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National Alcohol Awareness Month — April 1995

April is National Alcohol Awareness Month. Maternal alcohol consumption during pregnancy is one of the most common preventable causes of birth defects and childhood disabilities. Varying levels of fetal alcohol exposure result in a spectrum of alcohol-related disabling conditions, including fetal alcohol syndrome (FAS) (with its characteristic physical features) and cognitive and behavioral problems. National health objectives for the year 2000 include reducing the incidence of FAS to no more than 0.12 cases per 1000 live births (i.e., 1.2 cases per 10,000 live births) and increasing abstinence from alcohol drinking by pregnant women by 20% (objectives 14.4 and 14.10) (*1*). Although adverse health effects associated with fetal exposure to alcohol are preventable, effective intervention strategies are still being developed. An important step toward developing these strategies is improving the understanding of the occurrence and epidemiology of FAS, including determination of population subgroups at increased risk for this condition. This issue of *MMWR* includes four articles related to maternal alcohol consumption during pregnancy and its effects on exposed offspring.

Reference

1. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991; DHHS publication no. (PHS)91-50212.

Update: Trends in Fetal Alcohol Syndrome — United States, 1979–1993

Fetal alcohol syndrome (FAS) is characterized by a variety of physical and behavioral traits that result from maternal alcohol consumption during pregnancy. Features of FAS include prenatal or postnatal growth deficiency, characteristic abnormal facial features, and central nervous system deficits (*1*). Based on data from the national Birth Defects Monitoring Program (BDMP) (*2*), the rate of reported cases of FAS identified among newborns in the United States during 1979–1992 increased

Fetal Alcohol Syndrome — Continued

approximately fourfold (*2*). This report updates data characterizing the occurrence of FAS through 1993, the latest complete year of data reporting for BDMP.

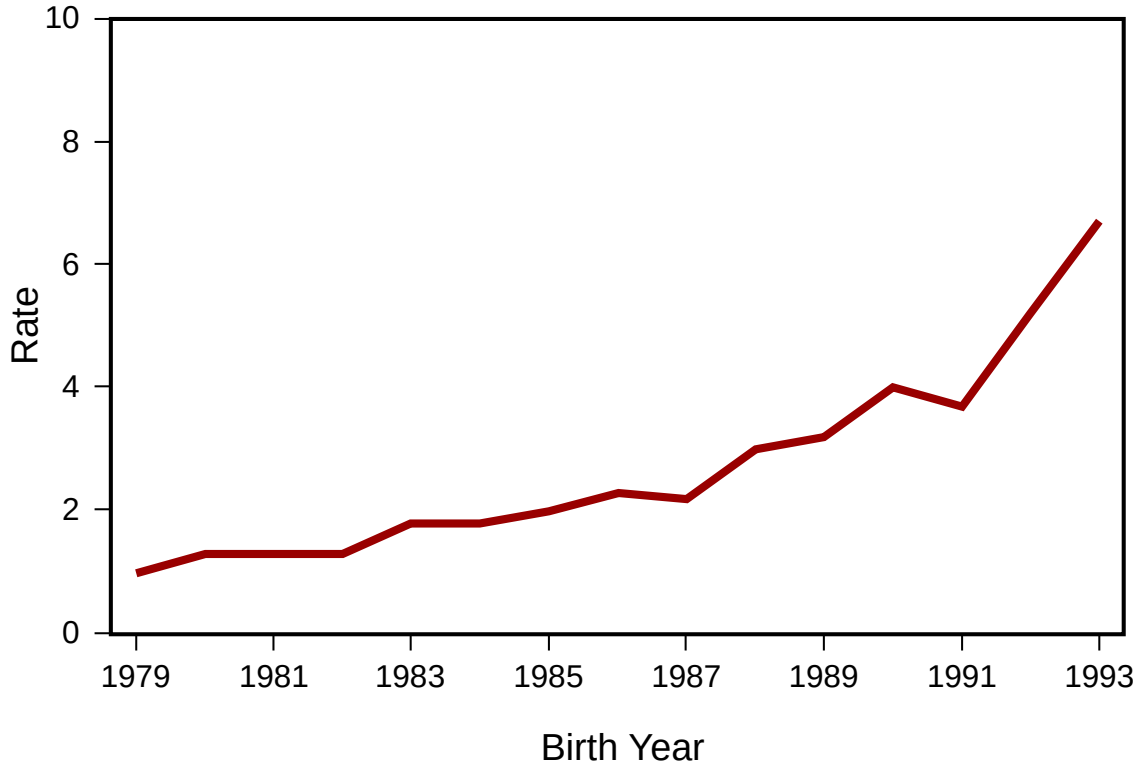
BDMP data are abstracted from hospital discharge data of newborns provided voluntarily by nonfederal, short-term stay hospitals. FAS cases were identified based on coded hospital discharge diagnoses (*International Classification of Diseases, Ninth Revision, Clinical Modification* [ICD-9-CM], code 760.71, "Noxious influences affecting fetus via placenta or breast milk, specifically alcohol; includes fetal alcohol syndrome"). However, this code is not specific for FAS and may reflect maternal alcohol consumption during pregnancy or other adverse effects of alcohol on the fetus. During 1993, the BDMP monitored data on approximately 5% of all births, compared with approximately 30% in 1979.

In 1993, FAS was reported in 126 of 188,905 newborns (rate: 6.7 per 10,000) (Figure 1). Overall, during 1979–1993, FAS was reported in 2032 of 9,434,560 newborns (overall rate: 2.2 per 10,000 births). The rate for 1993 was more than sixfold higher than that for 1979 (1.0 per 10,000 births).

Reported by: Birth Defects and Genetic Diseases Br, Div of Birth Defects and Developmental Disabilities, National Center for Environmental Health, CDC.

Editorial Note: Although the cause of FAS—alcohol consumption during pregnancy—is preventable, the findings in this report suggest an increasing frequency of this problem. This increase may reflect a true increase in the number of infants with FAS—

FIGURE 1. Reported rate* of fetal alcohol syndrome†, by birth year — Birth Defects Monitoring Program, United States, 1979–1993



*Per 10,000 births.
†*International Classification of Diseases, Ninth Revision, Clinical Modification*, code 760.71.

Fetal Alcohol Syndrome — Continued

the most severe expression of in utero alcohol damage to the fetus—or an increase in the awareness and diagnosis by primary-care clinicians of FAS in newborns.

Although ICD-9-CM code 760.71 is not specific for FAS, it has been used in this analysis because it may reflect a maternal history of alcohol consumption during pregnancy; the diagnosis or suspicion of FAS or its less severe manifestation (fetal alcohol effect); or other alcohol-related birth abnormalities. After the newborn period, this code also may be assigned to children for whom diminished cognitive function or behavioral problems are believed to be associated with maternal alcohol consumption during pregnancy—particularly in older children in whom developmental and neurobehavioral abnormalities are more readily diagnosed.

Studies are under way to better characterize the magnitude of FAS, particularly among population subgroups at increased risk for alcohol consumption during pregnancy and for having an infant with FAS. These studies may enable public health officials to more effectively target FAS prevention and alcohol consumption intervention efforts.

References

1. Sokol RJ, Clarren SK. Guidelines for use of terminology describing the impact of prenatal alcohol on the offspring. Alcohol Clin Exp Res 1989;13:597–8.
2. CDC. Fetal alcohol syndrome—United States, 1979–1992. MMWR 1993;42:339–41.

Birth Certificates as a Source for Fetal Alcohol Syndrome Case Ascertainment — Georgia, 1989–1992

Fetal alcohol syndrome (FAS) is a major cause of preventable mental retardation (*1*). The development and evaluation of programs for preventing FAS may be enhanced by timely and reliable estimates of the occurrence of this complex birth defect. In 1989, birth certificates were standardized nationally to include check-boxes for reporting FAS and other congenital abnormalities (*2*). These changes were implemented to improve the potential usefulness of birth certificates for timely and systematic population-based ascertainment of FAS and other abnormal conditions of the newborn (*3*). To assess the usefulness of birth certificates for surveillance of FAS, the Division of Public Health, Georgia Department of Human Resources (DPH-GDHR), compared information about congenital anomalies from birth certificates to data collected by CDC's Metropolitan Atlanta Congenital Defects Program (MACDP) during 1989–1992. This report summarizes the results of the assessment of FAS.

MACDP is a population-based birth defects registry that identifies children with birth defects diagnosed during the neonatal and infant periods (*4*). MACDP uses multiple sources (including birth certificates) for identifying birth defect cases and reviews medical and laboratory records of identified cases for verifying case status. Since 1968, MACDP has collected data on approximately 26,000 infants with major congenital anomalies from among nearly 775,000 live-born infants in the five-county area of metropolitan Atlanta. For this study, MACDP was considered the standard for FAS case identification because of its multiple-source case ascertainment, including maternal and infant medical record review within the hospital of birth during the newborn period. Birth certificates were compared with the MACDP registry for

Birth Certificates — Continued

sensitivity and predictive value positive (PVP). Potential cases identified by birth certificates were considered true positives if they were registered as FAS in the MACDP registry; potential cases were considered false positives if FAS was noted on the birth certificates but not in the MACDP. Each false-positive case then underwent medical record review to determine whether it had been missed by MACDP.

To determine whether personnel completing birth certificates could have used medical record review to determine an infant's FAS status, the date of diagnosis reported in the MACDP file was compared with the date of birth. If the diagnosis was recorded within 2 days of birth, it was assumed that this information was available to the person completing the birth certificate for inclusion on the birth certificate. For infants included in MACDP with FAS, 86% had FAS diagnosed on the date of birth and 94% within 2 days of birth.

From 1989 through 1992, MACDP identified 35 FAS cases (overall rate: 2.3 per 10,000 births). FAS was noted on the birth certificates of 14 infants. Four of the 14 were true positives, and the other 10 were false positives. The sensitivity of the birth certificates was 11% (four of 35); the PVP was 29% (four of 14). False positives accounted for 71% of cases reported through birth certificates. Birth certificates recorded any maternal alcohol consumption during pregnancy for only five of the 10 false positives, while medical record review of the false positives indicated a specific maternal history of alcohol consumption for only three.

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Editorial Note: The findings in this report indicate that birth certificates alone are a poor source for FAS case surveillance. In Georgia, birth certificates underreported FAS cases as well as incorrectly identified FAS cases. These findings underscore the need for improving the quality of diagnostic information for FAS on birth certificates. For 86% of MACDP-enrolled FAS cases, the information used to verify FAS status was recorded on the day of birth, suggesting that correct information about FAS status could be obtained and recorded on birth certificates if personnel completing the vital record routinely reviewed diagnoses contained in birth charts.

The high rate (71%) of false positives reported on birth certificates in this report represents an over-reporting of FAS without indication of physical findings from medical records to substantiate the report. Maternal history of alcohol consumption during pregnancy may be considered sufficient evidence by some health professionals for a diagnosis of FAS on the birth certificate. However, FAS is a complex birth syndrome with specific physical and developmental findings; maternal alcohol consumption during pregnancy is essential but not sufficient for a diagnosis of FAS.

In the United States, birth defects are the leading cause of infant mortality (*5*), emphasizing the necessity of accurate information on birth defects for public health assessment. To improve the usefulness of birth certificates for birth defects surveillance and other public health needs, however, the quality of birth certificate data will need to be improved.

The data for more accurate diagnosis and reporting of FAS and other abnormal conditions of the newborn often are available from the medical record, and

Birth Certificates — Continued

consultation of these records before completion of the birth certificate may improve the quality and utility of birth certificate data. Pediatricians should be enlisted to provide information about the conditions of the newborn while obstetricians continue to provide information about conditions of the mother (*6*). In addition, birthing hospitals should consider developing more specific protocols for completing birth certificates and instituting a formal process for evaluating the accuracy of reporting birth certificate information.

References

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3. Taffel SM, Ventura SJ, Gay GA. Revised U.S. Certificate of Birth: new opportunities for research on birth outcome. Birth 1989;16:188–93.
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5. CDC. Contribution of birth defects to infant mortality—United States, 1986. MMWR 1989;38: 633–5.
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Use of International Classification of Diseases Coding to Identify Fetal Alcohol Syndrome — Indian Health Service Facilities, 1981–1992

Fetal alcohol syndrome (FAS) is one of the leading causes of preventable birth defects and developmental disabilities in the United States (*1*). Since 1979, surveillance systems for estimating and tracking FAS have categorized cases using *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM), code 760.71 (*2*). This code comprises noxious influences affecting the fetus or newborn through placenta or breast milk, specifically alcohol, and includes FAS. Because the code is not specific for FAS and may reflect maternal alcohol consumption during pregnancy or other adverse effects of alcohol on the fetus, CDC assessed the usefulness of this code in ascertaining FAS cases by reviewing medical records for 1981–1993 from the Aberdeen Area* Indian Health Service (IHS) and IHS contract facilities in eight of the 19 tribal or American Indian communities in the area. This report summarizes the findings of the analysis.

During June–July 1993, IHS medical records with the diagnostic code 760.71 were abstracted. Data were collected from records of persons who were inpatients during 1981–1991 and from the records of outpatients during August 1, 1989–July 12, 1993. A case of FAS was defined as documentation of the following five criteria in a person's medical records: 1) prenatal alcohol exposure or maternal history of alcohol consumption, 2) FAS diagnosed or noted as a suspected diagnosis by a physician, 3) one or more facial features characteristic of FAS, 4) growth deficiency (i.e., prenatal or postnatal height or weight ≤10th percentile for age), and 5) central nervous system (CNS)

*Iowa, Nebraska, North Dakota, and South Dakota (1990 total American Indian population: 84,280).

International Classification of Diseases Coding — Continued

impairment (*3*). Maternal medical records were not reviewed in this study. During 1981–1992, a total of 19,000 infants were born in the Aberdeen area.

During 1981–1992, medical records of 251 persons had the diagnostic code 760.71; 60 (24%) persons met all five criteria for FAS (Table 1). Of the 60 persons with FAS, the mean age was 8 years (range: birth–31 years); 58% were male. Of the 60 case-patients, 52 (87%) were born during 1981–1992; based on the 19,000 deliveries during 1981–1992, the rate of FAS was 2.7 per 1000 live births during this period.

The most common facial features documented in the medical records of the 60 case-patients were long and flat philtrum (60%); low nasal bridge (52%), short palpebral fissures (42%); thin upper lip (30%); and midface hypoplasia (28%). The most common CNS impairments were microcephaly (45%), developmental delay (45%), speech or language delay (40%), delayed gross motor development (32%), hyperactivity (30%), seizures (25%), delayed fine motor development (23%), and attention deficit disorder (20%).

Of the 57 cases for which data were available, low birthweight (<2500 g [<5 lbs, 8 oz]) was documented in 21 (37%). Of the 47 cases for which data were available, 16 (34%) were small for gestational age (i.e., birthweight ≤10th percentile for gestational age). For 41 (68%) of the 60 cases, postnatal growth deficiency had been documented in the medical records. Based on the review of records, dysmorphologists had independently examined 18 (30%) of the 60 case-patients and diagnosed FAS in 14 of these persons.

Of the 191 persons whose medical records included the diagnostic code 760.71 but who did not meet all five criteria of the study case definition, one or more of the clinical signs of FAS were present in 168 (88%). A dysmorphologist had diagnosed FAS in 15 of these persons. For 23 persons whose medical records included the

TABLE 1. Number and percentage of persons whose medical records had ICD-9-CM code 760.71* and who met any of the five study case criteria for fetal alcohol syndrome (FAS), by case criterion and number of criteria met — Aberdeen Area† Indian Health Service (IHS),§ 1981–1992

	No. case criteria met											
	Five		Four		Three		Two		One		Total	
Case criterion¶	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No	(%)
Prenatal alcohol exposure/ maternal history of alcohol consumption	60	(100.0)	52	(85.2)	38	(73.1)	16	(39.0)	11	(39.3)	**177**	**(70.5)**
FAS diagnosed or suspected by a physician	60	(100.0)	48	(78.7)	17	(32.7)	11	(26.8)	3	(10.7)	**139**	**(55.4)**
One or more facial features of FAS	60	(100.0)	35	(57.4)	21	(40.4)	9	(22.0)	1	(3.6)	**126**	**(50.2)**
Growth deficiency	60	(100.0)	51	(83.6)	34	(65.4)	18	(43.9)	7	(25.0)	**170**	**(67.7)**
Central nervous system impairment	60	(100.0)	58	(95.1)	46	(88.5)	28	(68.3)	6	(21.4)	**198**	**(78.9)**
Total	**60**	**(100.0)**	**61**	**(100.0)**	**52**	**(100.0)**	**41**	**(100.0)**	**28**	**(100.0)**	**251**	**(100.0)****

**International Classification of Diseases, Ninth Revision, Clinical Modification*, "Noxious influences affecting fetus or newborn via placenta or breast milk, specifically alcohol; including fetal alcohol syndrome."

†Iowa, Nebraska, North Dakota, and South Dakota.

§IHS and IHS contract facilities in eight of the 19 tribal or American Indian communities in the Aberdeen area.

¶Categories are not mutually exclusive.

**Nine persons whose medical records included diagnostic code 760.71 were not documented to have any of the five study case criteria.

International Classification of Diseases Coding — Continued

diagnostic code 760.71, none of the typical physical findings associated with in utero exposure to alcohol were documented in their records.

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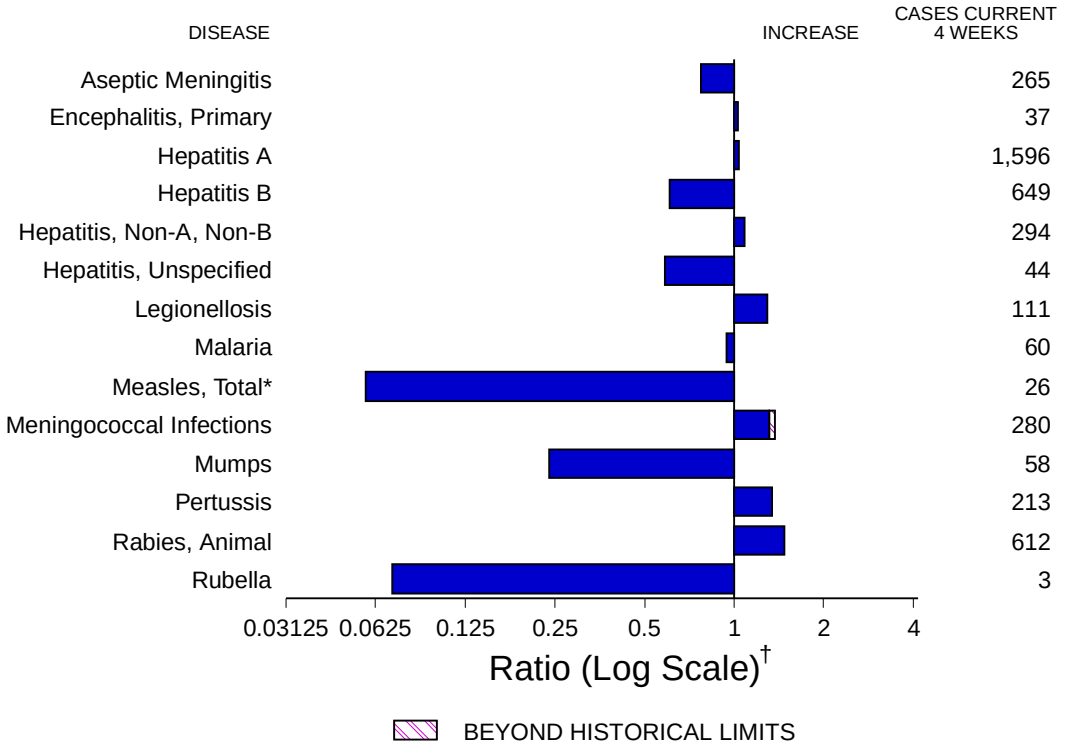
Editorial Note: The rate of FAS for American Indians is higher than for other racial/ethnic groups in the United States (*4*). The estimated rate of FAS for American Indians in the Aberdeen area during 1981–1992 (2.7 per 1000 live births) was similar to the rate reported for Alaskan Natives during 1978–1991 (2.1) (*3*). Population-based screening studies during 1980–1982 documented rates of FAS for American Indians as 1.4 per 1000 live births for Navajo, 2.0 for Pueblo, and 9.8 for American Indians of the Southwest plains (*5*). The rate of FAS in the IHS study was substantially lower than that estimated by a prospective follow-up study of American Indian children in whom FAS was diagnosed by dysmorphologists (8.5) (*6*). The variability in rates in these studies may reflect the use of different diagnostic criteria or case-finding methodologies or real differences in rates for the population subgroups.

The findings in this report indicate that only a small proportion of medical records in the IHS study coded 760.71 represented cases that met the rigorous case definition for FAS. However, the code can be useful in assessing the rate of adverse effects of maternal alcohol consumption during pregnancy. In this study, 76% of the persons with medical records coded 760.71 did not meet the diagnostic criteria for FAS; however, most (79%) had substantial developmental and behavioral problems that could be related to maternal alcohol consumption during pregnancy. The findings that high proportions of these persons had growth deficiencies, CNS impairment, or documented maternal alcohol consumption during pregnancy suggest that the ICD-9-CM code 760.71 may be a marker for problems in children associated with in utero exposure to alcohol. The finding that maternal alcohol consumption was not documented in the medical records of 30% of patients may reflect failure to record this information or failure to ask the mother about alcohol consumption during pregnancy.

Because surveillance systems using ICD-9-CM code 760.71 lack specificity for monitoring FAS, calculation of accurate population estimates of FAS is complex and difficult. However, use of these surveillance systems should be continued because of the importance of measuring the overall adverse effects of in utero exposure to alcohol. Approaches to enhance surveillance for adverse effects of maternal alcohol consumption on the fetus should be expanded to include multiple data sources, such as hospital discharge data from the newborn period (similar to data used by CDC's Birth Defects Monitoring Program) and insurance claims data for clinic visits. Use of Medicaid and other insurance claims may be an inexpensive method of monitoring FAS and other outcomes related to maternal alcohol consumption during pregnancy in the general population and in patients with documented in utero exposure to alcohol. Accurate surveillance data will help target screening and prevention efforts to those women whose children are at greatest risk for adverse sequelae from in utero alcohol exposure.

(Continued on page 261)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending April 1, 1995, 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 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 — cases of specified notifiable diseases, United States, cumulative, week ending April 1, 1995 (13th Week)

	Cum. 1995		Cum. 1995
Anthrax	-	Plague	-
Aseptic Meningitis	1,037	Poliomyelitis, Paralytic	-
Brucellosis	12	Psittacosis	10
Cholera	-	Rabies, human	1
Congenital rubella syndrome	2	Rocky Mountain Spotted Fever	25
Diphtheria	-	Syphilis, congenital, age < 1 year†	-
Encephalitis, primary	118	Tetanus	6
Encephalitis, post-infectious	21	Toxic shock syndrome	52
*Haemophilus influenzae**	365	Trichinosis	9
Hansen Disease	28	Tularemia	5
Hepatitis, unspecified	100	Typhoid fever	66
Leptospirosis	13		

*Of 359 cases of known age, 85 (24%) were reported among children less than 5 years of age.
†Updated quarterly from reports to the Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services. First quarter data not yet available.
-: no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending April 1, 1995, and April 2, 1994 (13th Week)

Reporting Area	AIDS*	Gonorrhea		Hepatitis (Viral), by type						Legionellosis	
				A		B		NA,NB			
	Cum. 1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	19,652	88,504	93,184	5,605	5,087	1,924	2,973	830	1,093	312	350
NEW ENGLAND	842	1,358	2,033	39	72	48	118	26	37	4	4
Maine	23	20	14	6	11	2	3	-	-	-	-
N.H.	38	30	19	2	3	5	6	3	5	-	-
Vt.	7	10	7	-	-	1	4	-	4	-	-
Mass.	457	796	764	17	32	14	85	22	21	3	1
R.I.	59	151	106	7	12	7	3	1	7	1	3
Conn.	258	351	1,123	7	14	19	17	-	-	N	N
MID. ATLANTIC	4,550	9,265	11,204	271	365	208	344	89	137	30	37
Upstate N.Y.	521	1,392	2,278	77	110	79	98	41	63	8	10
N.Y. City	2,342	2,814	4,459	115	145	41	73	1	1	-	-
N.J.	1,112	1,196	1,365	45	72	53	92	37	61	6	7
Pa.	575	3,863	3,102	34	38	35	81	10	12	16	20
E.N. CENTRAL	1,622	20,043	16,938	778	507	207	359	54	100	82	137
Ohio	409	6,532	6,081	519	135	24	49	3	2	39	51
Ind.	106	2,039	1,946	41	91	53	57	-	3	17	45
Ill.	737	5,491	2,992	86	161	23	93	9	32	6	7
Mich.	278	4,950	4,236	96	68	104	96	42	63	14	24
Wis.	92	1,031	1,683	36	52	3	64	-	-	6	10
W.N. CENTRAL	427	4,889	5,536	235	241	132	161	24	13	33	25
Minn.	93	786	860	21	42	9	12	-	2	-	-
Iowa	20	399	367	11	8	12	8	2	2	7	16
Mo.	148	2,909	2,927	162	129	94	124	16	2	23	4
N. Dak.	1	3	7	5	1	1	-	-	-	2	2
S. Dak.	1	49	42	3	9	1	-	1	-	-	-
Nebr.	43	-	328	9	32	6	5	2	3	-	2
Kans.	121	743	1,005	24	20	9	12	3	4	1	1
S. ATLANTIC	5,708	27,007	25,133	278	320	305	652	72	223	45	72
Del.	113	526	429	3	7	2	3	1	1	-	-
Md.	978	3,246	4,786	52	49	51	90	3	12	11	16
D.C.	373	1,334	1,608	2	8	8	13	-	-	3	-
Va.	374	2,898	3,192	58	33	29	27	-	13	2	2
W. Va.	21	200	185	7	3	19	7	15	8	3	1
N.C.	248	6,270	6,312	25	26	87	81	17	17	7	6
S.C.	280	2,978	3,132	6	7	9	12	-	1	7	1
Ga.	594	4,131	U	36	21	28	297	10	142	6	32
Fla.	2,727	5,424	5,489	89	166	72	122	26	29	6	14
E.S. CENTRAL	612	10,254	8,258	112	109	113	318	166	224	6	17
Ky.	63	1,236	1,109	11	63	13	33	4	5	1	3
Tenn.	269	1,361	3,232	50	34	69	267	161	217	2	10
Ala.	159	5,476	3,917	38	12	31	18	1	2	2	4
Miss.	121	2,181	U	13	U	-	U	-	U	1	U
W.S. CENTRAL	1,404	8,104	10,236	565	658	274	274	118	80	3	11
Ark.	64	879	1,751	21	12	2	6	-	1	-	4
La.	299	3,015	3,434	16	17	18	28	24	19	1	-
Okla.	84	378	795	121	56	103	90	88	46	2	7
Tex.	957	3,832	4,256	407	573	151	150	6	14	-	-
MOUNTAIN	637	2,060	5,386	1,082	869	164	139	120	97	66	26
Mont.	8	24	29	19	9	6	5	6	-	2	9
Idaho	17	34	17	112	88	19	22	11	32	1	-
Wyo.	4	10	25	42	5	3	5	47	19	-	1
Colo.	214	790	864	151	110	28	28	23	20	20	4
N. Mex.	69	265	259	231	250	59	46	18	11	2	1
Ariz.	133	776	3,668	217	263	25	16	9	4	33	1
Utah	37	39	85	273	101	17	7	3	7	2	-
Nev.	155	122	439	37	43	7	10	3	4	6	10
PACIFIC	3,850	5,524	8,460	2,245	1,946	473	608	161	182	43	21
Wash.	360	672	804	130	261	39	60	45	64	-	5
Oreg.	122	18	289	399	99	22	17	8	2	-	-
Calif.	3,261	4,470	6,958	1,653	1,512	405	509	99	113	39	15
Alaska	29	219	213	14	62	2	5	1	-	-	-
Hawaii	78	145	196	49	12	5	17	8	3	4	1
Guam	-	12	38	-	1	-	-	-	-	-	2
P.R.	649	119	132	15	13	176	67	161	24	-	-
V.I.	14	3	8	-	-	1	1	-	-	-	-
Amer. Samoa	-	8	7	5	2	-	-	-	-	-	-
C.N.M.I.	-	2	16	1	1	-	-	-	-	-	-

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

*Updated monthly to the Division of HIV/AIDS, National Center for Infectious Diseases; last update March 30, 1995.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending April 1, 1995, and April 2, 1994 (13th Week)

Reporting Area	Lyme Disease		Malaria		Measles (Rubeola)						Meningococcal Infections		Mumps	
					Indigenous		Imported*		Total					
	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	1995	Cum. 1995	1995	Cum. 1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	840	904	215	259	1	58	1	3	61	159	863	861	195	351
NEW ENGLAND	34	94	13	24	-	2	-	1	3	6	60	42	3	9
Maine	1	-	1	1	-	-	-	-	-	-	3	6	2	3
N.H.	3	5	1	3	-	-	-	-	-	-	12	1	-	3
Vt.	1	1	-	1	-	-	-	-	-	-	5	1	-	-
Mass.	28	18	2	7	-	-	-	1	1	1	22	14	-	-
R.I.	1	14	2	4	-	2	-	-	2	3	-	-	-	1
Conn.	-	56	7	8	-	-	-	-	-	2	18	20	1	2
MID. ATLANTIC	656	650	47	36	-	1	-	-	1	66	80	74	25	32
Upstate N.Y.	397	526	9	10	-	-	-	-	-	4	32	30	9	4
N.Y. City	2	10	20	9	-	1	-	-	1	1	9	3	2	-
N.J.	47	83	12	13	-	-	-	-	-	60	21	21	-	6
Pa.	210	31	6	4	-	-	-	-	-	1	18	20	14	22
E.N. CENTRAL	14	7	18	31	-	-	-	-	-	15	110	133	30	94
Ohio	13	3	1	3	-	-	-	-	-	10	34	31	15	8
Ind.	1	-	2	9	-	-	-	-	-	1	18	25	1	3
Ill.	-	3	13	10	-	-	-	-	-	-	34	42	4	64
Mich.	-	1	2	8	-	-	-	-	-	1	20	14	10	17
Wis.	-	-	-	1	-	-	-	-	-	3	4	21	-	2
W.N. CENTRAL	13	16	7	14	-	-	-	-	-	1	50	65	13	13
Minn.	-	4	3	4	-	-	-	-	-	-	10	5	2	-
Iowa	1	1	-	3	-	-	-	-	-	-	9	5	3	3
Mo.	2	9	3	4	-	-	-	-	-	-	17	37	6	9
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	4	-	-
Nebr.	-	-	1	2	-	-	-	-	-	1	6	4	2	-
Kans.	10	2	-	1	-	-	-	-	-	-	8	10	-	-
S. ATLANTIC	86	103	52	64	-	-	-	-	-	4	159	139	31	59
Del.	1	11	1	2	-	-	-	-	-	-	2	2	-	-
Md.	62	30	17	27	-	-	-	-	-	-	7	9	-	12
D.C.	-	-	3	7	-	-	-	-	-	-	1	1	-	-
Va.	2	11	10	8	-	-	-	-	-	1	24	20	8	14
W. Va.	6	3	-	-	-	-	-	-	-	-	3	6	-	2
N.C.	7	18	4	2	-	-	-	-	-	-	23	26	15	19
S.C.	4	-	-	1	-	-	-	-	-	-	23	5	3	5
Ga.	4	29	7	9	-	-	-	-	-	-	42	22	-	3
Fla.	-	1	10	8	-	-	-	-	-	3	34	48	5	4
E.S. CENTRAL	3	7	2	6	-	-	-	-	-	27	45	53	8	-
Ky.	1	5	-	2	-	-	-	-	-	-	17	14	-	-
Tenn.	1	1	-	3	-	-	-	-	-	27	6	13	4	-
Ala.	-	1	2	1	-	-	-	-	-	-	14	26	2	-
Miss.	1	U	-	U	-	-	-	-	-	U	8	U	2	U
W.S. CENTRAL	14	6	6	6	-	2	-	-	2	6	99	101	9	73
Ark.	-	-	2	-	-	2	-	-	2	-	8	11	-	-
La.	-	-	1	-	-	-	-	-	-	-	14	18	2	6
Okla.	11	5	-	1	-	-	-	-	-	-	9	7	-	20
Tex.	3	1	3	5	-	-	-	-	-	6	68	65	7	47
MOUNTAIN	2	4	15	7	1	39	-	-	39	26	72	66	13	8
Mont.	-	-	1	-	-	-	-	-	-	-	2	2	-	-
Idaho	-	1	-	2	-	1	-	-	1	-	1	10	1	3
Wyo.	-	-	-	-	-	-	-	-	-	-	2	2	-	-
Colo.	1	-	8	3	-	-	-	-	-	-	18	6	1	-
N. Mex.	-	3	3	1	-	27	-	-	27	-	18	5	N	N
Ariz.	-	-	2	-	1	10	-	-	10	-	26	25	3	-
Utah	-	-	1	1	-	-	-	-	-	26	2	12	1	2
Nev.	1	-	-	-	-	1	-	-	1	-	3	4	6	3
PACIFIC	18	17	55	71	-	14	1	2	16	8	188	188	63	63
Wash.	-	-	6	5	-	13	1	1	14	-	29	35	3	6
Oreg.	1	-	4	5	-	1	-	-	1	-	34	35	N	N
Calif.	17	17	41	54	-	-	-	-	-	8	123	113	53	52
Alaska	-	-	1	-	-	-	-	-	-	-	-	1	6	2
Hawaii	-	-	3	7	-	-	-	1	1	-	2	4	1	3
Guam	-	-	-	-	U	-	U	-	-	15	1	-	-	2
P.R.	-	-	-	-	-	3	-	-	3	14	10	4	-	2
V.I.	-	-	-	-	U	-	U	-	-	-	-	-	1	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-	-	-	1
C.N.M.I.	-	-	-	1	U	-	U	-	-	26	-	-	-	-

*For imported measles, cases include only those resulting from importation from other countries.
N: Not notifiable U: Unavailable -: no reported cases

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending April 1, 1995, and April 2, 1994 (13th Week)

Reporting Area	Pertussis			Rubella			Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal	
	1995	Cum. 1995	Cum. 1994	1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	55	730	938	1	18	109	4,310	4,730	3,251	4,185	1,580	1,654
NEW ENGLAND	6	81	96	-	2	77	58	49	68	80	464	441
Maine	1	11	2	-	-	-	4	1	-	-	-	-
N.H.	-	4	22	-	1	-	1	-	1	2	62	57
Vt.	-	2	9	-	-	-	-	-	1	-	58	40
Mass.	5	60	57	-	1	77	18	14	31	38	186	174
R.I.	-	-	2	-	-	-	1	5	10	8	61	5
Conn.	-	4	4	-	-	-	34	29	25	32	97	165
MID. ATLANTIC	3	51	193	1	2	4	244	350	706	649	414	379
Upstate N.Y.	2	32	75	1	1	4	18	46	55	121	210	255
N.Y. City	1	10	28	-	1	-	134	187	371	345	-	-
N.J.	-	-	7	-	-	-	50	50	132	120	74	78
Pa.	-	9	83	-	-	-	42	67	148	63	130	46
E.N. CENTRAL	3	68	212	-	-	8	1,061	649	408	450	2	6
Ohio	1	31	55	-	-	-	237	269	69	60	1	-
Ind.	-	4	16	-	-	-	395	74	10	40	-	-
Ill.	-	4	82	-	-	4	303	131	223	246	1	2
Mich.	2	29	19	-	-	4	86	91	95	94	-	2
Wis.	-	-	40	-	-	-	40	84	11	10	-	2
W.N. CENTRAL	5	26	23	-	-	-	201	337	120	82	62	37
Minn.	5	5	8	-	-	-	14	13	27	21	2	1
Iowa	-	1	1	-	-	-	16	13	15	7	22	14
Mo.	-	1	7	-	-	-	163	283	51	40	10	4
N. Dak.	-	5	-	-	-	-	-	-	-	1	6	-
S. Dak.	-	4	-	-	-	-	-	-	-	6	11	3
Nebr.	-	3	1	-	-	-	-	3	6	-	-	-
Kans.	-	7	6	-	-	-	8	25	21	7	11	15
S. ATLANTIC	9	70	114	-	1	5	947	1,453	542	811	462	459
Del.	1	4	-	-	-	-	6	6	-	6	10	9
Md.	-	-	36	-	-	-	24	67	111	71	104	157
D.C.	-	1	3	-	-	-	38	65	21	29	2	1
Va.	7	7	13	-	-	-	175	178	6	88	98	92
W. Va.	-	-	2	-	-	-	1	6	27	21	22	16
N.C.	1	47	34	-	-	-	278	473	46	75	110	43
S.C.	-	7	8	-	-	-	186	181	70	106	35	43
Ga.	-	1	6	-	-	-	120	234	96	155	69	93
Fla.	-	3	12	-	1	5	119	243	165	260	12	5
E.S. CENTRAL	-	14	34	-	2	-	1,031	488	205	279	39	55
Ky.	-	-	15	-	-	-	63	68	54	78	5	2
Tenn.	-	1	13	-	2	-	124	244	-	101	11	28
Ala.	-	13	6	-	-	-	165	176	89	100	23	25
Miss.	-	-	U	-	-	U	679	U	62	U	-	U
W.S. CENTRAL	4	20	25	-	1	4	615	1,025	245	389	28	183
Ark.	-	-	-	-	-	-	159	128	35	34	8	8
La.	-	1	2	-	-	-	278	512	-	-	9	30
Okla.	2	2	20	-	-	4	20	40	1	36	11	15
Tex.	2	17	3	-	1	-	158	345	209	319	-	130
MOUNTAIN	15	291	69	-	2	-	64	143	153	110	17	22
Mont.	-	3	2	-	-	-	3	-	3	-	9	3
Idaho	-	25	19	-	-	-	-	1	4	4	-	-
Wyo.	-	-	-	-	-	-	2	-	1	1	-	5
Colo.	-	1	34	-	-	-	40	46	4	9	-	-
N. Mex.	2	9	4	-	-	-	1	5	22	15	-	-
Ariz.	13	249	7	-	2	-	11	80	69	53	7	14
Utah	-	2	3	-	-	-	4	5	10	-	-	-
Nev.	-	2	-	-	-	-	3	6	40	28	1	-
PACIFIC	10	109	172	-	8	11	89	236	804	1,335	92	72
Wash.	7	21	27	-	-	-	1	9	54	55	-	-
Oreg.	-	2	18	-	1	-	-	2	3	34	-	-
Calif.	-	83	123	-	7	10	88	223	691	1,167	91	54
Alaska	-	-	-	-	-	-	-	1	15	21	1	18
Hawaii	-	3	4	-	-	1	-	1	41	58	-	-
Guam	U	-	-	U	-	-	1	1	4	7	-	-
P.R.	-	4	2	-	-	-	71	90	23	29	11	21
V.I.	U	-	-	U	-	-	-	6	-	-	-	-
Amer. Samoa	-	-	1	-	-	-	-	-	2	-	-	-
C.N.M.I.	U	-	-	U	-	-	-	1	1	14	-	-

U: Unavailable -: no reported cases

TABLE III. Deaths in 121 U.S. cities,* week ending April 1, 1995 (13th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	677	494	101	54	18	10	50
Boston, Mass.	194	132	29	24	7	2	18
Bridgeport, Conn.	38	31	5	1	1	-	1
Cambridge, Mass.	16	12	2	2	-	-	1
Fall River, Mass.	21	16	2	2	1	-	-
Hartford, Conn.	62	36	13	8	1	4	-
Lowell, Mass.	24	20	2	2	-	-	1
Lynn, Mass.	17	15	1	-	1	-	-
New Bedford, Mass.	26	24	-	2	-	-	2
New Haven, Conn.	62	42	13	3	2	2	5
Providence, R.I.	61	47	10	2	2	-	5
Somerville, Mass.	11	7	3	-	1	-	-
Springfield, Mass.	56	39	11	4	1	1	6
Waterbury, Conn.	17	11	3	2	-	1	1
Worcester, Mass.	72	62	7	2	1	-	10
MID. ATLANTIC	2,234	1,468	428	254	37	47	116
Albany, N.Y.	56	40	13	2	-	1	2
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	95	78	13	1	1	2	-
Camden, N.J.	22	11	4	4	3	-	1
Elizabeth, N.J.	28	14	9	4	1	-	1
Erie, Pa.§	52	45	4	2	1	-	6
Jersey City, N.J.	43	26	5	8	2	2	-
New York City, N.Y.	1,343	838	284	176	18	27	54
Newark, N.J.	91	40	20	25	1	5	8
Paterson, N.J.	28	19	6	2	-	1	3
Philadelphia, Pa.	U	U	U	U	U	U	U
Pittsburgh, Pa.§	60	44	7	3	3	3	5
Reading, Pa.	15	12	-	1	2	-	-
Rochester, N.Y.	144	112	20	9	3	-	13
Schenectady, N.Y.	28	25	3	-	-	-	4
Scranton, Pa.§	37	35	2	-	-	-	3
Syracuse, N.Y.	111	75	23	8	2	3	9
Trenton, N.J.	31	18	4	6	-	3	5
Utica, N.Y.	24	19	4	1	-	-	1
Yonkers, N.Y.	26	17	7	2	-	-	1
E.N. CENTRAL	2,483	1,555	482	253	120	73	182
Akron, Ohio	38	29	6	1	1	1	-
Canton, Ohio	36	27	8	-	1	-	3
Chicago, Ill.	576	261	119	109	68	19	26
Cincinnati, Ohio	195	140	38	8	4	5	25
Cleveland, Ohio	196	121	49	18	4	4	6
Columbus, Ohio	175	113	36	15	6	5	15
Dayton, Ohio	133	95	18	9	7	4	16
Detroit, Mich.	242	153	40	28	9	12	13
Evansville, Ind.	57	40	11	4	1	1	2
Fort Wayne, Ind.	68	52	8	3	2	3	10
Gary, Ind.	31	12	13	6	-	-	3
Grand Rapids, Mich.	56	35	13	3	4	1	10
Indianapolis, Ind.	208	138	42	18	4	6	16
Madison, Wis.	40	30	5	4	1	-	8
Milwaukee, Wis.	106	83	14	1	1	7	10
Peoria, Ill.	39	23	8	6	1	1	5
Rockford, Ill.	59	39	14	5	1	-	4
South Bend, Ind.	57	45	9	3	-	-	2
Toledo, Ohio	107	73	21	7	3	3	5
Youngstown, Ohio	64	46	10	5	2	1	3
W.N. CENTRAL	804	581	127	39	22	19	58
Des Moines, Iowa	54	38	13	2	-	1	5
Duluth, Minn.	26	21	4	-	1	-	3
Kansas City, Kans.	33	27	3	1	-	2	1
Kansas City, Mo.	119	81	14	4	4	1	11
Lincoln, Nebr.	31	22	5	1	1	2	2
Minneapolis, Minn.	178	128	27	15	4	4	8
Omaha, Nebr.	88	62	18	2	4	2	3
St. Louis, Mo.	138	106	19	6	5	2	19
St. Paul, Minn.	68	52	8	3	2	3	4
Wichita, Kans.	69	44	16	5	1	2	2

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,492	920	300	190	45	34	100
Atlanta, Ga.	201	128	39	28	4	2	5
Baltimore, Md.	343	201	68	57	10	6	36
Charlotte, N.C.	51	26	16	8	-	1	1
Jacksonville, Fla.	132	84	30	8	6	4	10
Miami, Fla.	100	65	19	13	2	1	-
Norfolk, Va.	72	48	14	9	1	-	8
Richmond, Va.	81	48	17	10	4	2	3
Savannah, Ga.	52	35	13	2	1	1	4
St. Petersburg, Fla.	64	42	14	4	1	3	5
Tampa, Fla.	217	151	34	22	6	3	23
Washington, D.C.	163	84	29	29	10	11	5
Wilmington, Del.	16	8	7	-	-	-	-
E.S. CENTRAL	861	588	143	87	25	18	72
Birmingham, Ala.	136	76	32	17	5	6	4
Chattanooga, Tenn.	79	63	10	4	2	-	7
Knoxville, Tenn.	99	73	18	4	3	1	13
Lexington, Ky.	68	52	8	6	1	1	6
Memphis, Tenn.	196	145	24	21	4	2	25
Mobile, Ala.	71	46	14	8	2	1	4
Montgomery, Ala.	48	29	9	8	1	1	1
Nashville, Tenn.	164	104	28	19	7	6	12
W.S. CENTRAL	1,590	1,019	306	176	58	31	100
Austin, Tex.	85	50	14	15	5	1	7
Baton Rouge, La.	42	29	6	7	-	-	-
Corpus Christi, Tex.	48	38	3	6	1	-	-
Dallas, Tex.	212	119	52	29	9	3	3
El Paso, Tex.	78	51	17	5	1	4	3
Ft. Worth, Tex.	123	76	24	12	6	5	2
Houston, Tex.	362	216	81	42	15	8	40
Little Rock, Ark.	82	63	13	4	2	-	7
New Orleans, La.	124	77	23	16	5	3	-
San Antonio, Tex.	218	146	36	19	11	6	18
Shreveport, La.	74	51	16	4	2	1	6
Tulsa, Okla.	142	103	21	17	1	-	14
MOUNTAIN	895	608	150	90	26	20	65
Albuquerque, N.M.	102	79	12	6	2	3	4
Colo. Springs, Colo.	54	41	6	5	1	1	6
Denver, Colo.	137	93	16	16	6	6	15
Las Vegas, Nev.	181	116	48	13	4	-	11
Ogden, Utah	29	22	2	2	2	1	4
Phoenix, Ariz.	152	97	24	22	5	3	5
Pueblo, Colo.	18	11	3	3	-	1	2
Salt Lake City, Utah	83	47	23	6	4	3	9
Tucson, Ariz.	139	102	16	17	2	2	9
PACIFIC	2,005	1,333	326	206	67	41	178
Berkeley, Calif.	19	11	6	-	1	1	1
Fresno, Calif.	76	54	10	5	5	2	2
Glendale, Calif.	513	346	75	63	17	5	35
Honolulu, Hawaii	82	56	17	4	2	3	7
Long Beach, Calif.	97	69	10	12	2	4	10
Los Angeles, Calif.	27	20	5	1	-	1	1
Pasadena, Calif.	30	19	5	2	2	2	5
Portland, Oreg.	103	73	12	13	4	1	7
Sacramento, Calif.	176	114	35	16	6	5	16
San Diego, Calif.	182	97	31	36	13	2	19
San Francisco, Calif.	166	102	27	13	2	-	20
San Jose, Calif.	173	114	34	15	3	7	17
Santa Cruz, Calif.	26	21	3	1	1	-	8
Seattle, Wash.	168	116	25	16	6	5	8
Spokane, Wash.	64	47	11	4	1	1	7
Tacoma, Wash.	103	74	20	5	2	2	15
TOTAL	13,041¶	8,566	2,363	1,349	418	293	921

*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 -: no reported cases

International Classification of Diseases Coding — Continued

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Sociodemographic and Behavioral Characteristics Associated with Alcohol Consumption During Pregnancy — United States, 1988

Identification of women at risk for consuming alcohol during pregnancy is critical to the design of interventions for reducing the adverse effects of alcohol on both women and their children. This report uses data from the 1988 National Maternal and Infant Health Survey (NMIHS)—the most recent vital records survey for which a population-based sample of this size was available—conducted by CDC's National Center for Health Statistics to analyze characteristics of women who drink alcohol during pregnancy.

The NMIHS was a mail survey of a stratified systematic sample of 13,417 women who had a live-born infant during 1988 (*1*); data from the survey became available in 1991. A total of 9953 (74%) responded. Maternal characteristics analyzed included age, race/ethnicity, education, household income, marital status, parity, smoking status, prenatal care, and alcohol drinking patterns during the 3 months before respondents learned of their pregnancy and during their pregnancy (i.e., prenatal drinkers)*. Data were further analyzed for women who reported having had six or more drinks per week during their pregnancy (i.e., frequent drinkers). The sample data were weighted to reflect general population estimates, and standard errors were calculated using SUDAAN (*2*).

Overall, 45.4% of the respondents reported drinking alcohol during the 3 months before they learned of their pregnancy, 20.7% reported drinking alcohol after they learned of their pregnancy, 16.8% reported drinking three or fewer drinks per month during pregnancy, and 0.6% reported having had six or more drinks per week during pregnancy.

The likelihood of any reported prenatal drinking increased directly with age through age group 30–34 years (Table 1). The race/ethnicity-specific proportion of prenatal drinkers was highest among white, non-Hispanic women (25.4% [95% confidence interval (CI)=23.9%–27.0%]). The likelihood of prenatal drinking was higher

*Women who responded yes to "Did you drink any alcoholic beverages during the 12 months before your delivery?" were asked "How many drinks did you have on average during the 3 months before you found out you were pregnant?" and "How many drinks did you have on average after you found out you were pregnant?" One drink was defined as 12 oz of beer, 4 oz of wine, or 1½ oz of liquor.

Alcohol Consumption During Pregnancy — Continued

among women with ≥16 years of education (30.8% [95% CI=28.3%–33.2%]) than among women in other educational groups and higher among women with annual household incomes of ≥$40,000 (29.1% [95% CI=26.5%–31.7%]) compared with women in other income groups. Prenatal drinking was reported by 38.2% (95% CI=33.5%–42.9%) of women who smoked >10 cigarettes a day and by 17.2% (95% CI=16.0%– 18.4%) of women who were nonsmokers.

Frequent prenatal drinking was more prevalent among women aged ≥35 years (1.4% [95% CI=0.2%–2.5%]) than among younger women (Table 1). The race/ethnicity-specific proportion of frequent drinkers was higher among all racial/ethnic groups

TABLE 1. Percentage of women who self-reported drinking alcohol during pregnancy, by selected characteristics — National Maternal and Infant Health Survey, United States, 1988

	Prenatal* drinkers (n=1738)		Frequent† drinkers (n=102)	
Characteristic	**%**	**(95% CI§)**	**%**	**(95% CI)**
Age group (yrs)				
≤19	9.5	(7.2%–11.9%)	0.2	(0.1%–0.3%)
20–24	16.7	(14.6%–18.7%)	0.7	(0.3%–1.2%)
25–29	22.9	(20.8%–25.0%)	0.4	(0.1%–0.6%)
30–34	28.7	(25.9%–31.5%)	0.6	(0.2%–1.1%)
≥35	21.9	(17.8%–26.0%)	1.4	(0.2%–2.5%)
Race/Ethnicity				
White, non-Hispanic	25.4	(23.9%–27.0%)	0.5	(0.2%–0.7%)
White, Hispanic	10.6	(7.9%–13.3%)	0.3	(0 –0.6%)
Black, non-Hispanic	12.2	(11.2%–13.1%)	1.1	(0.8%–1.5%)
Black, Hispanic	8.2	(3.5%–12.9%)	1.1	(0 –2.8%)
Other¶	10.0	(6.0%–13.9%)	1.1	(0 –2.5%)
Education (yrs)				
0 –11	10.5	(8.7%–12.3%)	0.7	(0.3%–1.1%)
12	18.7	(17.0%–20.4%)	0.6	(0.3%–0.9%)
13–15	24.8	(22.3%–27.3%)	0.3	(0 –0.7%)
≥16	30.8	(28.3%–33.2%)	0.6	(0 –1.2%)
Total annual household income				
<$10,000	17.1	(15.0%–19.2%)	1.3	(0.7%–1.9%)
$10,000–$24,999	15.8	(14.0%–17.7%)	0.4	(0.1%–0.7%)
$25,000–$39,999	21.9	(19.5%–24.4%)	0.3	(0 –0.5%)
≥$40,000	29.1	(26.5%–31.7%)	0.4	(0.1%–0.7%)
Marital status				
Married	22.1	(20.7%–23.5%)	0.4	(0.2%–0.6%)
Unmarried	16.7	(14.8%–18.7%)	1.0	(0.5%–1.5%)
Parity				
1	20.5	(18.8%–22.1%)	0.4	(0.1%–0.6%)
2	20.5	(18.5%–22.6%)	0.5	(0.2%–0.8%)
≥3	21.9	(19.5%–24.2%)	1.1	(0.6%–1.7%)
Cigarette smoking status during pregnancy				
0	17.2	(16.0%–18.4%)	0.2	(0.1%–0.4%)
1–10 per day	30.0	(26.6%–33.4%)	1.2	(0.6%–1.9%)
>10 per day	38.2	(33.5%–42.9%)	2.7	(1.3%–4.1%)
Prenatal care				
Yes	20.7	(19.6%–21.9%)	0.6	(0.4%–0.8%)
No	20.6	(13.1%–28.2%)	2.2	(0.9%–3.6%)
Total	**20.7**	**(19.6%–21.9%)**	**0.6**	**(0.4%–0.8%)**

* Women who reported drinking at any time during pregnancy.
† Women who reported consuming six or more drinks per week during pregnancy. One drink was defined as 12 oz of beer, 4 oz of wine or 1½ oz of liquor.
§ Confidence interval.
¶ Number of women in other specific racial/ethnic groups was too small for meaningful analysis.

Alcohol Consumption During Pregnancy — Continued

other than white. The likelihood of frequent drinking was higher among women with annual household incomes ≤$10,000 (1.3% [95% CI=0.7%–1.9%]). The proportion of frequent drinkers increased as smoking level increased, and was more than three times higher among women receiving no prenatal care than among those who received prenatal care (2.2% [95% CI=0.9%–3.6%] compared with 0.6% [95% CI=0.4%–0.8%]).

Reported by: Fetal Alcohol Syndrome Prevention Section, Developmental Disabilities Br, Div of Birth Defects and Developmental Disabilities, National Center for Environmental Health; Follow-back Survey Br, Div of Vital Statistics, National Center for Health Statistics, CDC.

Editorial Note: An advisory both for women who are pregnant and for those trying to become pregnant not to drink alcohol was issued by the U.S. Surgeon General in 1981 (*3*) and was reiterated in 1990 by the Secretary of Health and Human Services (*4*). Although only a small proportion of the population surveyed reported frequent drinking during pregnancy, analyses of risk factors suggest these women have some different sociodemographic characteristics than those of all women who drink during pregnancy; however, the number of frequent drinkers in the survey was small, producing unstable population estimates that require further evaluation. The findings in this report are consistent with selected findings in previous studies (*5,6*) and can assist in targeting programs for the prevention of maternal alcohol consumption during pregnancy.

The findings in this report are subject to at least three limitations. First, alcohol drinking was self-reported and could not be verified. Disclosure of prenatal alcohol consumption may have been underreported because of increasing awareness of the dangers of alcohol consumption during pregnancy (*7*). Second, NMIHS data do not include a question about "binge" drinking (i.e., consuming five or more drinks on any one occasion), which has been associated with neurodevelopmental deficits (*8*). Third, drinking patterns may have changed since these data were collected. Analyses of more recent data from CDC's Behavioral Risk Factor Surveillance System may provide information about recent trends in maternal alcohol consumption during pregnancy.

The high prevalence of alcohol drinking by women during pregnancy in 1988 (21%) underscores the need to sustain efforts by public health agencies and health-care providers to advise women against drinking if they are trying to become pregnant or are likely to become pregnant. Although in this study frequent alcohol drinkers were a small proportion of all women who consumed alcohol during pregnancy, they are at greater risk than infrequent drinkers for delivering infants with alcohol-related disorders (*9,10*). Although previous studies documented adverse fetal effects of prenatal alcohol at relatively high thresholds, more recent studies have found adverse physical and neurobehavioral effects at lower exposure levels. Population-based surveys that oversample women with characteristics described in this and other studies may assist in better defining women who drink alcohol frequently during pregnancy because they may account for a disproportionately larger number of children affected by in utero alcohol exposure.

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Notice to Readers

Licensure of Varicella Virus Vaccine, Live

On March 17, 1995, the Food and Drug Administration licensed Varicella Virus Vaccine, Live (VARIVAX®), manufactured and distributed by Merck and Co., Inc., (Rahway, New Jersey). This vaccine has been licensed for use in persons aged ≥12 months. The recommended dose for susceptible children aged 12 months–12 years is one 0.5 mL dose administered subcutaneously. The recommended dosage for susceptible adolescents aged ≥13 years and adults is two 0.5 mL doses of vaccine 4–8 weeks apart.

The recommendations of the Advisory Committee on Immunization Practices on the use of varicella vaccine will be published.

Reported by: Center for Biologics Evaluation and Research, Food and Drug Administration. National Immunization Program, CDC.

Notice to Readers

NIOSH Alert: *Request for Assistance in Preventing Injuries and Deaths of Loggers*

CDC's National Institute for Occupational Safety and Health (NIOSH) periodically issues alerts on workplace hazards that have caused death, serious injury, or illness to workers. One such alert, *Request for Assistance in Preventing Injuries and Deaths of Loggers* (*1*), was recently published and is available to the public.*

This alert warns workers in the logging industry that they are at high risk for injury and death if they do not use proper safety procedures and equipment. The National

*Single copies of this document are available without charge from the Publications Office, Division of Standards Development and Technology Transfer, NIOSH, CDC, Mailstop C-13, 4676 Columbia Parkway, Cincinnati, OH 45226-1998; telephone (800) 356-4674 ([513] 533-8328 for persons outside the United States); fax (513) 533-8573.

Notices to Readers — Continued

Traumatic Occupational Fatalities Surveillance System indicates that during 1980–1989, approximately 6400 U.S. workers died each year from traumatic injuries in the workplace. During this time, an estimated 1492 of these deaths occurred in the logging industry, where the average annual fatality rate is more than 23 times that for all U.S. workers (164 deaths per 100,000 workers, compared with seven per 100,000). Most of these logging-associated deaths occurred in four occupational groups: logging (e.g., fellers, limbers, buckers, and choker setters), truck drivers, general laborers, and material machine operators. In addition, the Bureau of Labor Statistics reported in 1992 that logging had a workplace injury rate of more than 14,000 injuries per 100,000 full-time workers, compared with 8000 per 100,000 for the total private sector.

The alert describes six fatal incidents that involved workers in the logging industry during October 1991–May 1993 and provides recommendations for workers and employers to prevent logging-related deaths and injuries.

Reference

1. NIOSH. Request for assistance in preventing injuries and deaths of loggers. Cincinnati: US Department of Health and Human Services, Public Health Service, CDC, 1994; DHHS publication no. (NIOSH)94-101.

Notice to Readers

1995 Institute: Frontiers in Laboratory Practice Research

CDC is sponsoring the 1995 Institute, "Frontiers in Laboratory Practice Research," in Atlanta, October 1–3. The Institute will include research strategies and methods for addressing major issues in laboratory practice. Abstracts for poster presentations will be accepted until July 28 in the following areas: Personnel, Proficiency Testing, Quality Assurance, Detection of Problems Affecting Patient Outcome, Establishing Analytical Performance Goals, Measuring the Impact of Change on Laboratory Testing, Laboratory-Focused Health Systems Research, and Establishing Medically Relevant Performance Goals for the Laboratory. The registration deadline is September 1.

Registration and abstract submission information are available from the Meeting Manager, Division of Laboratory Systems, Public Health Practice Program Office, CDC, Mailstop G-23, 4770 Buford Highway, Atlanta, GA, 30341-3724; telephone (404) 488-7680.

Monthly Immunization Table

To track progress toward achieving the goals of the Childhood Immunization Initiative (CII), CDC publishes monthly a tabular summary of the number of cases of all diseases preventable by routine childhood vaccination reported during the previous month and year-to-date (provisional data). In addition, the table compares provisional data with final data for the previous year and highlights the number of reported cases among children aged <5 years, who are the primary focus of CII. Data in the table are derived from CDC's National Notifiable Diseases Surveillance System.

Number of reported cases of diseases preventable by routine childhood vaccination — United States, February 1995 and 1994–1995*

Disease	No. cases, February 1995	Total cases January-February		No. cases among children aged <5 years† January-February	
		1994	1995	1994	1995
Congenital rubella syndrome (CRS)	1	**2**	**2**	2	2
Diphtheria	0	**0**	**0**	0	0
Haemophilus influenzae§	122	**190**	**231**	44	53
Hepatitis B¶	563	**1722**	**1026**	26	4
Measles	26	**43**	**31**	4	17
Mumps	44	**216**	**101**	26	19
Pertussis	238	**624**	**410**	262	221
Poliomyelitis, paralytic**	0	**0**	**0**	0	0
Rubella	4	**39**	**11**	5	3
Tetanus	2	**4**	**3**	0	0

*Data for 1994 and 1995 are provisional.
†For 1994 and 1995, age data were available for ≥86% of cases.
§Invasive disease; *H. influenzae* serotype is not routinely reported to the National Notifiable Diseases Surveillance System. Of 53 cases among children aged <5 years, serotype was reported for 10 cases, and of those, five were type b, the only serotype of *H. influenzae* preventable by vaccination.
¶Because most hepatitis B virus infections among infants and children aged <5 years are asymptomatic (although likely to become chronic), acute disease surveillance does not reflect the incidence of this problem in this age group or the effectiveness of hepatitis B vaccination in infants.
**One case with onset in 1994 has been confirmed; this case was vaccine-associated. An additional six suspected cases are under investigation. In 1993, three of 10 suspected cases were confirmed; two of the confirmed cases were vaccine-associated, and one was imported. The imported case occurred in a 2-year-old Nigerian child brought to the United States for care of his paralytic illness; no poliovirus was isolated from the child.

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to *lists@list.cdc.gov*. The body content should read *subscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at *http://www.cdc.gov/* or from CDC's file transfer protocol server at *ftp.cdc.gov*. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (404) 332-4555.

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