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National and State-Specific Pregnancy Rates Among Adolescents — United States, 1995–1997

Each year in the United States, 800,000-900,000 adolescents aged ≤ 19 years become pregnant. Adolescent pregnancy and childbearing have been associated with adverse health and social consequences for young women and their children. This report presents estimated national numbers of pregnancies and national and state-specific pregnancy rates for adolescents aged ≤ 19 years from 1995^* to 1997. The findings indicate a decline in national and state-specific adolescent pregnancy rates during 1995-1997, and a continuing downward trend beginning in the early 1990s (1,2,4).

Number of pregnancies was estimated as the sum of live births, legally induced abortions, and estimated fetal losses (i.e., spontaneous abortions and stillbirths) among females aged ≤19 years. Live birth data were reported by the mother's state of residence. Because abortion data by residence were not available for all states, abortions were reported by state of occurrence.[†] Complete age-specific abortion information was not available for nine reporting areas in 1995 (including the District of Columbia [DC]), eight areas in 1996 (including DC), and six states in 1997. To calculate national adolescent pregnancy rates, estimates of abortions among adolescents were calculated for states with missing data (1). Estimates of fetal losses were based on sample survey data of women aged 15–44 years from the 1988 and 1995 National Surveys of Family Growth (NSFG) (3). A national estimate of fetal losses for all females aged 15–19 years was derived from NSFG data and used to create annual estimates of fetal losses based on the number of live births and legally induced abortions in a given year (CDC, unpublished

^{*}National and state-specific adolescent pregnancy rates for 1995 were previously reported (1,2). National rates for 1995 are reported here because fetal loss estimates were not included in the earlier definition of pregnancy (1) and because of a change in the population denominator data supplied by the Bureau of the Census used in calculating rates; state-specific data for 1995 are reported again because of the change in the population denominator data. Adolescent pregnancy rates previously published by CDC (2) should not be used together with those reported here in time series analyses because of these changes in methods. Adolescent pregnancy rates in other sources (3) may not be comparable to data in this report because of different calculation methodologies.

[†] For 48 reporting areas in 1995–1996 and 49 in 1997, the number and characteristics of persons who had legal induced abortions were provided by state health departments and the health departments of New York City and the District of Columbia. For four areas in 1995–1996 and three in 1997, the number of abortions were provided from hospitals and other medical facilities.

Pregnancy Rates — Continued

data, 1998). Denominators (estimates of the adolescent female population by state, age, and race) for abortion and fetal loss rates were obtained from postcensal population estimates. Published birth rates were added to abortion and fetal loss rates and were based on earlier, slightly different population estimates (5).

Rates were calculated as the number of pregnancies per 1000 females aged 15–17, 18–19, or 15–19 years. Because most pregnancies, births, and abortions (97% of live births and 94% of legally induced abortions) among females aged <15 years occurred among 13–14-year-olds (CDC, unpublished data, 2000; 6), this age group was used as the denominator for calculating rates for females aged <15 years. Legally induced abortions for which mother's age or race was unknown were included in categories based on the distribution of mothers with known age or race.

Although abortion totals were available for all states, age-specific data adequate to calculate pregnancy** rates were available from 42 states and DC for 1995, 44 states and DC in 1996, and 45 states and DC in 1997. Because adequate age and Hispanic ethnicity data for females who had abortions were available for 24 states in 1995 (7), 23 states in 1996, and 26 states in 1997, pregnancy rates by ethnicity were not included; some states with missing Hispanic ethnicity data had large Hispanic populations.

From 1995 to 1997, among females aged 15–19 years, the national number of pregnancies declined by 3.1% and the national pregnancy rate declined by 7.8%, from 98.3 per 1000 in 1995 to 90.7 in 1997 (Table 1). During 1995–1997, the pregnancy rate declined by 11.3% among females aged <15 years, by 10.7% among females aged 15–17 years, and by 5.8% among females aged 18–19 years. For each year, the pregnancy rate for 18–19-year-olds was approximately 2.5 times that of 15–17-year-olds, and the rate for females aged <15 years was approximately one ninth that of 15–17-year-olds.

TABLE 1. Estimated number of pregnancies* and rates[†] among adolescents, by age and year — United States, 1995–1997

	Estim	ated no. o	of pregnan	Pregnancy rate						
Year	<15	15–17	18–19	15–19	<15	15–17	18–19	15–19		
1995	26,600	342,100	525,000	867,100	7.2	63.9	151.4	98.3		
1996	25,400	332,500	526,700	859,200	6.8	60.5	147.8	94.8		
1997	23,700	321,300	518,800	840,000	6.4	57.1	142.7	90.7		
% Change f	rom									
1995 to 199	97§ –11.1%	-6.1%	-1.2%	-3.1%	-11.3%	-10.7%	-5.8%	-7.8%		

^{*} Rounded to the nearest 100.

[§] Available on the World-Wide Web at http://www.census.gov/population/estimates/state/5age9890.txt. Accessed July 2000.

Birth rates for females aged <15 years were calculated using 13–14-year-olds as the denominator.

^{**} Pregnancy rates were excluded if they were based on <20 pregnancies or <1000 adolescents in a particular category, or if >15% of the pregnancies were in women of unknown age or race.

[†] Per 1000 adolescent females in the appropriate age group (per 13–14-year-olds for <15 years age group). For states that did not report abortion data by age (nine in 1995, eight in 1996, and six in 1997), numbers of abortions were estimated.

[§] Percent changes were computed on the basis of unrounded numbers and rates.

Pregnancy Rates — Continued

State-specific pregnancy rates per 1000 among 15–19-year-olds ranged^{††} from 56.3 (North Dakota) to 117.1 (Nevada) in 1995; from 53.9 (North Dakota) to 114.1 (Texas) in 1996; and from 48.2 (North Dakota) to 127.8 (Delaware) in 1997 (Table 2). In each year, the rate for each reporting area was highest for females aged 18–19 years and lowest for females aged <15 years. From 1995 to 1997, the pregnancy rate for 15–19-year-olds decreased in 40 of the 43 reporting areas for which age-specific data were available. Statistically significant declines occurred in 34 states and ranged from 1.9% (Ohio) to 19.8% (Maryland); no state showed a significant increase. During 1995–1997, significant declines in the pregnancy rate occurred among females aged <15 years in 20 of 41 reporting areas with available data, among 15–17-year-olds in 35 of 42 reporting areas, and among 18–19-year-olds in 27 of 42 reporting areas.

Pregnancy rates for 15–19-year-olds were, in every state except one, higher for blacks than for whites among the 30 states with available data for both groups (Table 3). Significant declines in the pregnancy rate occurred among whites in 29 of the 35 states for which adequate data for whites were available, and in 17 of 28 states for which adequate data for blacks were available. No significant increases in pregnancy rates were found for adolescents of either race in states with available data.

Among females aged 15–19 years, the national birth rate decreased from 56.8 in 1995 to 52.3 in 1997 (*5*), with declines occurring in most reporting areas. The national number of abortions declined 2.7% from 1995 to 1997, and the national abortion rate decreased 7.4%, from 26.6 per 1000 in 1995 to 24.6 in 1997. During this period, the abortion rate decreased 3.9% among females aged <15 years (from 2.8 to 2.7), 10.1% among females aged 15–17 years (from 18.2 to 16.3), and 5.4% among females aged 18–19 years (from 39.6 to 37.5). From 1995 to 1997, the abortion rate for 15–19-year-olds decreased in 32 of the 43 reporting areas for which age-specific data were available. In 25 of the 31 areas where both birth and abortion rates decreased, the percent decrease in abortion rates exceeded the decline in birth rates.

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Editorial Note: The estimation of national and state-specific adolescent pregnancy and abortion rates was limited by the lack of age-specific abortion and adequate race-specific abortion data for some states. The lack of adequate age-specific abortion data by Hispanic ethnicity in at least half of states for the 3 years also limited this analysis because separate rates for Hispanic and non-Hispanic adolescents could not be computed. State-by-state comparisons of pregnancy rates for whites for states with large Hispanic populations should be interpreted with caution. Moreover, use of abortion data by occurrence rather than by state of residence may have inflated the abortion rate in areas with large metropolitan areas that might draw from adjoining states (e.g., Delaware, DC, and Kansas).

Legally induced abortions reported to CDC may undercount the true number of these abortions (1). Estimates of fetal losses based on NSFG survey data are subject to underreporting because of unrecognized early fetal losses; for females aged <20 years, fetal loss estimates are based on small numbers of pregnancies. Therefore, pregnancy

the District of Columbia is not included in these comparisons because its pregnancy rates were higher than for any state, in part because of large numbers of abortions among nonresidents.

TABLE 2. Pregnancy rates* among adolescents aged ≤19 years, by age group and reporting area[†], and percentage change[§] in rates for 15–19-year-olds — United States, 1995–1997

		199	95			199	96		1997				% Change for 15–19-year-olds
Reporting area	<15	15–17	18–19	15–19	<15	15–17	18–19	15–19	<15	15–17	18–19	15–19	from 1995 to 1997
Alabama	10.1	70.8	157.6	105.9	9.7	67.4	156.5	103.6	8.0	63.7	149.3	98.6	-6.9
Alaska	1	1	¶	1	3.0	44.1	116.1	73.4	3.7	39.9	111.1	68.5	1
Arizona	6.2	69.9	164.9	107.8	5.7	69.2	156.8	104.3	5.1	62.7	158.1	99.5	-7.7
Arkansas	8.4	68.0	158.3	104.0	8.2	63.9	169.6	105.8	8.8	60.3	165.5	101.8	-2.1
Colorado	4.2	54.1	120.9	80.3	4.2	49.7	122.8	78.2	3.4	48.4	116.9	75.0	-6.6
Connecticut	4.9	53.8	114.6	77.2	5.2	55.7	124.2	81.9	5.3	51.1	122.8	78.6	1.8
Delaware	1	1	¶	¶	1	1	¶	1	11.0	89.0	183.9	127.8	1
District of													
Columbia	26.0	**	**	229.6	22.4	**	**	211.2	26.5	176.2	340.8	249.7	8.8
Georgia	11.9	79.2	172.3	115.5	10.5	74.0	169.2	111.4	9.3	71.5	166.1	108.8	-5.9
Hawaii	7.3	58.4	138.7	92.0	4.6	57.8	132.2	89.4	4.7	52.1	124.9	82.6	-10.2
ldaho	2.9	35.1	105.6	63.4	2.4	34.9	100.7	61.6	2.7	30.8	92.7	56.0	-11.6
Illinois	1	1	¶	1	7.0	**	**	100.9	6.1	**	**	92.3	¶
Indiana	4.8	49.8	131.9	82.3	4.6	48.2	133.5	82.0	3.8	46.4	127.6	78.6	-4.6
Kansas	7.1	59.4	149.9	94.6	5.1	54.6	143.9	89.2	4.9	52.9	143.4	87.9	-7.1
Kentucky	5.8	55.8	137.9	88.5	5.4	51.6	134.6	85.0	4.8	49.3	131.2	82.5	-6.8
Louisiana	8.2	63.7	149.7	98.2	8.6	61.4	145.3	95.1	7.7	58.3	143.6	93.0	-5.3
Maine	2.7	36.3	94.2	58.7	1.8	30.8	90.9	54.1	1.2	30.8	92.9	54.9	-6.5
Maryland	7.0	54.9	123.3	81.3	6.0	47.0	112.9	72.5	4.9	41.8	102.5	65.2	-19.8
Massachusetts	4.3	44.2	113.1	71.7	3.9	42.2	109.9	69.2	4.3	41.3	107.1	67.5	-5.8
Michigan	5.2	49.9	127.8	80.1	4.6	46.7	121.3	75.7	4.4	41.6	116.3	71.0	-11.4
Minnesota	2.7	34.0	92.9	56.4	2.6	33.4	93.6	56.3	2.8	32.0	94.8	55.9	-0.8
Mississippi	10.7	73.4	147.7	103.0	9.8	66.4	144.1	97.5	9.4	64.7	143.3	96.2	-6.7
Missouri	5.2	46.7	130.6	79.1	4.5	44.8	127.0	76.5	4.0	41.5	120.3	72.0	-9.0
Montana	2.7	43.8	118.5	72.8	3.2	40.6	111.5	68.2	3.1	39.4	110.7	67.1	-7.7
Nebraska	3.1	38.8	103.5	64.6	2.9	39.0	109.4	67.0	4.8	37.4	102.3	63.0	-2.4
Nevada	6.7	74.5	185.1	117.1	7.2	69.7	178.0	111.4	5.9	68.9	170.1	107.5	-8.1
New Jersey	5.0	46.2	112.3	71.7	4.7	46.0	109.9	70.7	3.8	39.8	105.8	65.3	-8.9
New Mexico	6.6	70.1	164.5	106.8	5.8	69.1	158.3	103.6	5.7	66.6	154.2	100.5	-5.9
New York	7.8	69.9	159.8	105.6	8.2	69.2	164.0	107.0	7.0	63.3	151.0	98.1	-7.1
North Carolina	9.6	75.4	168.4	112.3	8.1	68.7	166.0	107.6	7.1	62.1	162.9	102.1	-9.2
North Dakota	††	30.7	96.8	56.3	tt	29.8	91.9	53.9	2.4	25.0	84.9	48.2	-14.3
Ohio	4.8	51.5	132.1	83.1	4.3	46.8	127.6	78.5	5.5	48.6	132.5	81.5	-1.9
Oregon	5.4	58.1	146.8	92.4	4.7	56.0	148.5	91.8	5.2	53.9	143.1	88.4	-4.3

— Continued

Pennsylvania	5.6	44.4	113.8	71.6	5.2	41.0	109.4	67.8	4.4	37.0	107.2	64.4	-10.0	P
Rhode Island	5.3	54.1	154.5	93.4	6.2	50.5	151.6	90.5	5.1	53.1	148.8	91.0	-2.6	reg
South Carolina	8.8	64.6	141.2	95.6	7.6	60.7	135.1	91.0	6.8	58.5	134.4	89.2	-6.7	gn
South Dakota	1.8	33.9	98.5	59.3	2.0	34.3	90.2	56.3	2.7	32.3	91.2	55.9	-5.7	an
Tennessee	7.7	64.0	167.0	104.4	7.9	62.1	159.6	100.6	7.1	59.5	157.8	98.6	-5.6	Ç
Texas	7.3	76.6	176.8	116.3	7.0	74.2	175.8	114.1	6.2	69.3	169.3	108.4	-6.8	æ
Utah	2.2	34.2	91.9	57.8	2.3	33.2	94.0	58.7	2.6	32.5	92.6	58.0	0.3	ates
Vermont	3.4	36.7	109.3	64.7	tt	36.9	108.9	64.5	2.4	30.7	101.4	57.7	-10.8	Š
Virginia	6.2	54.4	127.7	84.2	5.4	50.6	126.3	81.4	5.8	47.0	122.9	77.8	-7.5	
Washington	5.2	56.7	136.9	88.2	4.5	53.7	135.2	85.6	4.9	51.9	131.4	82.8	-6.0	C
West Virginia	3.7	43.7	117.4	73.2	3.5	41.1	112.0	69.9	2.4	40.5	111.7	69.7	-4.9	o _n
Wisconsin	4.1	36.1	95.2	59.1	3.5	35.7	96.8	59.4	3.8	34.9	94.0	57.8	-2.3	tir
Wyoming	††	30.7	102.7	58.0	tt	31.9	91.1	54.5	††	28.9	91.6	52.8	-8.9	иe

^{*} Per 1000 adolescent females in the appropriate age group (13–14 years for <15-year-old age group).

† Abortion data by age for 1995–1997 were not reported for California, Florida, Iowa, New Hampshire, and Oklahoma.

§ Percent changes were computed on the basis of unrounded rates. All but italicized changes in rates were statistically significant at p<0.05.

¶ Pregnancy rates and percent change could not be calculated because the state did not provide abortion data by age for certain years.

** Pregnancy rates could not be calculated because the reporting area did not provide abortion data for certain age groups.

†† Pregnancy rate was not calculated for groups with <20 pregnancies or <1000 adolescent females.

Pregnancy Rates — Continued

TABLE 3. Pregnancy rates* among adolescents aged 15–19 years and percentage change in rate[†], by race[§] and state[¶] — United States, 1995–1997

							% Chang	ge in rate
	19	95	1	996	19	997	from 19	95 to 1997
State	White	Black	White	Black	White	Black	White	Black
Alabama	86.2	145.4	83.8	143.4	81.4	132.0	-5.5	-9.2
Alaska	**	**	61.0	††	**	**	**	**
Arizona	108.7	112.3	105.5	108.8	100.5	109.0	-7.5	-3.0
Arkansas	88.3	155.7	93.0	149.9	89.1	145.0	0.9	-8.0
Colorado	88	88	§§	§§	73.1	108.1	§§	88
Delaware	**	**	**	**	102.7	208.8	**	**
Georgia	90.4	164.7	87.8	156.8	85.4	152.9	-5.5	-7.2
Hawaii	50.7	77.4	52.7	59.4	46.3	65.6	<i>-8.6</i>	-15.2
ldaho	63.3	††	61.1	††	55.7	††	-11.9	††
Indiana	74.0	159.2	73.0	164.1	70.4	155.1	-4.9	-2.5
Kansas	85.8	208.8	81.3	191.4	79.8	194.5	-7.0	-6.9
Kentucky	82.2	154.0	78.9	148.0	77.0	137.8	-6.4	-10.5
Louisiana	71.8	135.5¶	70.2	130.0¶	69.2	125.8¶	-3.7	-7.1 [¶]
Maine	57.7	††	53.3	††	54.4	††	-5.7	††
Maryland	58.1	132.4	51.2	120.3	43.8	111.4	-24.6	-15.8
Minnesota	47.1	217.4	47.3	210.6	46.4	213.5	-1.4	-1.8
Mississippi	72.7	137.6	67.8	131.3	68.1	128.6	-6.3	-6.5
Missouri	66.2	161.6	63.6	158.2	60.9	141.4	-8.1	-12.5
Montana	65.4	††	61.5	††	59.2	††	-9.5	††
Nebraska	**	**	**	**	§§	§§	**	**
Nevada ^{††}	117.8	140.9	109.6	145.5	105.8	145.1	-10.2	3.0
New Jersey	46.4	175.6	45.3	169.7	42.0	160.8	-9.5	-8.4
New Mexico	108.6	100.3	106.7	90.5	104.1	86.1	-4.2	-14.2
New York	84.8	190.5	85.0	197.0	78.0	180.7	-8.1	-5.2
North Carolina	92.4	157.6	87.7	152.0	84.4	142.7	-8.7	-9.4
North Dakota	49.4	††	47.2	††	41.5	††	-16.0	††
Ohio	69.2	173.0	65.2	163.1	67.4	173.1	-2.5	0.1
Oregon	90.6	183.2	89.3	191.1	86.0	170.9	-5.0	<i>−6.7</i>
Pennsylvania	53.6	210.0	51.3	195.8	47.8	195.5	-10.8	-6.9
Rhode Island	83.4	206.3	82.7	167.6	82.9	177.6	-0.6	-13.9
South Carolina	78.0	123.4	73.8	118.2	72.9	115.8	-6.6	-6.2
South Dakota	48.3	††	45.8	††	45.0	††	-6.9	††
Tennessee	87.4	169.5	85.3	156.9	82.3	158.0	-5.8	-6.8
Texas	114.3	142.1	111.8	143.0	106.7	132.9	-6.7	-6.5
Utah	56.3	††	57.5	††	56.8	††	0.8	††
Vermont	65.2	††	64.9	††	58.1	††	-10.9	††
Virginia	68.6	138.1	65.5	134.5	62.1	129.3	-9.4	-6.4
Washington	§§	§ §	§§	§§	§§	§§	§§	§§
West Virginia	71.1	133.4	68.3	118.1	68.1	116.1	-4.2	-13.0
Wisconsin	46.3	196.8	46.3	197.6	44.9	198.3	-3.0	0.8
Wyoming	**	**	**	**	51.8	††	**	**

^{*} Per 1000 adolescent females.

[†] Percent changes were computed on the basis of unrounded rates. All but italicized changes in rates were statistically significant at p<0.05.

Pregnancy rate and percent change could not be calculated for the following areas because they did not provide abortion data by age and race for 1995–1997: California, Connecticut, District of Columbia, Florida, Illinois, Iowa, Massachusetts, Michigan, New Hampshire, and Oklahoma.

** Pregnancy rate and percent change could not be calculated because state did not provide abortion data by age and race for certain years.

^{††} Pregnancy rate and percent change could not be calculated for age groups with <20 pregnancies or <1000 adolescent females.

§§§ Pregnancy rate and percent change could not be calculated because age or race information was missing for > 15% of women who had an abortion.

¶ Rate and percent change is for all races other than white.

⁵ Pregnancy in Hispanic women is included in rates for white and black adolescents. Race-specific rates, especially for white adolescents, may reflect higher fertility among Hispanic adolescents in states with large Hispanic populations, including Arizona, Colorado, Nevada, New Jersey, New Mexico, New York, Oregon, Rhode Island, Texas, and Washington. Pregnancy rates for adolescents of races other than white or black are not presented because the composition of this category varied widely by state and because abortion information was not available on the race breakdown of "others" for each state.

Pregnancy Rates — Continued

totals based on births, legally induced abortions reported to CDC, and fetal loss estimates may underestimate the actual pregnancy rate. However, underreporting likely remains relatively constant from year to year and is therefore unlikely to affect the trends shown in this report.

Sexual experience, sexual activity, and effective contraceptive use are important determinants of changes in pregnancy rates. The decline in pregnancy rates among females aged 15–19 years have been attributed to stable rates of sexual experience and activity among this group and increased use of condoms (4,8). Increased use of long-acting hormonal methods introduced in the early 1990s also has been associated with the decline (9).

Sustaining the downward trend in adolescent pregnancy will require addressing complex individual and community-level factors that can affect adolescents' sexual and reproductive behavior. Community- and school-based programs designed to reduce adolescent pregnancy that address risk factors and specific skills to postpone sexual experience and increase contraceptive use may be more effective in reducing adolescent pregnancy than programs focusing exclusively on changing sexual beliefs or behavior (10). Effective programs also include strong educational components, messages targeting different groups of adolescents, and youth development approaches that will strengthen self-esteem and planning for the future (10). Scientific evaluation of adolescent pregnancy prevention measures is an essential component of these community-based programs. The identification of effective strategies will assist state and local agencies in implementing successful approaches to continuing the downward trend in adolescent pregnancy.

References

- 1. Kaufmann RB, Spitz AM, Strauss LT, et al. The decline in US teen pregnancy rates, 1990–1995. Pediatrics 1998;102:1141–7.
- 2. CDC. State-specific pregnancy rates among adolescents—United States, 1992–1995. MMWR 1998;47:497–504.
- 3. The Alan Guttmacher Institute. Teenage pregnancy: overall trends and state-by-state information. New York, New York: The Alan Guttmacher Institute, 1999.
- 4. Ventura SJ, Mosher WD, Curtin SC, Abma JC, Henshaw S. Trends in pregnancies and pregnancy rates by outcome: estimates for the United States, 1976–96. Hyattsville, Maryland: US Department and Health and Human Services, CDC, National Center for Health Statistics. Vital Health Stat 2000;21(56).
- 5. Ventura SJ, Mathews TJ, Curtin SC. Declines in teenage birth rates, 1991–1998: update of national and state trends. Hyattsville, Maryland: US Department of Health and Human Services, CDC, National Center for Health Statistics, 1999.
- Kochanek KD. Induced terminations of pregnancy: reporting states, 1988. Hyattsville, Maryland: US Department of Health and Human Services, CDC, National Center for Health Statistics, 1988. Monthly Vital Statistics Report; vol 39.
- 7. Koonin LM, Smith JC, Ramick M, Strauss LT. Abortion surveillance—United States, 1995. In: CDC surveillance summaries (July). MMWR 1998;47(no. SS-2).
- 8. CDC. Trends in sexual risk behaviors among high school students—United States, 1991–1997. MMWR 1998;47:749–52.
- 9. Darroch JE, Singh S. Why is teenage pregnancy declining? the roles of abstinence, sexual activity and contraceptive use. New York, New York: The Alan Guttmacher Institute, 1999.
- 10. Kirby D. No easy answers: research findings on programs to reduce teen pregnancy. Washington, DC: The National Campaign to Prevent Teen Pregnancy, 1997.

Silicosis Screening in Surface Coal Miners — Pennsylvania, 1996–1997

Silicosis is an occupational respiratory disease caused by inhaling respirable crystal-line silica dust. Silicosis is irreversible, often progressive (even after exposure has ceased), and potentially fatal. Exposure to silica dust occurs in many occupations, including mining (1). During 1996–1997, surface coal miners at eight sites in Pennsylvania were screened to estimate the prevalence of silicosis, to identify risk factors for silicosis, and to refer miners with a possible diagnosis of silicosis or other conditions for medical evaluation and treatment. This report summarizes the results of the screening, which indicated that an increased prevalence of and risk for silicosis is associated with miners' age and years of drilling experience, and provides recommendations for preventing silicosis among miners.

Enrollment in the screening was voluntary and available to anyone who had worked in surface mining for 1 year or more. Surface miners were informed of the screening by Mine Safety and Health Administration (MSHA) inspectors during routine mine visits. Screening was performed by a multiagency team from the Chronic Respiratory Disease Program of the Pennsylvania Department of Health (team leader), the Department of Health Evaluation Sciences of the Pennsylvania State University College of Medicine, MSHA, and CDC's National Institute for Occupational Safety and Health (NIOSH).

Screening was conducted during May–June 1996, at five mine sites in bituminous coalfields in western Pennsylvania (Altoona, Clearfield, Farmington, Indiana, and Somerset) and, in June 1997, at three mine sites in anthracite coalfields in eastern Pennsylvania (Centralia, Pottsville, and Wilkes-Barre). The screening was divided by coal type and region because of differences in geology and mining practices. Screening consisted of anterior-posterior chest radiographs; spirometry; and a survey containing questions about demographics; medical, work, and smoking history; and workplace exposures. Silicosis was defined as a radiographic finding of International Labour Organization (ILO) classification of profusion category ≥1/0 (2); classification was based on consensus of at least two of three NIOSH-certified B readers*. Descriptive analyses were performed on all variables collected from the radiographs, spirometry, and surveys. Multivariable logistic regression models were used to determine risk factors for developing silicosis.

During 1996–1997, 1250 current and former coal miners were screened at the eight sites (664 in western and 586 in eastern Pennsylvania); and data from 1236 miners were suitable for analysis (Figure 1). Screened miners were almost exclusively white (99.9%), male (99.5%), and non-Hispanic (97.6%); the mean age was 46.2 years (range: 18–87 years). Of 1221 miners, 289 (23.7%) were current smokers, and 729 (59.7%) had ever smoked; 1120 (90.7%) of 1235† were employed full-time.

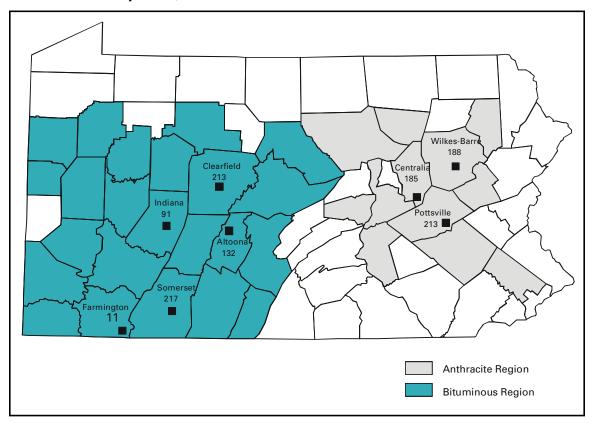
Radiographic evidence of silicosis was found in 83 (6.7%) of 1236 screened miners. Prevalence of silicosis did not vary by smoking status, and no significant differences in prevalence were noted by site except among the 213 participants at Clearfield (16.0%; p=0.001). When data from Clearfield were excluded, the prevalence of silicosis was

^{*}A physician certified by NIOSH as having competency in the classification of chest radiographs to detect pneumoconiosis using ILO guidelines. If at least two of the three B readers categorized the profusion as ≥1/0, the miner was classified as having silicosis; if at least two readers indicated the film was negative (<1/0), the miner was classified as not having silicosis.

[†]Denominators vary because of nonresponse to specific questions.

Silicosis — Continued

FIGURE 1. Number of surface coal miners participating in silicosis screening, by region and site — Pennsylvania, 1996–1997



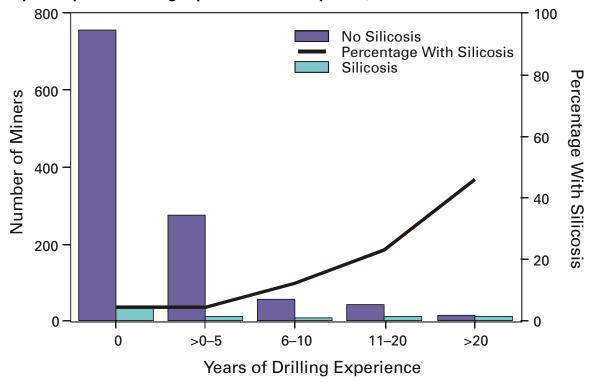
similar for western (5.2%) and eastern (4.5%) Pennsylvania. The odds ratio (OR) for silicosis at the Clearfield site compared with other western sites was 4.4 (95% confidence interval [CI]=2.3–8.5); the OR for silicosis at eastern sites was 1.1 (95% CI=0.6–2.1) compared with western sites, excluding Clearfield.

The mean age of miners with silicosis was 50.6 years and without silicosis was 45.6 years (p=0.0002). When age was modeled as a quadratic function in the logistic regression model, a significant increase in silicosis occurred with increasing age. Compared with miners aged 30 years, miners aged 40, 50, and 60 years had progressively increased odds of silicosis: 3.7 (95% Cl=1.7–8.2), 7.8 (95% Cl=2.4–25.3), and 9.7 (95% Cl=3.0–31.6), respectively. Silicosis prevalence increased as the number of reported years of drilling experience increased, from 37 (4.7%) of 792 miners reporting no drilling experience to 12 (46%) of 26 in miners reporting >20 years experience (Figure 2). Compared with miners with \leq 5 years of drilling experience, those who had 6–10, 11–20, and >20 years experience had progressively increased odds of silicosis: 4.3 (95% Cl=1.6–11.8), 7.0 (95% Cl=2.6–18.6), and 14.5 (95% Cl=4.8–43.6), respectively.

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Silicosis — Continued

FIGURE 2. Number and percentage of surface coal miners with and without silicosis, by reported years of drilling experience — Pennsylvania, 1996–1997



Editorial Note: This report underscores the risk for silicosis associated with surface coal mining operations. Previous studies identified an increased risk for silicosis among rock drillers (3), and this report corroborates the increased prevalence of silicosis among surface coal mining drillers (4,5).

The findings in this report are subject to at least four limitations. First, the sample was voluntary and represented approximately 40% of Pennsylvania surface coal miners (63% of anthracite miners and 29% of bituminous miners[§]); therefore, the results do not necessarily represent all surface coal miners in Pennsylvania or the United States. Silicosis prevalence may be underestimated if miners with confirmed or suspected silicosis did not participate or may be overestimated if a higher percentage of affected workers participated. Second, B reader variability in the interpretation of chest radiographs was a possibility, although the study methods were designed to limit the effects of reader variability (6). Third, prevalence differences across sites must be interpreted cautiously; miners were not restricted in their choice of screening site, and the latency period for silicosis, several years to several decades following exposure, makes it difficult to determine a specific source of exposure in workers. Finally, the study collected data on years of drilling experience and not on years of overall mining experience; some miners may have performed numerous duties at different mines throughout the region.

Data from MSHA, part 50. The Federal Mine Safety and Health Act of 1977 requires all mine operators to record and report to MSHA data on occupational injuries; illnesses; certain noninjurious accidents; and related employment, work time, and operating activity information. MSHA data cited for number of employees are for mine operator employees only; state-specific data are not available for contractor employees.

Silicosis — Continued

According to MSHA part 50 data for 1996 and 1997, Pennsylvania had almost one third of the U.S. surface coal mines; however, because of the many small operations in Pennsylvania, 3205 (approximately 10%) of the 31,308 surface coal miners in the United States are employed in Pennsylvania. Smaller mine operations may lack resources required to purchase or maintain optimal dust-control equipment, and small-scale operations represent special challenges for enforcement activities. The reason for the higher silicosis prevalence at Clearfield is unknown; however, influences may include site-specific geologic factors (e.g., quartz content of overlying rock), past work practices, mining methods, types of controls, or machinery maintenance.

Because no effective treatment exists for silicosis, prevention through exposure control is essential (7). When proper practices are not followed or controls are not maintained, silica exposures can exceed the MSHA Permissible Exposure Limit (PEL) or the NIOSH Recommended Exposure Limit (REL). Effective engineering controls in the mining environment include dust suppression (e.g., wet drilling), dust collection (e.g., dry drilling with particulates exhausted through a dust collection system), and use of enclosed isolation systems (e.g., air conditioned cabs under positive pressure and equipped with both filtered air supply and filtered recirculated air). In 1994, MSHA and NIOSH implemented a regional, and later a national, silicosis prevention program that promoted educational efforts and allowed coal mine inspectors to issue citations on the basis of visual inspection of dust-producing drilling equipment rather than more extensive sampling (8). As a result, some high-risk equipment has been discarded by the mines; however, because of the long latency period that usually precedes clinical onset of silicosis, the impact of these reforms on the incidence of silicosis remains unclear.

References

- 1. Wagner GR. Asbestosis and silicosis. Lancet 1997;349:1311-5.
- 2. International Labour Office. Guidelines for the use of ILO international classification of radiographs of pneumoconioses. Geneva, Switzerland: International Labour Office, 1980.
- National Institute for Occupational Safety and Health. NIOSH alert: request for assistance in preventing silicosis and deaths in rock drillers. Cincinnati, Ohio: US Department of Health and Human Services, Public Health Service, CDC, 1992; DHHS publication no. (NIOSH)92-107.
- 4. Amandus HE, Hanke W, Kullman G, Reger RB. A re-evaluation of radiologic evidence from a study of U.S. strip coal miners. Arch Environ Health 1984;39:346–51.
- 5. Amandus HE, Petersen MR, Richards TB. Health status of anthracite surface coal miners. Arch Environ Health 1989;44:75–81.
- 6. Wagner GR, Attfield MD, Parker JE. Chest radiography in dust-exposed miners: promise and problems, potential and imperfections. Occup Med 1993;8:127–41.
- 7. CDC. Silicosis deaths among young adults—United States, 1968–1994. MMWR 1998;47: 331–5.
- 8. US Department of Labor, Mine Safety and Health Administration. Code of federal regulations title 30; part 72.620. Federal Register 1994;59:8323–4.

PEL for coal mining is 2.0 mg of respirable coal dust per cubic meter of air (2 mg/m³); however, when the respirable quartz (crystalline silica) content of the dust exceeds 5%, a reduced PEL is computed by dividing the percentage of respirable quartz into the number 10 (Title 30, Code of Federal Regulations, Part 71.101). NIOSH-recommended exposure limit (REL) for respirable crystalline silica is a 10-hour, time-weighted average level of 50 μg/m³.

Hepatitis B Vaccination Coverage Among Asian and Pacific Islander Children — United States, 1998

Asian and Pacific Islander (API) children in the United States have high rates of hepatitis B virus (HBV) infection (1–3). To prevent these infections, hepatitis B vaccination has been recommended for these children since the vaccine was first licensed by the Food and Drug Administration in 1981 (4). Recommendations have included universal hepatitis B vaccination of API infants beginning in 1990 and catch-up vaccination for API children aged <7 years (5). These recommendations were reinforced in 1991 when hepatitis B vaccination was recommended for all infants, particularly in populations such as API children with high rates of early childhood HBV infection (6). In 1995, vaccination was recommended for unvaccinated API children aged <11 years and catch-up vaccination for children aged 11-12 years who had not received hepatitis B vaccine (HepB) (7). Series completion among API children aged 19–35 months increased from 39% in 1994 to 88% in 1997 (8). However, among older API children, hepatitis B vaccination coverage was 10% in 1995 (7). In 1998, to examine trends in hepatitis B vaccination catch-up coverage among API children born before 1994, surveys were conducted in six U.S. cities. This report summarizes the results of the surveys, which indicate varying coverage among API children and suggest a need for continued focused vaccination programs for this population.

In three cities (Milwaukee, St. Paul, and Seattle), state or county health departments evaluated hepatitis B vaccination programs conducted in the API community. These cities were compared with three other cities (Dallas, Houston, and Washington, D.C.) where no vaccination programs were targeted for API children. Sampling and data collection methods varied between cities. In Milwaukee, students aged 5-14 years with Lao/ Hmong surnames were sampled randomly from all public schools. In St. Paul and Seattle, children aged 4-13 and 4-14 years, respectively, were selected using a populationbased cluster sample technique. In these three cities, parents or guardians were interviewed in person, and vaccination data were validated with written records from parents, schools, or health-care providers. In Dallas, Houston, and Washington, D.C., a random sample of persons with Vietnamese surnames was selected from area telephone directories, primary caretakers of persons aged 3-18 years were interviewed by telephone, and health-care providers were contacted to verify vaccination histories. For each city, a range of the percentage vaccinated was estimated using the total sample to represent the lower percentage and only those children identified with health-care providers for the higher percentage (Table 1).

Children born during 1984–1993 were included for this report. The third HepB dose (HepB-3) was counted if it had been administered at or after age 164 days with an interval of at least 108 days between doses 1 and 3. LOWESS plots (9) were constructed to compare city-specific trends in yearly HepB administration rates among children eligible for vaccination. The percentage of all children in each survey who completed the HepB series by 1998 ranged from 14% (Houston) to 67% (St. Paul) (Table 1). For all children in all surveys combined, the weighted average HepB series completion rate was 42% and did not differ by place of birth (born in the United States versus foreign-born; n=1232 and 708, respectively). Series completion rates at or before age 12, 18, and 60 months were 12%, 16%, and 30%, respectively.

Hepatitis B Vaccination Coverage — Continued

TABLE 1. Hepatitis B vaccination coverage rates among Asian and Pacific Islander children born during 1984–1993 — six-city survey, 1998

	eholds		No.	No.		% of	% of		
City	Total	Response rate	No. eligibles identified	Eligible response rate	children in sample	children with providers	Ethnicity	children receiving Hep B-1*	children receiving Hep B-3⁺
Without program									_
Dallas§	3801	72%	549	91%	332	(177)¶	Vietnamese	28% (52%)¶	18% (36%)¶
Houston [§]	4743	65%	539	94%	314	(132)¶	Vietnamese	25% (61%)¶	14% (36%)¶
Washington, DC [§]	3550	79%	503	93%	346	(127)¶	Vietnamese	25% (56%) [¶]	15% (43%)¶
With program									
Milwaukee**	275	99%	271	76%	207		Lao/Hmong	82%	51%
St. Paul ^{††}	1391	56%	209	96%	586		Hmong	80%	67%
Seattle ^{††}	4200	95%	272	100%	412		Pan-Asian§§	79%	65%

^{*} First dose in the hepatitis B vaccination series.

Vaccination coverage was examined separately for cities with and without hepatitis B vaccination programs for API children. HepB coverage was 41%–61% and 2%–11% for cities with and without these programs for the 1980s birth cohorts and increased with the 1990s birth cohorts (Figure 1). The increase was greatest in cities with a designated API vaccination program; combined vaccination coverage in the 1993 birth cohort was 83%. The effect of the 1990 and 1991 recommendations for infant vaccination was observed when vaccination coverage was stratified by age at HepB series completion (Figure 1). In each birth cohort, the proportion of children who completed the HepB series by age 18 months (infant vaccination) increased substantially in cities with and without ongoing programs; however, during 1992–1998, annual catch-up vaccination rates as measured by HepB-3 completion remained 7%–11% per year in cities with ongoing API hepatitis B vaccination programs compared with 0.7%–2.6% per year in cities without such programs.

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Editorial Note: The findings in this report document the impact of targeted vaccination programs for populations at high risk for childhood HBV infection. In the three cities with ongoing API hepatitis B vaccination programs, coverage increased with each successive birth cohort over a 10-year period, reaching 83% among children born in 1993; however, in cities without programs, the overall vaccination coverage remained low, although coverage also increased with each successive birth cohort.

The three cities with API hepatitis B vaccination programs used three approaches to achieve their higher rates of coverage. In Milwaukee, an active refugee health hepatitis B vaccination program, which began in 1984, provided screening and vaccination services to all new API arrivals. In St. Paul, during the 1989–1991 measles epidemic that resulted in three deaths among Hmong children, a coalition was formed that conducted

[†] Third dose in the hepatitis B vaccination series.

[§] Systematic random sample from telephone directory list of Vietnamese surnames.

To be included in this subsample, health-care providers had to report child as patient.

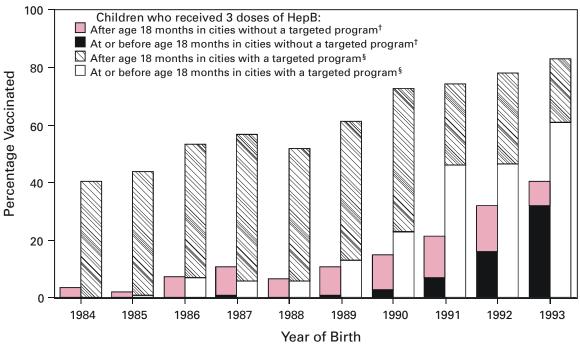
^{**} Systematic random sample from school enrollment list of Lao/Hmong surnames.

^{††} Cluster sample of households within geographic area.

^{§§} Primarily Vietnamese (32%), Chinese (19%), Filipino (19%), and Cambodian (12%).

Hepatitis B Vaccination Coverage — Continued

FIGURE 1. Coverage with three doses of hepatitis B vaccine (HepB) among Asian and Pacific Islander children*, by year of birth — six cities, 1998



^{*}n=2197.

a multimedia health-promotion campaign and health-care provider education and outreach. In Seattle, state and local health departments and two clinics that served a large proportion of the API population educated providers about the need for catch-up coverage among API children and, during 1996–1997, conducted a 16-month, citywide middle school and high school-based hepatitis B vaccination program for all public school students.

The findings in this report are subject to at least three limitations. First, the populations studied may not represent the nationwide API population. Second, the cities with and without programs may not represent all U.S. cities with and without targeted catchup hepatitis B vaccination programs. Third, biases may have resulted from a loss of randomness in sampling, nonrespondents whose vaccination rates differ from respondents, and missing vaccination records that may have caused inaccurate coverage estimates.

Data from the six city surveys and from other cities and state reports (10) indicate that 40% of all API children in the United States aged 7–18 years have completed their HepB series (CDC, unpublished data, 1999). This low rate of coverage in a group at risk for HBV infection underscores the need for increased efforts to continue to provide catch-up vaccination to these children. In addition, catch-up efforts among preschool children are needed in communities where many API infants do not receive HepB. API children born since 1988 who were not vaccinated as infants or caught up as young

[†] Dallas, Houston, and Washington, D.C.

[§] Milwaukee, St. Paul, and Seattle.

Hepatitis B Vaccination Coverage — Continued

children should be vaccinated routinely at age 11–12 years. Although eventual high rates of universal adolescent vaccination can be expected for API children living in the 20 states and Washington, D.C., with existing middle school entry laws, special efforts will be needed to ensure vaccination of API children in states without such laws. Because no established vaccination visits exist for older adolescents, hepatitis B vaccination will depend primarily on self-identification, community-based programs, and health-care providers who are aware of the high risk for HBV infection among API children and who can meet specific API cultural and language needs (CDC, unpublished data, 1999). Community-based catch-up hepatitis B vaccination programs have been the mission of the National Task Force on Hepatitis B Immunization, Focus on Asians and Pacific Islanders (on the World-Wide Web at http://aapihp.com*). Successful catch-up initiatives to protect API children should be implemented as quickly as possible.

References

- 1. Franks AL, Berg CJ, Kane MA, et al. Hepatitis B virus infection among children born in the United States to Southeast Asian refugees. N Engl J Med 1989;321:1301–5.
- 2. Hurie MB, Mast EE, Davis JB. Horizontal transmission of hepatitis B virus infection to United States-born children of Hmong refugees. Pediatrics 1992;89:269–73.
- 3. Coleman PJ, McQuillan GM, Moyer LA, Lambert SB, Margolis HS. Incidence of hepatitis B virus infection in the United States, 1976–1994: estimates from the National Health and Nutrition Examination surveys. J Infect Dis 1998;178:954–9.
- 4. CDC. Inactivated hepatitis B virus vaccine. MMWR 1982;31:317-22,327-8.
- 5. CDC. Protection against viral hepatitis—recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1990;39(no. RR-2).
- 6. CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination. MMWR 1991;40(no. RR-13).
- 7. CDC. Update: recommendations to prevent hepatitis B virus transmission—United States. MMWR 1995;44:574–5.
- 8. CDC. Vaccination coverage by race/ethnicity and poverty level among children aged 19–35 months—United States, 1997. MMWR 1998;47:956–9.
- 9. Cleveland WS. Robust locally weighted regression and smoothing scatterplots. Journal of the American Statistical Society 1979;74:829–36.
- 10. Euler GL. Changing the legacy for Asian Americans and Pacific Islanders. Asian Am Pacific Isl J Health 1998;6:304–10.

Notice to Readers

Delayed Supply of Influenza Vaccine and Adjunct ACIP Influenza Vaccine Recommendations for the 2000–01 Influenza Season

Annual vaccination against influenza is the primary means for minimizing serious adverse outcomes from influenza virus infections. These infections result in approximately 20,000 deaths and 110,000 hospitalizations per year in the United States (1). The

^{*}References to sites of non-CDC organizations on the World-Wide Web are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

amount of trivalent inactivated influenza vaccine produced for distribution in the United States has increased substantially; in 1999, four manufacturers produced a combined total of 80 to 85 million doses.

For the 2000–01 influenza season in the United States, lower than anticipated production yields for this year's influenza A(H3N2) vaccine component and other manufacturing problems are expected to lead to a substantial delay in the distribution of influenza vaccine and possibly substantially fewer total doses of vaccine for distribution than last year. A more precise estimate of the vaccine supply will be available as production progresses during the summer. Because many vaccine providers currently are planning their fall vaccination activities, CDC and the Advisory Committee on Immunization Practices (ACIP) are issuing adjunct influenza vaccination recommendations beyond those made by ACIP on April 14, 2000 (1). The adjunct recommendations are specific to the 2000–01 influenza season.

Adjunct Influenza Vaccine Use Recommendations for the 2000–01 Influenza Season

- Implementation of organized influenza vaccination campaigns should be delayed. Health-care providers, health organizations, commercial companies, and other organizations planning organized influenza vaccination campaigns for the 2000–01 influenza season should delay vaccination campaigns until early to mid-November. The purpose of this recommendation is to minimize cancellations of vaccine campaigns and wastage of vaccine doses resulting from delays in vaccine delivery.
- 2. Influenza vaccination of persons at high risk for complications from influenza and their close contacts should proceed routinely during regular health-care visits. Routine influenza vaccination activities in clinics, offices, hospitals, nursing homes, and other health-care settings (especially vaccination of persons at high risk for complications from influenza, health-care staff, and other persons in close contact with persons at high risk for complications from influenza) should proceed as normal with available vaccine.
- 3. Provider-specific contingency plans for an influenza vaccine shortage should be developed. All influenza vaccine providers, including health-care systems and organizers of vaccination campaigns, should develop a provider-specific contingency plan to maximize vaccination of high-risk persons and health-care workers. These plans should be available for implementation if a vaccine shortage develops.

Use of Influenza Antiviral Medications

There are no new recommendations for the use of influenza antiviral drugs. The approved usage (i.e., for treatment or chemoprophylaxis), age group, dosage, route of administration, metabolism, and adverse reactions of these agents vary (1), and all of them require prescription by a physician. Influenza antiviral drugs are useful for controlling influenza outbreaks in specific and circumscribed situations, such as nursing homes. In addition, long-term antiviral chemoprophylaxis of high-risk institutionalized residents or some persons at high risk for complications from influenza might be indicated if vaccine either is unavailable, ineffective (e.g., severely immunocompromised persons), or contraindicated.

However, these drugs are not a substitute for influenza vaccine. Even if an influenza vaccine shortage develops, CDC and ACIP do not support their routine and widespread use as chemoprophylaxis against influenza because this is an untested and expensive strategy that could result in large numbers of persons experiencing adverse effects.

Additional Discussion

In the United States, 70 to 76 million persons (approximately 35 million persons aged ≥65 years; 33 to 39 million persons aged <65 years with high-risk medical conditions; and 2 million pregnant women) are at high risk for serious complications from influenza infections, including hospitalizations and deaths. The expected delay in influenza vaccine distribution and a possible shortage for the 2000–01 influenza season has raised difficult questions of how to maximize protection against influenza for these persons. One complicating factor is that many vaccine providers must plan their fall vaccination activities now even though the vaccine supply is uncertain. Given the current situation, CDC and ACIP have issued modified recommendations for the 2000–01 season emphasizing the delay of organized influenza vaccine campaigns until November, the continuation of routine vaccination activities during regular health-care visits, and the development of provider-specific contingency plans in case a vaccine shortage should develop. There are additional important points worth emphasizing in addition to these main recommendations:

- Influenza vaccine administered after mid-November can still provide substantial protective benefits. In general, ACIP recommends that routine vaccination of persons at high risk for complications from influenza begin in September. In previous years, ACIP has recommended that organized campaigns take place during October through mid-November. These timing recommendations balance several considerations, including the desirability of administering vaccine before substantial seasonal influenza activity has begun but not vaccinating so early such that vaccine antibody titers might substantially decrease in some persons. Nonetheless, many persons who should receive influenza vaccine remain unvaccinated after mid-November, and for many of these persons, influenza vaccination after mid-November will be beneficial. For the 2000–01 season, it is particularly important for vaccine providers to continue to administer vaccine after mid-November.
- Once vaccine is available, health-care workers should provide vaccine to persons at high risk for complications from influenza as is normally done. This is particularly important for young children at high risk who are receiving influenza vaccination for the first time and who require two doses of vaccine.
- Minimizing wastage of influenza vaccine is important. In particular, influenza vaccine purchasers should refrain from placing duplicate orders with multiple companies to minimize the amount of vaccine that is returned to a manufacturer and discarded. Options to promote redistribution of vaccine that otherwise would be returned or discarded are being developed.
- In 2000, ACIP broadened its influenza vaccine recommendations to include all persons aged 50–64 years. This recommendation was based, in part, on an effort to increase vaccination coverage of persons in this age group with high-risk conditions. In the context of a possible vaccine shortage, it would be appropriate for contingency plans covering this age group to focus primarily on vaccinating persons with high-risk conditions rather than this entire age group.
- Influenza vaccine is routinely recommended for persons in close contact with persons at high risk for complications from influenza because such persons are in a position to transmit influenza virus infection to high-risk persons. Vaccination of health-care workers has been highlighted in particular because health-care workers have frequent and close contact with many different high-risk persons at a time when high-risk persons are particularly vulnerable.

As new information becomes available, CDC and the Food and Drug Administration (FDA) will issue updates. In the meantime, ACIP and CDC request that persons and organizations planning to administer influenza vaccine, as well as members of the general public, join in these efforts to maximize protection of persons most likely to develop serious and life-threatening complications from influenza. FDA, CDC, ACIP, National Institutes of Health, and vaccine manufacturers will continue to work together to facilitate the availability of influenza vaccine for the upcoming season and to minimize the adverse impact of an influenza vaccine shortage if one should develop. If a substantial vaccine shortage appears imminent, or if the situation warrants, then CDC and ACIP will issue further recommendations.

Reference

1. CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(no. RR-3).

Notice to Readers

Summary of the Joint Statement on Thimerosal in Vaccines

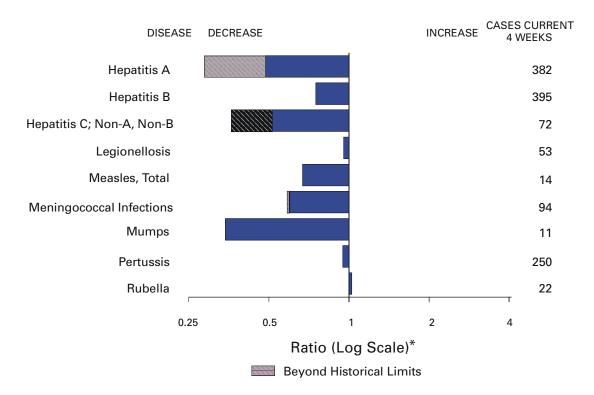
In June 2000, a joint statement on thimerosal* in vaccines was prepared by the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP), the Advisory Committee on Immunization Practices (ACIP), and the Public Health Service (PHS) in response to 1) the progress in achieving the national goal declared in July 1999 to remove thimerosal from vaccines in the recommended childhood vaccination schedule, and 2) results of recent studies that examined potential associations between exposure to mercury in thimerosal-containing vaccines and health effects. In this statement, AAFP, AAP, ACIP, and PHS recommend continuation of the current policy of moving rapidly to vaccines that are free of thimerosal as a preservative. Until adequate supplies are available, use of vaccines that contain thimerosal as a preservative is acceptable.

A joint statement issued by AAP and PHS in July 1999 and agreed to by the AAFP later in 1999 established the goal of removing thimerosal as soon as possible from vaccines routinely recommended for infants. The goal was established as a precautionary measure. No evidence existed of any harm caused by low levels of thimerosal in vaccines. Public concern had been expressed about the health effects of mercury exposure of any sort, and the elimination of mercury from vaccines was considered a feasible means of reducing an infant's total exposure to mercury in a world where other environmental sources of exposure are more difficult or impossible to eliminate (e.g., certain foods).

(Continued on page 631)

^{*}Thimerosal is a derivative of ethylmercury and has been used as an additive to biologics and vaccines since the 1930s because it is effective in killing bacteria and in preventing bacterial contamination, particularly in opened, multidose containers. The full text of this statement is available on the World-Wide Web at http://www.aafp.org/policy/camp/20.html, http://www.aap.org/policy/jointthim.html, and http://www.cdc.gov/nip/vacsafe/concerns/thimerosal/joint_statement_00.htm. References to sites of non-CDC organizations on the World-Wide Web are provided as a service to MMWR readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending July 8, 2000, with historical data



^{*}Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending July 8, 2000 (27th Week)

		Cum. 2000		Cum. 2000
Anthrax		-	HIV infection, pediatric*§	108
Brucellosis*		26	Plague	4
Cholera			Poliomyelitis, paralytic	
Congenital ru	bella syndrome	4	Psittacosis*	8
Cyclosporiasis		16	Rabies, human	_
Diphtheria		-	Rocky Mountain spotted fever (RMSF)	128
Encephalitis:	California serogroup viral*	4	Streptococcal disease, invasive, group A	1,671
	eastern equine*		Streptococcal toxic-shock syndrome*	55
	St. Louis*	-	Syphilis, congenital [¶]	67
	western equine*	-	Tetanus	12
Ehrlichiosis	human granulocytic (HGE)*	48	Toxic-shock syndrome	86
	human monocytic (HME)*	20	Trichinosis	4
Hansen diseas		30	Typhoid fever	162
	ilmonary syndrome*†	13	Yellow fever	-
	emic syndrome, postdiarrheal*	46		

^{-:} No reported cases.

^{*}Not notifiable in all states.

^{*}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 June 25, 2000.

^{*}Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending July 8, 2000, and July 10, 1999 (27th Week)

	AIDS		011 5.4				Escherichia coli O157:H7* NETSS PHLIS			
	Cum.	OS Cum.	Chlan Cum.	nydia [†] Cum.	Cryptos Cum.	poridiosis Cum.	Cum.	Cum.	PH Cum.	LIS Cum.
Reporting Area	2000⁵	1999	2000	1999	2000	1999	2000	1999	2000	1999
UNITED STATES NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	20,482 1,213 16 18 11 776 49 343	22,981 1,109 29 30 6 702 63 279	294,973 11,011 694 511 276 5,128 1,211 3,191	334,806 10,893 566 512 247 4,605 1,216 3,747	632 34 9 4 13 6 2	912 46 9 5 6 23	1,151 122 7 10 5 54 8 38	852 127 11 14 15 58 6 23	676 104 6 9 4 50 5	873 120 - 16 8 56 7 33
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	4,928 572 2,620 1,036 700	5,893 727 2,995 1,146 1,025	20,385 N 5,527 3,553 11,305	35,269 N 14,943 6,319 14,007	64 39 7 7 11	193 57 113 15 8	128 103 7 18 N	59 38 4 17 N	67 43 - 16 8	66 5 - 60 1
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	2,052 306 191 1,198 255 102	1,498 246 189 677 307 79	48,339 12,299 6,086 13,112 12,130 4,712	55,283 14,147 6,163 16,539 11,264 7,170	137 23 12 7 28 67	158 20 9 31 22 76	198 42 35 55 40 26	162 54 19 61 28 N	93 25 23 - 26 19	150 48 20 39 19 24
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	480 87 52 223 1 4 31 82	502 82 52 231 4 11 37 85	17,057 3,282 2,101 6,331 282 865 1,548 2,648	19,494 3,912 2,274 7,097 459 821 1,720 3,211	57 11 17 10 5 7 2	54 13 12 10 4 3 11	182 52 38 48 8 10 15	145 36 27 14 3 5 48 12	125 49 10 41 8 3 9	184 60 15 24 5 17 61
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	5,443 94 602 388 385 33 434 434 607 2,566	6,282 80 720 239 335 31 394 579 957 2,947	62,427 1,480 6,384 1,731 7,782 753 11,454 4,880 11,830 16,133	71,896 1,417 6,571 N 7,707 916 11,724 9,166 18,357 16,038	123 4 7 7 4 3 11 -	165 - 7 7 10 - 4 - 86 51	98 - 12 - 20 7 19 6 13 21	99 4 7 - 28 4 22 12 7 15	51 - 1 U 15 3 11 2 10 9	86 - - U 29 2 27 9 U 19
E.S. CENTRAL Ky. Tenn. Ala. Miss.	1,005 114 407 262 222	1,028 151 402 255 220	23,692 4,167 7,319 7,432 4,774	22,598 3,985 7,109 5,346 6,158	25 1 7 10 7	12 4 4 2 2	50 18 20 5 7	59 14 25 14 6	26 12 12 - 2	45 11 18 14 2
W.S. CENTRAL Ark. La. Okla. Tex.	1,868 103 336 156 1,273	2,475 90 464 71 1,850	44,100 2,717 9,808 4,019 27,556	45,747 3,082 7,279 4,105 31,281	28 1 8 4 15	40 - 21 2 17	68 33 4 9 22	43 5 5 7 26	59 3 18 7 31	53 5 7 6 35
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	755 9 13 6 157 86 244 67 173	852 4 12 3 171 46 422 80 114	18,904 803 966 377 5,582 2,345 5,851 1,240 1,740	18,079 654 869 382 4,186 2,731 6,570 1,092 1,595	42 8 3 12 2 3 9 2	41 7 3 - 4 17 7 N 3	130 15 14 7 55 5 25 7 2	67 4 2 3 25 4 11 15 3	70 - 2 30 3 18 17	60 6 5 15 2 7 19 6
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	2,738 285 89 2,275 10 79	3,342 185 87 3,011 13 46	49,058 6,645 2,626 37,476 1,182 1,129	55,547 6,124 3,251 43,589 946 1,637	122 N 8 114 -	203 N 76 127	175 55 29 82 2 7	91 31 22 33 5	81 43 31 - - 7	109 40 22 42 5
Guam P.R. V.I. Amer. Samoa C.N.M.I.	13 518 21 - -	5 737 15 - -	298 - - - -	233 U U U U	- - - -	- U U U	N 4 - -	N 5 U U	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 can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

† Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update June 25, 2000.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending July 8, 2000, and July 10, 1999 (27th Week)

	Gonorrhea		Нера	ntitis C;	-	nellosis	Lyme Disease		
Reporting Area	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	
UNITED STATES	153,214	178,480	1,275	1,959	366	454	2,952	4,570	
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	3,007 41 53 30 1,342 304 1,237	3,280 27 49 28 1,281 313 1,582	27 1 - 3 20 3	9 1 - 3 2 3 -	23 2 2 2 9 3 5	29 3 3 4 10 3 6	734 - 35 4 275 57 363	1,382 1 1 2 372 99 907	
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	12,964 3,380 2,322 1,958 5,304	20,325 3,077 7,102 3,759 6,387	35 35 - -	69 34 - - 35	73 32 - 4 37	111 27 14 11 59	1,690 821 4 287 578	2,271 965 67 564 675	
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	29,959 7,254 2,808 9,123 9,045 1,729	34,401 8,863 3,294 11,199 7,874 3,171	115 4 1 7 103	1,086 1 1 31 463 590	89 38 20 8 17 6	143 44 18 19 35 27	59 25 10 1 - 23	317 22 14 11 8 262	
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr.	7,460 1,334 465 3,811 6 128 562	8,228 1,439 529 4,029 43 80 786	345 5 1 314 - - 3	94 2 - 90 - - 2	27 1 4 17 - 1	24 1 7 11 - 1 4	75 24 4 14 - -	66 13 8 30 1 - 7	
Kans.	1,154	1,322	22	-	4	-	33	7	
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	45,123 830 4,221 1,235 4,955 227 9,315 5,783 7,369 11,188	52,805 863 5,881 1,862 5,189 309 10,062 5,227 12,065 11,347	62 6 2 1 9 13 1 2 28	107 - 29 - 10 13 24 12 1	80 4 25 1 11 N 8 2 4	55 6 10 - 13 N 8 7 -	325 34 207 1 49 8 11 2	407 35 288 1 29 10 34 3	
E.S. CENTRAL Ky. Tenn. Ala. Miss.	17,029 1,740 5,695 5,843 3,751	17,693 1,740 5,644 4,834 5,475	229 17 57 7 148	159 9 54 1 95	11 5 4 2	22 10 10 2	14 3 8 2 1	40 5 15 10 10	
W.S. CENTRAL Ark. La. Okla. Tex.	22,989 1,427 6,894 1,731 12,937	25,753 1,529 5,987 2,083 16,154	276 3 171 4 98	261 14 183 7 57	11 8 1 2	2 - 1 1	1 - 1 -	16 1 3 4 8	
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	4,831 26 49 30 1,509 508 1,920 125 664	4,905 21 40 13 1,202 525 2,349 103 652	105 2 3 61 14 10 11	100 4 4 34 15 17 18 5 3	18 - 3 1 7 1 2 4	28 - - 7 1 4 10 6	3 - - 1 1 - - -	6 - 1 1 1 - 1 2	
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	9,852 1,153 345 8,032 160 162	11,090 1,056 469 9,187 155 223	81 13 17 49 - 2	74 9 11 54 -	34 11 N 23	40 9 N 30 1	51 3 3 45 - N	65 2 6 57 N	
Guam P.R. V.I. Amer. Samoa C.N.M.I.	275 - - -	31 172 U U U	- 1 - - -	- U U U	- - - -	- U U U	N - - -	- N U U	

N: Not notifiable.

U: Unavailable.

-: No reported cases.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending July 8, 2000, and July 10, 1999 (27th Week)

	WCCKS	chang c	1	ou, and su	Salmonellosis*				
	Mal	laria	Rabio	es, Animal	NE	TSS		HLIS	
Reporting Area	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	
UNITED STATES	492	625	2,692	3,040	14,107	15,741	9,816	14,598	
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	19 4 1 2 6 4 2	24 2 - 1 11 2 8	354 73 8 34 117 21 101	427 79 26 60 94 51	932 68 64 57 530 40 173	936 61 49 37 535 52 202	871 38 62 58 488 49 176	965 50 60 36 529 72 218	
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	85 30 29 9 17	170 34 82 34 20	492 340 U 80 72	563 392 U 102 69	1,790 523 390 418 459	2,152 502 627 481 542	1,748 502 560 307 379	2,022 525 651 469 377	
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	54 12 3 19 15 5	81 9 8 35 20 9	30 9 - 1 20	49 12 - 2 25 10	2,066 555 255 605 421 230	2,422 451 206 802 466 497	1,241 423 233 1 428 156	2,101 451 206 743 462 239	
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	23 8 1 4 2 - 2 6	26 5 7 10 - - 4	270 48 42 11 74 48 - 47	405 54 65 14 84 120 3 65	980 201 151 347 27 36 64 154	976 221 102 345 15 44 108 141	1,012 282 94 397 39 37 44 119	1,113 334 95 402 30 68 83 101	
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	140 3 45 8 28 1 11 1 4 39	150 1 47 10 31 1 10 2 13 35	1,174 20 227 - 284 63 287 70 157 66	1,089 30 232 - 271 65 221 79 101 90	2,834 48 385 29 389 72 386 272 450 803	3,082 56 360 46 534 59 469 188 486 884	1,791 51 339 U 302 67 292 180 514 46	2,608 65 377 U 486 63 517 165 670 265	
E.S. CENTRAL Ky. Tenn. Ala. Miss.	19 5 5 8 1	12 2 5 4 1	94 14 48 32	151 24 55 72	740 165 190 220 165	826 185 211 236 194	432 111 194 111 16	598 134 227 204 33	
W.S. CENTRAL Ark. La. Okla. Tex.	7 1 2 4	13 2 9 2	35 - - 35 -	62 - - 62 -	1,090 218 107 155 610	1,414 189 291 170 764	1,264 105 177 104 878	1,169 76 254 125 714	
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	23 1 1 - 11 - 3 3 4	22 4 1 9 2 2 2	113 34 1 26 - 10 39 2	103 37 - 29 1 4 31 -	1,306 58 69 24 392 108 354 172 129	1,425 28 41 20 409 216 402 218 91	908 - 14 363 83 267 181	1,291 1 45 22 400 166 365 243 49	
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	122 12 22 85 - 3	127 10 13 95 - 9	130 - 2 109 19	191 - 1 183 - 7	2,369 213 163 1,865 29 99	2,508 224 244 1,812 23 205	549 237 202 - 18 92	2,731 427 272 1,854 13 165	
Guam P.R. V.I. Amer. Samoa C.N.M.I.	- - - -	- U U U	32 - - -	50 U U U	109 - - -	20 249 U U U	U U U U	U U U U	

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

* Individual cases can 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 July 8, 2000, and July 10, 1999 (27th Week)

	weeks e			00, and Ju	July 10, 1999 (27th Week)				
	NET:	Shige SS		HLIS		philis k Secondary)	Tube	rculosis	
Reporting Area	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	
UNITED STATES	2000 8,468	1999 6,952	2000 3,994	1999 3,957	2000 2,964	1999 3,401	2000 5,309	1999 † 7,679	
NEW ENGLAND	169	175	131	150	41	31	192	204	
Maine N.H.	6 3	3 7	6	6	1 1	- 1	2 4	11 4	
Vt. Mass.	1 120	4 116	86	3 98	31	2 19	2 116	116	
R.I.	12	14	12	9	3	1	23	20	
Conn. MID. ATLANTIC	27 1,015	31 480	27 624	34 282	5 121	8 151	45 1,172	53 1,198	
Upstate N.Y.	425	120	146	34	7	13	131	141	
N.Y. City N.J.	387 120	157 124	326 76	120 102	40 24	66 32	637 280	639 258	
Pa.	83	79	76	26	50	40	124	160	
E.N. CENTRAL Ohio	1,861 143	1,318 260	527 95	632 63	584 39	609 50	604 132	771 108	
Ind. III.	760 431	69 486	51 2	29 386	220 168	209 220	40 305	59 390	
Mich.	402	169	346	122	136	113	82	163	
Wis. W.N. CENTRAL	125 895	334 565	33 603	32 391	21 37	17 80	45 236	51 260	
Minn.	189	82	201	103	3	7	79	100	
lowa Mo.	241 351	9 410	131 221	13 226	10 19	7 52	23 94	26 97	
N. Dak. S. Dak.	4 2	2 8	3 1	2 5	-	-	2 9	2 3	
Nebr. Kans.	25 83	31 23	9 37	23 19	2	4 10	10 19	12 20	
S. ATLANTIC	1,220	1,119	322	297	1,005	1,113	1,177	1,608	
Del. Md.	8 67	8 62	6 23	3 21	5 143	4 227	134	20 134	
D.C.	16	31	U	U	31	26	7	27	
Va. W. Va.	201 3	42 5	133 3	23 3	69 1	89 2	108 18	121 23	
N.C. S.C.	64 63	115 62	26 46	57 35	299 97	250 140	162 54	212 169	
Ga. Fla.	122 676	108 686	36 49	42 113	178 182	210 165	214 480	317 585	
E.S. CENTRAL	428	693	258	452	458	601	381	490	
Ky. Tenn.	107 210	130 446	44 200	93 323	51 286	52 331	58 171	98 153	
Ala. Miss.	23 88	63 54	11 3	35 1	62 59	131 87	152	151 88	
W.S. CENTRAL	949	1,235	973	509	403	515	165	1,077	
Ark. La.	108 71	51 104	24 72	21 57	49 100	37 129	101 1	82 U	
Okla.	64	325	16	99	73	110	ങ്	66	
Tex. MOUNTAIN	706 483	755 354	861 202	332 238	181 107	239 116	233	929 229	
Mont.	4	6	-	-	-	-	6	5	
ldaho Wyo.	31 1	5 2	2 37	6 1	1 1	1 -	5 1	1	
Colo. N. Mex.	80 47	54 45	37 22	42 31	2 15	1 6	30 29	U 30	
Ariz. Utah	210 35	191 27	105 36	120 27	85	102 2	102 22	114 25	
Nev.	75	24	-	11	3	4	38	54	
PACIFIC Wash.	1,448 315	1,013 53	354 279	1,006 56	208 35	185 39	1,149 113	1,842 86	
Oreg. Calif.	95 1,006	37 900	55	32 897	4 168	3 141	8 909	57 1,584	
Alaska	7	-	3	-	-	1	51	31	
Hawaii Guam	25	23 7	17 U	21 U	1	1 1	68	84	
P.R.	1	54	U	U	65	85	-	103	
V.I. Amer. Samoa	-	Ü	U	U	-	Ü	-	U U	
C.N.M.I.	-	U	U	U	-	U	-	U	

N: Not notifiable. U: Unavailable. -: No reported cases.
*Individual cases can 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 July 8, 2000, and July 10, 1999 (27th Week)

	H. influ	ienzae,	Н	epatitis (Vi	ral), By Type		1			Measles (Rubeo		
	Inva		Α		В		Indige		Impo		Tota	
Reporting Area	Cum. 2000†	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	642	633	5,575	9,736	3,349	3,482	3	29	-	10	39	59
NEW ENGLAND Maine	47 1	45 5	140 10	119 4	35 5	76	-	-	-	3	3	9
N.H.	9	7	16	7	10	8	-	-	-	-	-	1
Vt. Mass.	3 23	4 19	4 56	1 47	4 7	1 27	-	-	-	3 -	3	6
R.I. Conn.	1 10	10	7 47	9 51	9	17 23	-	-	-	-	-	2
MID. ATLANTIC	101	114	335	621	337	481	3	6	-	1	7	5
Upstate N.Y. N.Y. City	50 23	47 35	106 150	132 165	64 194	108 145	3	6	-	-	6 -	2 3
N.J. Pa.	21 7	29 3	79 -	80 244	79 -	<i>7</i> 3 155	-	-	-	- 1	- 1	-
E.N. CENTRAL	84	100	682	1,635	364	346	-	6	-	-	6	2
Ohio Ind.	35 11	37 14	146 33	376 59	65 26	49 27	-	2	-	-	2	1
III. Mich.	33 5	41 8	238 252	352 802	61 211	- 247	-	3 1	-	-	3 1	- 1
Wis.	-	-	13	46	1	23	-	-	-	-	-	-
W.N. CENTRAL Minn.	36 16	26 13	589 129	394 35	492 19	144 22	-	2	-	1 1	3 1	-
lowa Mo.	8	1	49 284	74 233	21 407	23 84	-	1	-	-	1	-
N. Dak. S. Dak.	1	- 2	2	1 8	2	1	Ū	-	Ū	-	-	-
Nebr.	4	3	18	33	18	11	U	-	Ū	-	-	-
Kans. S. ATLANTIC	7 177	4 138	107 698	10 923	25 636	3 542	-	1 1	-	-	1 1	4
Del. Md.	46	34	- 84	2 173	- 68	97	-	-	-	-	-	-
D.C.	-	4	11	35	16	12	-	-	-	-	-	-
Va. W. Va.	28 5	12 4	76 44	82 19	78 6	53 14	-	-	-	-	-	3
N.C. S.C.	15 8	22 2	92 30	64 21	139 5	125 38	-	-	-	-	-	-
Ga. Fla.	50 25	41 19	111 250	268 259	98 226	63 140	-	- 1	-	-	- 1	- 1
E.S. CENTRAL	29	42	234	233	244	246	-	-	-	-	-	2
Ky. Tenn.	11 13	6 21	27 90	44 97	50 109	19 117	-	-	-	-	-	2
Ala. Miss.	4 1	13 2	31 86	36 56	27 58	52 58	-	-	-	-	-	-
W.S. CENTRAL	36	42	925	2,898	353	590	-	1	-	-	1	4
Ark. La.	- 7	1 11	89 28	25 97	55 50	43 113	-	1 -	-	-	1 -	-
Okla. Tex.	27 2	27 3	153 655	303 2,473	71 177	73 361	-	-	-	-	-	4
MOUNTAIN	69	57	470	734	250	325	-	11	-	1	12	1
Mont. Idaho	3	1 1	2 17	12 29	3 5	16 18	-	-	-	-	-	-
Wyo. Colo.	1 11	1 9	8 100	4 142	2 51	7 47	-	- 1	-	- 1	2	-
N. Mex. Ariz.	14 33	13 28	41 235	30 417	64 89	104 80	-	-	-	-	-	- 1
Utah Nev.	6 1	2 2	34 33	28 72	14 22	20 33	-	3 7	-	-	3 7	-
PACIFIC	63	69	1,502	2,179	638	732	_	2	_	4	6	32
Wash. Oreg.	3 18	2 24	145 116	168 147	41 50	34 61	-	-	-	-	-	32 5 10
Calif.	24	36	1,233	1,847	537	616	-	1	-	2	3	16
Alaska Hawaii	2 16	5 2	8 -	4 13	5 5	13 8	-	1 -	-	2	1 2	1
Guam P.R.	- 1	2	- 55	2 173	- 54	2 125	U U	-	U U	-	-	1 -
V.I.	-	U	-	1/3 U U	-	U	Ū	-	Ü	-	-	U U
Amer. Samoa C.N.M.I.	-	U	- -	Ü	-	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 130 cases among children aged <5 years, serotype was reported for 59 and of those, 16 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending July 8, 2000, and July 10, 1999 (27th Week)

	and July 10, 1999 (2/th Week)											
		Meningococcal Disease Cum. Cum.		Mumps			Pertussis		Rubella			
Reporting Area	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	
UNITED STATES	1,229	1,418	4	198	217	44	2,485	3,010	19	76	160	
NEW ENGLAND	77	69	-	2	5	4	636	331	-	6	7	
Maine N.H.	6 9	5 9	-	-	- 1	-	14 62	- 53	-	2	-	
Vt. Mass.	2 47	4 41	-	-	4	4	142 380	25 236	-	3	- 7	
R.I. Conn.	5 8	2 8	-	1 1	-	-	9 29	8 9	-	- 1	-	
MID. ATLANTIC	119	144	-	9	29	6	189	5 597	-	2	23	
Upstate N.Y.	36	39	-	6	5	6	115	499	-	2	15	
N.Y. City N.J.	25 26	42 31	-	-	7 1	-	-	19 15	-	-	2 3 3	
Pa.	32	32	-	3	16	-	74	64	-	-		
E.N. CENTRAL Ohio	221 51	253 94	-	23 7	27 7	1 -	279 167	253 114	-	1 -	2	
Ind. III.	34 53	32 65	-	- 5	3 7	-	27 23	14 54	-	- 1	1 1	
Mich. Wis.	64 19	35 27	-	11	8 2	1	31 31	25 46	-			
W.N. CENTRAL	104	139	-	12	9	1	135	46 109	-	1	83	
Minn.	7	29	-	-	1	-	66	33	-	-	-	
lowa Mo.	19 61	26 51	-	5 1	4 1	-	24 23	23 27	-	-	25 2	
N. Dak. S. Dak.	2 5	3 8	U	-	-	U	1 3	4	U	-	-	
Nebr. Kans.	5 5	8 14	U	2 4	3	U 1	3 15	3 19	U	- 1	56	
S. ATLANTIC	201	219	1	32	35	15	208	154	19	51	20	
Del. Md.	19	4 35		7	- 4	1 2	5 47	47	-	-	- 1	
D.C.	-	1	-	-	2	-	1	-	-	-	-	
Va. W. Va.	32 8	26 4	-	5 -	8 -	1	21 1	13 1	-	-	-	
N.C. S.C.	30 15	27 30	1 -	5 10	8 3	2	51 19	42 8	19 -	42 7	19 -	
Ga. Fla.	33 64	43 49	-	2	1 9	- 9	20 43	16 27	-	2	-	
E.S. CENTRAL	88	108	_	6	7	2	45	54	_	4	2	
Ky. Tenn.	18 38	19 41	-	2	-	- 1	19 14	12 27	-	1	=	
Ala.	25	29	-	2	5	1	11	13	-	3	2	
Miss. W.S. CENTRAL	7 87	19 144	-	2 20	2 29	2	1 117	2 85	-	- 4	4	
Ark.	9	26	-	1	-	-	10	8	-	-	-	
La. Okla.	27 21	52 21	-	3 -	6 1	-	3 6	5 8	-	-	-	
Tex.	30	45	-	16	22	2	98	64	-	4	4	
MOUNTAIN Mont.	66 1	89 2	-	14 1	10 -	8 1	407 9	364 2	-	2	15 -	
ldaho Wyo.	6	8 3	-	- 1	1	-	42 1	100 2	-	-	-	
Colo. N. Mex.	24 7	22 11	-	1 1	3 N	5 1	225 74	131 36	-	1	-	
Ariz.	18	29	-	3	-	1	41	60	-	1	13 1	
Utah Nev.	7 3	9 5	-	4 3	3 3	-	9 6	31 2	-	-	1	
PACIFIC	266	253	3	80	66	5	469	1,063	-	5	4	
Wash. Oreg.	32 36	38 47	- N	3 N	2 N	3 2	181 55	505 21	-	-	-	
Calif. Alaska	187 5	158 6	3	67 7	56 1	-	215 12	510 3	-	5 -	4	
Hawaii	6	4	-	3	7	-	6	24	-	-	-	
Guam P.R.	- 5	1 9	U U	-	1	U U	-	1 13	U U	-	-	
V.I. Amer. Samoa	-	9 U U	Ŭ U	-	U U	Ŭ	-	Ü	Ŭ	-	U U	
C.N.M.I.	-	Ü	Ü	-	Ü	Ü	-	Ü	Ü	-	Ŭ	

N: Not notifiable.

U: Unavailable.

-: No reported cases.

TABLE IV. Deaths in 122 U.S. cities,* week ending July 8, 2000 (27th Week)

	All Causes, By Age (Years)							(27th Wook	All Causes, By Age (Years)						
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	— P&l [†] Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I [†] Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn Cambridge, Mass Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Ma New Haven, Conn Providence, R.I. Somerville, Mass Springfield, Mass Waterbury, Conn. Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J.	484 118 . 51 . 12 . 23 . 56 . 32 . 12 . ss. 21 . 37 . U	358 77 40 10 17 35 29 12 18 24 U 4 22 29 41 1,396 34 U 69 51 54	23 6 26 14 2 9 U 1 1 4 12 424 3 U 20 4	29 13 2 - 4 - 1 1 U 1 2 1 4 166 2 U 6 5	9 3 1 - 2 1 - 2 U - - - - - - - - - - - - - - - - -	6 2 2 - 1 - 1 U - - 40 1 U 2 2	42 911-8511 10-717 1103 11-1	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, F Tampa, Fla. Washington, D.G Wilmington, D.G E.S. CENTRAL Birmingham, Al. Chattanooga, Te Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala.	884 U 171 80 . 135 104 41 39 37 Fla. 36 119 C. 103 I. 19 777 a. 144 enn. 68 77 30 226 85	564 U 106 46 91 522 331 23 23 31 80 67 14 494 98 52 52 10 144 41 33	206 U 38 16 31 33 5 9 10 4 28 27 5 169 31 8 17 14 53 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	72 U 22 12 8 13 1 5 1 5 4 7 7 5 4 4 16 21 1	21 U 2 1 1 5 2 1 2 - 3 4 - 2 2 7 2 2 1 4 4	20 U 3 5 4 - 2 1 1 - 3 1 - 22 1 1 2 1 9 4	56 U 13 4 9 8 3 3 2 11 3 - 566 20 2 2 20 4 5
Erie, Pa. § Jersey City, N.J. New York City, N.J. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. § Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. § Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	35 41 Y. 1,104 52 10 299 37 39 127	31 20 725 24 6 197 25 34 95 16 28 45 13	2 10 246 16 2 62 7 2 22 4 4 7 9	2 6 91 5 2 26 2 2 6 2 1 3 5	3 20 4 - 13 - 1 1 - - - -	2 21 3 - 1 3 - 2 - 1 2	3 45 1 1 23 1 4 10 1 1 3 2 U	Montgomery, A Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La Corpus Christi, Dallas, Tex. El Paso, Tex. Houston, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La San Antonio, Te Shreveport, La. Tulsa, Okla.	109 1,175 68 1. 26 Fex. 47 164 51 98 313 39 . U x. 183 100 86	64 748 46 18 32 92 33 67 179 24 U 120 73 64	27 241 12 6 8 41 12 23 69 10 U 38 11	12 117 6 16 19 5 6 44 3 U 15 6	47 3 1 7 2 16 1 1 7 6 4	22 11 5 1 5 1 0 3 4 1	3 102 9 2 2 10 4 10 34 4 U 12 11
E.N. CENTRAL Akron, Ohio Canton, Ohio Canton, Ohio Chicago, III. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Grand Rapids, Mi Indianapolis, Ind. Lansing, Mich. Milwaukee, Wis. Peoria, III. Rockford, III. South Bend, Ind. Toledo, Ohio Youngstown, Ohi W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans Kansas City, Kans Kansas City, Mo. Lincoln, Nebr. Minneapolis, Min Omaha, Nebr. St. Louis, Mo. St. Paul, Minn.	U 36 79 26 43 31 102 0 U 784 U 13 . 90 96 21	923 31 254 254 0 68 83 57 72 26 38 10 27 71 22 57 71 14 35 25 77 10 10 88 60 16 60 29 44 43 55	5 6 84 U 266 28 19 42 7 13 5 4 U 9 19 7 2 5 18 U 14 U 1 19 20 4 22 6 13	118 4 136 117 6 17 2 2 2 2 2 2 3 3 1 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	35 - 29 U 3 4 1 1 7 1 1 1 1 1 1 1 1 25 U 4 5 4 - 2 1	40 2 10 10 5 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	972333U565734 · 5U242619U 4U · 44 · 676 · 16	MOUNTAIN Albuquerque, N Boise, Idaho Colo. Springs, C Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, U Tucson, Ariz. PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawa Long Beach, Cal Los Angeles, Cal Pasadena, Calif. Portland, Oreg. Sacramento, Ca San Diego, Calif. San Francisco, C San Jose, Calif. Santa Cruz, Calif. Santa Cruz, Calif. Spokane, Wash. Spokane, Wash. TOTAL	33 36 lolo. 65 84 178 29 151 15 tah 84 86 2,083 14 75 47 11 11 15 88 16, 67 11 11 11 11 12 13 13 13 14 15 15 16 17 18 18 18 18 18 19 19 19 19 19 19 19 19 19 19	540 585 477 422 11993 1156 68 1,450 48 48 48 682 21 59 132 87 U 142 15 U 48 83 6,989	160 24 5 12 17 40 5 25 19 11 409 2 15 8 7 9 211 33 32 U 7 20 2,134	71 71 3 14 13 3 16 2 7 5 7 2 3 71 1 1 1 0 6 0 12 1 1 0 3 4 8 8 3 8 4 8 8 8 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9	27 7 2 2 2 2 4 - 7 - 1 2 53 - 2 1 - 3 26 1 1 5 2 U 5 - U 2 5 290	20 1 1 9 2 6 6 1 1 1 1 1 1 1 1 5 0 4 4 1 1 2 2 2 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 4 4 4 6 11 4 8 155 1 5 4 68 1 7 14 18 2 0 5 6 7 15 6

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. ¹Pneumonia and influenza. ³Because 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. ¹Total includes unknown ages.

Since July 1999, substantial progress has been made in removing thimerosal from vaccines. As of March 2000, all U.S. children had access to hepatitis B vaccines that do not contain thimerosal as a preservative. Beginning July 2000, only single-dose thimerosal-free *Haemophilus influenzae* type b vaccine will be produced in the United States; previously manufactured multidose vials containing thimerosal still may be in distribution. One diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) that does not contain thimerosal is available, and it is projected that additional DTaP vaccines without thimerosal as a preservative will become available in early 2001. On the basis of this progress, the most likely maximum amount of ethylmercury that an infant may be exposed to from the routine vaccination schedule has been reduced by 60%, from 187.5 µg to 75 µg. Measles-mumps-rubella, varicella, inactivated polio, and pneumococcal conjugate vaccines have never contained thimerosal.

Research on the potential health effects of exposure to thimerosal is continuing, and findings will be monitored closely by PHS to determine whether any changes in policy are needed. AAFP, AAP, and PHS, in consultation with the ACIP, reaffirm the goal set in July 1999 to remove or greatly reduce thimerosal from vaccines as soon as possible. On the basis of information from the Food and Drug Administration and manufacturers, PHS projects that the United States will complete its transition to a secure routine pediatric vaccine supply free of thimerosal as a preservative by the first quarter of 2001.

The vaccination of children in much of the world will continue to require the use of multidose vials because of cost, production, and storage capacity. Multidose vials require a preservative to prevent microbial contamination after the vial is opened. For multidose vials, manufacturers are encouraged to seek alternatives to thimerosal.

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