CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

September 6, 1985 / Vol. 34 / No. 35

Leading Work-Related Diseases and Injuries — United States

The National Institute for Occupational Safety and Health (NIOSH) has developed a suggested list of 10 leading work-related diseases and injuries. Summaries of the first five disease categories have appeared previously (1-5); a discussion of the sixth category, disorders of reproduction, appears below.

DISORDERS OF REPRODUCTION

Since antiquity, certain chemical and physical agents have been recognized as having detrimental effects on human reproduction. For example, the effect of industrial lead poisoning in inducing abortions was noted by the Romans and again in the first decade of this century (*6*). Evidence from more recent laboratory studies and clinical investigations indicates that a wide range of microbiologic, physical, and chemical agents, such as *Brucella*, rubella, ionizing and nonionizing radiation, heat and vibration, tobacco, alcohol, and certain drugs, can adversely affect reproductive outcomes. At least 50 chemicals—including heavy metals, such as lead and cadmium, glycol ethers, organohalide pesticides, organic solvents, and chemical intermediates, such as styrene and vinyl chloride—in widespread use in industry have been shown to produce impairment of reproductive functions in animals (*7*).

Until recently, the potential hazards to human reproduction posed by occupational exposures received little attention. However, adverse effects after thalidomide exposure in the 1960s and the occurrence in 1970 of methylmercury poisoning among residents of Minamata, Japan, dramatically demonstrated the teratogenic potential of chemical exposures. Those events and the increasing entry of women into the workforce focused greater attention on the potential hazards to female reproductive function of occupational exposures. In the late 1970s, the demonstration of sterility among male workers exposed to dibromochloropropane was described; this drew attention to the concomitant potential for hazards to male reproductive function (*8*).

Occupational exposures can produce a wide range of adverse effects on reproduction. The effects of parental exposure before conception to agents toxic to reproductive functions may be evident as reduced fertility, unsuccessful fertilization or implantation, or an abnormal fetus. Maternal exposure after conception may result in death of the fetus or structural and functional abnormalities in the newborn. Other possible adverse outcomes include spontaneous abortions (both early and late), major and minor birth defects, perinatal death, low birth weight, altered sex ratio, developmental or behavioral disabilities, and transplacental exposure to carcinogen (*9-11*).

Estimates of the prevalence of adverse reproductive outcomes indicate that these events occur with considerable frequency in the U.S. population. For example, an estimated 560,000 infant deaths, spontaneous abortions, and stillbirths occur each year. The March of Dimes estimates that 200,000 live infants with some type of birth defect—benign or disabling—are born in the United States each year (*9*).

Leading Work-Related Diseases and Injuries — Continued

The causes of most of these adverse outcomes are unknown. For example, 6%-30% of the infertile couples have no recognized anatomic or physiologic abnormalities to account for the infertility (*10*); neither the etiology of sperm abnormalities nor the cause of sister-chromatid exchange in spontaneous abortions has been established (*11,12*). The causes for as many as 65%-70% of the birth defects are not known (*13*).

Maternal Exposures. Studies of occupational reproductive hazards to date have consisted mainly of epidemiologic surveys of pregnancy outcomes following maternal exposures. Such studies have shown increased rates of spontaneous abortions among laboratory and chemical workers (*14,15*) and among workers exposed to lead (*16*), ethylene oxide (*17*), and anesthetic gases (*18,19*). Studies of adverse outcomes of pregnancy, however, are subject to several methodologic limitations. For example, the detection of rare outcomes, such as birth defects, requires the study of several thousand pregnancies, and retrospective studies are subject to problems of recall and misclassification, both of reproductive events and of exposures (*20,21*). The timing, duration, and frequency of exposure before and during pregnancy may critically affect reproductive outcomes (*22*). For example, exposure to ionizing radiation during the first trimester may result in microcephaly and mental retardation, and exposure during the third trimester may produce low birth weight and neonatal death (*11*). Other studies have been limited by the selection of inadequate comparison groups or the failure to examine the influence of other factors, such as alcohol and tobacco consumption or maternal age, that affect reproductive outcomes.

Paternal Exposures. Since azoospermia (absence of living spermatoza in the semen) and oligospermia (subnormal concentration of spermatoza) were reported in 1977 among workers exposed to dibromochloropropane (*8*), at least 14 studies have examined the quality of semen in workers exposed to lead, carbon disulfide, anesthetic gases, ionizing radiation, toluenediamine, dinitrotoluene, carbaryl, and several other pesticides (*10*). Adverse effects on the quality of semen were reported in workers exposed to lead or ionizing radiation. In other studies (e.g., of exposures to ethylene dibromide) results were inconclusive because of problems in design of the study or inadequate numbers of participants (*10*). CDC recently used data collected by the Metropolitan Atlanta Congenital Defects Program to examine the risk of serious structural birth defects among the children of male Vietnam veterans; no statistically excessive risks were noted (*23*). In general, relatively few studies have been conducted of reproductive outcomes associated with paternal exposures (*9*).

Extent of potential exposures. Estimates have been made of the number of workers potentially exposed to selected agents known or suspected to be toxic to reproductive function (Table 1). NIOSH estimates that approximately 200,000 workers are potentially exposed to various glycol ethers (*24*), several of which exhibit marked testicular toxicity in animals (*25*).

TABLE 1. Estimated numbers of workers potentially exposed to selected substances known or suspected to cause adverse reproductive outcomes

Agent*	Estimated no. workers
Dibromochloropropane	11,362
Cadmium	157,383
Chloroprene	343,596
Ethylene glycol	2,060,470
Ethylene oxide	139,000
Formaldehyde	1,658,151
Lead (inorganic)	1,401,831
Radiofrequency/microwave radiation	9,000,000
Waste anesthetic gases	50,000

*Examples of agents have been selected on the basis of positive animal and/or human data; inclusion or exclusion of agents does not constitute an evaluation of their potential reproductive toxicity in humans.

Leading Work-Related Diseases and Injuries — Continued

An estimated 9 million workers are exposed to radiofrequency/microwave radiation (*26*), which has been shown to cause embryonic death and impaired fertility in animals but which has yet to be studied adequately in humans. NIOSH has estimated that approximately 50,000 personnel in hospital operating rooms are potentially exposed to waste anesthetic gases, and 139,000 hospital and other industrial workers may be exposed to ethylene oxide (*24*); both agents have been linked to an increased risk of spontaneous abortions in humans.

Reported by Industrywide Studies Br, Surveillance Br, Div of Surveillance, Hazard Evaluations, and Field Studies, National Institute for Occupational Safety and Health, CDC.

Editorial Note: The extent to which occupational exposures in American workers produce adverse reproductive outcomes is largely unknown. However, the information presented here suggests that the problem is both widespread and serious. Epidemiologic and toxicologic research into the reproductive effects of occupational exposures is in its infancy. There is a continuing effort to elucidate the etiology of adverse reproductive outcomes, such as fetal chromosomal abnormalities or abnormal spermatogenesis and to develop improved animal models for screening agents for possible mutagenic and toxic effects related to human reproduction. Registries for the surveillance of outcomes of reproduction, such as CDC's Birth Defects Monitoring Program (*9*), and improved methodologies developed to evaluate such parameters as quality of semen (*12*) and outcomes of pregnancy (*20*), will permit further identification of specific occupational hazards to reproduction. When such hazards are identified and controlled in the workplace, the prevention of reproductive disorders in the population as a whole will be substantially improved.

References

1. CDC. Leading work-related diseases and injuries—United States. MMWR 1983;32:24-6, 32.
2. CDC. Leading work-related diseases and injuries—United States. MMWR 1983;32:189-91.
3. CDC. Leading work-related diseases and injuries—United States. MMWR 1984;33:125-28.
4. CDC. Leading work-related diseases and injuries—United States. MMWR 1984;33:213-5.
5. CDC. Leading work-related diseases and injuries—United States. MMWR 1985;34:219-22, 227.
6. Hamilton A. Women in the lead industries. Bureau of Labor Statistics Bulletin No. 253. Washington, D.C.: U.S. Department of Labor, 1919. In: Hunt V. Work and the health of women. Boca Raton, Florida: CRC Press, Inc. 1979.
7. Barlow SM, Sullivan FM. Reproductive hazards of industrial chemicals: an evaluation of animal and human data. London: Academic Press, 1982.
8. Whorton D, Krauss RM, Marshall S, Milby TH. Infertility in male pesticide workers. Lancet 1977;ii: 1259-61.
9. Bloom AD, Paul NW, eds. Guidelines for studies of human populations exposed to mutagenic and reproductive hazards: proceedings of conference held January 26-27, 1981, in Washington, D.C. sponsored by Centers for Disease Control. White Plains, New York: March of Dimes Birth Defects Foundation, 1981.
10. Ratcliffe JM. Altered fertility. In: Review of occupational hazards to reproductive health. Geneva, Switzerland: World Health Organization, (in press).
11. Strobino BR, Kline J, Stein Z. Chemical and physical exposures of parents: effects on human reproduction and offspring. Early Hum Dev 1978;1:371-99.
12. Wyrobek AJ. Methods for evaluating the effects of environmental chemicals on human sperm production. Environ Health Perspect 1983;48:53-9.
13. Wilson JG. Environment and birth defects. New York: Academic Press, 1973.
14. Strandberg M, Sandbäck K, Axelson O, Sundell L. Spontaneous abortions among women in hospital laboratory. [Letter] Lancet 1978;i:384-5.
15. Hemminki K, Franssilla E, Vainio H. Spontaneous abortions among female chemical workers in Finland. Int Arch Occup Environ Health 1980;45:123-6.
16. Nordström S, Beckman L, Nordenson I. Occupational and environmental risks in and around a smelter in northern Sweden. V. Spontaneous abortion among female employees and decreased birth weight in their offspring. Heriditas 1979;90:291-6.
17. Hemminki K, Mutanen P, Saloniemi I, Niemi ML, Vainio H. Spontaneous abortions in hospital staff engaged in sterilising instruments with chemical agents. Br Med J 1982;285:1461-3.
18. Cohen EN, Gift HC, Brown BW, et al. Occupational disease in dentistry and chronic exposure to trace anesthetic gases. J Am Dent Assoc 1980;101:21-31.

Leading Work-Related Diseases and Injuries — Continued

19. Cohen EN, Brown BW, Bruce DL, et al. Occupational disease among operating room personnel: a national study. Anesthesiology 1974;41:321-40.
20. Selevan SG. Design considerations in pregnancy outcome studies of occupational populations. Scand J Work Environ Health 1981;7:76-82.
21. Buffler PA. Some problems involved in recognizing teratogens used in industry. Contributions to epidemiology and biostatistics 1979;1:118-37.
22. Gordon JE. Assessment of occupational and environmental exposures. In: Bracken, MB, ed. Perinatal epidemiology. New York: Oxford University Press (in press).
23. Erickson JD, Mulinare J, McClain PW, et al. Vietnam veterans' risks for fathering babies with birth defects. JAMA 1984;252:903-12.
24. National Institute for Occupational Safety and Health. National Occupational Hazard Survey. Projected estimates of potentially exposed workers. Cincinnati, Ohio: National Institute for Occupational Safety and Health, December 1977 (DHEW [NIOSH] publication no. 78-114).
25. National Institute for Occupational Safety and Health. Glycol ethers. Current Intelligence Bulletin No. 39. Cincinnati, Ohio: National Institute for Occupational Safety and Health, 1983 (DHHS [NIOSH] publication no. 83-112).
26. Centaur Associates, Inc. final report; study of radiofrequency and microwave radiation (phase 1). Prepared for the Occupational Safety and Health Administration;1982.

TABLE I. Summary—cases of specified notifiable diseases, United States

Disease	35th Week Ending			Cumulative, 35th Week Ending		
	Aug. 31, 1985	Sept. 1, 1984	Median 1980-1984	Aug. 31, 1985	Sept. 1, 1984	Median 1980-1984
Acquired Immunodeficiency Syndrome (AIDS)	184	103	N	5,159	2,707	N
Aseptic meningitis	245	330	372	4,651	4,406	4,967
Encephalitis: Primary (arthropod-borne & unspec.)	25	26	60	652	669	811
Post-infectious	2	1	1	87	85	66
Gonorrhea: Civilian	11,087	18,328	19,574	551,125	552,126	638,123
Military	298	353	549	12,177	14,385	18,203
Hepatitis: Type A	254	417	420	14,289	13,883	14,908
Type B	319	506	429	16,819	16,898	14,308
Non A, Non B	36	51	N	2,693	2,532	N
Unspecified	69	98	169	3,775	3,282	5,755
Legionellosis	7	44	N	386	412	N
Leprosy	1	5	5	247	151	151
Malaria	11	13	27	654	605	728
Measles: Total*	42	29	10	2,362	2,244	2,244
Indigenous	25	26	N	1,918	1,987	N
Imported	17	3	N	444	257	N
Meningococcal infections: Total	17	34	34	1,682	1,998	1,998
Civilian	17	34	34	1,679	1,994	1,994
Military	-	-	-	3	4	12
Mumps	18	38	30	2,131	2,183	3,157
Pertussis	102	50	50	1,558	1,392	1,056
Rubella (German measles)	10	27	17	498	527	1,723
Syphilis (Primary & Secondary): Civilian	360	621	591	16,833	18,709	20,357
Military	1	4	7	101	225	250
Toxic Shock syndrome	3	6	N	252	330	N
Tuberculosis	392	445	449	14,144	14,120	16,854
Tularemia	2	5	10	103	218	168
Typhoid fever	3	6	13	220	218	273
Typhus fever, tick-borne (RMSF)	21	40	40	466	635	886
Rabies, animal	66	137	126	3,452	3,591	4,332

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1985		Cum. 1985
Anthrax	-	Leptospirosis (Iowa 1, Nebr. 1)	23
Botulism: Foodborne (Alaska 1)	34	Plague	11
Infant	32	Poliomyelitis: Total	3
Other	1	Paralytic	3
Brucellosis (Ohio 1, Iowa 1, Tex. 1)	87	Psittacosis (Mich. 1, Colo. 1)	79
Cholera	3	Rabies, human	-
Congenital rubella syndrome	-	Tetanus	41
Congenital syphilis, ages < 1 year	111	Trichinosis	48
Diphtheria	1	Typhus fever, flea-borne (endemic, murine) (Tex. 3)	15

*Eight of the 42 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 31, 1985 and September 1, 1984 (35th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1985	1985	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1984	1985	1985	1985	1985	1985	Cum. 1985
UNITED STATES	5,159	245	652	87	551,125	552,126	254	319	36	69	7	247
NEW ENGLAND	184	29	20	-	15,441	15,265	4	31	2	12	-	5
Maine	7	-	-	-	747	648	-	2	-	-	-	-
N.H.	-	4	5	-	396	458	1	1	-	-	-	-
Vt.	1	-	-	-	211	250	-	-	-	-	-	-
Mass.	111	14	14	-	5,947	6,320	2	16	-	12	-	5
R.I.	9	9	-	-	1,226	1,030	-	1	1	-	-	-
Conn.	56	2	1	-	6,914	6,559	1	11	1	-	-	-
MID ATLANTIC	2,068	54	92	6	84,304	75,075	21	27	1	4	-	22
Upstate N.Y.	245	34	30	4	11,257	11,476	14	9	-	-	-	1
N.Y. City	1,411	5	11	-	42,583	31,319	1	-	-	1	-	21
N.J.	290	15	23	-	12,799	12,554	6	18	1	3	-	-
Pa.	122	-	28	2	17,665	19,726	-	-	-	-	-	-
E.N. CENTRAL	229	45	149	18	78,048	76,583	14	32	3	5	1	21
Ohio	43	20	60	4	20,109	19,879	8	10	-	3	1	3
Ind.	16	-	26	2	7,704	8,410	-	-	-	-	-	-
Ill.	113	-	14	7	20,706	17,425	2	2	-	1	-	16
Mich.	39	25	34	-	21,887	22,328	4	20	3	1	-	2
Wis.	18	-	15	5	7,642	8,541	-	-	-	-	-	-
W.N. CENTRAL	58	9	42	3	27,428	27,146	29	13	4	-	-	1
Minn.	16	1	20	1	3,998	4,048	-	2	3	-	-	-
Iowa	8	-	12	-	2,902	2,938	1	-	-	-	-	-
Mo.	25	7	-	-	13,206	13,167	-	9	-	-	-	1
N. Dak.	-	1	-	1	178	255	-	-	-	-	-	-
S. Dak.	-	-	-	-	509	625	12	1	-	-	-	-
Nebr.	2	-	5	-	2,372	1,936	12	-	1	-	-	-
Kans.	7	-	5	1	4,263	4,177	4	1	-	-	-	-
S. ATLANTIC	770	43	77	32	120,710	140,139	29	102	9	9	5	5
Del.	10	6	4	-	2,787	2,539	1	3	-	-	-	-
Md.	98	4	16	1	19,439	16,011	4	21	4	-	1	1
D.C.	103	-	-	-	10,157	10,166	-	5	-	-	-	-
Va.	59	5	17	4	12,721	13,435	-	1	-	-	-	-
W. Va.	5	2	18	-	1,712	1,650	-	1	1	-	1	-
N.C.	35	8	19	-	23,450	22,799	2	3	-	1	-	2
S.C.	11	1	3	-	14,311	14,236	1	12	1	-	1	-
Ga.	124	2	-	-	-	25,576	5	21	-	1	1	1
Fla.	325	15	-	27	36,133	33,727	16	35	3	7	1	1
E.S. CENTRAL	45	18	23	4	49,150	48,728	8	25	2	3	1	-
Ky.	13	8	8	-	5,665	5,873	4	6	1	1	1	-
Tenn.	14	1	4	-	18,976	20,107	1	17	-	1	-	-
Ala.	16	9	9	4	14,761	15,393	2	2	1	1	-	-
Miss.	2	-	2	-	9,748	7,355	1	-	-	-	-	-
W.S. CENTRAL	359	25	88	2	73,343	75,499	35	32	3	26	-	17
Ark.	5	-	3	1	7,241	6,885	1	-	-	1	-	1
La.	65	-	3	-	15,226	16,807	4	12	2	1	-	1
Okla.	8	2	19	1	8,019	8,250	4	2	1	-	-	-
Tex.	281	23	63	-	42,857	43,557	26	18	-	24	-	15
MOUNTAIN	89	17	26	5	18,252	17,757	71	40	7	10	-	5
Mont.	-	-	-	-	509	745	-	-	-	-	-	-
Idaho	-	-	-	-	551	882	5	1	-	-	-	-
Wyo.	-	-	1	-	429	495	-	1	-	-	-	-
Colo.	41	6	6	1	5,442	5,075	4	3	1	7	-	1
N. Mex.	7	4	3	-	2,115	2,097	14	5	-	1	-	-
Ariz.	26	2	5	-	5,341	4,784	23	22	4	2	-	1
Utah	12	4	8	4	820	873	11	2	2	-	-	2
Nev.	3	1	3	-	3,045	2,806	14	6	-	-	-	1
PACIFIC	1,357	5	135	17	84,449	75,934	43	17	5	-	-	171
Wash.	79	2	13	-	6,315	5,702	12	5	1	-	-	33
Oreg.	20	-	1	-	4,264	4,351	31	6	4	-	-	3
Calif.	1,238	U	105	17	70,673	62,695	U	U	U	U	U	116
Alaska	2	1	16	-	1,981	1,900	-	2	-	-	-	-
Hawaii	18	2	-	-	1,216	1,286	-	4	-	-	-	19
Guam	-	U	-	-	91	166	U	U	U	U	U	2
P.R.	59	2	4	2	2,262	2,298	8	15	-	5	-	2
V.I.	2	U	-	-	312	375	U	U	U	U	U	-
Pac. Trust Terr.	-	U	-	-	146	-	U	U	U	U	U	20

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 31, 1985 and September 1, 1984 (35th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984
UNITED STATES	654	25	1,918	17	444	2,244	1,682	18	2,131	102	1,558	1,392	10	498	527
NEW ENGLAND	36	1	37	-	87	104	75	2	44	11	91	36	-	12	18
Maine	4	-	-	-	1	-	2	-	6	-	2	1	-	-	1
N.H.	4	-	-	-	-	36	11	2	9	8	39	6	-	2	1
Vt.	1	-	-	-	-	7	9	-	2	-	3	17	-	-	-
Mass.	18	1	33	-	83	48	12	-	14	3	28	10	-	6	16
R.I.	3	-	-	-	-	-	13	-	8	-	12	1	-	-	-
Conn.	6	-	4	-	3	13	28	-	5	-	7	1	-	4	-
MID ATLANTIC	102	2	169	1	29	142	296	-	220	7	96	118	10	215	198
Upstate N.Y.	33	-	71	-	10	31	117	-	125	3	49	64	-	17	98
N.Y. City	36	2	54	1 §	9	100	50	-	14	2	11	5	9	175	82
N.J.	13	-	16	-	10	7	45	-	28	-	3	11	-	9	17
Pa.	20	-	28	-	-	4	84	-	53	2	33	38	1	14	1
E.N. CENTRAL	32	-	362	1	139	680	289	9	810	5	266	377	-	21	80
Ohio	6	-	-	-	52	9	95	6	243	5	37	62	-	-	2
Ind.	3	-	49	-	2	3	38	-	36	-	70	222	-	1	3
Ill.	5	-	220	-	66	177	64	1	165	-	22	23	-	5	48
Mich.	13	-	37	1 §	18	455	64	2	288	-	30	21	-	14	19
Wis.	5	-	56	-	1	36	28	-	78	-	107	49	-	1	8
W.N. CENTRAL	23	-	1	-	10	10	85	1	65	23	116	106	-	19	31
Minn.	10	-	-	-	6	3	22	-	1	22	50	12	-	2	2
Iowa	1	-	-	-	-	-	7	-	10	-	5	9	-	1	1
Mo.	4	-	-	-	2	3	34	-	11	-	23	16	-	7	-
N. Dak.	1	-	-	-	2	-	3	-	2	-	9	-	-	2	3
S. Dak.	1	-	-	-	-	-	2	-	-	1	2	8	-	-	-
Nebr.	1	-	-	-	-	-	7	-	2	-	4	11	-	-	-
Kans.	5	-	1	-	-	4	10	1	39	-	23	50	-	7	25
S. ATLANTIC	85	3	257	6	21	48	327	4	202	2	272	158	-	54	22
Del.	-	-	-	-	-	-	8	-	1	-	-	2	-	1	-
Md.	20	3	87	3 †	7	20	45	-	27	-	117	49	-	6	1
D.C.	5	-	5	-	1	8	6	-	-	-	1	-	-	-	-
Va.	19	-	21	1 §	5	5	40	4	41	-	8	18	-	2	-
W. Va.	2	-	33	-	-	-	8	-	56	2	4	10	-	9	-
N.C.	8	-	9	-	-	-	44	-	11	-	17	21	-	-	-
S.C.	-	-	-	-	1	1	32	-	7	-	1	2	-	3	-
Ga.	6	-	8	-	-	1	54	-	28	-	77	14	-	4	2
Fla.	25	-	94	2 † §	7	13	90	-	31	-	47	42	-	29	19
E.S. CENTRAL	9	-	-	3	6	3	77	-	23	12	30	12	-	2	9
Ky.	3	-	-	3 §	5	1	6	-	8	-	3	1	-	2	3
Tenn.	-	-	-	-	-	2	31	-	13	10	16	7	-	-	-
Ala.	5	-	-	-	-	-	24	-	-	1	7	-	-	-	3
Miss.	1	-	-	-	1	-	16	-	2	1	4	4	-	-	3
W.S. CENTRAL	62	-	410	-	13	516	144	1	226	10	255	247	-	32	6
Ark.	-	-	-	-	-	8	13	-	4	-	12	15	-	1	3
La.	1	-	42	-	-	8	22	-	2	-	10	4	-	-	-
Okla.	2	-	-	-	1	8	27	N	N	-	116	213	-	1	-
Tex.	59	-	368	-	12	492	82	1	220	10	117	15	-	30	3
MOUNTAIN	33	-	487	-	49	144	72	-	202	25	135	97	-	5	17
Mont.	-	-	122	-	17	-	5	-	8	-	7	19	-	-	-
Idaho	1	-	126	-	18	23	2	-	9	-	3	7	-	1	1
Wyo.	1	-	-	-	-	-	6	-	2	-	-	3	-	-	2
Colo.	11	-	6	-	7	6	20	-	16	15	46	34	-	-	2
N. Mex.	10	-	1	-	3	88	8	N	N	-	12	6	-	2	-
Ariz.	5	-	232	-	4	-	19	-	99	-	27	20	-	1	1
Utah	2	-	-	-	-	27	7	-	6	10	40	6	-	-	7
Nev.	3	-	-	-	-	-	5	-	62	-	-	2	-	1	4
PACIFIC	272	19	195	6	90	597	317	1	339	7	297	241	-	138	146
Wash.	18	19	28	6 † §	38	139	55	-	29	1	53	60	-	11	1
Oreg.	12	-	3	-	-	-	29	N	N	6	35	14	-	2	1
Calif.	225	U	150	U	47	301	222	U	287	U	168	97	U	82	139
Alaska	2	-	-	-	-	-	7	1	8	-	29	1	-	1	1
Hawaii	15	-	14	-	5	157	4	-	15	-	12	69	-	42	4
Guam	1	U	10	U	-	90	-	U	5	U	-	-	U	1	4
P.R.	-	-	50	-	-	4	10	5	129	-	10	-	-	25	7
V.I.	-	U	4	U	6	-	-	U	3	U	-	-	U	-	-
Pac. Trust Terr.	-	U	-	U	-	-	-	U	3	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 31, 1985 and September 1, 1984 (35th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1985
UNITED STATES	16,833	18,709	3	14,144	14,120	103	220	466	3,452
NEW ENGLAND	360	348	1	480	406	3	10	5	17
Maine	10	4	-	34	20	-	-	-	-
N.H.	9	12	-	13	24	-	-	1	1
Vt.	5	1	-	4	7	-	-	-	-
Mass.	181	201	1	287	215	3	7	4	9
R.I.	12	14	-	35	30	-	-	-	-
Conn.	143	116	-	107	110	-	3	-	7
MID ATLANTIC	2,329	2,536	-	2,596	2,610	1	34	16	323
Upstate N.Y.	179	220	-	452	420	-	9	9	79
N.Y. City	1,425	1,551	-	1,257	1,037	1	17	2	-
N.J.	465	457	-	374	573	-	7	2	33
Pa.	260	308	-	513	580	-	1	3	211
E.N. CENTRAL	722	876	1	1,764	1,864	1	24	37	131
Ohio	100	162	-	314	355	-	5	27	23
Ind.	65	91	-	211	210	-	3	2	17
Ill.	362	300	-	766	776	1	9	6	25
Mich.	149	274	1	367	406	-	5	2	20
Wis.	46	49	-	106	117	-	2	-	46
W.N. CENTRAL	156	274	1	383	439	31	10	34	644
Minn.	32	76	-	80	76	1	6	1	127
Iowa	17	11	-	43	45	-	2	1	116
Mo.	78	138	-	186	222	19	1	2	30
N. Dak.	2	9	-	6	10	-	-	1	94
S. Dak.	5	-	-	19	17	6	-	2	212
Nebr.	6	11	-	11	22	2	1	2	29
Kans.	16	29	1	38	47	3	-	25	36
S. ATLANTIC	4,368	5,534	-	2,876	2,928	6	23	224	910
Del.	26	14	-	27	36	1	-	1	-
Md.	297	346	-	263	287	-	8	22	453
D.C.	240	227	-	109	119	-	-	-	-
Va.	203	284	-	245	303	1	3	18	119
W. Va.	15	13	-	78	94	-	-	1	20
N.C.	454	563	-	368	431	4	2	83	8
S.C.	548	519	-	356	354	-	-	65	52
Ga.	-	931	-	486	429	-	2	29	134
Fla.	2,585	2,637	-	944	875	-	8	5	124
E.S. CENTRAL	1,411	1,296	-	1,249	1,297	5	4	45	165
Ky.	43	71	-	293	312	-	1	4	25
Tenn.	429	337	-	361	393	4	1	24	29
Ala.	422	424	-	371	385	1	2	10	107
Miss.	517	464	-	224	207	-	-	7	4
W.S. CENTRAL	4,006	4,563	-	1,735	1,632	36	17	88	604
Ark.	212	143	-	190	181	18	-	12	101
La.	705	806	-	265	216	-	-	1	12
Okla.	118	151	-	177	163	13	-	64	79
Tex.	2,971	3,463	-	1,103	1,072	5	17	11	412
MOUNTAIN	484	427	-	364	367	14	10	14	291
Mont.	5	2	-	46	14	4	-	6	133
Idaho	4	18	-	15	24	-	-	-	8
Wyo.	8	7	-	5	-	-	-	4	16
Colo.	116	111	-	42	42	2	4	2	15
N. Mex.	94	58	-	66	70	2	4	-	8
Ariz.	230	155	-	158	172	4	2	-	104
Utah	6	12	-	10	30	2	-	-	2
Nev.	21	64	-	22	15	-	-	2	5
PACIFIC	2,997	2,855	-	2,697	2,577	6	88	3	367
Wash.	73	108	-	165	128	-	-	-	4
Oreg.	62	78	-	90	107	1	-	-	3
Calif.	2,810	2,613	U	2,241	2,153	3	84	3	357
Alaska	2	3	-	72	45	2	-	-	3
Hawaii	50	53	-	129	144	-	4	-	-
Guam	2	-	U	23	37	-	-	-	-
P.R.	536	545	-	240	254	-	1	-	28
V.I.	1	8	U	1	3	-	52	-	-
Pac. Trust Terr.	13	-	U	16	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 31, 1985 (35th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	633	419	141	34	17	22	49
Boston, Mass.	165	101	41	8	5	10	19
Bridgeport, Conn.	46	28	9	5	2	2	4
Cambridge, Mass.	29	24	5	-	-	-	2
Fall River, Mass.	35	23	10	2	-	-	-
Hartford, Conn.	54	34	12	3	1	4	3
Lowell, Mass.	24	14	8	1	1	-	3
Lynn, Mass.	18	13	5	-	-	-	-
New Bedford, Mass.	24	17	3	4	-	-	2
New Haven, Conn.	42	30	7	3	1	1	2
Providence, R.I.	63	39	20	1	1	2	7
Somerville, Mass.	3	3	-	-	-	-	-
Springfield, Mass.	42	28	5	4	3	2	1
Waterbury, Conn.	25	20	3	1	1	-	4
Worcester, Mass.	63	45	13	2	2	1	2
MID ATLANTIC	2,459	1,613	544	199	43	59	102
Albany, N.Y.	46	32	12	2	-	-	1
Allentown, Pa.	25	19	6	-	-	-	-
Buffalo, N.Y.	119	86	22	7	2	2	9
Camden, N.J.	26	17	5	2	-	2	-
Elizabeth, N.J.	27	18	6	2	1	-	3
Erie, Pa.†	34	26	7	-	1	-	1
Jersey City, N.J.	53	37	10	4	-	2	-
N.Y. City, N.Y.	1,231	785	266	139	23	18	36
Newark, N.J.	58	28	15	11	4	-	5
Paterson, N.J.	27	17	7	-	1	2	1
Philadelphia, Pa.	384	228	110	17	7	22	16
Pittsburgh, Pa.†	54	32	16	4	1	1	3
Reading, Pa.	31	27	3	-	-	1	3
Rochester, N.Y.	120	95	15	3	1	5	11
Schenectady, N.Y.	29	21	6	2	-	-	-
Scranton, Pa.†	26	21	3	2	-	-	2
Syracuse, N.Y.	88	60	22	3	2	1	5
Trenton, N.J.	30	21	7	1	-	1	2
Utica, N.Y.	21	19	2	-	-	-	1
Yonkers, N.Y.	30	24	4	-	-	2	3
E.N. CENTRAL	2,161	1,473	377	146	65	99	84
Akron, Ohio	48	32	7	6	2	1	-
Canton, Ohio	37	28	5	1	2	1	-
Chicago, Ill.§	553	462	11	26	16	37	16
Cincinnati, Ohio	140	87	37	6	2	8	19
Cleveland, Ohio	142	74	46	8	3	11	5
Columbus, Ohio	120	76	24	10	3	7	1
Dayton, Ohio	104	68	23	8	2	3	5
Detroit, Mich.	261	153	50	39	10	9	7
Evansville, Ind.	45	33	6	3	2	1	1
Fort Wayne, Ind.	51	38	13	-	-	-	1
Gary, Ind.	18	11	5	2	-	-	-
Grand Rapids, Mich	34	26	4	2	1	1	4
Indianapolis, Ind.	162	102	37	12	8	3	3
Madison, Wis.	34	23	7	-	2	2	2
Milwaukee, Wis.	121	78	30	6	3	4	9
Peoria, Ill.	34	23	8	1	-	2	3
Rockford, Ill.	40	21	12	5	1	1	1
South Bend, Ind.	34	25	6	2	-	1	3
Toledo, Ohio	104	65	25	5	3	6	3
Youngstown, Ohio	79	48	21	4	5	1	1
W.N. CENTRAL	691	468	129	46	22	26	20
Des Moines, Iowa	52	38	8	2	4	-	1
Duluth, Minn.	27	14	9	1	-	3	-
Kansas City, Kans.	36	27	5	2	2	-	-
Kansas City, Mo.	135	89	27	10	2	7	3
Lincoln, Nebr.	34	23	8	1	2	-	4
Minneapolis, Minn.	75	51	10	7	2	5	1
Omaha, Nebr.	60	42	9	7	-	2	3
St. Louis, Mo.	156	106	27	10	6	7	3
St. Paul, Minn.	50	34	11	2	2	1	-
Wichita, Kans.	66	44	15	4	2	1	5

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,247	747	266	124	59	49	53
Atlanta, Ga.	150	94	32	17	6	1	3
Baltimore, Md.	219	125	56	20	12	6	4
Charlotte, N.C.	73	49	16	4	1	3	6
Jacksonville, Fla.	122	77	24	6	8	7	6
Miami, Fla.	87	46	21	11	4	5	2
Norfolk, Va.	51	33	6	9	2	1	1
Richmond, Va.	78	45	21	5	6	1	6
Savannah, Ga.	31	19	6	4	2	-	4
St. Petersburg, Fla.	118	95	16	3	2	2	10
Tampa, Fla.	71	44	14	3	5	3	6
Washington, D.C.	221	100	53	39	9	20	5
Wilmington, Del.	26	20	1	3	2	-	-
E.S. CENTRAL	775	492	172	48	30	33	47
Birmingham, Ala.	139	94	26	9	6	4	8
Chattanooga, Tenn.	55	35	13	3	4	-	6
Knoxville, Tenn.	102	59	28	9	3	3	6
Louisville, Ky.	95	62	20	6	3	4	4
Memphis, Tenn.	152	88	44	11	3	6	10
Mobile, Ala.	68	44	11	2	3	8	4
Montgomery, Ala.	35	22	11	-	1	1	1
Nashville, Tenn.	129	88	19	8	7	7	8
W.S. CENTRAL	1,282	840	227	90	72	53	50
Austin, Tex.	53	31	12	5	3	2	4
Baton Rouge, La.	29	17	8	1	1	2	-
Corpus Christi, Tex.	34	23	5	3	3	-	-
Dallas, Tex.	183	98	43	22	11	9	3
El Paso, Tex.	64	37	12	11	2	2	2
Fort Worth, Tex.	82	45	18	8	5	6	6
Houston, Tex. §	283	241	2	9	20	11	4
Little Rock, Ark.	66	40	20	-	1	5	6
New Orleans, La.	134	81	29	14	5	5	-
San Antonio, Tex.	185	116	42	10	10	7	17
Shreveport, La.	79	55	14	2	5	3	5
Tulsa, Okla.	90	56	22	5	6	1	3
MOUNTAIN	559	330	142	43	27	17	30
Albuquerque, N.Mex.	79	44	15	10	9	1	4
Colo. Springs, Colo.	37	18	14	-	1	4	6
Denver, Colo.	96	59	23	7	3	4	1
Las Vegas, Nev.	79	39	33	4	3	-	5
Ogden, Utah	22	13	5	2	1	1	2
Phoenix, Ariz.	81	37	29	6	6	3	5
Pueblo, Colo.	19	15	2	1	1	-	3
Salt Lake City, Utah	53	39	9	4	-	1	-
Tucson, Ariz.	93	66	12	9	3	3	4
PACIFIC	1,807	1,280	279	117	64	63	90
Berkeley, Calif.	21	15	2	1	1	2	1
Fresno, Calif.	76	44	18	9	5	-	8
Glendale, Calif. §	28	28	-	-	-	-	1
Honolulu, Hawaii	69	44	19	5	1	-	6
Long Beach, Calif.	94	56	23	8	1	6	12
Los Angeles, Calif. §	544	489	12	3	21	15	15
Oakland, Calif.	74	41	21	7	2	3	2
Pasadena, Calif.	16	10	3	1	2	-	1
Portland, Oreg.	111	74	18	11	3	5	8
Sacramento, Calif.	121	72	24	15	6	4	8
San Diego, Calif.	125	79	32	5	3	6	8
San Francisco, Calif.	158	105	26	17	6	4	3
San Jose, Calif.	159	91	35	24	5	4	13
Seattle, Wash.	136	80	34	8	5	9	1
Spokane, Wash.	49	37	6	2	1	3	2
Tacoma, Wash.	26	15	6	1	2	2	1
TOTAL	11,614††	7,662	2,277	847	399	421	525

*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.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Isolation of Multiply Antibiotic-Resistant Pneumococci — New York

From March 1983 to November 1984, nine serotype 19A *Streptococcus pneumoniae* strains were isolated from patients enrolled at the Brooklyn, New York, Veterans Administration Medical Center (VAMC) in a Veterans Administration Cooperative Studies Program trial of pneumococcal vaccine efficacy (Table 2). Six of these organisms were recovered from single throat cultures obtained during routine follow-up visits. Because these patients had no symptoms and were given no treatment, and subsequent cultures did not yield pneumococci, they were thought to have been asymptomatically colonized. The remaining three isolates were from diagnostic sputum specimens. Two of the patients had bronchitis, and one had pneumonia. Each of these three patients had been previously treated with antibiotics. However, the intervals between prior treatment and 19A pneumococcal isolates were 2, 24, and 19 months, respectively. Two of the three patients were treated with erythromycin, and one, with trimethoprim/sulfamethoxazole. All three responded to antibiotic therapy.

The serotype 19A isolates were found to be resistant to penicillin G, ampicillin, oxacillin, mezlocillin, cefazolin, ceftriaxone, tetracycline, chloramphenicol, and trimethoprim/sulfamethoxazole. They were sensitive to erythromycin, clindamycin, and rifampin.

The nine patients had limited contact with each other in the Cooperative Studies Clinic, and they were not followed by any common physicians outside the study. Throat cultures of Cooperative Studies personnel failed to yield pneumococci. However, the similarity of their susceptibility patterns suggests that these 19A pneumococci were serially passed among the patients or that these subjects were colonized or infected from a common focus. All the patients were ambulatory at the time these isolates were obtained. Thus, a focus of antibiotic-resistant serotype 19A pneumococci may be present in Brooklyn, New York.

Reported by Veterans Administration Cooperative Study Group on Pneumococcal Vaccine Efficacy: MS Simberkoff, MD, A Richmond, MD, New York Veterans Administration Medical Center, M Lukaszewski, AP Cross, A Baltch, MD, Albany Veterans Administration Medical Center, J Nadler, MD, Brooklyn Veterans Administration Medical Center, New York; M Al-Ibrahim, MD, Baltimore Veterans Administration Medical Center, Maryland; PJ Geiseler, MD, Chicago (WS) Veterans Administration Medical Center, Illinois; Antimicrobics and Infection Mechanisms Br, Hospital Infections Program, Meningitis and Special Pathogens Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Pneumococci fully resistant to penicillin (minimal inhibitory concentration [MIC] > 1 μg/ml) have been rarely reported in the United States. A 5-year-old female has been reported with penicillin-resistant type 14 pneumococcal bacteremia (*1*). Six other cases of pneumococcal disease in this country, apparently caused by fully resistant pneumococci, have been confirmed by antimicrobial susceptibility testing at CDC (Table 3). Isolates 1-5 were sent to CDC for confirmatory testing; isolate 6 was obtained from CDC's national labora-

TABLE 2. Veterans Administration Medical Center patients with serotype 19A pneumococci — Brooklyn, New York, 1983-1984

Patient	Date of isolate	Diagnosis	Treatment	Penicillin MIC*
1	Mar. 3, 1983	Colonized	None	2.0
2	June 30, 1983	Bronchitis	Erythromycin	2.0
3	July 20, 1983	Colonized	None	2.0
4	July 28, 1983	Colonized	None	2.0
5	Aug. 9, 1983	Colonized	None	2.0
6	Aug. 17, 1983	Colonized	None	2.0
7	Nov. 6, 1983	Colonized	None	1.0
8	Nov. 13, 1984	Bronchitis	TMP/SMX†	1.0
9	Nov. 15, 1984	LLL pneumonia	Erythromycin	1.0

*Minimal inhibitory concentration (μg/ml) by agar dilution technique.

†Trimethoprim/sulfamethoxazole.

Antibiotic-Resistant Pneumococci — Continued

tory surveillance system. This system involves serotyping all pneumococcal isolates—which are submitted by selected hospitals across the United States—from normally sterile sites so that serotype distribution and antimicrobial resistance patterns can be monitored. From 1979 through 1984, only one isolate of the 3,400 isolates tested was fully resistant to penicillin; 3.7% of the isolates were partially resistant to penicillin (MIC 0.1-1 μg/ml). Outside the United States, penicillin-resistant pneumococci have been a more serious problem (*2-4*). In South Africa, many of these infections have been caused by serotype 19A pneumococci resistant to multiple antibiotics.

Antimicrobial susceptibility testing of all invasive pneumococcal isolates is recommended (*5*). Use of an oxacillin disc is a simple and effective method for screening penicillin antimicrobial susceptibility of pneumococci (*6*).

References

1. Cates KL, Gerrard JM, Geibink GS, et al. A penicillin-resistant pneumococcus. J Pediatr 1978;93: 624-6.
2. Hansman D, Glasgow H, Sturt J, et al. Increased resistance to penicillin of pneumococci isolated from man. N Engl J Med 1971;284:175-7.
3. Appelbaum PC, Bhamjee A, Scragg JN, Hallett AF, Bowen AJ, Cooper RC. *Streptococcus pneumoniae* resistant to penicillin and chloramphenicol. Lancet 1977;ii:995-7.
4. Jacobs MR, Koornhof HJ, Robins-Browne RM, et al. Emergence of multiply resistant pneumococci. N Engl J Med 1978;299:735-40.
5. Facklam R. Streptococci and aerococci. In: Lennette EH, Balows A, Hausler WJ, Truant JP, eds. Manual of clinical microbiology. Third edition. Washington, D.C.: American Society for Microbiology, 1980;85-110.
6. Thornsberry C, Swenson JM. Antimicrobial susceptibility testing of *Streptococcus pneumoniae*. Lab Med 1980;11:83-6.

TABLE 3. Penicillin-resistant pneumococcal isolates submitted to CDC for susceptibility testing — United States, 1981-1985

Year	State	Patient's age/sex	Diagnosis	Source	Serotype	Penicillin MIC*
1981	N.Y.	52 yrs./M	Pneumonia	Blood	6B	2.0
1982	Mich.	61 yrs./M	Pneumonia	Sputum	Nontypable	2.0
1983	Ohio	25 yrs./F	Pneumonia	Blood	12F	4.0
1984	Pa.	74 yrs./M	Pneumonia	Trach asp	23F	4.0
1984	Pa.	39 yrs./M	Pneumonia	Sputum	23F	2.0
1985	Utah	13 mos./M	Meningitis	Blood, CSF	23F	2.0

*Minimal inhibitory concentration (μg/ml) by agar dilution technique.

Botulism Associated with Commercially Distributed Kapchunka — New York City

On August 9, 1985, a Russian immigrant couple, aged 63 and 64 years, presented to a Queens, New York, hospital emergency room complaining of nausea and vomiting of 5 days duration for the husband and 1 day duration for the wife. The wife was admitted and died the following day. The husband was admitted August 10, and died the following day. Botulism was suspected, and serum from the husband was found to be neutralized by trivalent botulinum antitoxin in the mouse test for botulism toxin. An investigation of food items found in the couple's home detected type E botulinal toxin on August 20 in kapchunka, an ungutted, dried, salted whitefish product that is not cooked before eating.

The source of the incriminated kapchunka is thought to be either of two firms, Royal Baltic or Gold Star of Brooklyn, New York, which manufacture kapchunka and distribute it primarily to delicatessens. Both firms have asked stores that sell their products to hold the incriminated

Botulism – Continued

product pending the outcome of an investigation by the U.S. Food and Drug Administration (FDA). In addition to local sales in New York City, kapchunka was shipped to retail stores in California, Colorado, Florida, Georgia, Illinois, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Ohio, Pennsylvania, and Texas. The New York City Department of Health has contacted hospitals in the New York City area; FDA has contacted health departments in the other areas where the product was distributed; and the public has been warned about the potential danger of the product through news releases.

Reported by E Bell, P Bennett, S Friedman, MD, Div of Preventable Diseases, C Riceberg, Div of Environmental Health Svc, H Baskind, M Beim, C McGiven, M Moynihan, Bureau of Technical Svc, S Shahidi, PhD, Bureau of Laboratories, D Sencer, MD, New York City Health Department; Food and Drug Administration; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Kapchunka was previously implicated as a vehicle for botulism when a California man was affected in 1981 (*1*). No further cases have been reported in association with the current outbreak, but health personnel in the affected areas should be aware of the potential problem, especially for people in ethnic groups who may eat this product. Requests for testing of serum and stool for botulinal toxin and for trivalent botulinum antitoxin for the treatment of botulism should be made through state health departments.

Reference

1. California Department of Health Services. Botulism alert. California Morbidity (November 6, 1981).

Update: Revised Public Health Service Definition of Persons Who Should Refrain from Donating Blood and Plasma – United States

Since March 1985, blood- and plasma-collection centers in the United States have used a two-phase screening procedure to decrease transmission of human T-lymphotropic virus type III (HTLV-III) through transfusion of blood or blood products. First, potential donors are informed that if they have a risk factor for AIDS they should not donate (*1*); second, the blood or plasma of persons accepted as donors is screened for antibody to HTLV-III (*2,3*). The low frequency of enzyme immunoassay (EIA)-positive tests among blood donors (*3,4*) shows that the deferral criteria have been effective. Interviews with the small number of blood donors found infected with HTLV-III, however, have shown that most have a risk factor for HTLV-III infection; homosexual contact was the most common risk factor identified (*5*). To further reduce the risk of HTLV-III infection from blood and plasma, the U.S. Food and Drug Administration (FDA) has reworded the donor-deferral recommendations to state that any man who has had sex with another man since 1977 should not donate blood or plasma. This applies even to men who may have had only a single contact and who do not consider themselves homosexual or bisexual.

Reported by Center for Drugs and Biologics, US Food and Drug Administration; AIDS Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Recommendations to decrease transmission of HTLV-III through transfusion of blood or blood products were disseminated in March 1983 (*1*) and were rapidly adopted by blood and plasma centers throughout the United States. These recommendations centered on informing all blood or plasma donors that people with a risk factor for AIDS should not donate and asked for voluntary compliance. In March 1985, the second phase of screening blood and plasma was instituted with licensure of test kits to detect antibody to HTLV-III (*2,3*). The test kits are both highly sensitive and specific (*4*), but donors with a risk factor for HTLV-III infection continue to be asked not to donate blood, since the two-phase screening procedure provides additional safety. This revised wording of the deferral recommendations is intended to inform persons who may have been infected with HTLV-III through occasional or intermittent

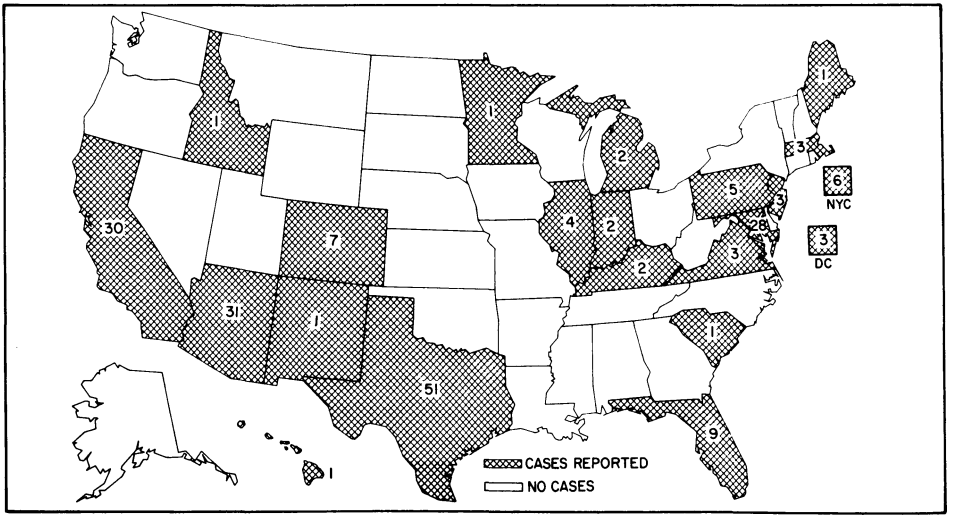
Revised PHS Definition — Continued

homosexual activity that they should not donate blood or plasma, even if they do not believe they are at risk of having been infected through their contacts.

References

1. CDC. Prevention of acquired immune deficiency syndrome (AIDS): report of inter-agency recommendations. MMWR 1983;32:101-3.
2. CDC. Provisional Public Health Service inter-agency recommendations for screening donated blood and plasma for antibody to the virus causing acquired immunodeficiency syndrome. MMWR 1985;34:1-5.
3. CDC. Results of human T-lymphotropic virus type III test kits reported from blood collection centers—United States, April 22,-May 19, 1985. MMWR 1985;34:375-6.
4. CDC. Update: Public Health Service workshop on human T-lymphotropic virus type III antibody testing—United States. MMWR 1985;34:477-8.
5. Schorr JB, Berkowitz A, Cumming PD, Katz AJ, Sandler SG. Prevalence of HTLV-III antibody in American blood donors. [Letter] N Engl J Med 1985;313:384-5.

FIGURE I. Reported measles cases — United States, weeks 31-34, 1985



☆U.S. Government Printing Office: 1985-746-149/21015 Region IV

DEPARTMENT OF
HEALTH & HUMAN SERVICES
Public Health Service
Centers for Disease Control
Atlanta GA 30333

Official Business
Penalty for Private Use $300

U.S.MAIL

Postage and Fees Paid
U.S. Dept. of H.H.S.
HHS 396

S *HCRH NEWV75 8129 X
DR VERNE F NEWHOUSE
VIROLOGY DIVISION
CID
7-814

HHS Publication No. (CDC) 85-8017