6	-	-	-	-	-	2	24	38
Ga.	98	71	-	-	-	-	17	7	305	760
Fla.	107	108	-	1	11	7	2	5	276	385
E.S. CENTRAL	65	78	1	1	2	3	9	9	142	258
Ky.	11	7	-	-	2	2	1	1	30	31
Tenn.	38	47	-	-	-	1	6	5	80	188
Ala.	13	22	1	1	-	-	2	3	9	24
Miss.	3	2	-	-	-	-	-	-	23	15
W.S. CENTRAL	75	73	1	2	8	10	2	4	523	663
Ark.	3	6	-	-	-	1	1	-	57	37
La.	14	21	-	-	-	2	1	4	54	46
Okla.	57	43	-	-	8	7	-	-	20	22
Tex.	1	3	1	2	-	-	-	-	392	558
MOUNTAIN	180	160	4	6	27	23	21	17	434	450
Mont.	-	-	-	-	-	-	-	-	8	8
Idaho	5	5	-	-	-	-	2	2	21	17
Wyo.	1	2	-	-	1	-	-	-	5	1
Colo.	44	35	-	-	-	-	5	6	51	62
N. Mex.	37	18	1	-	8	4	6	1	23	22
Ariz.	62	78	-	6	13	10	2	4	264	254
Utah	18	12	2	-	2	5	5	4	48	37
Nev.	13	10	1	-	3	4	1	-	14	49
PACIFIC	95	140	2	4	20	27	7	23	959	1,208
Wash.	3	11	2	-	-	7	1	3	59	66
Oreg.	43	37	-	-	-	-	3	3	62	60
Calif.	35	58	-	4	20	20	1	10	807	1,061
Alaska	4	20	-	-	-	-	1	7	5	9
Hawaii	10	14	-	-	-	-	1	-	26	12
Guam	-	-	-	-	-	-	-	-	1	2
P.R.	-	1	-	-	-	-	-	1	26	82
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 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 11, 2004, and December 6, 2003 (49th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003						
UNITED STATES	6,282	6,666	785	1,017	1,769	2,014	633	629	17,302	19,438
NEW ENGLAND	353	333	14	9	72	114	48	48	2,654	3,766
Maine	3	1	-	1	-	2	7	7	53	160
N.H.	39	18	-	-	11	9	4	4	206	170
Vt.	5	4	8	8	6	6	2	1	48	43
Mass.	208	204	4	-	22	54	15	18	988	1,507
R.I.	6	18	-	-	18	15	2	-	232	564
Conn.	92	88	2	-	15	28	18	18	1,127	1,322
MID. ATLANTIC	1,214	723	140	125	505	582	149	125	11,432	12,799
Upstate N.Y.	87	91	16	17	107	147	47	34	3,920	4,255
N.Y. City	119	184	-	-	54	70	20	23	-	210
N.J.	725	173	-	-	94	86	26	23	3,209	2,832
Pa.	283	275	124	108	250	279	56	45	4,303	5,502
E.N. CENTRAL	499	498	106	136	460	426	99	86	962	906
Ohio	117	135	6	9	209	216	39	24	65	66
Ind.	42	36	9	9	73	29	17	10	18	23
Ill.	71	67	12	21	33	47	13	23	1	71
Mich.	237	213	79	92	130	116	25	19	29	11
Wis.	32	47	-	5	15	18	5	10	849	735
W.N. CENTRAL	309	319	52	255	59	68	22	17	701	443
Minn.	49	33	18	9	7	3	6	5	591	318
Iowa	14	13	-	1	6	10	3	-	44	50
Mo.	185	222	34	242	31	35	8	6	54	68
N. Dak.	4	2	-	-	2	1	-	-	-	-
S. Dak.	-	2	-	-	5	2	2	-	1	1
Nebr.	40	30	-	3	4	6	3	4	8	2
Kans.	17	17	-	-	4	11	-	2	3	4
S. ATLANTIC	1,817	1,903	156	144	369	504	110	129	1,329	1,256
Del.	28	11	-	-	12	27	N	N	137	203
Md.	160	127	20	9	74	131	17	27	779	677
D.C.	19	12	3	-	11	19	-	1	11	11
Va.	256	184	16	9	50	91	18	11	171	154
W. Va.	39	38	24	7	9	17	4	6	27	27
N.C.	178	150	11	11	38	37	26	17	120	121
S.C.	76	150	6	24	4	7	3	5	15	15
Ga.	567	636	15	13	36	34	14	30	13	10
Fla.	494	595	61	71	135	141	28	32	56	38
E.S. CENTRAL	415	451	89	83	86	100	21	31	48	61
Ky.	71	72	23	19	39	43	4	9	15	15
Tenn.	174	194	35	18	33	33	10	8	17	17
Ala.	66	94	5	6	11	19	5	12	5	8
Miss.	104	91	26	40	3	5	2	2	11	21
W.S. CENTRAL	564	1,087	119	150	64	74	28	49	49	91
Ark.	74	79	3	3	-	2	2	1	8	-
La.	63	111	69	98	4	1	3	4	5	6
Okla.	47	56	3	2	8	7	-	3	-	-
Tex.	380	841	44	47	52	64	23	41	36	85
MOUNTAIN	489	543	36	49	81	69	26	31	32	14
Mont.	2	16	2	3	3	4	-	2	-	-
Idaho	10	8	-	1	9	4	1	2	6	3
Wyo.	7	31	2	-	7	2	-	-	3	2
Colo.	56	76	-	13	19	12	12	9	-	-
N. Mex.	12	34	7	-	4	3	1	2	2	1
Ariz.	278	250	6	7	11	11	-	10	6	3
Utah	55	47	5	-	24	23	4	2	14	2
Nev.	69	81	14	25	4	10	8	4	1	3
PACIFIC	622	809	73	66	73	77	130	113	95	102
Wash.	50	76	22	18	11	10	11	8	13	3
Oreg.	105	110	15	15	N	N	7	5	32	16
Calif.	441	590	30	30	61	66	107	95	48	80
Alaska	15	6	-	-	1	-	-	-	2	3
Hawaii	11	27	6	3	-	1	5	5	N	N
Guam	6	9	-	5	-	1	-	-	-	-
P.R.	53	124	-	-	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 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 11, 2004, and December 6, 2003 (49th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,204	1,257	1,184	1,547	16,781	9,451	5,595	6,480	1,425	911
NEW ENGLAND	80	61	68	70	1,697	1,717	662	576	20	9
Maine	6	2	11	6	34	12	51	66	-	-
N.H.	5	6	7	5	96	91	30	28	-	-
Vt.	4	2	3	3	94	66	35	37	1	-
Mass.	46	30	35	42	1,421	1,457	295	206	15	9
R.I.	4	2	2	2	40	20	38	65	2	-
Conn.	15	19	10	12	12	71	213	174	2	-
MID. ATLANTIC	322	340	147	195	2,691	1,253	897	879	96	40
Upstate N.Y.	51	55	37	51	1,788	655	502	410	5	-
N.Y. City	169	183	24	40	161	141	13	6	23	13
N.J.	58	60	34	28	244	173	-	62	33	16
Pa.	44	42	52	76	498	284	382	401	35	11
E.N. CENTRAL	102	104	176	240	5,277	1,205	160	167	24	21
Ohio	29	22	70	56	592	287	76	53	12	9
Ind.	17	4	29	41	266	66	10	28	6	1
Ill.	23	44	18	70	471	112	50	24	2	5
Mich.	19	23	44	46	264	124	15	48	4	6
Wis.	14	11	15	27	3,684	616	9	14	-	-
W.N. CENTRAL	66	49	82	120	2,079	457	472	620	126	64
Minn.	25	21	23	26	437	141	89	39	4	2
Iowa	4	6	17	26	194	151	104	100	1	2
Mo.	20	6	20	48	417	96	59	42	100	50
N. Dak.	3	1	2	1	735	7	61	55	-	-
S. Dak.	1	3	2	1	73	5	10	129	4	5
Nebr.	4	-	4	7	63	15	53	98	17	4
Kans.	9	12	14	11	160	42	96	157	-	1
S. ATLANTIC	315	306	202	260	651	655	1,860	2,526	735	546
Del.	6	2	3	9	8	9	9	59	4	1
Md.	72	70	10	27	129	85	307	335	74	105
D.C.	13	14	4	5	5	3	-	-	-	1
Va.	51	38	20	25	209	91	461	489	35	31
W. Va.	2	4	6	6	24	24	66	81	5	5
N.C.	21	23	31	35	80	126	565	757	514	287
S.C.	9	4	12	21	48	183	151	233	19	39
Ga.	50	64	15	33	20	31	298	384	63	64
Fla.	91	87	101	99	128	103	3	188	21	13
E.S. CENTRAL	28	30	60	88	266	149	135	204	173	125
Ky.	4	9	11	19	72	47	22	37	2	3
Tenn.	7	7	15	28	135	70	36	101	88	68
Ala.	12	7	17	20	42	18	66	62	47	21
Miss.	5	7	17	21	17	14	11	4	36	33
W.S. CENTRAL	91	129	109	168	771	712	1,025	1,111	218	96
Ark.	8	4	17	14	73	44	48	25	138	39
La.	5	5	35	39	11	10	-	5	5	1
Okla.	7	4	10	17	33	88	101	190	71	42
Tex.	71	116	47	98	654	570	876	891	4	14
MOUNTAIN	49	42	62	91	1,647	972	210	174	28	9
Mont.	1	-	3	5	65	5	26	21	3	1
Idaho	1	1	7	7	37	75	8	15	4	2
Wyo.	1	1	3	2	35	126	6	6	5	2
Colo.	15	22	15	25	913	355	43	38	1	2
N. Mex.	4	3	9	12	140	72	5	5	2	1
Ariz.	13	8	12	29	206	181	109	70	4	-
Utah	8	5	6	3	208	123	10	14	9	1
Nev.	6	2	7	8	43	35	3	5	-	-
PACIFIC	151	196	278	315	1,702	2,331	174	223	5	1
Wash.	18	26	31	39	724	722	-	-	-	-
Oreg.	17	10	55	57	457	434	6	6	3	-
Calif.	111	153	182	200	486	1,097	160	208	2	1
Alaska	2	1	3	7	12	66	8	9	-	-
Hawaii	3	6	7	12	23	12	-	-	-	-
Guam	-	1	1	-	-	1	-	-	-	-
P.R.	-	2	11	12	7	4	57	67	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 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 11, 2004, and December 6, 2003 (49th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		<i>Streptococcus pneumoniae</i> , invasive			
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Drug resistant, all ages		Age <5 years	
							Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	37,725	40,709	11,369	21,925	4,183	5,300	1,973	1,877	681	690
NEW ENGLAND	1,944	2,009	278	327	168	437	66	98	71	9
Maine	89	132	9	6	11	28	2	-	3	-
N.H.	135	135	9	9	19	29	-	-	N	N
Vt.	58	70	4	8	8	19	8	7	3	5
Mass.	1,107	1,175	171	220	109	194	37	N	56	N
R.I.	128	122	19	19	21	15	19	10	9	4
Conn.	427	375	66	65	-	152	-	81	U	U
MID. ATLANTIC	5,233	4,672	1,089	2,272	675	895	131	128	118	98
Upstate N.Y.	1,196	1,101	401	553	221	336	56	69	84	69
N.Y. City	1,142	1,267	361	405	102	140	U	U	U	U
N.J.	948	823	228	343	147	166	-	-	7	4
Pa.	1,947	1,481	99	971	205	253	75	59	27	25
E.N. CENTRAL	4,618	5,319	1,061	1,786	798	1,227	464	412	167	302
Ohio	1,178	1,269	166	287	215	280	325	268	80	94
Ind.	578	531	209	176	94	117	139	144	39	30
Ill.	1,278	1,865	313	962	165	322	-	-	9	124
Mich.	774	751	205	232	270	345	N	N	N	N
Wis.	810	903	168	129	54	163	N	N	39	54
W.N. CENTRAL	2,325	2,353	431	755	284	320	20	19	102	74
Minn.	603	540	63	96	138	153	-	-	67	53
Iowa	409	369	63	84	N	N	N	N	N	N
Mo.	594	853	172	351	58	74	15	15	14	3
N. Dak.	41	36	3	10	13	17	-	3	4	7
S. Dak.	130	116	13	16	20	22	5	1	-	-
Nebr.	175	160	37	86	14	25	-	-	7	5
Kans.	373	279	80	112	41	29	N	N	10	6
S. ATLANTIC	10,454	10,439	2,518	6,432	810	866	964	993	59	18
Del.	81	97	6	161	3	6	4	1	N	N
Md.	785	807	142	555	169	214	-	25	43	-
D.C.	60	47	39	73	10	9	6	1	3	7
Va.	1,120	1,018	161	417	68	94	N	N	N	N
W. Va.	223	124	9	-	25	34	104	71	13	11
N.C.	1,595	1,301	372	944	122	102	N	N	U	U
S.C.	793	765	286	508	37	39	71	137	N	N
Ga.	1,788	1,971	598	1,125	163	171	238	223	N	N
Fla.	4,009	4,309	905	2,649	213	197	541	535	N	N
E.S. CENTRAL	2,416	2,812	754	977	190	189	124	139	6	-
Ky.	339	372	74	125	58	45	30	20	N	N
Tenn.	523	721	327	361	132	144	93	119	N	N
Ala.	711	745	305	322	-	-	-	-	N	N
Miss.	843	974	48	169	-	-	1	-	6	-
W.S. CENTRAL	3,290	5,806	2,606	5,606	239	272	65	76	116	121
Ark.	552	773	76	100	16	6	10	21	8	7
La.	790	839	268	438	2	2	55	55	26	26
Okla.	381	445	468	823	61	88	N	N	43	58
Tex.	1,567	3,749	1,794	4,245	160	176	N	N	39	30
MOUNTAIN	2,282	2,173	797	1,231	493	498	38	8	40	68
Mont.	183	110	4	2	-	1	-	-	-	-
Idaho	145	170	13	33	9	19	N	N	N	N
Wyo.	53	74	5	8	10	2	11	7	-	-
Colo.	515	473	148	319	128	136	-	-	37	52
N. Mex.	261	283	122	257	82	112	5	-	-	11
Ariz.	716	684	396	498	218	193	N	N	N	N
Utah	237	209	50	48	42	33	20	1	3	5
Nev.	172	170	59	66	4	2	2	-	-	-
PACIFIC	5,163	5,126	1,835	2,539	526	596	101	4	2	-
Wash.	559	574	107	162	53	74	-	-	N	N
Oreg.	385	415	78	209	N	N	N	N	N	N
Calif.	3,813	3,829	1,600	2,112	348	390	N	N	N	N
Alaska	57	93	6	11	-	-	-	-	N	N
Hawaii	349	215	44	45	125	132	101	4	2	-
Guam	26	43	33	41	-	-	-	-	-	-
P.R.	293	697	8	27	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	3	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 11, 2004, and December 6, 2003 (49th Week)*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
	Primary & secondary		Congenital		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003						
UNITED STATES	7,018	6,585	300	411	10,490	11,599	265	339	17,099	16,226
NEW ENGLAND	167	204	5	1	360	386	21	28	651	3,154
Maine	2	8	-	-	-	19	-	-	240	777
N.H.	4	18	3	-	16	13	-	4	-	-
Vt.	-	1	-	-	-	9	-	-	411	790
Mass.	108	128	-	-	239	204	14	15	-	147
R.I.	22	23	1	-	30	44	1	2	-	5
Conn.	31	26	1	1	75	97	6	7	-	1,435
MID. ATLANTIC	941	836	39	63	1,908	2,078	61	76	85	40
Upstate N.Y.	95	40	4	12	260	277	8	12	-	-
N.Y. City	585	481	15	31	923	1,061	22	35	-	-
N.J.	141	166	19	20	413	421	16	21	-	-
Pa.	120	149	1	-	312	319	15	8	85	40
E.N. CENTRAL	832	837	57	74	1,095	1,097	18	32	6,088	5,766
Ohio	217	186	1	3	181	186	5	2	1,364	1,161
Ind.	55	45	9	16	123	125	-	4	139	-
Ill.	355	355	16	21	489	519	-	16	2	-
Mich.	174	235	31	33	216	205	10	10	3,955	3,671
Wis.	31	16	-	1	86	62	3	-	628	934
W.N. CENTRAL	135	140	5	5	418	438	10	6	130	76
Minn.	16	42	1	-	169	183	6	2	-	-
Iowa	5	9	-	-	33	30	-	2	N	N
Mo.	85	56	2	4	111	108	2	1	5	-
N. Dak.	-	2	-	-	4	4	-	-	82	76
S. Dak.	-	2	-	-	8	16	-	-	43	-
Nebr.	6	6	-	1	36	24	2	1	-	-
Kans.	23	23	2	-	57	73	-	-	-	-
S. ATLANTIC	1,822	1,729	52	80	2,281	2,387	43	54	2,018	2,083
Del.	8	6	1	-	-	23	-	-	4	29
Md.	338	288	9	12	242	231	11	10	-	1
D.C.	89	46	1	-	71	-	-	-	25	29
Va.	93	74	3	1	247	248	9	14	487	499
W. Va.	2	2	-	-	22	20	-	-	1,234	1,267
N.C.	176	143	12	19	294	324	8	9	N	N
S.C.	112	93	8	14	163	159	-	-	268	258
Ga.	332	469	2	13	393	497	5	6	-	-
Fla.	672	608	16	21	849	885	10	15	-	-
E.S. CENTRAL	371	302	19	12	494	659	7	8	-	-
Ky.	47	32	1	1	113	121	3	1	-	-
Tenn.	123	128	8	2	195	215	4	3	-	-
Ala.	152	107	8	7	153	220	-	4	-	-
Miss.	49	35	2	2	33	103	-	-	-	-
W.S. CENTRAL	1,127	871	50	76	1,032	1,703	20	30	5,645	4,452
Ark.	38	45	-	3	104	88	-	-	-	-
La.	265	160	-	1	-	-	-	-	51	16
Okla.	24	61	2	1	143	141	1	1	-	-
Tex.	800	605	48	71	785	1,474	19	29	5,594	4,436
MOUNTAIN	323	305	42	33	487	423	8	7	2,482	655
Mont.	3	-	-	-	14	5	-	-	-	-
Idaho	22	11	2	2	4	8	-	1	-	-
Wyo.	3	-	-	-	4	4	-	-	56	88
Colo.	38	35	-	3	107	101	3	4	1,877	-
N. Mex.	56	65	1	10	34	45	-	-	101	4
Ariz.	155	172	39	18	208	203	2	2	-	-
Utah	8	11	-	-	36	35	1	-	448	563
Nev.	38	11	-	-	80	22	2	-	-	-
PACIFIC	1,300	1,361	31	67	2,415	2,428	77	98	-	-
Wash.	136	75	-	-	219	226	6	3	-	-
Oreg.	27	42	-	-	74	101	2	4	-	-
Calif.	1,127	1,232	30	65	1,979	1,943	63	90	-	-
Alaska	3	1	-	-	35	53	-	-	-	-
Hawaii	7	11	1	2	108	105	6	1	-	-
Guam	-	1	-	-	15	48	-	-	112	143
P.R.	161	191	5	14	84	100	-	-	271	580
V.I.	4	1	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	10	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending December 11, 2004 (49th Week)

Reporting Area	All causes, by age (years)							P&I [†] Total	Reporting Area	All causes, by age (years)							P&I [†] Total
	All Ages	≥65	45-64	25-44	1-24	<1	All Ages			≥65	45-64	25-44	1-24	<1			
NEW ENGLAND	553	388	110	29	15	8	47	S. ATLANTIC	1,440	885	355	119	41	40	68		
Boston, Mass.	158	98	31	17	8	4	18	Atlanta, Ga.	147	85	40	10	4	8	5		
Bridgeport, Conn.	39	31	6	2	-	-	2	Baltimore, Md.	196	116	50	20	6	4	15		
Cambridge, Mass.	13	11	2	-	-	-	1	Charlotte, N.C.	123	81	27	9	2	4	11		
Fall River, Mass.	22	13	6	-	-	-	-	Jacksonville, Fla.	189	120	49	15	2	3	3		
Hartford, Conn.	58	41	14	1	1	1	6	Miami, Fla.	94	61	21	7	3	2	2		
Lowell, Mass.	20	19	1	-	-	-	4	Norfolk, Va.	58	41	9	4	2	2	2		
Lynn, Mass.	10	7	3	-	-	-	1	Richmond, Va.	67	43	14	3	4	3	3		
New Bedford, Mass.	26	23	2	1	-	-	4	Savannah, Ga.	70	44	17	6	2	1	2		
New Haven, Conn.	U	U	U	U	U	U	U	St. Petersburg, Fla.	69	45	14	3	4	3	3		
Providence, R.I.	63	47	10	2	3	1	3	Tampa, Fla.	210	140	47	15	3	5	15		
Somerville, Mass.	3	2	1	-	-	-	-	Washington, D.C.	202	101	62	25	9	5	6		
Springfield, Mass.	47	30	14	2	-	1	2	Wilmington, Del.	15	8	5	2	-	-	1		
Waterbury, Conn.	26	17	6	2	1	-	2	E.S. CENTRAL	958	630	218	71	24	15	75		
Worcester, Mass.	68	49	14	2	2	1	4	Birmingham, Ala.	247	166	62	13	5	1	28		
MID. ATLANTIC	2,238	1,544	478	138	43	32	100	Chattanooga, Tenn.	81	52	14	8	6	1	4		
Albany, N.Y.	46	27	10	6	2	1	5	Knoxville, Tenn.	78	58	13	4	2	1	6		
Allentown, Pa.	24	18	3	3	-	-	1	Lexington, Ky.	101	67	22	9	2	1	11		
Buffalo, N.Y.	84	61	15	6	1	1	8	Memphis, Tenn.	124	77	26	16	5	-	6		
Camden, N.J.	16	8	4	2	1	1	1	Mobile, Ala.	63	43	18	1	-	1	6		
Elizabeth, N.J.	20	10	9	1	-	-	1	Montgomery, Ala.	90	54	19	14	1	2	2		
Erie, Pa.	49	39	7	2	1	-	2	Nashville, Tenn.	174	113	44	6	3	8	12		
Jersey City, N.J.	41	33	5	2	1	-	-	W.S. CENTRAL	1,772	1,125	432	126	39	50	93		
New York City, N.Y.	1,179	822	247	67	21	19	46	Austin, Tex.	106	63	24	10	4	5	6		
Newark, N.J.	69	38	21	8	-	2	3	Baton Rouge, La.	46	35	8	3	-	-	-		
Paterson, N.J.	8	5	3	-	-	-	-	Corpus Christi, Tex.	69	49	14	2	2	2	5		
Philadelphia, Pa.	334	216	77	30	9	2	9	Dallas, Tex.	220	129	59	16	6	10	11		
Pittsburgh, Pa. [‡]	20	15	4	-	1	-	-	El Paso, Tex.	114	77	25	7	3	2	5		
Reading, Pa.	21	18	2	-	1	-	2	Ft. Worth, Tex.	154	95	43	6	3	7	9		
Rochester, N.Y.	129	90	33	3	2	1	10	Houston, Tex.	403	238	108	33	12	12	23		
Schenectady, N.Y.	30	25	1	3	1	-	2	Little Rock, Ark.	77	43	21	10	2	1	5		
Scranton, Pa.	27	19	5	1	2	-	1	New Orleans, La.	49	33	14	2	-	-	-		
Syracuse, N.Y.	77	57	18	2	-	-	4	San Antonio, Tex.	311	212	62	28	1	8	19		
Trenton, N.J.	30	15	10	1	-	4	2	Shreveport, La.	80	53	21	2	3	1	2		
Utica, N.Y.	14	12	1	-	-	1	2	Tulsa, Okla.	143	98	33	7	3	2	8		
Yonkers, N.Y.	20	16	3	1	-	-	1	MOUNTAIN	1,036	682	222	76	33	21	64		
E.N. CENTRAL	2,212	1,439	496	136	64	75	127	Albuquerque, N.M.	142	89	36	14	2	1	11		
Akron, Ohio	52	42	6	-	-	4	3	Boise, Idaho	57	38	6	3	3	7	5		
Canton, Ohio	38	30	6	2	-	-	6	Colo. Springs, Colo.	74	54	8	7	4	1	5		
Chicago, Ill.	371	207	101	24	8	29	26	Denver, Colo.	101	60	24	9	4	4	3		
Cincinnati, Ohio	79	55	11	8	4	1	3	Las Vegas, Nev.	232	146	60	18	7	1	13		
Cleveland, Ohio	236	165	51	13	5	2	10	Ogden, Utah	24	19	2	-	3	-	1		
Columbus, Ohio	216	138	56	11	4	7	13	Phoenix, Ariz.	117	71	31	8	2	3	5		
Dayton, Ohio	138	91	30	12	5	-	9	Pueblo, Colo.	26	18	4	2	2	-	-		
Detroit, Mich.	171	93	52	17	7	2	10	Salt Lake City, Utah	109	70	23	8	6	2	8		
Evansville, Ind.	51	35	11	3	1	1	4	Tucson, Ariz.	154	117	28	7	-	2	13		
Fort Wayne, Ind.	54	35	13	1	3	2	-	PACIFIC	1,793	1,254	370	108	28	32	156		
Gary, Ind.	25	17	7	1	-	-	1	Berkeley, Calif.	15	10	5	-	-	-	1		
Grand Rapids, Mich.	91	69	16	1	2	3	8	Fresno, Calif.	218	168	32	11	3	4	24		
Indianapolis, Ind.	207	116	46	23	13	9	11	Glendale, Calif.	26	21	3	2	-	-	3		
Lansing, Mich.	53	39	7	3	2	2	1	Honolulu, Hawaii	84	60	15	5	-	4	9		
Milwaukee, Wis.	105	67	25	9	1	3	7	Long Beach, Calif.	71	53	11	5	2	-	10		
Peoria, Ill.	59	40	13	2	2	2	1	Los Angeles, Calif.	397	259	92	29	9	8	32		
Rockford, Ill.	60	40	12	5	-	3	1	Pasadena, Calif.	U	U	U	U	U	U	U		
South Bend, Ind.	31	26	5	-	-	-	3	Portland, Oreg.	127	87	33	4	-	2	7		
Toledo, Ohio	112	79	21	1	7	4	5	Sacramento, Calif.	U	U	U	U	U	U	U		
Youngstown, Ohio	63	55	7	-	-	1	5	San Diego, Calif.	169	116	34	11	3	5	14		
W.N. CENTRAL	679	425	160	53	19	22	51	San Francisco, Calif.	118	69	31	15	2	1	15		
Des Moines, Iowa	U	U	U	U	U	U	U	San Jose, Calif.	213	153	44	8	4	4	17		
Duluth, Minn.	29	22	6	1	-	-	2	Santa Cruz, Calif.	26	22	3	1	-	-	4		
Kansas City, Kans.	39	17	12	5	3	2	5	Seattle, Wash.	152	108	31	10	1	2	8		
Kansas City, Mo.	90	59	23	3	3	2	4	Spokane, Wash.	67	50	13	2	2	-	6		
Lincoln, Nebr.	67	42	18	4	1	2	4	Tacoma, Wash.	110	78	23	5	2	2	6		
Minneapolis, Minn.	68	39	13	9	3	4	5	TOTAL	12,681 [¶]	8,372	2,841	856	306	295	781		
Omaha, Nebr.	105	76	18	7	-	4	10										
St. Louis, Mo.	109	61	32	9	2	5	12										
St. Paul, Minn.	59	45	9	1	3	1	2										
Wichita, Kans.	113	64	29	14	4	2	7										

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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