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Health Objectives for the Nation

MORBIDITY AND MORTALITY WEEKLY REPORT

Cigarette Smoking Among Adults — United States, 1993

The annual prevalence of cigarette smoking among adults in the United States declined 40% during 1965–1990 (from 42.4% to 25.5%) (1) but was virtually unchanged during 1990–1992 (2). To determine the prevalence of smoking among adults, smoker interest in quitting, and the prevalence of cessation (i.e., quit ratio) among adults during 1993, the Year 2000 Health Objectives Supplement of the 1993 National Health Interview Survey (NHIS-2000) collected self-reported information about cigarette smoking from a random sample of civilian, noninstitutionalized adults aged \geq 18 years. This report presents the prevalence estimates for 1993 and compares them with estimates from the 1992 Cancer Epidemiology Supplement and presents 1993 estimates for smoker interest in quitting completely and the prevalence of cessation among ever smokers.

The overall response rate for the 1993 NHIS-2000 (n=20,860) was 81.2%. For 1993, current smoking status was determined through two questions: "Have you smoked at least 100 cigarettes in your entire life?" and "Do you now smoke cigarettes every day, some days, or not at all?" Ever smokers were persons who reported having smoked at least 100 cigarettes during their entire lives. Current smokers were defined as those who had smoked 100 cigarettes and now smoked either every day (i.e., daily smokers) or some days (i.e., some-day smokers). Former smokers had smoked at least 100 cigarettes in their lives but did not currently smoke. The prevalence of cessation was the percentage of former smokers among ever smokers. Interest in quitting smoking was assessed using answers to the question "Would you like to completely stop smoking cigarettes?" Data were adjusted for nonresponse and weighted to provide national estimates. Confidence intervals (CIs) were calculated using standard errors generated by the Software for Survey Data Analysis (SUDAAN) (*3*).

Prevalence estimates for 1992 were based on two definitions of current smoking and were calculated by averaging the estimates generated by each definition (2). One of the 1992 definitions of current smoking (smoking every day or some days) was identical to the definition used in 1993; these estimates are compared in this report.

In 1993, an estimated 46 million (25.0% [95% Cl= \pm 0.7%]) adults in the United States were current smokers (Table 1): 20.4% (95% Cl= \pm 0.7%) were daily smokers, and 4.6%

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / Public Health Service

			1992	2 CES§			1993 NHIS-2000¶					
	(r	Men 1=5,065)	W (n:	/omen =6,816)	(n=	Total :11,881)	(n:	Men =8,783)	W (n=	omen 12,077)	(n=	Total =20,860)
Characteristic	%	(95% CI**)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Race/Ethnicity ^{††}												
White	28.3	(± 1.6)	26.3	(± 1.5)	27.3	(± 1.1)	27.0	(± 1.2)	24.0	(± 1.0)	25.4	(±0.8)
Black	30.1	(± 4.7)	24.9	(± 3.1)	27.3	(± 2.7)	32.4	(± 3.4)	21.0	(± 2.2)	26.0	(±2.0)
Hispanic	22.3	(± 4.0)	15.6	(± 3.2)	18.7	(± 2.6)	28.3	(± 4.2)	12.7	(± 2.7)	20.4	(±2.6)
American Indian/												
Alaskan Native ^{§§}	41.2	(±17.7)	42.5	(±14.5)	41.9	(±10.9)	35.9	(±13.6)	40.9	(±11.8)	38.7	(±8.7)
Asian/Pacific												
Islander	19.3	(± 7.7)	4.9	(± 3.7)	12.2	(± 4.5)	27.4	(± 7.2)	9.5	(± 4.8)	18.2	(± 4 .1)
Education (yrs) ^{¶¶}												
≤8	27.8	(± 4.9)	17.7	(± 3.4)	22.4	(± 2.9)	28.5	(± 3.7)	13.6	(± 2.6)	20.5	(±2.3)
9–11	40.3	(± 4.9)	31.9	(± 3.8)	35.6	(± 3.2)	42.1	(± 4.4)	32.3	(± 2.9)	36.8	(±2.7)
12	33.5	(± 2.7)	29.2	(± 2.2)	31.1	(± 1.8)	32.0	(± 1.9)	26.9	(± 1.5)	29.2	(±1.2)
13–15	26.4	(± 3.3)	23.8	(± 2.7)	25.0	(± 2.1)	28.4	(± 2.4)	22.1	(± 1.9)	25.0	(±1.5)
≥16	17.6	(± 2.4)	15.0	(± 2.5)	16.5	(± 1.7)	14.8	(± 1.7)	11.9	(± 1.6)	13.5	(±1.2)
Age group (vrs)												
18–24	28.4	(± 4.1)	25.9	(± 3.7)	27.1	(± 2.8)	28.8	(± 3.3)	22.9	(± 2.7)	25.8	(±2.1)
25–44	32.7	(± 2.1)	28.7	(± 2.0)	30.6	(± 1.5)	31.1	(± 1.6)	27.3	(± 1.3)	29.2	(±1.1)
45-64	26.3	(± 2.7)	26.5	(± 2.4)	26.4	(± 1.8)	29.2	(± 2.0)	23.0	(± 1.7)	26.0	(±1.3)
≥65	16.0	(± 2.8)	12.9	(± 2.0)	14.2	(± 1.6)	13.5	(± 2.2)	10.5	(± 1.3)	11.8	(±1.2)
Socioeconomic status***												
At/Above poverty level	26.9	(± 1.4)	24.5	(± 1.4)	25.7	(± 1.0)	26.1	(± 1.2)	21.7	(± 0.9)	23.8	(±0.8)
Below poverty level	35.1	(+ 5.3)	28.9	(+ 3.7)	31.4	(+ 3.2)	38.1	(+ 4.1)	28.2	(+ 2.7)	32.1	(+2.4)
Unknown	33.6	(± 5.7)	22.3	(± 3.7)	26.7	(± 3.2)	37.6	(± 4.9)	22.2	(± 3.0)	28.3	(±2.8)
-		()		,		(07.7			()		(
Ισται	28.0	(± 1.4)	24.8	(± 1.3)	26.3	(± 1.0)	27.7	(± 1.1)	22.5	(± U.9)	25.0	(±0./)

TABLE 1. Percentage of adults aged ≥18 years who were current cigarette smokers,* by sex, race/ethnicity, education I	level,
age group, and socioeconomic status — National Health Interview Survey (NHIS), United States, 1992 and 1993 [†]	

*Persons who reported having smoked at least 100 cigarettes and who reported now smoking every day or some days. [†] Excludes 168 respondents with unknown smoking status. [§] Cancer Epidemiology Supplement. [¶] Year 2000 Health Objectives Supplement. ^{**} Confidence interval. ^{#*} Confidence interval.

^{††} Excludes 257 respondents in unknown, multiple, and other race categories. ^{§§} Estimates should be interpreted with caution because of the small number of cases.

^{¶¶} Persons aged \geq 25 years.

***Poverty statistics are based on definitions developed by the Social Security Administration in 1964, subsequently modified by federal interagency committees in 1969 and 1980, and prescribed by the Office of Management and Budget as the standard to be used by federal agencies for statistical purposes.

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Continued

Cigarette Smoking — Continued

(95% Cl=±0.3%) were some-day smokers. Smoking prevalence was significantly higher among men (27.7% [95% Cl=±1.1%] [24 million men]) than among women (22.5% [95% Cl=±0.9%] [22 million women]) (Table 1). The racial/ethnic group-specific prevalence was highest among American Indians/Alaskan Natives (38.7% [95% Cl=±8.7%]) and lowest among Asians/Pacific Islanders (18.2% [95% Cl=±4.1%]). The prevalence of smoking among persons with \leq 8 years of education was significantly lower than that among persons with 9–15 years of education; however, among persons with \geq 9 years of education, prevalences varied inversely with education level. For all groups, the prevalence of smoking was highest among males who had dropped out of high school (42.1% [95% Cl=±4.4%]). Smoking prevalence was higher among persons living below the poverty level* (32.1% [95% Cl=±2.4%]) than among those living at or above the poverty level (23.8% [95% Cl=±0.8%]).

The prevalence of current smokers in 1993 was unchanged statistically from 1992 (25.0% and 26.3%, respectively). However, the prevalence of daily smoking in 1993 (20.4% [95% Cl= \pm 0.7%]) was significantly lower than in 1992 (22.3% [95% Cl= \pm 0.9%]). In addition, prevalence estimates for current smokers during 1993 were lower overall for women, persons with a college education or higher, total persons living at or above the poverty level, and women living at or above the poverty level (Table 1).

Of current smokers, an estimated 32 million persons (69.7% [95% Cl= \pm 1.6%]) reported they wanted to quit smoking completely. Women were more likely to report an interest in quitting (72.7% [95% Cl= \pm 1.9%]) than men (67.1% [95% Cl= \pm 2.2%]). Current smokers aged \geq 65 years (49.9% [95% Cl=5.8%]) were the least likely to report that they wanted to completely stop smoking.

In 1993, an estimated 46 million adults were former smokers (49.6% [95% $Cl=\pm 1.2\%$] of ever smokers) (Table 2). The prevalence of cessation was higher among men (51.9% [95% $Cl=\pm 1.5\%$]), whites (51.6% [95% $Cl=\pm 1.3\%$]), and persons living at or above the poverty level (52.4% [95% $Cl=\pm 1.2\%$]), and increased directly with age. Among education levels, the prevalence of cessation was lowest among persons with 9–11 years of education (38.2% [95% $Cl=\pm 3.3\%$]).

Reported by: Epidemiology Br, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Although the overall prevalence of current smoking did not change from 1992 to 1993, the prevalence of daily smoking declined during 1993, possibly reflecting the proliferation of restrictive worksite and public smoking policies (4). In addition, the relatively greater decline among women is consistent with a previous report that, in workplace settings, women may be more likely to quit smoking because of worksite smoking bans (5).

Differences in prevalence among racial/ethnic groups may be influenced by differences in education levels and socioeconomic status, as well as by social and cultural phenomena. For example, in a recent report (6), the prevalence of behavioral risk factors, including cigarette smoking, was generally higher among persons with \leq 12 years of education.

^{*}Poverty statistics are based on a definition originated by the Social Security Administration in 1964, subsequently modified by federal interagency committees in 1969 and 1980, and prescribed by the Office of Management and Budget as the standard to be used by federal agencies for statistical purposes.

Cigarette Smoking — Continued

TABLE 2. Percentage of interest in quitting among current smokers aged \geq 18 years* and prevalence of cessation among ever smokers aged \geq 18 years,[†] by sex, race/ethnicity, education level, age group, and socioeconomic status — National Health Interview Survey, United States, 1993[§]

	Interest among cu (n:	t in quitting rrent smokers =5,261)	Prevalence of cessation among ever smokers (n=10,370)			
Characteristic	%	(95% CI [¶])	%	(95% CI)		
Sex						
Men	67.1	(± 2.2)	51.9	(± 1.5)		
Women	72.7	(± 1.9)	46.7	(± 1.6)		
Race/Ethnicity**						
White	70.0	(± 1.8)	51.6	(± 1.3)		
Black	71.4	(± 4.8)	37.8	(± 3.4)		
Hispanic	68.7	(± 5.8)	44.3	(± 5.0)		
American Indian/						
Alaskan Native ^{TT}	65.0	(±14.5)	35.1	(±16.6)		
Asian/Pacific Islander	60.2	(±12.2)	46.1	(± 8.7)		
Education (yrs) ^{§§}						
≤8	62.6	(± 5.5)	56.2	(± 3.9)		
9–11	67.8	(± 4.4)	38.2	(± 3.3)		
12	71.5	(± 2.2)	45.3	(± 1.7)		
13–15	71.8	(± 3.6)	50.7	(± 2.3)		
≥16	67.5	(± 4.5)	65.4	(± 2.5)		
Age group (yrs)						
18–24	68.6	(± 4.5)	21.7	(± 3.1)		
25–44	73.7	(± 2.0)	39.0	(± 1.5)		
45–64	68.5	(± 3.0)	56.6	(± 2.0)		
≥65	49.9	(± 5.8)	76.6	(± 2.1)		
Socioeconomic status ^{¶¶}						
At/Above poverty level	70.7	(± 1.8)	52.4	(± 1.2)		
Below poverty level	69.7	(± 3.8)	30.4	(± 3.1)		
Unknown	59.0	(± 5.6)	41.6	(± 4.3)		
Total	69.7	(± 1.6)	49.6	(± 1.2)		

* Persons who reported having smoked at least 100 cigarettes and who reported now smoking every day or some days.

[†]Persons who reported ever smoking 100 cigarettes during their lifetime.

[§]Excludes 168 respondents with unknown smoking status.

[¶]Confidence interval.

**Excludes 257 respondents in unknown, multiple, and other race categories.

^{††}Estimates should be interpreted with caution because of the small number of cases.

§§Persons aged ≥25 years.

Poverty statistics are based on definitions developed by the Social Security Administration in 1964, subsequently modified by federal interagency committees in 1969 and 1980, and prescribed by the Office of Management and Budget as the standard to be used by federal agencies for statistical purposes.

From 1992 to 1993, daily smoking prevalence increased among high school seniors from 17.2% to 19.0% (1). To be effective, school-based prevention programs should begin in kindergarten and continue through high school. This intervention should be especially intensive in middle school and should be reinforced in high school. CDC has published guidelines for incorporating tobacco-use prevention and cessation strate-

Cigarette Smoking — Continued

gies in the early grades in schools (7). School-based programs should provide instruction about the short- and long-term physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.

The findings in this report are subject to at least two limitations. First, because the 1992 and 1993 estimates are based on data collected during a 6-month period, these estimates may not be representative of annual prevalence. In particular, other data suggest that the restriction of the surveys to these periods may have minimized the true magnitude of declines in prevalence (National Household Survey on Drug Abuse, unpublished data, 1992 and 1993). Second, because these estimates are based on self-reported data, prevalences may be underestimated. However, underreporting is believed to be low in national prevalence surveys (*8*).

To sustain the decline in smoking prevalence, efforts must be intensified to discourage initiation and to promote cessation. Although 70% of smokers want to stop smoking and 34% attempt to quit each year, only 2.5% successfully stop smoking each year (9). The high rate of relapse is a consequence of the effect of nicotine dependence. Smokers who need assistance with stopping can receive self-help materials from local voluntary agencies, CDC (telephone [800] 232-1311 or [404] 488-5705), and the National Institutes of Health (telephone [800] 422-6237). Many smokers are addicted to nicotine and could potentially benefit from nicotine replacement therapy (NRT); NRT and other cessation assistance can be obtained from physicians and dentists. Information about formal cessation programs can be obtained from local voluntary agencies or health-care providers.

The health risks of cigarette smoking can be eliminated only by quitting; switching to lower "tar" and nicotine cigarettes is not a safe alternative (10). Comprehensive measures for promoting cessation and reducing the prevalence of smoking include increasing tobacco excise taxes, enforcing minors' access laws, restricting smoking in public places, restricting tobacco advertising and promotion, and conducting counter-advertising campaigns.

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Cigarette Smoking — Continued

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Current Trends

Abortion Surveillance: Preliminary Data — United States, 1992

For 1992, CDC received data about legal induced abortions from 52 reporting areas (the 50 states, New York City, and the District of Columbia). This report presents preliminary data for 1992.

In 1992, a total of 1,359,145 legal abortions were reported to CDC (Table 1), a decrease of 2.1% from the number reported for 1991 (1), and the number of live births decreased by 1.1% (2). As a result, the national abortion ratio (number of legal abortions per 1000 live births) decreased from 339 in 1991 to 335 in 1992 (Figure 1). The national abortion rate (number of legal abortions per 1000 women aged 15–44 years) also declined from 24 in 1991 to 23 in 1992. This rate increased each year from 1972 to 1980 (when it peaked [25]); since 1980, the rate has remained stable, fluctuating from 23 to 24. As in previous years, approximately 92% of women who had a legal abortion were residents of the state in which the procedure was performed.

Women who obtained legal abortions in 1992 were predominately aged <25 years, white, and unmarried. Compared with 1991, a lower proportion of women who had abortions in 1992 had had live-born children (48% and 46%, respectively). Curettage (suction and sharp) remained the primary abortion procedure (approximately 99% of all such procedures). As in previous years, approximately half of legal abortions were performed during the first 8 weeks of gestation (Table 1): 14% of abortions were performed at \leq 6 weeks, 15% at 7 weeks, and 21% at 8 weeks' gestation. As in previous years, approximately 89% of abortions were performed during the first 12 weeks of pregnancy.

Reported by: Statistics and Computer Resources Br, Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The annual number of abortions in the United States has remained relatively stable since 1980, varying each year by \leq 5%. However, since 1990 (the year in which the number of abortions was highest), the number of abortions has decreased each year. In 1992, the national ratio of abortions to live births was lower than for any year since 1977, indicating that a greater proportion of pregnancies ended in a live birth (*3*). The national fertility rate (number of live births per 1000 women of reproductive age [15–44 years]) also peaked in 1990 and has declined somewhat since then (*2*).

As in previous years, most women who obtained an abortion were white. However, the abortion rate for black women is approximately three times that for white women (CDC, unpublished data, 1991). Differences in abortion by race may reflect differences in socioeconomic status, education level, contraceptive use, and access to family planning, contraceptive, and abortion services.

Abortion Surveillance — Continued





*Live births per 1000 women aged 15-44 years.

[†]Number of legal induced abortions per 1000 live births.

[§]Number of legal induced abortions per 1000 women aged 15–44 years.

Although the total number of legal induced abortions during 1992 was available for all 52 reporting areas, approximately 26% of the abortions were reported from states that do not have centralized reporting; these areas could not provide information on the characteristics of women obtaining abortions. Interpretation of temporal comparisons is constrained because the number of states that report characteristics varies each year.

Many states emphasize the prevention of unintended pregnancy, particularly among teenagers. Abortion and birth statistics both are essential to provide estimates of pregnancy rates. To assist efforts to prevent unintended pregnancy, an accurate assessment of abortion (including the number and characteristics of women obtaining legal abortions in all states) is needed on an ongoing basis. In 1992, most areas reported abortions at \leq 8 weeks of gestation by week of gestation for the first time. This approach to reporting will assist in monitoring trends in legal abortions.

Additional statistical and epidemiologic information about legal induced abortions is available from CDC's automated Reproductive Health Information line at (404) 330-1230, which provides information by fax, voice recordings, or mail.

					Year				
Characteristic	1972	1976	1980	1985	1988	1989	1990	1991	1992§
Reported no. legal induced									
abortions	586,760	988,267	1,297,606	1,328,570	1,371,285	1,396,658	1,429,577	1,388,937	1,359,145
Abortion ratios	180	312	359	354 24	352 24	340 24	345 24	339	335
ADDITION TALES	15	21	25	Parcel	∠+ ntago distribu	ution	24	24	25
.				Feice	inage distribu				
Residence	50.0	00.0	00.0	00.4	01.4	01.0	01.0	01.0	017
In-state	56.2 12.9	90.0	92.6	92.4	91.4	91.0	91.8	91.6	91.7
	43.0	10.0	7.4	7.0	0.0	9.0	0.2	0.4	0.5
Age group (yrs)	22.6	22.1	20.2	26.2	25.2	24.2	22.4	21.0	20.1
≥19 20–24	32.0	32.1 33.3	29.2	20.3	20.3 32.8	24.2	22.4	21.0	20.1
>25	34.9	34.6	35.3	39.0	41.9	43.2	44.4	44.6	45.3
Race	0 110	0 110	0010	0010		1012		1110	1010
White	77.0	66.6	69.9	66.6	64.4	64.2	64.8	63.8	62.9
Black	23.0	33.4	30.1	29.8	31.1	31.2	31.8	32.5	33.3
Other	_	_	_	3.5	4.5	4.6	3.4	3.7	3.8
Ithnicity									
Hispanic	_		_	_		_	9.8	13.5	15.1
Non-Hispanic	—		—	—	—	—	90.2	86.5	84.9
Marital status									
Married	29.7	24.6	23.1	19.3	20.3	20.1	21.7	21.4	20.7
Unmarried	70.3	75.4	76.9	80.7	79.7	79.9	78.3	78.6	79.3
lo. live births**									
0	49.4	47.7	58.4	56.3	52.4	52.2	49.2	47.7	46.3
1	18.2	20.7	19.4	21.6	23.4	23.6	24.4	25.1	25.7
2	1 <u>3.3</u>	15.4	13.7	14.5	16.0	15.9	16.9	17.4	17.9
3	8./	8.3	5.3	5.1	5.6	5./	6.1	6.4	6.6
≥4	10.4	7.9	3.2	2.5	2.6	2.6	3.4	3.4	3.5

TABLE 1. Reported number of legal induced abortions, abortion ratios,* abortion rates, [†]	and characteristics of women who
obtained legal induced abortions — United States, selected years, 1972–1992	

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MMWR

Type of procedure Curettage Suction Sharp Intrauterine	88.6 65.2 23.4	92.8 82.6 10.2	95.5 89.8 5.7	97.5 94.6 2.9	98.6 95.1 3.5	98.8 97.1 1.7	98.8 96.0 2.8	98.9 97.3 1.6	98.9 97.9 1.0	Vol. 43 / No Abortion S
instillation Other ^{††}	10.4 1.0	6.0 1.2	3.1 1.4	1.7 0.8	1.1 0.3	0.9 0.3	0.8 0.4	0.7 0.4	0.7 0.4	5. 50 urve
Weeks of gestation										illa
≤8	34.0	47.0	51.7	50.3	48.7	49.8	51.6	52.3	52.6	ne
≤6		—	_		—	—	—	—	13.8 ^{§§}	9
7	—	—	—	—	—	—	—	—	15.2 ³³	
9–10	30.7	28.1	26.2	26.6	26.4	25.8	25.3	25.1	20.955	2
11–12	17.5	14.4	12.2	12.5	12.7	12.6	11.7	11.5	11.6	ont
13–15	8.4	4.5	5.1	5.9	6.6	6.6	6.4	6.1	5.9	i.
16–20	8.2	5.1	3.9	3.9	4.5	4.2	4.0	3.9	4.1	ue
≥21	1.2	0.9	0.9	0.8	1.1	1.0	1.0	1.1	1.2	ā.

*Per 1000 live births. [†]Per 1000 women aged 15–44 years. [§]Preliminary data.

¹Excludes unknown values. The number of areas reporting a given characteristic varied. For 1992, the number of areas reporting residence was 41; age, 42; race, 35; ethnicity, 21; marital status, 38; number of live births, 38; type of procedure, 38; and weeks of race, 35, ethnicity, 21, manual gestation, 38.
 **For 1972–1976, data indicate number of living children.
 ^{††}Includes hysterotomy and hysterectomy.
 §§Data are for 34 reporting areas only.

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CASES CURRENT 4 WEEKS DISEASE DECREASE INCREASE Aseptic Meningitis 543 Encephalitis, Primary 33 Hepatitis A 1,751 Hepatitis B 614 Hepatitis, Non-A, Non-B 221 Hepatitis, Unspecified 20 Legionellosis 66 Malaria 98 Measles, Total* 4 Meningococcal Infections 157 Mumps 92 Pertussis 295 Rabies, Animal 384 Rubella 5 0.25 0.5 0.03125 0.0625 0.125 1 2 4 Ratio (Log Scale)[†] BEYOND HISTORICAL LIMITS

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending December 17, 1994, with historical data — United States

*The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline. (Ratio (log scale) for week 50 measles (total) is 0.03125). [†]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.

	Cum. 1994		Cum. 1994
AIDS* Anthrax Botulism: Foodborne Infant Other Brucellosis Cholera Congenital rubella syndrome Diphtheria Encephalitis, post-infectious Gonorrhea <i>Haemophilus influenzae</i> (invasive disease) [†] Hansen Disease Lentospirosis	72,888 - 58 74 7 92 31 6 1 102 378,599 1,081 110 34	Measles: imported indigenous Plague Poliomyelitis, Paralytic [§] Psittacosis Rabies, human Syphilis, primary & secondary Syphilis, congenital, age < 1 year [¶] Tetanus Toxic shock syndrome Trichinosis Tuberculosis Tularemia Tymhoid faver	183 693 14 1 39 2 19,416 1,123 36 176 35 21,126 84 395
Lyme Disease	11,030	Typhus fever, tickborne (RMSF)	434

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending December 17, 1994 (50th Week)

*Updated monthly to the Division of HIV/AIDS, National Center for Infectious Diseases; last update November 29, 1994. [†]Of 1027 cases of known age, 293 (29%) were reported among children less than 5 years of age. [§]This case was vaccine-associated. The remaining 6 suspected cases with onset in 1994 have not yet been confirmed. [¶]Total reported to the Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services,

through second quarter 1994.

		Aseptic	Enceph	nalitis			Hep	oatitis (\	/iral), by type			
Reporting Area	AIDS*	Menin- gitis	Primary	Post-in- fectious	Gono	rrhea	Α	В	NA,NB	Unspeci- fied	Legionel- losis	Lyme Disease
	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1993	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1994
UNITED STATES	72,888	7,804	634	102	378,599	385,032	22,407	10,986	4,106	398	1,499	11,030
NEW ENGLAND	2,589	308	18	5	7,779	7,561	279	305	124	15	76	2,547
N.H.	79 60	31	5	2	87 105	71	24 15	22	- 8	-	5	31
Vt.	34	36	3	-	35	24	14	-	-	-	1	13
R.I.	241	120	8	2	3,130	3,076	27	1/5	96 20	2	58 12	249 471
Conn.	866	-	-	-	3,965	3,896	97	89	-	-	-	1,756
MID. ATLANTIC	21,304	905	60 25	19	41,674	45,367	1,607	1,426	443	9	244	6,953
N.Y. City	12,000	141	35 7	5	14,236	12,294	636	360	4	-	10	4,312
N.J.	4,655	- 221	- 19	- 11	5,089	5,558	278	356	187	-	41	1,303
Γα. ΕΝΙ <u>C</u> ΕΝΙΤΡΛΙ	5 992	32 I 1 /05	160	22	74 452	92 170	2 409	1 090	200	4 12	134	1,310
Ohio	1,095	384	55	4	22,239	22,021	1,106	1,083	23	-	192	76
Ind.	589	197	12	1	8,766	8,328	359	175	10	-	105	14
Mich.	2,890 960	525	36	12	17,501	17,606	334	406	200	5	30 79	33
Wis.	343	7	4	-	6,906	6,353	162	125	3	-	30	-
W.N. CENTRAL	1,502	422	34	8	21,520	20,890	1,118	639	107	12	94	285 165
lowa	96	118	1	1	1,576	1,508	64	26	13	11	33	105
Mo. N Dak	671 22	152	8	4	11,609 34	12,551	563	486	42	-	38	87
S. Dak.	15	2	4	-	197	245	37	4	-	-	1	-
Nebr. Kans	84 239	37 75	5 7	3	1,060 3 641	484 3 669	118 100	29 29	14 15	-	10	2 14
S. ATLANTIC	17.469	1.533	, 143	30	106.379	96.631	1.414	2.212	606	55	336	839
Del.	247	37	1	-	1,892	1,507	17	5	1	-	26	78
Md. D.C.	2,526 1.325	248 53	22	4 1	17,202 6.852	16,000 5.384	214 29	399 56	32 2	16	89 10	379 9
Va.	1,089	313	31	6	13,180	11,889	184	129	25	10	12	129
W. Va. N.C.	76 1.152	39 218	48 40	- 1	806 27.052	670 23.941	21 139	45 276	44 53	-	4 27	27 77
S.C.	1,088	31	-	-	12,518	10,197	39	33	10	-	16	7
Ga. Fla.	2,071 7,895	50 544	-	18	3,899 22,978	4,660 22,383	738	532 737	185 254	29	99 53	106 27
E.S. CENTRAL	1,942	514	39	3	44,384	44,169	659	1,110	890	2	77	42
Ky. Tenn	296 693	178 124	16 12	1	5,008 14,346	4,810 13,660	186 279	70 953	32 838	- 1	9 44	23 13
Ala.	554	163	8	1	14,133	15,735	122	87	20	1	13	6
Miss.	399	49	3	1	10,897	9,964	72	-	-	-	11	-
W.S. CENTRAL Ark.	6,982 255	854 50	50	2	45,650	43,187 7.403	3,247	1,509	595 8	/1	46 10	128
La.	1,146	34	8	-	11,555	11,560	151	167	181	1	14	2
Okla. Tex.	244 5,337	- 770	42	2	3,259 24,430	4,437 19,787	366 2,528	303	337 69	- 3 64	11 11	73 45
MOUNTAIN	2,107	343	12	4	9,480	10,841	4,330	622	424	62	105	20
Mont. Idaho	26 56	8	-	-	84 92	84 169	24 366	23 74	15 68	- 1	16 2	- 3
Wyo.	18	4	3	1	85	75	30	23	166	-	6	5
Colo. N Mex	763 198	134 19	3	-	3,237	3,666 933	575 1 101	99 212	73 46	17 11	21 4	- 8
Ariz.	559	74	-	2	3,084	3,675	1,401	56	17	15	25	-
Utah Nev.	131 356	55 43	2 4	1	232 1 <i>.</i> 600	413 1.826	599 234	78 57	20 19	4 14	7 24	3 1
PACIFIC	13,110	1,430	118	9	27,281	34,207	7,345	2,074	617	160	85	82
vvasn. Oreg.	856 550	-	-	-	2,783 571	3,600 1,122	337 803	74 85	22	1	8 -	-
Calif.	11,481	1,281	115	8	22,465	28,255	5,946	1,876	518	154	73	82
Hawaii	40 183	131	3 -	- 1	864 598	604	202 57	28	5	3	4	-
Guam	1	22	-	-	197	98	44	6	1	12	3	-
P.R.	2,159 10	39	1	3	445 1	474 01	84	358	169	11	-	-
Amer. Samoa	- 49	-	-	-	31	41	8	-	-	-	-	-
C.N.M.I.	-	-	-	-	45	78	8	1	-	-	-	-

TABLE II. Cases of selected notifiable diseases, United States, weeks ending
December 17, 1994, and December 18, 1993 (50th Week)

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly to the Division of HIV/AIDS, National Center for Infectious Diseases; last update November 29, 1994.

Perporting Are Image Indigenous Importe Total Processed lifections Import Instance Impor		Measles (I		s (Rube	eola)		Menin-									
Umre Umre Tasa Tasa <thtasa< th=""> Tasa Tasa <tht< th=""><th>Reporting Area</th><th>Malaria</th><th>Indig</th><th>enous</th><th>Impo</th><th>orted*</th><th>Total</th><th>gococcal Infections</th><th>Mu</th><th>mps</th><th>I</th><th>Pertussi</th><th>s</th><th></th><th>Rubella</th><th>9</th></tht<></thtasa<>	Reporting Area	Malaria	Indig	enous	Impo	orted*	Total	gococcal Infections	Mu	mps	I	Pertussi	s		Rubella	9
UNITED STATES 1,036 3 683 - 183 304 2,527 20 1,355 120 3,484 6,087 2 219 177 NEW RNGLAND 77 - 14 - 14 63 137 1 26 20 44 6087 2 219 138 - 1 - 1 2 4 - 1 2 2 14 16 177 - 13 2 14 17 17 - 13 2 14 1 2 14 14 17 - 13 - 1 4 - 17 17 - 13 - 17 255 1 17 1 18 11 13 2 130 11 15 11 15 11 15 11 15 11 12 257 14 14 10 10 17 11 15 11		Cum. 1994	1994	Cum. 1994	1994	Cum. 1994	Cum. 1993	Cum. 1994	1994	Cum. 1994	1994	Cum. 1994	Cum. 1993	1994	Cum. 1994	Cum. 1993
NEW ENGLAND 77 - 14 - 14 63 137 1 26 20 49 739 - 131 2 N.H. 3 - 1 - 4 2 7 - 4 2 84 155 - - - 1 Mass. 34 - 2 - 6 18 61 - 3 17 2 5 377 - 125 1 Mass. 34 - 2 - 6 18 61 - 3 172 - 125 377 - 125 377 - 125 377 - 125 377 - 125 377 - 126 377 - 126 377 - 126 377 - 127 137 137 157 143 157 137 137 137 137 137 137 137 137 137 137 137 137 137 137 137 137	UNITED STATES	1,036	3	693	-	183	304	2,527	20	1,355	120	3,484	6,087	2	219	177
	NEW ENGLAND	77	-	14	-	14	63	137	1	26	20	449	739	-	131	2
VL 3 - 2 - 1 31 4 - - - 4 5 7 - 4 - - - 4 17 25 91 - - - - 18 17 25 17 - 5 7 14 - 13 - 17 25 1 14 - 7 14 - 13 - 10 650 17 11 - 13 19 11 - 13 19 11 - 13 190 11 - 13 150 91 - 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 16 1 10	N.H.	ю З	-	1	-	4	2	23 7	-	3 4	2	84	18	-	-	-
Mass. 34 - 2 - 0 1 3 1 7 7 1 - 1 3 1 7 1 4 - 1 3 1 7 7 1 4 3 - 1 1 7 1 40 84 - 3 - - 1<	Vt.	3	-	2	-	1	31	4	-	-	-	45	91	-	-	-
Conn. 22 - 4 - - 9 42 - 12 12 0 59 Upstate NY. 56 - 12 - 13 38 91 - 132 3 230 338 - 10 157 N.Y. City. 79 - 11 - 13 - 157 91 - 1 157 Pa. 30 - 5 - 4 - 12 11 155 - 7 - 11 85 - 1 155 Pa. 30 - 12 14 - 12 11 17 7 144 1503 1 12 8 Ohio 11 - 10 1 1603 - 11 10 1 10 11 1 1 1 11 12 13 100 10 13 10 12	R.I.	34 9	-	2 4	-	3	18	-	-	3	-	255 7	377	-	125	-
MID, ATLANTIC 213 - 172 - 33 38 249 - 108 3 552 931 - 10 59 NY, City 79 - 11 - 3 19 11 - 13 - 157 91 - 1 22 NJ, 48 144 - 12 11 55 - 7 - 114 15 - 1 12 8 Chico 15 - 15 - 2 9 117 3 74 7 157 44 - 12 8 Ohio 14 U - U 1 1 76 0 9 16 2 50 186 12 548 15 16 2 548 15 16 2 548 100 319 - 1 1 1 100 319 - 1 1 1 1 1 1 1 1 1 1 1 1	Conn.	22	-	4	-	-	9	42	-	12	1	40	84	-	3	-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	MID. ATLANTIC	213	-	172	-	33 14	38	249	-	108	3	592 230	931 338	-	10	59 17
N.J.48-144-121155-7-1185-115E.N. CENTRAL98159-4431403122567144150311288Ohio15-15-291173747144150311288Ind.14U-U1176U7414150311283Mich.28124-2658956-48115192Wis.2-3655-14-503631Minn.14617222545-21Minn.14182243100319Iowa5-1-12187-39-44140Noh.13-118228 <td>N.Y. City</td> <td>79</td> <td>-</td> <td>11</td> <td>-</td> <td>3</td> <td>19</td> <td>11</td> <td>-</td> <td>13</td> <td>-</td> <td>157</td> <td>91</td> <td>-</td> <td>1</td> <td>22</td>	N.Y. City	79	-	11	-	3	19	11	-	13	-	157	91	-	1	22
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	N.J. Pa	48 30	-	144	-	12 4	11	55 92	-	7 56	-	11 194	85 417	-	1	15 5
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	F.N. CENTRAI	98	1	59	-	44	31	403	12	257	7	414	1.503	1	12	8
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ohio	15		15		2	9	117	3	74	7	157	434		-	1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ind. III.	14 39	U -	- 17	U -	1 39	1	76 117	U -	106	U -	65 94	165 426	U -	- 3	3
Wis. 2 - 3 - - 6 35 - 14 - 50 363 - - 1 Min. 14 - 126 - 44 3 176 - 66 17 222 545 - 2 1 Mo. 13 - 118 - 42 1 87 - 39 - 44 140 - 2 1 N. Dak. - - - - 1 - 5 5 5 - - - - 13 22 1 - - - - - - - - - - - 13 22 23 37 - - - - 10 - - - - - 11 7 31 - - - - - - - - <	Mich.	28	1	24	-	2	6	58	9	56	-	48	115	1	9	2
W.N. CENTRAL 49 - 120 - 44 3 1/6 - 60 1/222 545 - 2 1 hinn. 14 18 3 1/6 - 50 1/222 545 - 2 1 lowa 5 - 6 - 1 - 20 - 16 2 23 37 how. 13 - 118 - 42 1 87 - 39 - 44 140 - 2 1 N.Dak. 1 1 1 - 5 - 5 5 - 7 Nebr. 5 - 1 - 1 - 1 - 1 - 1 1 14 Kans. 7 - 1 - 2 28 1 3 22 S.ATLANTIC 224 - 59 - 8 29 431 2 201 1 359 646 - 11 7 Del. 3 U - U - 2 28 1 3 10 U Md. 99 - 2 - 2 4 44 - 68 - 77 131 3 D.C. 15 36 1 0 14 N.Da. 37 - 1 - 2 4 66 2 44 - 36 65 N.C. 11 - 2 - 1 1 5 - 16 - 2 16 - 11 7 N.Va 36 10 14 S.C. 5 6 10 14 N.C. 11 - 2 - 1 - 14 - 3 N.C. 11 - 2 - 1 - 14 S.C. 5 Ga. 26 - 3 Fia. 28 - 14 - 3 Fia. 28 - 15 Miss. 1 12 Miss. 1 N.C. 11 N.C. 12	WIS.	2	-	3	-	-	6	35	-	14	-	50	363	-	-	1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Minn.	45 14	-	126	-	- 44	- 3	176	-	66 5	13	100	545 319	-	2	-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	lowa Mo	5	-	6 119	-	1	-	20	-	16	2	23	37	-	-	-
S. Dak. - - - - 9 - - 2 26 8 - - - - - - - 1 - - - 1 - - - 1 <th1< th=""> 1 <th1< th=""> <th1< t<="" td=""><td>N. Dak.</td><td>13</td><td>-</td><td>- 110</td><td>-</td><td>42</td><td>-</td><td>1</td><td>-</td><td>5</td><td>-</td><td>44 5</td><td>5</td><td>-</td><td>-</td><td>-</td></th1<></th1<></th1<>	N. Dak.	13	-	- 110	-	42	-	1	-	5	-	44 5	5	-	-	-
Nebl.3-1-1-11 <td>S. Dak.</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>9</td> <td>-</td> <td>-</td> <td>2</td> <td>26</td> <td>8</td> <td>-</td> <td>-</td> <td>-</td>	S. Dak.	-	-	-	-	-	-	9	-	-	2	26	8	-	-	-
S. ATLANTIC 224 - 59 - 8 29 431 2 201 1 359 646 - 11 7 Del. 3 U - U - - 5 U - U 3 10 U - - 3 Del. 99 - 2 - 2 4 444 - 68 - 77 131 - - 3 Va. 37 - 1 - 2 4 66 2 444 - 36 65 - 1 148 - 27 - 122 281 - - 1 - - -	Kans.	5	-	1	-	-	2	28	-	-	-	13	22	-	-	-
Del.3U-U5U-U310UMd.99-2-2444-6810143D.C.15244668244-3665Va.37-1-2466244-3665N.C.11-2-1153-36-140195S.C.56999-2754-2Fla.28-15-320141-3314796-94E.S. CENTRAL32-281148583811Ky.1235-8-22172Ala.9175-12-3460 </td <td>S. ATLANTIC</td> <td>224</td> <td>-</td> <td>59</td> <td>-</td> <td>8</td> <td>29</td> <td>431</td> <td>2</td> <td>201</td> <td>1</td> <td>359</td> <td>646</td> <td>-</td> <td>11</td> <td>7</td>	S. ATLANTIC	224	-	59	-	8	29	431	2	201	1	359	646	-	11	7
n.c.151121111111Va.37-1-2466244-3665N.C.11-2-1153-36-140195N.C.11-2-1153-36-140195S.C.533-8-1473Ga.26-369-9-2754-2-Fla.28-15-320141-3314796-94E.S. CENTRAL32-283859381Ky.12325-7711Ala.9175-123460Miss.11133-12187-1318Ark.31138234-1214-11Okla.<	Del. Md	3	U	- 2	U	- 2	-	5 44	U	- 68	U	3 77	10 131	U	-	3
Va.37-1-2466244-3665N.C.11-2-1153-36-140195S.C.533-8-14473Fla.28-15-320141-3314796-94E.S. CENTRAL32-281148-27-1222811Ky.12385938-11Tenn.10-2835-822172Ala.938711W.S. CENTRAL75-11-81032522495192187-1318Ark.333-2353278-41Okla.718712183-916Mot17771641	D.C.	15	-	-	-	-	-	6	-	-	-	10	14	-	-	-
N.C. 11 - 2 - 1 1 53 - 36 - 140 195 S.C. 5 - $-$ - $-$ - 33 - 8 - 14 73 - $-$ - Ga. 26 - 3 - $-$ - 69 - 9 - 27 54 - 2 - Fla. 28 - 15 - 3 20 141 - 33 1 47 96 - 9 4 E.S. CENTRAL 32 - 28 - $ 1$ 148 - 27 - 122 281 - $ 1$ Ky. 12 - $-$ - $ 38$ - $ 59$ 38 - $ 1$ 1 Ky. 12 - $-$ - $ 38$ - $ 59$ 38 - $ 1$ 1 Ala. 9 - $-$ - $ 1$ 75 - 12 - 34 60 - $-$ - Miss. 1 - $ 1$ 75 - 12 - 34 60 - $ -$ Miss. 1 - $ 1$ 75 - 12 - 7 11 - $ -$ Miss. 1 - $ 7$ 7 11 - $ -$ Miss. 1 - $ 7$ $ 7$ 11 - $ -$ Miss. 1 - $ 1$ $ 7$ $ 7$ $ -$	Va. W. Va.	37	-	1 36	-	2	4	66 14	2	44	-	36 5	65 8	-	-	-
S.C. 5 5 - 7 - 7 - 33 - 8 - 14 73 - 7 - 7 Fla. 28 - 15 - 3 20 141 - 33 1 47 96 - 9 4 E.S. CENTRAL 32 - 28 - 15 - 3 20 141 - 33 1 47 96 - 9 4 E.S. CENTRAL 32 - 28 - 3 - 1 148 - 27 - 122 281 - 1 Tenn. 10 - 28 - 38 - 38 - 5 - 59 38 - 1 Hala. 9 - 2 - 1 175 - 12 - 34 60 - 2 Miss. 1 - 2 - 1 75 - 1 2 - 34 60 1 Miss. 1 - 2 - 1 - 1 75 - 1 2 - 34 60 1 Miss. 1 - 2 - 1 - 1 75 - 1 2 - 34 60 1 Miss. 1 - 2 - 1 - 1 75 - 1 2 - 34 60 1 Miss. 1 - 2 - 1 - 1 75 - 1 2 - 34 60 1 Miss. 1 - 2 - 1 - 1 75 - 1 2 - 34 60 1 Miss. 1 - 2 - 1 - 44 - 5 - 27 12 - 34 60 1 La. 10 - 2 - 1 - 44 - 5 - 27 12 1 Cola. 7 - 2 - 1 - 1 38 2 34 - 12 14 - 1 Okla. 7 - 2 - 1 - 33 - 23 5 32 78 - 4 1 Tex. 55 - 11 - 6 9 210 - 187 - 121 83 - 9 16 MOUNTAIN 39 2 152 - 17 7 164 1 153 65 477 444 - 5 11 Mont 3 3 - 2 1 1 1 1 1 1 Mont	N.C.	11	-	2	-	1	1	53	-	36	-	140	195	-	-	-
Fla.28-15-320141-3314796-94E.S. CENTRAL32-281148-27-1222811Ky.123859381Tenn.10-2835-8-22172Ala.9175-12-3460Miss.17711W.S. CENTRAL75-11-81032522495192187-1318Ark.31138234-12141Okla.733-2353278-41Tex.55-11-69210-187-12183-916MOUNTAIN392152-177164115365477444-511Mont17-10<	S.C. Ga.	5 26	-	- 3	-	-	-	33 69	-	89	-	14 27	73 54	-	2	-
E.S. CENTRAL 32 - 28 1 148 - 27 - 122 281 1Ky. 12 38 59 38 1Tenn. 10 - 28 35 - 8 - 22 172 Ala.91 75 - 11 - 8 10 325 2 249 5 192 187 - 13 18 Ark. 3 1 - 44 - 5 - 27 12 - 13 18 Ark. 3 1 1 38 2 244 $ 12$ 144 - $ 13$ 18 Ark. 3 $ 1$ 1 38 2 34 $ 12$ 144 $ 13$ 18 Ark. 3 $ 1$ 1 38 2 34 $ 12$ 144 $ 13$ 18 Ark. 3 7 $ 1$ 138 2 34 $ 12$ 183 $ 9$ 16 Moult 39 2 152 $ 17$ 7 164 1 153 65 477	Fla.	28	-	15	-	3	20	141	-	33	1	47	96	-	9	4
Ky.12	E.S. CENTRAL	32	-	28	-	-	1	148	-	27	-	122	281	-	-	1
Ala.91 75 - 12 - 34 60 Miss.17711W.S. CENTRAL75-11-810 325 22495192187-1318Ark.31138234-1214La.101138234-12141Okla.733-2353278-41Tex.55-11-69210-187-12183-916MOUNTAIN392152-177164115365477444-511Idaho2-117-1063150992Wyo.19-3-1Colo.18117-3338-311251842Wyo.115	Tenn.	10	-	28	-	-	-	35	-	8	-	22	172	-	-	-
MNS.1111111111W.S. CENTRAL75-11-810 325 22495192187-1318Ark.31-44-5-2712La.101138234-12141Okla.733-2353278-41Tex.55-11-69210-187-12183-916MOUNTAIN392152-177164115365477444-511Mont611111Idaho2-117-1063150992Wyo.115NN-3339Colo.18117-3338-311251842Wyo.115NN-3339 <t< td=""><td>Ala. Miss</td><td>9 1</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1</td><td>75</td><td>-</td><td>12</td><td>-</td><td>34</td><td>60 11</td><td>-</td><td>-</td><td>-</td></t<>	Ala. Miss	9 1	-	-	-	-	1	75	-	12	-	34	60 11	-	-	-
Ark.31-01010101010La.101138234-12141Okla.733-2353278-41Okla.733-2353278-41Tex.55-11-69210-187-12183-916MOUNTAIN392152-177164115365477444-511Mont611111Idaho2-11771063150992Wyo.117-1063150992Wyo.115NN-3339Colo.18117-3338-311251842Mex.315NN-3339 <t< td=""><td>WS CENTRAL</td><td>75</td><td>_</td><td>11</td><td>_</td><td>8</td><td>10</td><td>325</td><td>2</td><td>249</td><td>5</td><td>, 192</td><td>187</td><td>_</td><td>13</td><td>18</td></t<>	WS CENTRAL	75	_	11	_	8	10	325	2	249	5	, 192	187	_	13	18
La.101138234-12141 $Okla.$ 733-2353278-41Tex.55-11-69210-187-12183-916MOUNTAIN392152-177164115365477444-511Mont611111Idaho2-117-1063150992Wyo.19-3-1Colo.18117-3338-311251842N. Mex.315NN-3339Ariz.913-1348-95-13169-22Utah4-131-2-19126-2436-44Nev219126-2436-44	Ark.	3	-	-	-	1	-	44	-	5	-	27	12	-	-	-
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$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	MOUNTAIN	39	2	152	-	17	7	164	1	153	65	477	444	-	5	11
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ldaho	2	-	- 1	-	-	-	17	-	10	63	150	99	-	-	2
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Wyo.	1	- 1	- 17	-	- 2	- 2	9	-	3	-	- 125	1	-	-	- 2
Ariz. 9 1 3 - 1 3 48 - 95 - 131 69 - - 2 Utah 4 - 131 - 2 - 19 1 26 - 24 36 - 4 4 Nev 2 - - 11 1 12 - 15 3 5 1 1	N. Mex.	3	-		-	-	-	15	N	N	-	33	39	-	-	-
V_{1} V_{2} V_{2	Ariz.	9 4	1	3 131	-	1	3	48 19	- 1	95 26	-	131 24	69 36	-	-	2
	Nev.	2	-	-	-	11	1	12	-	15	-	3	5	-	1	1
PACIFIC 233 - 72 - 15 122 494 2 268 2 657 811 1 35 70	PACIFIC	233	-	72	-	15	122	494	2	268	2	657	811	1	35	70
vvash. 12 - - - 32 - 8 1 33 86 - - - Oreg. 14 - - 2 4 100 N N - 41 104 - 3 -	wash. Oreg.	12 14	-	-	-	- 2	- 4	32 100	- N	8 N	1	33 41	86 104	-	-	-
Calif. 190 - 56 - 9 96 348 2 238 1 561 604 1 27 41	Calif.	190	-	56	-	9	96	348	2	238	1	561	604	1	27	41
Alaska 2 - 16 2 5 - 4 - 1 5 - 1 1 Hawaii 15 4 20 9 - 18 - 21 12 - 4 28	Alaska Hawaii	2 15	-	16	-	- 4	2 20	5	-	4 18	-	1 21	5 12	-	1 4	1 28
Guam 4 U 211 U - 17 1 U 6 U 2 - U 1 -	Guam	4	U	211	U	-	17	1	U	6.	U	2	-	U	1	-
PR. 3 - 13 356 15 - 2 - 2 11	P.R. VI	3	-	13	-	-	356	15	-	2	-	2	11	-	-	-
Amer. Samoa	Amer. Samoa	-	-	-	-	-	-	-	-	1	-	2	2	-	-	-

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending December 17, 1994, and December 18, 1993 (50th Week)

*For measles only, imported cases include both out-of-state and international importations. N: Not notifiable U: Unavailable [†] International [§] Out-of-state

Reporting Area	Syr (Primary &	ohilis Secondary)	Toxic- Shock Syndrome	Toxic- Shock Syndrome			Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1994	Cum. 1993	Cum. 1994	Cum. 1994	Cum. 1993	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1994
UNITED STATES	19,416	25,322	176	21,126	22,023	84	395	434	7,083
NEW ENGLAND	211	348	4	499	520	1	21	15	1,815
Maine N.H.	4	8 25	-	27 15	25 17	-	-	-	207
Vt.	-	1	1	8	7	-	-	-	140
Nass. R.I.	90 15	122	2	262 48	291 58	-	17	-	702 44
Conn.	98	177	-	139	122	-	3	8	722
MID. ATLANTIC	1,327	2,330	28	4,221	4,746	1	110	18	1,794
N.Y. City	562	1,183	-	493 2,460	2,693	-	72	ь 1	1,280
N.J.	234	288	-	780	798	-	20	4	267
	369	618	13	488	594	-	0 70	/	241
Ohio	2,695	4,056	30	2,062	2,247	0 1	73	27	4
Ind.	244	357	2	185	215	2	7	5	13
m. Mich.	278	538	12	430	452	3 1	46	2	19 14
Wis.	298	479	-	60	88	1	7	-	16
W.N. CENTRAL	1,126	1,576	26	548	499	39	1	38	214
lowa	49 71	50 64	8	60	73 59	-	-	1	85
Mo.	942	1,326	7	232	243	25	1	19	26
S. Dak.	1	4 2	-	° 25	14	2	-	13	39
Nebr.	11 52	10	4	19	23	3	-	1	- 25
	5 227	6 30 2	8	3 880	/ 379	2	- /8	4 207	1 928
Del.	25	91	-	40	47	-	-+0	-	41
Md.	310	351	-	322	382 156	1	14	24	502
Va.	788	644	1	292	415	-	8	19	418
W. Va.	9 1 601	12 1 846	- 1	77 516	72 565	-	-	2	80 166
S.C.	775	895	-	365	384	-	-	20	172
Ga. Fla	782 727	1,052 1,088	1	665 1 505	731 1 627	1	2	55	359 187
F.S. CENTRAI	3,779	4.004	6	1,359	1,565	2	3	45	215
Ky.	212	330	2	315	360	2	1	9	25
lenn. Ala	967 621	1,137 852	3	401 421	489 477	-	2	29 2	71 119
Miss.	1,979	1,685	-	222	239	-	-	5	-
W.S. CENTRAL	4,178	5,294	2	2,882	2,593	17	16	53	643
Ark. La.	462 1.616	538 2,479	-	272 193	185 301	16	- 3	11	25 69
Okla.	111	272	2	232	164	1	3	35	41
	1,989	2,005	-	2,185	1,943	-	10	14	508
Mont.	4	240	-	490 9	13	3	-	4	22
Idaho	2	-	3	12	12	-	-	-	3
vvyo. Colo.	119	8 85	6	9 21	6 79	- 1	3	2 4	19
N. Mex.	19	24	-	65	59	1	1	2	8
Utah	39	94 11	2	223 51	235	2	3	-	45 13
Nev.	30	17	-	100	99	2	3	1	10
PACIFIC	650	1,172	53	5,176	4,941	5	111	-	273
Oreg.	21	40	-	250 90	- 200	2	4 5	-	12
Calif.	590	1,061	46	4,531	4,385	2	97	-	231
Hawaii	4 3	о 8	4	242	240	-	5	-	-
Guam	10	3	-	170	65	-	1	-	-
P.R.	287 28	479	-	159	213	-	-	-	60
Amer. Samoa	1	-	-	4	4	-	1	-	-
C.N.M.I.	2	7	-	35	41	-	1	-	-

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending
December 17, 1994, and December 18, 1993 (50th Week)

U: Unavailable

	A	II Cau	ses, By	Age (Y	'ears)		P&I [†]			All Cau	ises, B	y Age (Y	/ears)		P&I [†]
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass.	631 172 49 26 36 56 17 21 5. 28 41 57 10 42 22	448 110 30 30 37 12 18 24 27 44 6 27 16	103 35 6 4 10 5 2 4 7 5 3 9 4	50 18 4 1 2 5 - 6 5 1 3 2	17 7 2 3 - 3 - 3 1	13 3 2 1 1 1 2 2	34 14 1 2 - 1 1 2 4 - 1 4	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D.C. Wilmington, Del.	1,453 188 295 119 132 100 39 101 50 60 176 182 11	912 103 72 92 64 27 56 36 50 117 99 7	247 31 51 24 18 14 7 22 9 6 23 40 2	214 31 15 13 17 2 17 4 27 34 34	42 86 4 3 2 1 4 1 - 7 6 -	36 9645322 23	71 3 28 4 11 5 3 4 8 4 8 4
Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa.§ Jersey City, N.J. New York City, N.Y. 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.	53 2,806 56 33 95 45 26 42 52 1,516 62 23 34 400 99 917 126 21 27 104 37 37 14	42 1,853 38 29 21 30 28 949 29 25 272 72 72 11 96 18 23 78 23 78 21 21	5 556 11 5 10 7 3 10 322 20 3 6 19 4 25 3 4 20 1 1	3 283 2 4 5 4 2 1 92 10 5 7 4 2 1 - 4 2 1	59 2 1 2 2 24 3 16 2 24 3 16 2 - 1 2	3 553 23 29 29 2 29 2 2 12	4 162 3 1 28 3 4 4 4 50 1 1 24 11 6 11 3 2 3 3 3	 E.S. CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Ala. Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La. Corpus Christi, Tex. Dallas, Tex. El Paso, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La. San Antonio, Tex. Shreveport, La. 	914 131 70 109 62 243 109 55 135 135 135 135 135 25 25 25 237 57 116 390 71 107 245 54 54	551 63 47 74 37 160 62 36 72 948 52 200 U 142 39 74 219 45 67 67 167 36	176 284 20 14 422 10 23 297 12 3 U 50 13 290 13 20 13 20 13 20 13	103 21 4 12 8 14 14 5 25 176 16 2 U 34 4 10 0 59 7 12 21 4	47 9 2 2 10 7 2 12 40 1 - 5 9 6 7 3 1	37 10 2 1 1 14 4 2 3 37 1 - U 7 1 5 13 - 1 5 2 9	58 5 14 6 17 3 2 10 9 4 3 7 9 4 37 9 21 3
Yonkers, N.Y. E.N. CENTRAL Akron, Ohio Canton, Ohio Chicago, Ill. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Grand Rapids, Mict Indianapolis, Ind. Madison, Wis. Milwaukee, Wis. Peoria, Ill. Rockford, Ill. South Bend, Ind. Toledo, Ohio Youngstown, Ohio	U 2,330 46 36 449 205 170 16 252 44 71 200 33 45 120 33 45 41 136 71 853	U 1,480 38 25 188 136 106 106 106 167 36 48 10 42 127 37 82 28 29 30 103 57 603	U 423 5 100 786 41 316 41 41 6 43 20 2 11 8 23 9 141	U 228 1 103 12 12 12 12 12 12 7 22 2 2 2 2 2 2 2 2	U 115 1 - 66 6 6 3 1 3 7 - 5 2 1 9 1 3 - 2 - 3 2 19	U 83 1 14 5 8 10 3 15 - 1 1 - 6 1 1 - 2 17	U 133 22 19 5 9 9 7 4 4 5 16 5 7 3 4 1 6 4 62	Tulsa, Okla. MOUNTAIN Albuquerque, N.M. Colo. Springs, Colo Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, Utah Tucson, Ariz. PACIFIC Berkeley, Calif. Fresno, Calif. Honolulu, Hawaii Long Beach, Calif. Pasadena, Calif. Postland, Oreg. Sacramento, Calif. San Diego, Calif.	114 906 105 98 133 24 204 30 124 131 1,332 14 100 U 80 85 U U 34 132 U 192 cf. 133	87 597 67 41 59 85 21 119 20 83 102 942 11 71 57 62 U 57 62 U 244 100 U 244 100 U 245 75	14 190 223 28 24 9 28 21 218 18 10 10 0 6 17 0 323	7 75 10 2 10 16 27 1 6 3 10 27 6 U 3 9 U 3 11 U 9 18	4 28 5 1 4 10 6 2 19 4 1 1 U 2 U 4 1	2 16 1 1 5 - 1 4 - 1 3 3 9 - 1 U 3 3 U 1 2 U 15 3	4 71 5 4 2 7 4 2 3 14 10 125 0 U 3 14 U 3 14 U 1 8 U 26 20
Des Moines, Iowa Des Moines, Iowa Duluth, Minn. Kansas City, Kans. Kansas City, Kans. Lincoln, Nebr. Minneapolis, Minn. Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	203 10 19 122 30 162 70 122 57 58	148 9 12 71 25 118 48 85 43 44	33 2 24 27 13 23 10 7	13 5 11 2 7 5 2 4	19 5 1 - 3 - 1 - 6 - 3	3 2 1 4 2 3 2	22 - 1 11 2 7 4 11 4 -	San Jose, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash. TOTAL	247 25 150 59 81 12,723 [¶]	180 18 111 40 65 8,334	38 4 24 12 13 2,351	22 2 9 4 3 1,291	2 3 1 - 386	5 1 3 2 - 333	29 3 5 1 5 810

TABLE III. Deaths in 121 U.S. cities,* week ending December 17, 1994 (50th Week)

*Mortality data in this table are voluntarily reported from 121 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 these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks. *Total includes unknown ages. U: Unavailable.

Abortion Surveillance — Continued

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Current Trends

State-Specific Trends Among Women Who Did Not Receive Prenatal Care — United States, 1980–1992

Lack of prenatal care is strongly associated with an increased risk for low birthweight (<2500 g [<5 lbs 8 oz] at birth) infants, preterm delivery, and maternal and infant mortality (1). From 1980 through 1992, the nationally aggregated percentage of pregnant women who did not receive prenatal care increased by 31%—from 1.3% to 1.7% (2,3). Because nationally aggregated data can obscure variations among states, CDC analyzed state-specific data derived from birth certificates for 1980–1992 to examine trends among women who did not receive prenatal care. This report summarizes the findings of the analysis.

Prenatal-care data were ascertained from the section on the birth certificate indicating the month of pregnancy in which prenatal care was initiated. State-specific percentages for each year from 1980 through 1992 were ordered from lowest to highest to determine the 25th, 50th (i.e., median), and 75th percentiles and maximum value for each year. In addition, state-specific percentages for women who did not receive prenatal care were compared for 1980–1981 and 1991–1992 using the total number of births to women who did not receive prenatal care and the total number of births. Absolute change was calculated by comparing the percentages for 1980–1981 with those for 1991–1992.

From 1980 to 1989, the median state-specific percentage of births to women who did not receive prenatal care increased from 0.8% to 1.3% (Figure 1). Although patterns for the 25th and 75th percentiles were similar, the maximum value increased substantially—from 3.7% in 1980 to 7.5% in 1989; in 1992, the percentage declined to 4.8%. Percentages were consistently high in the District of Columbia, Florida, New Mexico, New York, and Texas.

For 1980–1981, the percentage of women who did not receive prenatal care ranged from 0.14% (Vermont) to 3.67% (New York) (Table 1); for 1991–1992, the percentages ranged from 0.32% (Utah) to 5.63% (District of Columbia). When compared with 1980–1981, during 1991–1992 the percentage of women who did not receive prenatal care declined in eight states (Florida, Kentucky, New Jersey, New York, Oklahoma, Rhode Island, South Dakota, and Utah) and increased in 42 states and the District of Columbia; in nine states, the increase was greater than 100% (Delaware, Illinois, Indiana, Louisiana, Michigan, Ohio, Pennsylvania, Vermont, and Wisconsin).

Reported by: Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion; Div of Health and Utilization Analysis, National Center for Health Statistics, CDC.

Prenatal Care — Continued





*Data from the 50 states and the District of Columbia were ranked. Observations 13 (25th percentile), 26 (50th percentile), 39 (75th percentile) and 51 (maximum value) were plotted for each year.

Editorial Note: Federal and state initiatives during the mid-1980s aimed to increase access to prenatal care by expanding Medicaid eligibility and increasing funding for maternal and child health block grants and other state-funded programs (4,5). The decrease in the percentage of births to women who did not receive prenatal care during 1991–1992 is the most substantial decrease recorded since 1969 (the first year data about prenatal-care initiation were reported). Despite these improvements, approximately 69,000 women did not receive prenatal care in 1992.

Health agencies commonly use aggregated data to describe national patterns in prenatal care in the United States. However, the findings in this and other reports indicate the importance of using state-specific data to fully elucidate and better understand long-term trends (6). In particular, these findings documented substantial variation among states for the percentage of women who did not receive prenatal care. For example, the comparison of data for 1980–1981 with 1991–1992 demonstrated slight decreases in the percentage of women who did not receive prenatal care in eight states and substantial increases in nine others.

The findings in this report are subject to at least two limitations. First, the overall increase in the percentage of women who did not receive prenatal care may have been related to improved case ascertainment. From 1980 to 1992, the percentage of

Prenatal Care — Continued

State	1980–1981	1991–1992	Absolute change* from 1980–1981 to 1991–1992	% Change* from 1980–1981 to 1991–1992
Alabama	1.26	1.20	0.02	1.00
Alabama	1.30	1.38	0.03	1.60
Alaska	0.08	0.80	0.12	17.00
Arizona	1.93	2.24	0.30	15.74
Arkansas	1.45	1.79	0.34	23.52
California	0.93	1.33	0.40	43.01
	0.79	1.03	0.25	31.53
Connecticut	0.47	0.50	0.03	5.4/
Delaware	0.59	1./1	1.12	189.85
	3.10	5.03	2.53	01./5
Fiorida	2.05	1.85	-0.20	- 9.90
Georgia	1.34	2.13	0.79	58.84
Hawaii	0.54	0.84	0.30	55.47
Idano	0.81	1.02	0.21	25.80
Illinois	1.01	2.04	1.03	102.48
Indiana	0.92	2.21	1.28	138.82
lowa	0.36	0.53	0.17	47.52
Kansas	0.51	0.76	0.25	48.00
Kentucky	1.94	1.55	-0.39	-19.97
Louisiana	1.21	2.53	1.33	109.92
Maine	0.82	1.06	0.24	29.69
Maryland	0.85	1.29	0.44	51.29
Massachusetts	0.39	0.50	0.11	28./2
Michigan	0.66	1.50	0.84	128.02
Mississippi	0.42	0.49	0.07	1/.0/
Minnesota	0.83	1.26	0.43	51./8
Missouri	0.92	1.72	0.79	85.82
Montana	0.74	0.87	0.13	18.18
Nebraska	0.41	0.60	0.19	45.33
Nevada	1.61	2.87	1.25	77.52
New Hampshire	0.42	0.79	0.37	87.83
New Jersey	1.63	1.25	-0.38	-23.38
New Mexico	1.73	2.88	1.15	66.68
New York	3.67	3.13	-0.54	-14.69
North Carolina	0.90	1.69	0.80	88.60
North Dakota	0.50	0.64	0.13	26.92
Ohio	0.69	1.45	0.76	109.77
Oklahoma	1.88	1.35	-0.54	-28.54
Oregon	0.69	0.97	0.28	40.97
Pennsylvania	0.68	1.80	1.12	165.33
Rhode Island	0.47	0.40	-0.07	-14.27
South Carolina	1.15	2.04	0.89	76.79
South Dakota	2.43	1.16	-1.28	-52.43
Tennessee	1.30	1.53	0.24	18.14
Texas	2.71	3.82	1.11	41.09
Utah	0.40	0.32	-0.09	-21.68
Vermont	0.14	0.38	0.24	173.66
Virginia	0.76	1.45	0.69	90.52
Washington	0.58	0.83	0.25	42.87
West Virginia	0.93	1.14	0.21	22.78
Wisconsin	0.37	0.76	0.39	103.86
Wyoming	0.79	0.88	0.09	11.71

TABLE 1. Percentages of women who did not receive prenatal care, by state — UnitedStates, 1980–1981 and 1991–1992

*Manual calculations of the absolute and percentage changes may not be exact because of rounding.

Prenatal Care — Continued

women for whom initiation of prenatal care was unknown decreased from 2.8% in 1980 to 2.2% in 1992. However, the increase in the percentage of women who did not receive prenatal care may have been related to the decrease in the percentage of women who initiated prenatal care during the second trimester (from 18.1% in 1980 to 16.7% in 1992). The percentages of women who initiated prenatal care during the first or third trimester remained unchanged (74% and 4%, respectively). Second, estimates of the prevalence of nonreceipt of prenatal care may be inaccurate because a standard method of measuring initiation of prenatal care is not available. Although maternal postpartum interview data (7) and birth certificate data identify similar percentages of women. For example, in a national sample of women who gave birth in 1988, among those who were identified either by the birth certificate or maternal interview as not receiving prenatal care, only 33% were identified by both sources (7).

Because the importance of prenatal care is widely accepted and efforts are made to provide such care to all women, nonreceipt of prenatal care should be considered a sentinel health event. A sample of these episodes should be investigated to identify and implement interventions. In particular, public health workers need to determine the reasons for nonreceipt of prenatal care (e.g., choosing not to obtain care, inability to pay for care, or lack of providers or transportation), and state health departments should consider the financial, programmatic, and social factors that are associated with nonreceipt of prenatal care.

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International Notes

Bolivian Hemorrhagic Fever — El Beni Department, Bolivia, 1994

In July 1994, an outbreak of Bolivian hemorrhagic fever (BHF), which is caused by Machupo virus, began in northeastern Bolivia. This report describes the investigation and features of this outbreak, the search for additional cases of BHF in El Beni, Bolivia, and results of rodent investigations.

Initial Investigation

The outbreak initially occurred among members of an extended family residing in Magdalena (1994 population: approximately 5300) located in the north central Province of Iténez, El Beni Department (Figure 1). From July 4 through August 12, 1994, seven family members (aged 10 months–50 years) developed an illness characterized by fever, hypotension, subconjunctival and gingival bleeding, epistaxis, petechiae, tremor, and dysarthria. Six of these persons died; the person who had the index case survived. Laboratory studies performed on serum and tissue specimens from decedents confirmed the diagnosis of BHF by isolation of Machupo virus and detection of viral antigen in all five patients for whom specimens were available; the survivor developed enzyme-linked immunosorbent assay (ELISA) immunoglobulin M (IgM) and immunoglobulin G (IgG) antibodies to Machupo virus.

FIGURE 1. Area in which Bolivian hemorrhagic fever is endemic and four cities* in which suspected cases were identified — Bolivia, July 1–September 30, 1994



*1) Cochabamba, 2) Magdalena, 3) Santa Cruz, and 4) Trinidad.

Bolivian Hemorrhagic Fever — Continued

Search for Other Cases

Following identification of the familial cluster, three additional persons in Bolivia with suspected BHF were reported to the National Secretary of Health through provincial health departments. On August 18, a broken test tube in a centrifuge exposed a 37-year-old laboratory technician in Santa Cruz to aerosolized blood from one of the family members who died. On August 29, the technician developed an acute febrile illness with lower back pain, arthralgias, and mild conjunctivitis. On August 30, intravenous therapy with the antiviral compound ribavirin was initiated for a presumptive diagnosis of BHF. She had no hemorrhagic manifestations and recovered from her illness. Machupo antigen detection and virus isolation studies on serum obtained before initiation of ribavirin treatment were negative, as were IgG and IgM antibody ELISAs on serum specimens collected 3 months after onset.

On August 28, a 41-year-old man residing in Magdalena (with no known link to any infected persons) developed an illness that included fever, chills, and hip pain. On September 2, he was transferred to a hospital in Cochabamba, Bolivia, and died on September 5 following a fulminant hemorrhagic clinical course. Machupo virus was isolated and viral antigen was detected in the patient's serum.

On September 3, a 52-year-old agricultural worker from Poponas, El Beni Department, developed a febrile hemorrhagic illness; on September 11, he was admitted to a hospital in Trinidad, El Beni Department. On September 13, intravenous ribavirin therapy was initiated for a presumptive diagnosis of BHF, and the patient recovered. The diagnosis of BHF was confirmed by detection of viral antigen and virus isolation from the patient's serum.

Family members of these three persons with presumptive or confirmed BHF cases and health-care workers in contact with these persons were monitored for febrile illness. However, illness was not noted in these patient contacts.

Rodent Investigation

During August and September 1994, rodent trapping was conducted in areas of potential exposure for the affected family. During 1811 trap-nights,* 84 rodents were captured, including nine *Calomys callosus*. Testing for antibodies to Machupo virus was negative for each of the 84 rodents. Virus isolation studies on captured rodents are pending.

Reported by: M Villagra, MD, National Hemorrhagic Fever Program, National Secretary of Health, Ministry of Human Development; L Suarez, MD, Regional Health Secretary, El Beni Department; R Arce, MD, Magdalena Hospital, Magdalena, Province of Iténez, El Beni Department, Bolivia. MG Moreira, MD, Pan American Health Organization, La Paz, Bolivia. Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: BHF is a viral hemorrhagic fever known to be endemic only in Bolivia; first described in 1959, it caused outbreaks in small communities in eastern Bolivia throughout the 1960s (1). The etiologic agent, Machupo virus, is a member of the family *Arenaviridae* and is maintained in the rodent *C. callosus*, the natural reservoir (2). As with other arenaviruses, infection of the rodent host results in a persistent asymptomatic infection with shedding of virus in urine. Human infections are believed to occur following exposure to the virus in aerosolized rodent urine. A nosocomial

^{*}The total number of traps set in 1 night multiplied by the total number of nights during which traps were set.

Bolivian Hemorrhagic Fever — Continued

outbreak of BHF in Cochabamba in 1971 suggested that person-to-person transmission also may occur by airborne or parenteral routes (3).

Following an incubation period of 1–2 weeks, patients infected with Machupo virus may develop an influenza-like illness with fever, malaise, and fatigue followed by the onset of headache, dizziness, myalgias, and severe lower back pain. Prostration, abdominal pain, anorexia, tremors, and hemodynamic instability may be followed by hemorrhagic manifestations, including bleeding from the oral and nasal mucosa and the gastrointestinal, genitourinary, and bronchopulmonary tracts (4). BHF can be diagnosed by virus isolation from acute serum or tissue specimens or by virus antigen detection using an ELISA. Antibodies can be detected using plaque-reduction neutralization, indirect immunofluorescence, or ELISAs. Because of the risk for laboratory-acquired infections with this highly lethal agent, tests with potentially infectious material should be performed in a biosafety level 4 laboratory (5).

Treatment of BHF employs supportive measures. Although uncontrolled trials have used convalescent immune plasma from survivors of BHF, evaluation of the effectiveness of this therapy has been limited by the lack of plasmapheresis capability and availability of qualified donors. Ribavirin, a broad-spectrum antiviral agent, has been effective against human Lassa fever and several arenavirus diseases in animal models. Patients infected with Junin virus, a closely related arenavirus, also have received the drug (*6*), but there is no definitive evidence concerning efficacy.

From 1959 through 1962, Bolivian health officials reported 470 cases of BHF with 142 deaths (case-fatality rate: 30%) (7). Until the cases described in this report, the last confirmed outbreak in Bolivia occurred in 1971 (3). The mode of transmission of BHF in the familial outbreak described in this report is unclear. Although no *C. callosus* were captured in the town of Magdalena, a low density of *C. callosus* was noted in rural areas around Magdalena where the index case had worked and traveled.

Previous trapping in Bolivia has shown fluctuations in population numbers and prevalence of infection among *C. callosus*, but the determining factors are not known (*2*,*8*). Previous cases of BHF occurred following rodent invasion of households in towns and exposure during campestral activities, including sleeping in primitive shelters (*9*). Infection with Machupo virus among travelers returning to the United States has not been recognized.

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Notice to Readers

Combined Issues of MMWR

A December 30, 1994, issue of *MMWR* will not be published. Following that, the next issue will be Volume 43, Numbers 51 and 52, dated January 6, 1995, and will include the figure and tables on notifiable diseases and deaths for the weeks ending December 24 and December 31, 1994.

Notice to Readers

Draft Recommendations for Prevention of Neonatal Group B Streptococcal Disease

CDC is requesting public review of and comment on the draft document *Prevention* of Group B Streptococcal Disease: A Public Health Perspective. This document, which summarizes the literature and proposes prevention recommendations for neonatal group B streptococcal disease, has been published in the *Federal Register**. Photocopies can be made at U.S. Government Depository Libraries and other public and academic libraries. Reprints and information for patients are available from CDC's Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, telephone (404) 488-4202 or fax (404) 488-4632. Comments must be received in writing by February 15, 1995, at CDC, Attention: GBS Recommendations Review Committee, Mailstop C-09, 1600 Clifton Road, NE, Atlanta, GA 30333; fax (404) 639-3970.

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