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Evaluating Newborn Screening Program Data Systems — Georgia, 1998

All 50 states and the District of Columbia conduct newborn screening (NBS) programs that annually screen approximately 4 million infants for metabolic and other disorders to prevent mental retardation, disability, and death (*1,2*). In 1998, Georgia newborns were screened for eight disorders: phenylketonuria, galactosemia, tyrosinemia, homocystinuria, hypothyroidism, maple syrup urine disease, congenital adrenal hyperplasia, and sickle cell disease (*3*). Appropriate data that reflect progress toward achieving short- and long-term goals are necessary to assess the effectiveness of NBS and to inform public health policy decisions about which disorders to add or delete from screening. This report summarizes findings from an evaluation of data systems for metabolic and endocrine disorders in the Georgia NBS program and assesses the ability to measure progress toward short- and long-term goals. Although the data indicate that the program typically received specimens of sufficient quality for testing in a timely manner, additional data are needed to assess fully the effectiveness of the NBS program in identifying disorders.

The Georgia NBS data system includes the Georgia NBS laboratory and the Emory University Medical Genetics databases. The NBS laboratory database is a computerized database of each blood specimen received and tested by the laboratory. Information from the blood specimen collection forms and results of each test were entered by specimen. Collection form data included demographics, specimen quality (adequate or inadequate), reason if the specimen is inadequate, and confounders of test results (e.g., antibiotic use and transfusions). Data from the NBS laboratory on specimens initially screening positive for any of the eight disorders were transmitted electronically to and included in the Emory University Medical Genetics database. In the Emory database, test results were consolidated by child. Data on each child included the same demographic data in the NBS laboratory database, follow-up test results, final diagnosis (or confirmation of false-positive results), and initial treatment or referral received. All specimens received by the NBS laboratory in 1998 and entered into the database were included in this analysis.

During 1998, the NBS laboratory received 199,387* specimens. Of these specimens, 135,163 (67.8%) were collected satisfactorily and were received within 1 week

*The Georgia NBS laboratory tests all specimens received by the laboratory, including unsatisfactory specimens.

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of the infant's birth, which is the appropriate time; 20,839 (10.4%) specimens were collected satisfactorily, but received 1 week after the infant's birth; 20,691 (10.4%) specimens were collected from low birthweight newborns (<5 lbs, 8 oz [<2500 g]); and 20,687 (10.4%) specimens were classified as unsatisfactory. The remaining 1% of specimens were labeled "requested repeat" and were specimens from known cases. Of the 199,387 specimens collected, 4557 (2%) had initially abnormal screening results. From these abnormal screening results, Emory University Medical Genetics completed follow-up for 4364. The 42 results with incomplete follow-up included tests on 33 newborns lost to follow-up, tests on five newborns whose parents or physician refused further testing, and tests on four newborns who moved out of state. Repeat testing of specimens with initial abnormal results produced 4094 final normal results. The 4557 initially abnormal screening results represented 4466 infants who were examined at the Emory University Medical Genetics program and represented in the database. Clinically significant disorders (those requiring continued medical intervention) were diagnosed in 93 of the infants, and 100 additional infants needed transitory treatment and/or whose parents needed genetic counseling information. All those diagnosed with a clinically significant disorder obtained their first abnormal test result within 1 week of birth. Treatments were initiated from age 1 week to age 2 months (*4*).

Data unavailable from the system included the number of children the 199,387 specimens represent and long-term follow-up outcomes on the 93 children with clinically significant disorders diagnosed. In the system, no mechanism exists for systematic long-term follow-up of these or children with previously diagnosed disorders. Records of morbidity (e.g., hospitalizations, disability, diagnosis of mental retardation, and mortality records) are not included in either NBS database.

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Editorial Note: Information collected on newborns screened in Georgia includes short-term outcomes; specimen quality and timeliness of the screening, diagnosis, and initiation of treatment all are documented. Although these data help to evaluate program performance, other key short-term measures were not available from the data collected. For example, screening coverage (percentage of infants adequately screened) cannot be calculated, and children missed by the program cannot be identified. Comparing the Georgia NBS program with other state programs is difficult because each state conducts its program independently; each state screens for different disorders, and some define each disorder differently (e.g., different laboratory definitions/cut-offs). For the Georgia NBS program, additional data would help to ensure optimal screening coverage and prevent adverse outcomes.

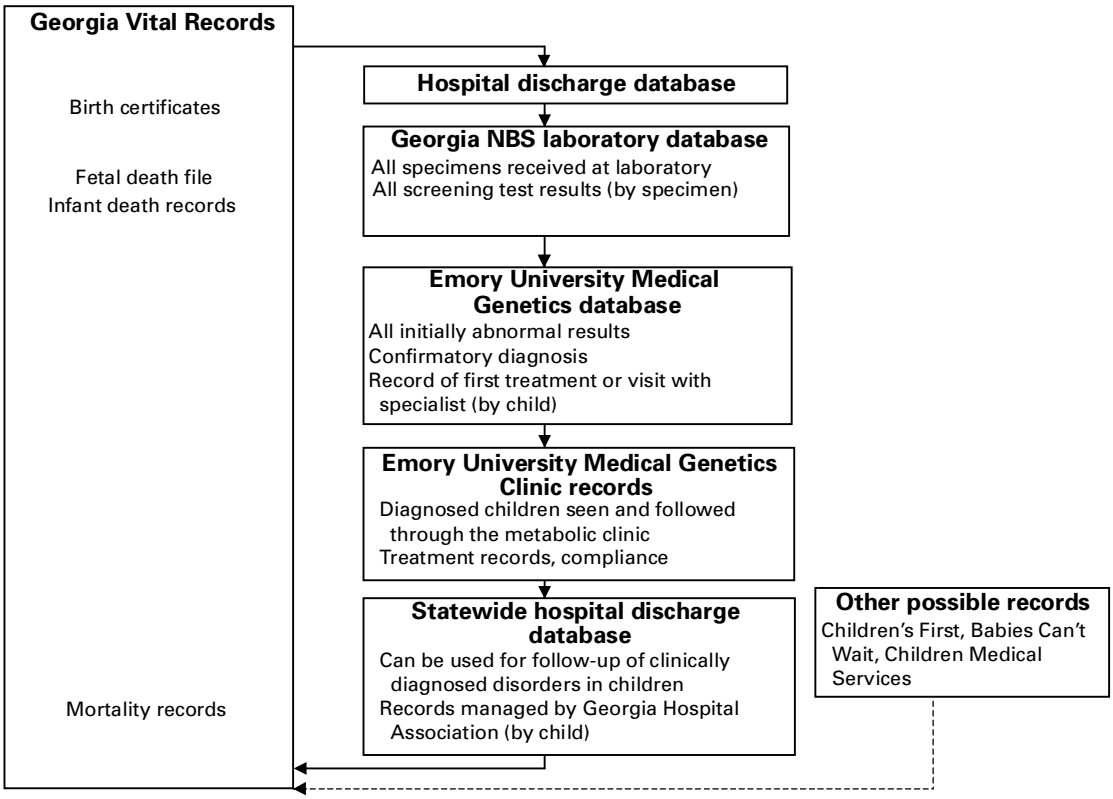
Recent technologic advances are leading to an increasing number of disorders that can be screened in NBS programs. The ability of NBS programs to adequately assess the effectiveness of their programs would help states make data-based policy decisions on which disorders to include and which to remove. To facilitate evaluations of NBS programs, short-term and long-term performance measures should be collected. Key short-term measures for NBS programs include the percentage of live-born infants screened in the state, the percentage of live-born infants adequately screened, and the timeliness of diagnoses and treatment. Essential long-term measures should

Newborn Screening Program — Continued

assess whether infants with a diagnosed disorder have developmental disabilities, mental retardation, and premature mortality (*5,6*) (as measured by hospitalization records to assess burden of illness), and should identify adverse health outcomes associated with each disorder beyond the newborn period.

Using the Georgia NBS program as a model, one method to obtain additional data is through database linkage (Figure 1). To calculate screening coverage (and identify children missed), the number of infants screened in Georgia and the number of live births in Georgia are needed. These data could be created by linking the Georgia laboratory database to the Georgia vital records department that handles all birth certificates and infant death files; with the information from these records, the percentage of infants adequately screened could be calculated. This linkage also could assess characteristics of infants missed, allowing development of methods for optimizing screening coverage. Long-term follow-up on children screened and with a diagnosed disorder can be obtained in several ways. First, the Georgia Hospital Association maintains a statewide hospital discharge database; links to the NBS laboratory or Emory University Medical Genetics databases with the hospital discharge database would allow data on hospitalizations of diagnosed children and possible identification of false negatives to be generated. Second, follow-up information such as treatment, compliance, and disease progression for children with a diagnosed disorder could be obtained from treatment center records. Finally, the Georgia vital records department

FIGURE 1. Potential linkage of databases to assess short- and long-term outcomes of children with diagnosed disorders through the newborn screening program (NBS) — Georgia, 1998



Newborn Screening Program — Continued

could provide information on mortality of all newborns screened, all newborns with a diagnosed disorder, and the reason for death. A "data warehouse" concept, where databases report their respective data to a central external location for data linkage, also may be useful for the Georgia NBS program. This concept has been discussed for programs relying on coordinated efforts using data systems and eliminates the need for statewide overhaul of computer systems. Linking databases (birth certificates, NBS test results, hospitalizations, clinic visits, and death certificates) would allow unique follow-up of diagnosed disorders in children. To evaluate program performance, CDC is conducting several studies using short and long-term measures to assess effectiveness of NBS for specific disorders.

References

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Update: Respiratory Syncytial Virus Activity — United States, 1998–1999 Season

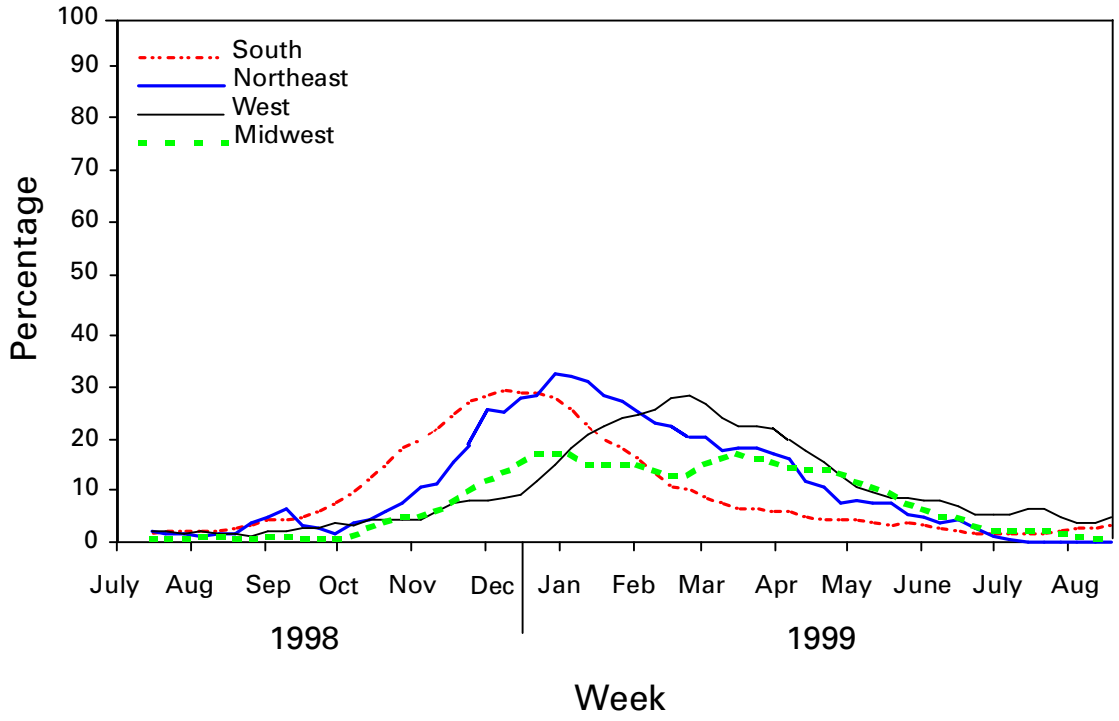
Respiratory syncytial virus (RSV) is the most common cause of lower respiratory tract disease in infants and young children worldwide (*1*). In temperate climates, RSV infections occur primarily during annual outbreaks, which peak during winter months (*2*). In the United States, RSV activity is monitored by the National Respiratory and Enteric Virus Surveillance System (NREVSS), a voluntary, laboratory-based system. This report summarizes trends in RSV activity reported to NREVSS during July 1998–June 1999 and presents preliminary surveillance data during July 1–November 12, 1999, which show that RSV community outbreaks are becoming widespread.

Clinical and public health laboratories report weekly to CDC the number of specimens tested for RSV by antigen-detection and/or virus-isolation methods and the number of positive results. RSV activity is considered widespread by NREVSS when at least half of participating laboratories report any RSV detections for at least 2 consecutive weeks and when >10% of all specimens tested by antigen detection for RSV are positive. RSV community outbreaks are defined similarly (>2 consecutive weeks with >10% positive tests, by city).

From July 1998 through June 1999, 72 laboratories in 45 states reported 128,579 tests for RSV, of which 18,418 were positive for RSV (Figure 1). In the United States, widespread RSV activity began in early November 1998 and continued for

Respiratory Syncytial Virus — Continued

FIGURE 1. Percentage* of specimens testing positive for respiratory syncytial virus, by region† and week of report — United States, July 1998–August 1999



*Weekly laboratory group average smoothed using a 3-week running interval.
†*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.

27 weeks, until late April. Timing of RSV community outbreaks varied from onset (range: September 11 to April 2) to conclusion (range: January 8 to June 18). Overall, RSV outbreaks were observed earlier in laboratories in the South (19 sites; median weeks of onset and conclusion: November 20 and April 2, respectively), later in Northeast laboratories (seven sites; November 27 and April 23), and latest in the Midwest (11 sites; December 18 and May 14) and West (12 sites; January 1 and April 30).

Although most positive tests (91%) were reported from the week ending November 27 through the week ending April 30, RSV was detected throughout the year. For example, during July–August 1999, one or two sporadic RSV isolates were reported from single laboratories in Colorado, Nebraska, Oklahoma, South Dakota, Tennessee, Texas, and Washington. In addition, during July–August, an outbreak of RSV-related lower respiratory tract infections, including 18 cases of pneumonia and 15 hospitalizations, was detected among residents and staff in a long-term–care facility in Maryland. As of the week ending November 12, 1999, widespread RSV activity has been reported in communities in the South (eight of 20 sites), West (three of 15 sites), Northeast (one of 8 sites), and Midwest (one of 18 sites).

Respiratory Syncytial Virus — Continued

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Editorial Note: For the July 1998–June 1999 surveillance period, the total number of specimens positive for RSV, average months of peak activity, and regional trends were similar to trends observed during previous years. The duration of the 1998–1999 season was longer than previous years, with later-than-usual RSV outbreaks reported by several western and midwestern laboratories. Although RSV community outbreaks occurred largely during winter months, sporadic RSV detections were found throughout the year, including the summer.

NREVSS consists of 72 widely distributed laboratories and is a useful system for characterizing the geographic and temporal trends of RSV infections in the United States. NREVSS data can alert public health officials and physicians to the timing of seasonal RSV activity.

When reviewing NREVSS data, at least three limitations should be considered. First, laboratory results are not confirmed by CDC. Second, laboratory data serve as an indicator of when RSV is circulating in a community; however, the correlation of these data to disease burden in the population is uncertain. Finally, some regions have few laboratories; recruitment of additional laboratories is needed. To alert the public to RSV trends, regional summary data are frequently updated on the CDC World-Wide Web site (http://www.cdc.gov/ncidod/dvrd/nrevss). As in the 1998–1999 season, timing of community RSV outbreaks may vary considerably within and among regions.

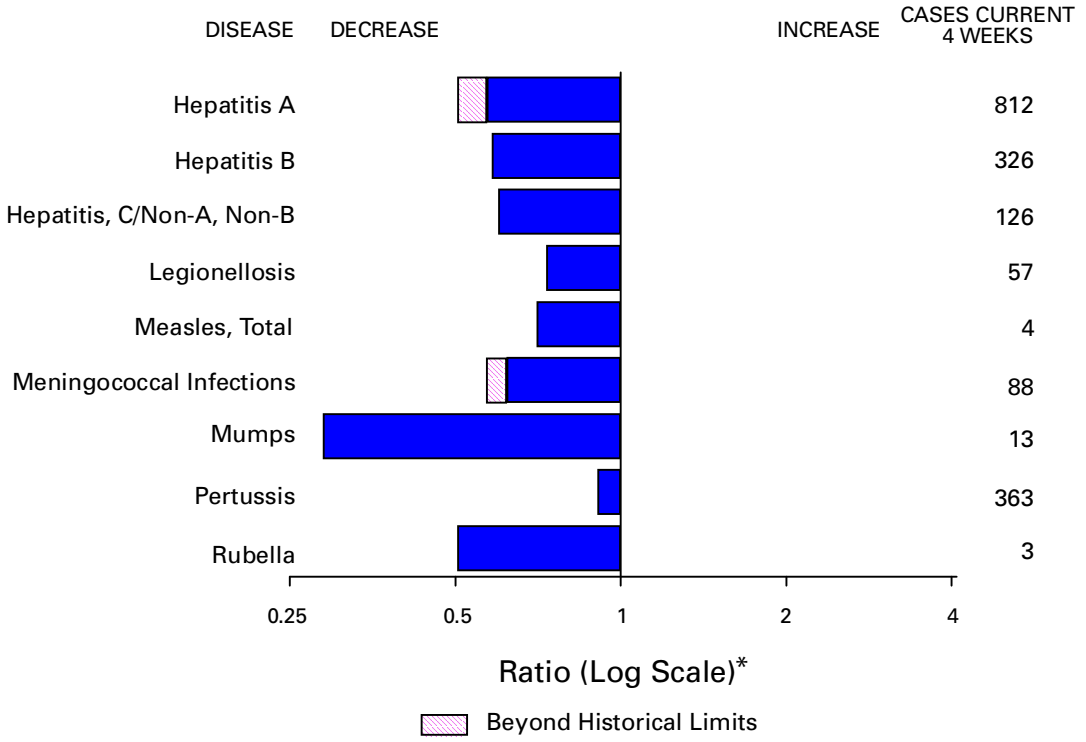
Severe manifestations of RSV infection (e.g., pneumonia and bronchiolitis) most commonly occur in infants aged 2–6 months, and hospitalization rates for these diagnoses have been used as an indicator for severe RSV disease among young children. In the United States, bronchiolitis hospitalization rates among children aged <1 year increased substantially from 12.9 per 1000 in 1980 to 31.2 per 1000 in 1996; the reasons for this increase are unclear (*3*). Considerably higher hospitalization rates (61.8 per 1000 children aged <1 year) have been identified among American Indian/Alaska Native children receiving care through the Indian Health Service (*4*).

Symptomatic RSV disease can recur throughout life because of limited protective immunity induced by natural infection. As a result, health-care providers should consider RSV as a cause of acute respiratory disease in children and adults during community outbreaks. Persons with underlying cardiac or pulmonary disease or compromised immune systems and the elderly are at increased risk for serious complications of RSV infection, such as pneumonia and death (*5,6*). RSV infection among recipients of bone marrow transplants has resulted in high mortality rates (83%) (*7*).

The risk for nosocomial transmission of RSV increases during community outbreaks; nosocomial outbreaks of RSV can be controlled by adhering to contact-isolation procedures (*8*). No RSV vaccines are available, although both live attenuated and subunit vaccines have entered clinical trials. RSV immune globulin intravenous and a humanized murine anti-RSV monoclonal antibody are recommended as prophylaxis for some high-risk infants and young children (e.g., those born prematurely or with chronic lung disease) to prevent serious RSV disease (*9*).

(Continued on page 1115)

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending December 4, 1999, with historical data — United States



*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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending December 4, 1999 (48th Week)

	Cum. 1999		Cum. 1999
Anthrax	-	HIV infection, pediatric*§	137
Brucellosis*	46	Plague	8
Cholera	3	Poliomyelitis, paralytic	-
Congenital rubella syndrome	6	Psittacosis*	16
Cyclosporiasis*	50	Rabies, human	-
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	503
Encephalitis: California*	56	Streptococcal disease, invasive Group A	1,970
eastern equine*	6	Streptococcal toxic-shock syndrome*	33
St. Louis*	7	Syphilis, congenital¶	204
western equine*	1	Tetanus	31
Ehrlichiosis human granulocytic (HGE)*	146	Toxic-shock syndrome	109
human monocytic (HME)*	40	Trichinosis	9
Hansen Disease*	91	Typhoid fever	287
Hantavirus pulmonary syndrome*†	18	Yellow fever	1
Hemolytic uremic syndrome, post-diarrheal*	109		

-:no reported cases
*Not notifiable in all states.
† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§ Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update November 28, 1999.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 1999, and December 5, 1998 (48th Week)

Reporting Area	AIDS		Chlamydia		Cryptosporidiosis		*Escherichia coli* O157:H7*			
							NETSS		PHLIS	
	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	40,933	42,308	541,736	546,981	2,223	3,529	3,249	2,784	2,179	2,089
NEW ENGLAND	2,090	1,664	19,450	18,616	154	146	389	319	337	269
Maine	75	28	904	962	29	31	38	36	-	-
N.H.	45	34	875	891	19	15	34	44	33	45
Vt.	16	18	429	378	35	26	32	21	20	18
Mass.	1,338	844	8,419	7,688	50	67	168	142	181	152
R.I.	96	119	2,159	2,112	6	7	27	12	26	1
Conn.	520	621	6,664	6,585	15	U	90	64	77	53
MID. ATLANTIC	10,473	11,353	55,592	57,178	412	549	294	288	92	86
Upstate N.Y.	1,196	1,322	N	N	170	322	232	208	-	-
N.Y. City	5,571	6,520	21,963	24,367	116	203	11	13	17	13
N.J.	1,932	2,007	10,095	10,910	36	24	51	67	46	52
Pa.	1,774	1,504	23,534	21,901	90	N	N	N	29	21
E.N. CENTRAL	2,801	3,061	75,658	93,186	547	712	672	441	482	359
Ohio	448	645	21,787	24,986	61	70	235	120	199	73
Ind.	320	473	10,196	10,372	38	54	103	99	63	52
Ill.	1,345	1,188	23,831	24,684	67	84	221	109	81	79
Mich.	555	577	19,844	20,247	47	38	113	113	75	68
Wis.	133	178	U	12,897	334	466	N	N	64	87
W.N. CENTRAL	940	827	32,533	32,463	202	328	582	461	401	391
Minn.	178	163	6,301	6,521	78	138	228	191	174	205
Iowa	77	62	4,423	4,087	55	64	113	91	73	58
Mo.	449	400	12,295	11,649	29	26	60	49	63	62
N. Dak.	6	5	707	966	18	30	16	12	14	15
S. Dak.	15	15	1,471	1,437	7	24	47	33	62	37
Nebr.	65	66	3,110	2,623	14	35	97	50	-	-
Kans.	150	116	4,226	5,180	1	11	21	35	15	14
S. ATLANTIC	11,305	11,023	117,615	105,803	362	334	332	238	158	168
Del.	159	152	2,551	2,391	-	3	6	-	3	2
Md.	1,344	1,482	10,551	6,815	17	19	42	42	4	14
D.C.	637	808	N	N	8	25	1	1	U	U
Va.	782	908	13,066	12,760	27	20	71	N	56	52
W. Va.	64	77	1,240	2,257	3	2	14	13	9	10
N.C.	739	753	20,314	20,312	29	N	72	54	52	47
S.C.	919	720	11,037	16,327	-	-	20	15	14	12
Ga.	1,581	1,173	30,493	22,019	128	124	33	73	-	-
Fla.	5,080	4,950	28,363	22,922	150	141	73	40	20	31
E.S. CENTRAL	1,796	1,681	41,642	37,704	28	25	119	116	58	64
Ky.	255	262	6,900	5,963	7	10	46	34	-	-
Tenn.	706	621	12,569	12,608	6	9	43	53	38	40
Ala.	449	455	11,811	9,460	11	N	25	23	16	20
Miss.	386	343	10,362	9,673	4	6	5	6	4	4
W.S. CENTRAL	4,177	5,129	75,156	82,722	84	909	128	99	120	102
Ark.	188	189	5,490	3,724	2	6	15	11	8	10
La.	813	874	11,220	13,969	22	16	9	5	14	7
Okla.	123	274	7,580	8,747	12	N	31	23	26	9
Tex.	3,053	3,792	50,866	56,282	48	887	73	60	72	76
MOUNTAIN	1,608	1,478	29,312	30,740	96	121	319	359	198	244
Mont.	13	28	1,450	1,205	13	10	25	15	-	5
Idaho	22	28	1,606	1,883	8	17	64	41	20	25
Wyo.	11	3	710	646	1	2	15	53	14	55
Colo.	290	286	5,310	7,628	12	18	108	89	88	68
N. Mex.	82	203	3,828	3,565	42	47	12	19	5	20
Ariz.	819	588	11,634	10,689	12	18	37	43	21	26
Utah	142	128	1,992	2,021	N	N	38	75	48	21
Nev.	229	214	2,782	3,103	8	9	20	24	2	24
PACIFIC	5,743	6,092	94,778	88,569	338	405	414	463	333	406
Wash.	337	386	11,111	10,203	N	N	164	106	159	128
Oreg.	208	166	5,567	5,268	93	67	74	106	68	100
Calif.	5,089	5,364	73,925	68,926	245	334	165	244	94	162
Alaska	15	17	1,611	1,772	-	1	1	7	1	-
Hawaii	94	159	2,564	2,400	-	3	10	-	11	16
Guam	10	1	299	396	-	-	N	N	U	U
P.R.	1,180	1,601	U	U	-	N	8	5	U	U
V.I.	35	31	U	U	U	U	U	U	U	U
Amer. Samoa	-	-	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	U	U	U	U	U	U	U

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

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†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, 1999.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 1999, and December 5, 1998 (48th Week)

Reporting Area	Gonorrhea		Hepatitis C/NA,NB		Legionellosis		Lyme Disease	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	298,263	326,615	2,976	3,089	854	1,204	12,057	14,899
NEW ENGLAND	6,067	5,618	14	57	78	80	3,345	4,449
Maine	71	63	2	-	3	1	41	78
N.H.	103	85	-	-	8	7	23	43
Vt.	43	34	7	5	14	7	23	11
Mass.	2,326	2,105	2	49	28	33	931	687
R.I.	543	382	3	3	11	19	464	598
Conn.	2,981	2,949	-	-	14	13	1,863	3,032
MID. ATLANTIC	35,704	35,652	123	203	180	305	6,896	8,338
Upstate N.Y.	6,365	6,763	88	102	57	106	3,741	3,892
N.Y. City	11,762	11,127	-	-	9	35	35	226
N.J.	5,962	7,374	-	U	18	17	922	1,795
Pa.	11,615	10,388	35	101	96	147	2,198	2,425
E.N. CENTRAL	50,570	64,073	1,408	640	230	395	173	747
Ohio	13,299	16,349	4	8	69	123	71	45
Ind.	5,519	6,081	1	5	41	75	20	36
Ill.	17,813	20,417	41	39	23	51	12	14
Mich.	13,939	15,335	771	449	60	80	1	12
Wis.	U	5,891	591	139	37	66	69	640
W.N. CENTRAL	14,035	16,242	299	41	50	62	257	209
Minn.	2,426	2,512	10	10	13	7	189	157
Iowa	1,104	1,373	-	8	14	9	19	26
Mo.	7,129	8,519	277	15	14	16	26	12
N. Dak.	71	76	1	-	2	-	1	-
S. Dak.	184	209	-	-	3	3	-	-
Nebr.	1,295	1,110	5	5	4	19	10	3
Kans.	1,826	2,443	6	3	-	8	12	11
S. ATLANTIC	88,484	88,007	190	111	135	139	1,099	857
Del.	1,562	1,413	1	-	14	13	64	66
Md.	8,960	8,989	41	21	31	35	767	605
D.C.	3,316	3,976	1	-	4	8	6	4
Va.	8,867	8,773	10	11	32	20	114	66
W. Va.	387	806	17	7	N	N	17	13
N.C.	18,140	17,482	34	24	14	14	72	55
S.C.	6,434	10,496	22	9	11	11	7	7
Ga.	20,632	18,398	1	9	2	8	-	5
Fla.	20,186	17,674	63	30	27	30	52	36
E.S. CENTRAL	33,268	36,468	226	265	38	63	72	108
Ky.	3,113	3,513	21	20	20	26	10	25
Tenn.	10,165	11,020	79	158	14	22	30	43
Ala.	10,540	12,036	1	4	4	8	19	23
Miss.	9,450	9,899	125	83	-	7	13	17
W.S. CENTRAL	42,092	50,986	314	527	23	30	43	24
Ark.	2,943	3,681	18	21	-	1	4	7
La.	8,880	12,072	102	109	2	4	-	4
Okla.	3,717	4,865	15	16	3	12	4	2
Tex.	26,552	30,368	179	381	18	13	35	11
MOUNTAIN	8,762	8,459	136	359	46	69	18	18
Mont.	54	44	5	7	-	2	-	-
Idaho	79	164	7	86	2	2	5	6
Wyo.	29	31	38	90	-	1	3	1
Colo.	2,259	1,908	21	31	12	17	-	-
N. Mex.	804	858	8	94	1	2	1	4
Ariz.	4,131	3,894	43	11	7	17	2	1
Utah	212	215	6	21	18	21	5	-
Nev.	1,194	1,345	8	19	6	7	2	6
PACIFIC	19,281	21,110	266	886	74	61	154	149
Wash.	1,947	1,816	20	22	16	12	10	7
Oreg.	809	780	22	18	N	N	14	21
Calif.	15,894	17,746	224	792	57	47	130	120
Alaska	260	296	-	-	1	1	-	1
Hawaii	371	472	-	54	-	1	N	N
Guam	38	66	1	1	-	2	-	1
P.R.	317	360	-	-	-	-	N	N
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 1999, and December 5, 1998 (48th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	1,244	1,363	5,578	6,837	35,496	39,406	27,214	31,844
NEW ENGLAND	62	64	841	1,379	2,031	2,377	1,967	2,172
Maine	3	5	166	229	126	158	99	63
N.H.	2	5	50	77	133	177	138	212
Vt.	4	1	87	63	88	136	80	107
Mass.	23	25	208	483	1,083	1,251	1,090	1,277
R.I.	5	10	93	96	121	132	147	34
Conn.	25	18	237	431	480	523	413	479
MID. ATLANTIC	306	398	1,074	1,508	4,547	6,201	4,003	5,519
Upstate N.Y.	69	87	758	1,037	1,299	1,517	1,228	1,293
N.Y. City	151	225	U	U	1,243	1,792	1,134	1,395
N.J.	48	55	166	207	989	1,374	685	1,317
Pa.	38	31	150	264	1,016	1,518	956	1,514
E.N. CENTRAL	140	140	144	121	5,059	5,921	3,214	4,556
Ohio	18	15	34	56	1,209	1,428	973	1,085
Ind.	19	10	13	11	506	626	403	502
Ill.	54	56	10	N	1,495	1,824	399	1,466
Mich.	39	47	87	35	906	1,090	897	1,019
Wis.	10	12	-	19	943	953	542	484
W.N. CENTRAL	72	89	655	670	2,095	2,154	2,152	2,209
Minn.	41	55	102	110	609	536	641	631
Iowa	13	7	153	143	257	350	197	277
Mo.	14	14	14	41	689	583	862	797
N. Dak.	-	2	133	131	44	59	49	67
S. Dak.	-	-	163	151	92	115	114	125
Nebr.	-	1	3	7	185	172	78	45
Kans.	4	10	87	87	219	339	211	267
S. ATLANTIC	333	296	1,996	2,232	8,379	8,096	4,954	5,812
Del.	1	3	42	48	133	74	144	112
Md.	88	86	378	422	834	875	940	847
D.C.	18	18	-	-	69	79	U	U
Va.	69	54	543	525	1,179	1,037	919	827
W. Va.	3	2	106	76	163	145	147	149
N.C.	30	27	396	538	1,250	1,211	1,243	1,361
S.C.	17	6	132	143	665	601	479	516
Ga.	28	36	222	290	1,438	1,606	651	1,456
Fla.	79	64	177	190	2,648	2,468	431	544
E.S. CENTRAL	22	32	250	261	1,755	2,218	1,029	1,509
Ky.	7	7	35	31	393	345	-	124
Tenn.	6	16	93	133	317	559	499	676
Ala.	7	6	121	95	561	658	453	553
Miss.	2	3	1	2	484	656	77	156
W.S. CENTRAL	16	35	94	28	3,586	4,549	3,170	3,050
Ark.	3	1	14	28	614	581	120	359
La.	10	14	-	-	334	717	496	764
Okla.	2	3	80	N	406	460	314	221
Tex.	1	17	-	-	2,232	2,791	2,240	1,706
MOUNTAIN	42	61	194	244	2,877	2,402	2,305	1,897
Mont.	4	1	57	52	78	75	1	43
Idaho	3	8	5	N	121	116	81	92
Wyo.	1	-	43	64	65	62	49	56
Colo.	16	18	1	42	666	510	670	479
N. Mex.	2	12	9	6	359	280	217	247
Ariz.	8	9	66	48	909	794	733	649
Utah	4	1	8	26	494	337	501	122
Nev.	4	12	5	6	185	228	53	209
PACIFIC	251	248	330	394	5,167	5,488	4,420	5,120
Wash.	27	20	-	-	632	478	795	648
Oreg.	21	15	2	7	409	309	480	317
Calif.	191	203	321	364	3,753	4,375	2,849	3,836
Alaska	1	3	7	23	53	55	30	33
Hawaii	11	7	-	-	320	271	266	286
Guam	-	2	-	-	24	39	U	U
P.R.	-	-	65	49	383	750	U	U
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 1999, and December 5, 1998 (48th Week)

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS					
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999†	Cum. 1998†
UNITED STATES	14,775	20,525	6,966	11,588	6,020	6,574	12,837	15,622
NEW ENGLAND	807	393	764	350	54	71	395	407
Maine	5	13	-	-	-	1	16	11
N.H.	17	16	16	20	1	2	10	-
Vt.	6	7	4	4	3	4	2	4
Mass.	690	255	668	249	32	41	224	235
R.I.	23	34	18	13	2	1	39	50
Conn.	66	68	58	64	16	22	104	107
MID. ATLANTIC	880	2,268	449	1,640	183	300	2,329	2,817
Upstate N.Y.	264	606	62	209	26	36	293	357
N.Y. City	266	676	82	575	79	75	1,240	1,335
N.J.	194	643	155	602	51	98	479	573
Pa.	156	343	150	254	27	91	317	552
E.N. CENTRAL	2,757	2,794	1,241	1,487	1,302	939	1,167	1,538
Ohio	385	484	135	134	85	128	218	216
Ind.	311	163	97	43	625	191	90	151
Ill.	1,048	1,504	592	1,239	362	385	508	736
Mich.	451	258	343	4	230	176	266	335
Wis.	562	385	74	67	U	59	85	100
W.N. CENTRAL	1,064	1,011	704	590	108	128	447	458
Minn.	237	294	222	325	9	9	187	143
Iowa	62	65	48	44	9	2	50	48
Mo.	638	180	342	121	72	96	152	161
N. Dak.	3	10	2	3	-	-	6	10
S. Dak.	18	31	10	23	-	1	17	17
Nebr.	69	362	35	19	8	7	16	27
Kans.	37	69	45	55	10	13	19	52
S. ATLANTIC	2,335	4,040	424	1,221	1,899	2,416	2,599	2,935
Del.	13	42	8	36	8	20	12	34
Md.	153	197	57	66	308	636	246	276
D.C.	51	34	U	U	59	85	47	100
Va.	126	188	54	87	146	140	247	280
W. Va.	8	11	5	8	2	3	37	39
N.C.	198	326	86	176	416	686	382	420
S.C.	122	177	62	94	242	308	218	259
Ga.	222	1,036	37	239	389	273	553	492
Fla.	1,442	2,029	115	515	329	265	857	1,035
E.S. CENTRAL	959	1,370	468	1,080	1,060	1,144	781	1,064
Ky.	229	141	-	45	99	100	166	153
Tenn.	508	738	411	812	581	536	272	364
Ala.	109	437	47	216	199	268	287	343
Miss.	113	54	10	7	181	240	56	204
W.S. CENTRAL	2,437	4,200	2,038	1,359	866	1,003	1,459	2,294
Ark.	73	199	23	61	79	107	158	143
La.	118	325	115	279	208	403	U	278
Okla.	456	528	151	180	168	86	122	152
Tex.	1,790	3,148	1,749	839	411	407	1,179	1,721
MOUNTAIN	1,118	1,232	664	705	223	229	418	514
Mont.	9	8	-	3	1	-	13	18
Idaho	26	19	9	14	1	2	14	11
Wyo.	3	3	1	1	-	1	3	4
Colo.	191	219	144	158	2	10	U	64
N. Mex.	138	286	62	166	11	22	59	65
Ariz.	597	592	378	312	200	175	207	202
Utah	64	41	64	31	2	4	40	47
Nev.	90	64	6	20	6	15	82	103
PACIFIC	2,418	3,217	214	3,156	325	344	3,242	3,595
Wash.	116	208	99	185	64	27	161	239
Oreg.	95	185	85	150	10	5	97	124
Calif.	2,174	2,766	-	2,766	247	308	2,768	3,023
Alaska	3	9	3	5	1	1	53	48
Hawaii	30	49	27	50	3	3	163	161
Guam	8	36	U	U	1	1	11	84
P.R.	88	58	U	U	147	167	41	140
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending December 4, 1999, and December 5, 1998 (48th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES	1,049	987	15,557	20,646	5,856	8,833	-	60	-	24	84	89
NEW ENGLAND	92	66	269	274	131	204	-	6	-	5	11	3
Maine	8	3	14	19	1	5	-	-	-	-	-	-
N.H.	20	10	18	14	16	18	-	-	-	1	1	-
Vt.	5	8	19	17	3	10	-	-	-	-	-	1
Mass.	36	39	94	116	38	76	-	5	-	3	8	2
R.I.	6	5	21	16	34	66	-	-	-	-	-	-
Conn.	17	1	103	92	39	29	-	1	-	1	2	-
MID. ATLANTIC	166	160	892	1,607	549	1,139	-	-	-	2	2	14
Upstate N.Y.	77	59	254	336	175	227	-	-	-	2	2	2
N.Y. City	38	40	281	569	177	395	-	-	-	-	-	-
N.J.	49	51	112	328	41	189	-	-	-	-	-	8
Pa.	2	10	245	374	156	328	-	-	-	-	-	4
E.N. CENTRAL	156	170	2,581	3,353	602	1,344	-	1	-	2	3	16
Ohio	53	46	606	289	87	72	-	-	-	-	-	1
Ind.	23	43	102	154	39	106	-	1	-	1	2	3
Ill.	66	62	646	748	1	218	-	-	-	-	-	1
Mich.	13	12	1,160	1,982	453	458	-	-	-	1	1	10
Wis.	1	7	67	180	22	490	-	-	-	-	-	1
W.N. CENTRAL	85	85	868	1,255	343	383	-	1	-	-	1	-
Minn.	45	66	94	118	54	48	-	1	-	-	1	-
Iowa	9	2	138	394	38	53	-	-	-	-	-	-
Mo.	22	10	534	584	207	230	-	-	-	-	-	-
N. Dak.	1	-	3	3	2	4	U	-	U	-	-	-
S. Dak.	1	-	9	31	1	2	-	-	-	-	-	-
Nebr.	3	1	50	26	14	21	-	-	-	-	-	-
Kans.	4	6	40	99	27	25	-	-	-	-	-	-
S. ATLANTIC	237	173	1,897	1,906	1,143	968	-	14	-	6	20	8
Del.	-	1	2	4	1	4	-	-	-	-	-	1
Md.	65	51	329	393	159	132	-	-	-	-	-	1
D.C.	5	-	58	63	24	14	-	-	-	-	-	-
Va.	19	17	168	197	91	93	-	14	-	4	18	2
W. Va.	7	6	39	7	23	10	-	-	-	-	-	-
N.C.	31	24	152	120	212	227	-	-	-	-	-	-
S.C.	5	3	45	38	65	44	-	-	-	-	-	-
Ga.	62	43	447	629	159	127	-	-	-	-	-	2
Fla.	43	28	657	455	409	317	-	-	-	2	2	2
E.S. CENTRAL	52	61	355	379	367	473	-	2	-	-	2	2
Ky.	7	7	62	30	42	47	-	2	-	-	2	-
Tenn.	27	36	142	209	165	260	-	-	-	-	-	1
Ala.	15	15	52	72	78	72	-	-	-	-	-	1
Miss.	3	3	99	68	82	94	-	-	-	-	-	-
W.S. CENTRAL	46	51	3,608	3,753	801	1,912	-	10	-	4	14	-
Ark.	2	-	64	78	67	102	-	5	-	-	5	-
La.	7	21	73	103	77	157	-	-	-	-	-	-
Okla.	33	27	435	566	129	98	-	-	-	-	-	-
Tex.	4	3	3,036	3,006	528	1,555	-	5	-	4	9	-
MOUNTAIN	104	110	1,223	2,963	532	772	-	4	-	-	4	4
Mont.	3	-	17	92	17	5	-	-	-	-	-	-
Idaho	1	2	42	229	28	45	-	-	-	-	-	-
Wyo.	1	1	7	37	13	9	U	-	U	-	-	-
Colo.	11	21	204	317	88	101	-	-	-	-	-	-
N. Mex.	18	7	50	145	164	302	-	-	-	-	-	-
Ariz.	55	55	713	1,745	138	167	-	1	-	-	1	4
Utah	11	5	59	184	36	65	-	2	-	-	2	-
Nev.	4	19	131	214	48	78	-	1	-	-	1	-
PACIFIC	111	111	3,864	5,156	1,388	1,638	-	22	-	5	27	42
Wash.	8	9	360	911	73	105	-	-	-	-	-	1
Oreg.	40	40	238	419	97	187	-	9	-	-	9	-
Calif.	46	49	3,234	3,757	1,187	1,318	-	13	-	4	17	8
Alaska	9	4	12	17	17	13	-	-	-	-	-	33
Hawaii	8	9	20	52	14	15	-	-	-	1	1	-
Guam	-	-	2	1	2	2	-	1	-	-	1	-
P.R.	1	2	152	74	123	237	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*For imported measles, cases include only those resulting from importation from other countries.

†Of 200 cases among children aged <5 years, serotype was reported for 101 and of those, 28 were type b.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending December 4, 1999, and December 5, 1998 (48th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998
UNITED STATES	2,149	2,428	2	316	607	117	5,327	6,348	1	231	350
NEW ENGLAND	106	111	-	8	8	15	662	985	-	7	38
Maine	5	6	-	-	-	-	-	5	-	-	-
N.H.	13	11	-	1	-	-	78	119	-	-	-
Vt.	5	5	-	1	-	1	69	74	-	-	-
Mass.	60	56	-	4	5	13	451	733	-	7	8
R.I.	7	8	-	2	1	-	33	9	-	-	1
Conn.	16	25	-	-	2	1	31	45	-	-	29
MID. ATLANTIC	204	260	-	33	190	18	897	609	1	25	148
Upstate N.Y.	65	74	-	13	11	15	714	310	1	21	114
N.Y. City	49	31	-	3	155	-	10	46	-	-	19
N.J.	47	56	-	-	6	-	12	27	-	1	13
Pa.	43	99	-	17	18	3	161	226	-	3	2
E.N. CENTRAL	361	374	1	42	77	32	487	803	-	2	-
Ohio	126	133	-	17	28	29	217	269	-	-	-
Ind.	62	69	1	5	7	2	73	169	-	1	-
Ill.	96	97	-	11	10	1	81	121	-	1	-
Mich.	44	44	-	7	29	-	64	66	-	-	-
Wis.	33	31	-	2	3	-	52	178	-	-	-
W.N. CENTRAL	231	211	-	13	32	25	403	564	-	124	40
Minn.	50	32	-	1	13	21	209	331	-	5	-
Iowa	43	42	-	7	11	3	69	69	-	29	-
Mo.	93	73	-	1	3	-	61	35	-	3	2
N. Dak.	4	5	U	1	2	U	18	4	U	-	-
S. Dak.	11	7	-	-	-	1	7	8	-	-	-
Nebr.	12	17	-	-	-	-	4	16	-	87	-
Kans.	18	35	-	3	3	-	35	101	-	-	38
S. ATLANTIC	392	421	1	49	47	8	407	316	-	36	19
Del.	8	2	-	-	-	-	5	5	-	-	-
Md.	52	33	-	7	-	1	107	63	-	1	1
D.C.	2	2	-	2	-	-	1	1	-	-	-
Va.	50	44	-	10	8	1	51	41	-	-	1
W. Va.	8	17	-	-	-	-	3	4	-	-	-
N.C.	42	55	-	8	11	-	90	98	-	35	13
S.C.	43	55	-	4	7	1	18	27	-	-	-
Ga.	59	97	-	4	1	-	40	27	-	-	-
Fla.	128	116	1	14	20	5	92	50	-	-	4
E.S. CENTRAL	127	188	-	13	17	-	76	146	-	1	2
Ky.	31	34	-	-	1	-	25	77	-	-	-
Tenn.	43	66	-	-	1	-	27	37	-	-	2
Ala.	31	51	-	10	8	-	21	26	-	1	-
Miss.	22	37	-	3	7	-	3	6	-	-	-
W.S. CENTRAL	174	278	-	33	58	-	157	350	-	15	88
Ark.	35	30	-	-	12	-	18	81	-	6	-
La.	34	53	-	3	7	-	3	9	-	-	-
Okla.	31	40	-	1	-	-	12	32	-	-	-
Tex.	74	155	-	29	39	-	124	228	-	9	88
MOUNTAIN	133	139	-	28	39	15	716	1,149	-	16	5
Mont.	4	4	-	-	-	-	2	13	-	-	-
Idaho	12	13	-	3	7	-	139	227	-	-	-
Wyo.	4	8	U	-	1	U	2	8	U	-	-
Colo.	34	27	-	5	6	7	199	313	-	1	-
N. Mex.	14	26	N	N	N	5	191	97	-	-	1
Ariz.	42	39	-	8	6	1	113	191	-	13	1
Utah	15	13	-	7	5	-	59	259	-	1	2
Nev.	8	9	-	5	14	2	11	41	-	1	1
PACIFIC	421	446	-	97	139	4	1,522	1,426	-	5	10
Wash.	63	61	-	2	11	2	603	311	-	-	5
Oreg.	77	81	N	N	N	2	58	87	-	-	-
Calif.	268	296	-	80	101	-	822	990	-	5	3
Alaska	6	3	-	3	3	-	5	15	-	-	-
Hawaii	7	5	-	12	24	-	34	23	-	-	2
Guam	2	2	-	1	5	-	1	1	-	-	-
P.R.	5	10	-	-	7	1	19	9	-	-	14
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending December 4, 1999 (48th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	531	391	85	40	8	7	45
Boston, Mass.	147	91	35	15	1	5	11
Bridgeport, Conn.	20	14	5	1	-	-	1
Cambridge, Mass.	17	17	-	-	-	-	2
Fall River, Mass.	26	22	3	1	-	-	2
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	34	28	4	2	-	-	1
Lynn, Mass.	23	16	4	2	1	-	4
New Bedford, Mass.	30	21	6	2	-	1	2
New Haven, Conn.	40	23	7	7	3	-	8
Providence, R.I.	78	65	9	1	2	1	3
Somerville, Mass.	9	5	2	2	-	-	3
Springfield, Mass.	32	26	4	2	-	-	6
Waterbury, Conn.	24	21	3	-	-	-	-
Worcester, Mass.	51	42	3	5	1	-	2
MID. ATLANTIC	2,304	1,657	442	130	41	29	102
Albany, N.Y.	46	34	7	1	3	1	6
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	105	77	19	3	1	2	9
Camden, N.J.	24	16	6	1	-	1	1
Elizabeth, N.J.	13	9	3	1	-	-	-
Erie, Pa.	59	49	8	2	-	-	5
Jersey City, N.J.	46	35	9	1	-	1	-
New York City, N.Y.	1,219	860	255	68	23	11	30
Newark, N.J.	63	20	20	16	4	3	1
Paterson, N.J.	7	4	-	3	-	-	-
Philadelphia, Pa.	276	189	57	21	4	5	17
Pittsburgh, Pa.§	56	44	10	1	1	-	5
Reading, Pa.	43	39	2	1	1	-	4
Rochester, N.Y.	147	117	22	4	2	2	9
Schenectady, N.Y.	25	19	4	2	-	-	2
Scranton, Pa.	38	37	1	-	-	-	4
Syracuse, N.Y.	87	69	12	1	2	3	5
Trenton, N.J.	34	25	6	3	-	-	3
Utica, N.Y.	16	14	1	1	-	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,347	1,611	455	160	59	58	154
Akron, Ohio	62	42	11	4	1	4	6
Canton, Ohio	51	35	9	7	-	-	1
Chicago, Ill.	374	226	76	40	14	14	31
Cincinnati, Ohio	121	73	27	10	7	4	8
Cleveland, Ohio	138	87	37	10	3	1	2
Columbus, Ohio	214	139	44	17	6	8	14
Dayton, Ohio	146	114	27	3	-	2	8
Detroit, Mich.	211	129	49	23	8	2	10
Evansville, Ind.	63	51	11	1	-	-	1
Fort Wayne, Ind.	68	50	13	3	2	-	1
Gary, Ind.	27	15	9	1	1	1	2
Grand Rapids, Mich.	89	69	12	2	3	3	10
Indianapolis, Ind.	198	143	38	11	4	2	12
Lansing, Mich.	49	37	8	1	2	1	2
Milwaukee, Wis.	155	105	30	12	3	5	11
Peoria, Ill.	59	42	11	1	1	4	7
Rockford, Ill.	85	70	11	4	-	-	6
South Bend, Ind.	55	46	7	1	-	1	7
Toledo, Ohio	107	83	13	6	1	4	15
Youngstown, Ohio	75	55	12	3	3	2	-
W.N. CENTRAL	811	565	157	48	25	16	49
Des Moines, Iowa	U	U	U	U	U	U	U
Duluth, Minn.	35	28	6	1	-	-	1
Kansas City, Kans.	26	17	4	4	1	-	2
Kansas City, Mo.	80	48	22	4	4	2	7
Lincoln, Nebr.	40	24	9	4	1	2	3
Minneapolis, Minn.	174	131	29	6	5	3	10
Omaha, Nebr.	93	61	25	2	4	1	6
St. Louis, Mo.	142	82	38	13	5	4	-
St. Paul, Minn.	159	130	16	9	2	2	17
Wichita, Kans.	62	44	8	5	3	2	3
S. ATLANTIC	1,104	720	229	99	34	22	65
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	165	89	39	24	11	2	9
Charlotte, N.C.	126	83	23	12	4	4	12
Jacksonville, Fla.	166	104	39	16	3	4	5
Miami, Fla.	106	69	23	11	2	1	9
Norfolk, Va.	57	36	16	1	2	2	1
Richmond, Va.	82	53	16	8	3	2	7
Savannah, Ga.	41	29	11	-	1	-	3
St. Petersburg, Fla.	87	67	12	4	1	3	11
Tampa, Fla.	190	137	32	11	6	4	6
Washington, D.C.	56	40	13	2	1	-	2
Wilmington, Del.	28	13	5	10	-	-	-
E.S. CENTRAL	671	459	143	38	19	12	68
Birmingham, Ala.	170	117	34	10	6	3	18
Chattanooga, Tenn.	48	34	10	3	1	-	6
Knoxville, Tenn.	77	55	14	5	2	1	2
Lexington, Ky.	37	26	7	3	1	-	4
Memphis, Tenn.	117	77	27	5	4	4	12
Mobile, Ala.	26	14	7	2	2	1	-
Montgomery, Ala.	74	55	11	6	2	-	11
Nashville, Tenn.	122	81	33	4	1	3	15
W.S. CENTRAL	1,660	1,102	311	132	63	52	110
Austin, Tex.	79	56	11	6	2	4	2
Baton Rouge, La.	49	36	5	6	1	1	2
Corpus Christi, Tex.	72	53	11	6	1	1	6
Dallas, Tex.	224	135	48	22	9	10	3
El Paso, Tex.	52	37	9	5	1	-	5
Ft. Worth, Tex.	139	94	27	13	2	3	26
Houston, Tex.	358	230	81	24	16	7	22
Little Rock, Ark.	91	65	17	5	2	2	5
New Orleans, La.	97	40	20	12	13	12	-
San Antonio, Tex.	258	176	43	21	9	9	16
Shreveport, La.	100	75	18	4	2	1	15
Tulsa, Okla.	141	105	21	8	5	2	8
MOUNTAIN	1,060	716	216	86	27	15	64
Albuquerque, N.M.	140	85	37	14	3	1	15
Boise, Idaho	41	33	7	-	1	-	2
Colo. Springs, Colo.	55	38	11	4	2	-	2
Denver, Colo.	105	68	21	14	2	-	7
Las Vegas, Nev.	185	129	38	13	3	2	14
Ogden, Utah	32	24	4	3	-	1	3
Phoenix, Ariz.	188	113	40	20	7	8	6
Pueblo, Colo.	35	29	5	1	-	-	4
Salt Lake City, Utah	104	67	21	9	5	2	4
Tucson, Ariz.	175	130	32	8	4	1	7
PACIFIC	1,217	899	194	83	20	21	127
Berkeley, Calif.	14	11	1	-	2	-	1
Fresno, Calif.	130	103	21	4	1	1	14
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	71	54	13	3	-	1	3
Long Beach, Calif.	76	55	12	7	-	2	17
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	13	11	1	-	1	-	1
Portland, Oreg.	110	79	19	8	3	1	11
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	209	152	32	17	3	5	21
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	192	147	24	12	4	5	24
Santa Cruz, Calif.	43	37	5	1	-	-	6
Seattle, Wash.	195	134	33	20	3	5	18
Spokane, Wash.	68	49	12	6	-	1	4
Tacoma, Wash.	96	67	21	5	3	-	7
TOTAL	11,705¶	8,120	2,232	816	296	232	784

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 or more. 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.

Respiratory Syncytial Virus — Continued

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