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Epidemiologic Notes and Reports

Cluster of Suicides and Suicide Attempts — New Jersey

On March 11, 1987, four teenagers from a suburban New Jersey community committed suicide by locking themselves inside a 13-car garage and sitting in a car with a running engine. Two of the young people were males aged 18 and 19, and two were females aged 16 and 17. The young women were sisters; the young men were not related. The two men died of a synergism of carbon monoxide poisoning, cocaine, and alcohol; the two young women, of a synergism of carbon monoxide and cocaine. The 19-year-old male had a history of alcohol abuse. Both males had evidence of recent, nonfatal cuts on their wrists. All four teenagers had had trouble in school: three had dropped out of high school, and one had recently been suspended. Both males had been friends of an 18-year-old youth who had died after falling from a cliff 6 months earlier (Table 1). One had witnessed this fall.

Within days after these suicides, the community responded with a number of efforts, coordinated mainly by the municipal government, to prevent other suicides. School officials identified students they thought might be at high risk, such as close friends of the victims or students with a history of suicide attempts, and provided counselors for these students and any others who wanted help. A local suicide hotline was started, and a walk-in center was opened and staffed 24 hours a day. Local police also assisted in locating anyone reported to have threatened suicide or who was thought to be at imminent risk of suicide. The garage where the suicides occurred was locked and put under periodic police surveillance.

Despite these measures, a 20-year-old female and a 17-year-old male attempted suicide together in the same garage by the same means 6 days after the simultaneous suicides. A policeman found them unconscious in a car after noticing that the lock on the garage had been broken. Both were successfully resuscitated. The garage door was removed.

During the following months, the municipal government developed a mental health emergency response plan in cooperation with school officials, clergy, and family guidance and mental health professionals. This plan called for creating a

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community response team to coordinate the crisis response through four sectors of the community: the municipal government, the school system, mental health agencies, and the clergy. The plan was divided into precrisis planning, crisis operations, and postcrisis programs. For each phase, specific protocols were developed to address such issues as 1) the responsibilities of various community agencies during a mental health crisis, 2) implementation of programs, 3) identification of persons at high risk of suicide or otherwise in need of acute mental health services, and 4) provision of timely information to the public and the media.

An epidemiologic investigation of the suicides and suicide attempts was also carried out. Investigators assessed the comparative magnitude of background suicide mortality for the period 1980–1984* in the community by calculating 5-year suicide rates for residents of the community, the county in which the community lies, New Jersey, and the United States. Local health department and state medical examiner records for January 1, 1986, through March 11, 1987, were also reviewed for all deaths from nonnatural causes among residents of the community.

For this community, the 5-year crude suicide rate was 7.0/100,000 per year (Table 2). The county rate was 6.5 overall and 5.2 for persons 15–24 years of age. These community and county suicide rates are lower than those for both New Jersey and the United States as a whole.

From 1980 through 1986, one or two suicide deaths occurred annually among the residents of this community, for a total of 12 suicides over the 7-year period. Two of these 12 persons who committed suicide were between the ages of 15 and 24. For all of 1987, six persons committed suicide; five of these were between 15 and 24 years old. However, the number of suicides in 1987 would not have been unusually high had it not been for the cluster of four suicides on March 11.

*Population estimates for later years were not available.

TABLE 1. Nonnatural deaths in a suburban community – New Jersey, January 1, 1986–March 11, 1987

Case Number	Date	Age	Sex	Manner of Death*
1	28-Apr-86	62	male	Suicide (asphyxia, plastic bag)
2	14-Jun-86	21	male	Pending (hit by train)
3	13-Aug-86	21	male	Suicide (drowning)
4	11-Sep-86	18	male	Accident (fell off cliff)
5	28-Sep-86	22	male	Accident (hit by train)
6	04-Oct-86	24	male	Undetermined (synergism: chlordiazepoxide, demoxepam, and secobarbital)
7	24-Oct-86	59	female	Suicide (gunshot wound to the head)
8	27-Oct-86	27	female	Accident (motor vehicle crash)
9	27-Jan-87	50	male	Suicide (hanging)
10	11-Mar-87	16	female	Suicide (synergism: cocaine and carbon monoxide)
11	11-Mar-87	17	female	Suicide (synergism: cocaine and carbon monoxide)
12	11-Mar-87	18	male	Suicide (synergism: cocaine, alcohol, and carbon monoxide)
13	11-Mar-87	19	male	Suicide (synergism: cocaine, alcohol, and carbon monoxide)

*"Manner of death" is a medicolegal term referring to the circumstances under which a death occurs, while "cause of death" refers to the injury or illness responsible for the death. When a death occurs under accidental circumstances, the preferred term within the public health community for the cause of death is "unintentional injury."

Suicides — Continued

In the 9 months preceding the multiple-suicide incident of March 11, 1987, nine community residents died of nonnatural causes; five were 15–24 years of age (Table 1). One of these five decedents committed suicide, and two died from unintentional injuries. Both of these latter deaths were rumored to have been suicides, but in neither case was the evidence sufficient to justify such a determination. The manner of death was undetermined in one case and is pending in another.

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Editorial Note: This cluster of suicides in New Jersey is the first investigated by CDC in which all of the decedents committed suicide together in an apparent "suicide pact." Nevertheless, there are more similarities than differences between this cluster in New Jersey and others: 1) as in most other reported suicide clusters (*1*), the New Jersey decedents were all teenagers or young adults; 2) the imitative suicide attempts on March 17 suggest that suicide may have a "contagious" (*2,3*) effect; 3) other young people had died from nonnatural causes† before the identified cluster, and these deaths may have influenced the young people involved in the cluster of suicides; 4) the suicide cluster caused anger, confusion, and fear in the community as well as an urgent sense that something needed to be done to prevent other suicides; 5) community leaders felt that the intense demands of the media for information disrupted efforts to address the crisis; and 6) although some opportunities for prevention may have been missed initially, a coordinated community response was developed.

Reports of suicides committed simultaneously by two or more individuals in an apparent suicide pact (multiple simultaneous suicides) are relatively rare. Suicide clusters in general—whether multiple simultaneous suicides or a series of suicides occurring close together in time and space—may account for no more than 1%–5% of all youth suicides (*4*). Nevertheless, when a suicide cluster does occur, an extraordinary amount of community effort and resources is temporarily devoted to suicide prevention. This is true even when, as in the New Jersey community, background mortality rates do not suggest that the community has any ongoing problem with suicide.

Such a response by a community faced with a suicide cluster is appropriate. Anecdotal evidence suggests that suicides early in a cluster may influence the

†The earlier deaths were from suicide and unintentional injuries.

TABLE 2. Numbers and rates of suicide among residents of a New Jersey community, the county, New Jersey, and the United States, 1980-1984

	Community				County				New Jersey				United States			
	All Ages		15–24*		All Ages		15–24*		All Ages		15–24*		All Ages		15–24*	
Year	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1980	2	7.8	0	–	62	7.3	12	8.6	576	7.8	131	10.2	26,869	11.9	5,239	12.3
1981	2	7.7	0	–	56	6.6	7	5.0	552	7.4	92	7.3	27,596	12.0	5,161	12.3
1982	2	7.8	0	–	43	5.1	5	3.5	605	8.1	111	8.9	28,242	12.2	5,025	12.1
1983	2	7.8	1	–	47	5.6	5	3.5	572	7.7	97	7.9	28,295	12.1	4,845	11.9
1984	1	3.9	0	–	66	7.8	8	5.6	650	8.6	115	9.5	29,286	12.4	5,026	12.5
Total	**9**	**7.0**	**1**	**–**	**274**	**6.5**	**37**	**5.2**	**2,955**	**7.9**	**546**	**8.8**	**140,288**	**12.1**	**25,296**	**12.2**

*Years of age.

Suicides — Continued

persons who commit suicide later in the cluster. There is also research evidence that exposure to a suicide that was not part of a cluster may lead certain persons to take their own lives (*5,6*). Thus, it is prudent for a community faced with a suicide cluster to make every effort to anticipate and prevent additional suicides among susceptible individuals.

In some circumstances, a community may want to consider implementing a suicide response plan before a cluster has begun. Many of the suicide clusters of which CDC is aware have been preceded by one or more deaths due to injuries (either intentional or unintentional) among teenagers or young adults in the community. For example, in the New Jersey cluster, the multiple simultaneous suicides occurred after four traumatic deaths among persons 15–24 years of age in a 9-month period. In other clusters, the first suicide of the cluster had been recognized at the time by school officials or others as being particularly stressful for many students and young adults. Both of these situations suggest the possibility of anticipating and thus preventing such clusters.

In November 1987, the New Jersey Department of Health and CDC cosponsored a workshop on community responses to suicide clusters. Participants included individuals who had played key roles in community responses to nine suicide clusters, including the New Jersey cluster. These persons represented different sectors, including local government, school systems, and crisis centers; the medical community; mental health organizations; university research programs; and state and federal public health agencies. Also participating at that workshop were representatives from the National Institutes of Mental Health, the Indian Health Service, the American Association of Suicidology, and the Association of State and Territorial Health Officials. Based on ideas from this workshop, recommendations are being developed for a plan that community leaders could implement to prevent or contain suicide clusters. These recommendations will be published in an *MMWR* supplement later in the year.

References

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3. Davidson L, Gould MS. Contagion as a risk factor for youth suicide. In: US Department of Health and Human Services. Report of the Secretary's Task Force on Youth Suicide. Vol. 2: Risk factors for youth suicide. Washington, DC: US Government Printing Office (in press).
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5. Phillips DP, Carstensen LL. Clustering of teenage suicides after television news stories about suicide. N Engl J Med 1986;315:685-9.
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Current Trends

Rabies Vaccine, Adsorbed: A New Rabies Vaccine for Use in Humans

Rabies Vaccine, Adsorbed (RVA, Michigan Department of Public Health), a new cell culture-derived rabies vaccine for use in humans, was licensed on March 18, 1988, for both preexposure and postexposure prophylaxis. The Biologics Products Program, Michigan Department of Public Health, developed, produces, and distributes the vaccine. RVA is currently available only to residents of the state of Michigan, but plans are being developed for out-of-state distribution.

The vaccine is prepared from the Kissling strain of rabies virus adapted to a diploid cell line of the fetal rhesus lung (*1*). The virus is inactivated with β-propiolactone and concentrated by adsorption to aluminum phosphate ($AlPO_4$). $AlPO_4$ may also serve as an adjuvant.

RVA differs from the rabies vaccine currently available in the United States, the human diploid cell rabies vaccine (HDCV) produced by Merieux Institute, Inc. A different virus strain, cell line, and concentration process are used in making RVA, and, because RVA is adsorbed to $AlPO_4$, it is liquid rather than lyophilized.

After preexposure (*2*), simulated postexposure (*3*), and booster vaccination (*4*), acceptable levels of rabies-neutralizing antibody have been found in over 99% of 3,000 persons tested. The recommended timing of vaccinations with RVA is identical to that of vaccinations with HDCV. Preexposure vaccination consists of three 1-mL doses, one dose to be administered intramuscularly (IM) in the deltoid area on days 0, 7, and 28. Preexposure booster doses of RVA (one 1-mL IM dose) should be administered according to previous guidelines (*5*). In contrast to HDCV (*6*), the antibody response and side effects after intradermal administration of RVA have not been studied. *RVA should not be used intradermally.*

Postexposure vaccination of individuals who have not previously been immunized consists of five 1.0-mL doses of RVA, one dose to be administered IM in the deltoid (IM in the anterior lateral thigh for infants) on days 0, 3, 7, 14, and 28. At the same time that the first 1-mL dose of RVA is administered on day 0, rabies immune globulin (RIG) 20 IU/kg is administered as a separate injection. Up to half of the RIG is infiltrated around the site of the bite, if feasible; the rest is administered IM in the gluteal area (for infants, IM in the anterior lateral thigh). Rabies vaccine and RIG should never be administered into the same limb. If exposed to rabies, persons who were previously vaccinated with HDCV or RVA (preexposure or postexposure) and persons who were immunized with other rabies vaccines and who had a documented neutralizing antibody response after vaccination should receive only two 1-mL IM booster doses of RVA, one on day 0 and one on day 3. Testing to document primary seroconversion is recommended only for persons whose immune system is suppressed by a disease or medication.

Reactions after primary vaccination with RVA appear similar in nature and frequency to those observed with HDCV. They include local reactions (pain and redness or swelling at the injection site) in 85%–90% of volunteers receiving RVA and mild systemic reactions (fever, nausea, and arthralgia) in 10%. Physicians and other health-care providers are urged to report any other type of reactions to either

Rabies — Continued

RVA or HDCV to the manufacturer or the Food and Drug Administration on CDC form 55.19 9/82 (formerly CDC form 4.650), which is available from state and local health departments.

The use of preexposure booster doses of HDCV has been limited because approximately 6% of individuals who receive both primary and booster vaccinations with HDCV develop a serum sickness like an allergic reaction (*7,8*). These reactions are thought to be due to the presence of a small amount of human serum albumin that has been rendered allergenic by the β-propiolactone used in making HDCV (*9,10*). Human serum albumin is not a component of the medium used to grow the rabies virus for RVA and, therefore, is not present when β-propiolactone is added to inactivate the virus. However, systemic allergic reactions have also occurred in four persons after they received booster doses of RVA, for a rate of <1%.

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

Disease	14th Week Ending			Cumulative, 14th Week Ending		
	April 9, 1988	April 11, 1987	Median 1983-1987	April 9, 1988	April 11, 1987	Median 1983-1987
Acquired Immunodeficiency Syndrome (AIDS)	525	U *	270	8,440	4,996	1,676
Aseptic meningitis	59	104	76	1,007	1,238	1,143
Encephalitis: Primary (arthropod-borne & unspec)	8	13	17	163	221	232
Post-infectious	1	2	2	17	16	24
Gonorrhea: Civilian	10,173	14,006	14,957	180,023	218,762	220,148
Military	203	268	268	3,260	4,524	5,525
Hepatitis: Type A	458	537	418	6,432	6,770	6,116
Type B	423	575	535	5,267	6,719	6,551
Non A, Non B	47	93	93	642	838	907
Unspecified	36	85	93	573	898	1,337
Legionellosis	13	18	9	181	196	163
Leprosy	11	8	6	49	60	68
Malaria	6	13	16	169	188	180
Measles: Total†	25	186	70	529	953	713
Indigenous	23	173	61	494	840	622
Imported	2	13	8	35	113	91
Meningococcal infections	66	75	75	962	1,120	948
Mumps	146	550	87	1,328	5,144	1,142
Pertussis	59	35	44	617	495	489
Rubella (German measles)	1	10	15	59	83	133
Syphilis (Primary & Secondary): Civilian	704	557	460	9,925	9,110	7,667
Military	-	3	4	53	57	62
Toxic Shock syndrome	3	6	8	74	84	104
Tuberculosis	315	516	438	4,664	5,215	5,215
Tularemia	6	4	3	27	23	23
Typhoid Fever	-	4	7	87	66	67
Typhus fever, tick-borne (RMSF)	1	-	3	19	11	18
Rabies, animal	87	142	142	968	1,239	1,239

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1988		Cum. 1988
Anthrax	-	Leptospirosis	8
Botulism: Foodborne	4	Plague	1
Infant (Calif. 1)	10	Poliomyelitis, Paralytic	-
Other	2	Psittacosis (Maine 1, Upstate N.Y. 1)	20
Brucellosis (Calif. 1)	14	Rabies, human	-
Cholera	-	Tetanus	9
Congenital rubella syndrome	-	Trichinosis	4
Congenital syphilis, ages < 1 year	-		
Diphtheria	-		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†One of the 25 reported cases for this week was 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 April 9, 1988 and April 11, 1987 (14th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1987	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988
UNITED STATES	8,440	1,007	163	17	180,023	218,762	6,432	5,267	642	573	181	49
NEW ENGLAND	334	50	7	-	5,494	7,594	237	360	67	34	6	9
Maine	12	3	1	-	129	242	11	17	2	1	1	-
N.H.	8	9	-	-	84	120	15	10	4	2	-	-
Vt.	3	3	2	-	44	58	3	11	4	-	-	-
Mass.	202	20	3	-	1,962	2,865	139	223	48	26	4	8
R.I.	13	12	-	-	467	596	35	40	7	-	1	1
Conn.	96	3	1	-	2,808	3,713	34	59	2	5	-	-
MID. ATLANTIC	2,970	130	19	-	26,348	35,406	369	627	39	48	37	4
Upstate N.Y.	451	72	14	-	3,037	4,507	230	160	19	4	22	-
N.Y. City	1,674	21	4	-	11,550	19,397	61	288	4	33	2	4
N.J.	652	37	1	-	4,029	4,275	78	179	16	11	-	-
Pa.	193	-	-	-	7,732	7,227	-	-	-	-	13	-
E.N. CENTRAL	628	130	26	1	28,223	31,204	320	537	34	35	57	-
Ohio	140	54	12	1	6,935	6,618	103	166	10	4	19	-
Ind.	50	21	2	-	2,334	2,634	36	67	1	13	5	-
Ill.	293	2	-	-	7,839	9,524	25	29	-	1	-	-
Mich.	113	48	9	-	9,233	9,648	130	235	17	17	24	-
Wis.	32	5	3	-	1,882	2,780	26	40	6	-	9	-
W.N. CENTRAL	189	52	12	2	7,154	8,949	411	265	26	10	14	-
Minn.	42	12	2	-	999	1,495	14	37	5	3	-	-
Iowa	10	10	6	-	494	897	22	26	4	-	4	-
Mo.	83	11	-	-	4,052	4,431	226	152	11	5	1	-
N. Dak.	-	-	-	-	38	104	2	2	1	-	1	-
S. Dak.	3	5	-	1	153	175	-	1	1	-	5	-
Nebr.	16	3	1	1	448	533	9	16	-	-	2	-
Kans.	35	11	3	-	970	1,314	138	31	4	2	1	-
S. ATLANTIC	1,246	228	21	6	51,581	57,076	444	1,081	87	83	30	1
Del.	14	5	1	-	731	835	8	25	4	1	3	-
Md.	114	23	2	2	5,197	5,838	51	191	6	2	5	1
D.C.	137	5	-	-	3,380	3,750	4	10	2	1	-	-
Va.	105	27	12	1	3,666	4,572	100	68	23	56	2	-
W. Va.	5	5	1	-	417	464	4	17	1	3	-	-
N.C.	76	41	4	-	8,461	8,534	61	183	21	-	12	-
S.C.	41	4	-	-	3,789	5,039	15	175	3	3	4	-
Ga.	185	29	1	-	9,904	9,734	79	182	4	1	2	-
Fla.	569	89	-	3	16,036	18,310	122	230	23	16	2	-
E.S. CENTRAL	236	73	16	3	13,990	15,951	302	325	54	5	7	1
Ky.	30	28	4	1	1,176	1,638	275	67	23	2	3	-
Tenn.	120	6	5	-	4,565	5,501	18	151	13	-	2	-
Ala.	57	31	7	1	4,958	5,166	3	93	16	3	2	1
Miss.	29	8	-	1	3,291	3,646	6	14	2	-	-	-
W.S. CENTRAL	737	80	9	-	20,803	23,265	641	353	52	137	4	6
Ark.	29	3	2	-	1,854	2,343	70	19	1	3	-	-
La.	115	15	-	-	4,488	4,692	34	82	8	3	1	-
Okla.	35	6	1	-	1,833	2,658	175	52	14	10	3	-
Tex.	558	56	6	-	12,628	13,572	362	200	29	121	-	6
MOUNTAIN	311	41	14	1	3,706	5,871	918	433	64	61	9	-
Mont.	5	1	-	-	110	144	16	16	4	2	-	-
Idaho	3	-	-	-	91	210	45	26	2	1	-	-
Wyo.	1	1	-	-	62	113	1	1	3	-	1	-
Colo.	109	13	2	-	813	1,192	45	55	8	26	4	-
N. Mex.	14	1	1	-	381	640	166	46	3	1	-	-
Ariz.	117	13	5	-	1,343	2,083	482	195	25	18	1	-
Utah	19	6	3	1	177	209	109	31	16	11	2	-
Nev.	43	6	3	-	729	1,280	54	63	3	2	1	-
PACIFIC	1,789	223	39	4	22,724	33,446	2,790	1,286	219	160	17	28
Wash.	108	-	1	3	1,638	2,378	538	132	30	15	6	-
Oreg.	57	-	-	-	829	1,197	549	204	25	7	-	-
Calif.	1,588	196	37	1	19,742	29,024	1,608	916	161	134	9	28
Alaska	7	6	-	-	299	550	92	24	2	3	-	-
Hawaii	29	21	1	-	216	297	3	10	1	1	2	-
Guam	-	-	-	-	32	55	1	3	-	2	-	3
P.R.	287	8	1	-	406	618	4	64	16	9	-	-
V.I.	9	-	-	-	110	65	-	3	-	-	-	-
Amer. Samoa	-	-	-	-	-	156	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	13	30	-	1	-	-	-	-

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

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending April 9, 1988 and April 11, 1987 (14th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1988	1988	Cum. 1988	1988	Cum. 1988	Cum. 1987	Cum. 1988	1988	Cum. 1988	1988	Cum. 1988	Cum. 1987	1988	Cum. 1988	Cum. 1987
UNITED STATES	169	23	494	2	35	953	962	146	1,328	59	617	495	1	59	83
NEW ENGLAND	18	-	1	-	1	53	81	-	5	2	73	13	-	-	-
Maine	2	-	-	-	-	-	3	-	-	-	11	-	-	-	-
N.H.	-	-	-	-	-	41	8	-	3	-	21	1	-	-	-
Vt.	-	-	-	-	-	6	2	-	-	1	1	3	-	-	-
Mass.	11	-	1	-	-	2	35	-	2	-	32	3	-	-	-
R.I.	3	-	-	-	-	-	13	-	-	1	1	-	-	-	-
Conn.	2	-	-	-	1	4	20	-	-	-	7	6	-	-	-
MID. ATLANTIC	25	1	133	1	2	154	81	43	121	-	16	71	-	4	3
Upstate N.Y.	12	-	-	1§	2	16	40	4	28	-	6	54	-	1	1
N.Y. City	7	1	14	-	-	111	15	34	44	-	1	-	-	1	1
N.J.	4	-	-	-	-	7	26	1	18	-	1	4	-	1	1
Pa.	2	-	119	-	-	20	-	4	31	-	8	13	-	1	-
E.N. CENTRAL	9	4	39	-	3	104	97	19	342	9	60	64	-	20	16
Ohio	1	-	-	-	3	4	40	13	49	8	16	19	-	-	-
Ind.	-	-	-	-	-	-	8	-	21	-	24	-	-	-	-
Ill.	-	4	28	-	-	50	2	-	102	-	2	3	-	16	15
Mich.	7	-	11	-	-	23	36	6	119	1	13	19	-	4	1
Wis.	1	-	-	-	-	27	11	-	51	-	5	23	-	-	-
W.N. CENTRAL	5	-	-	-	-	16	38	7	67	-	33	34	-	-	-
Minn.	2	-	-	-	-	-	10	-	-	-	4	7	-	-	-
Iowa	-	-	-	-	-	-	-	-	22	-	14	3	-	-	-
Mo.	2	-	-	-	-	16	14	5	18	-	5	13	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-	6	2	-	-	-
S. Dak.	-	-	-	-	-	-	1	-	-	-	2	2	-	-	-
Nebr.	-	-	-	-	-	-	5	-	5	-	-	-	-	-	-
Kans.	1	-	-	-	-	-	8	2	22	-	2	7	-	-	-
S. ATLANTIC	19	14	111	-	9	22	172	26	120	3	52	109	-	1	8
Del.	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
Md.	2	-	-	-	2	-	19	-	6	1	10	1	-	-	1
D.C.	4	-	-	-	-	-	5	10	45	-	-	-	-	-	-
Va.	5	9	42	-	2	-	22	10	29	-	7	31	-	-	1
W. Va.	-	4	6	-	-	-	-	1	3	-	-	14	-	-	-
N.C.	2	-	-	-	1	-	29	1	17	-	21	49	-	-	-
S.C.	3	-	-	-	-	-	19	-	3	-	-	-	-	-	-
Ga.	1	-	-	-	-	-	26	2	7	2	10	11	-	-	1
Fla.	2	1	63	-	4	22	52	2	10	-	1	3	-	1	5
E.S. CENTRAL	3	-	3	-	-	-	92	3	185	-	7	7	-	-	2
Ky.	-	-	-	-	-	-	18	-	37	-	-	1	-	-	2
Tenn.	-	-	-	-	-	-	52	3	141	-	6	1	-	-	-
Ala.	3	-	-	-	-	-	17	-	6	-	-	3	-	-	-
Miss.	-	-	3	-	-	-	5	N	N	-	1	2	-	-	-
W.S. CENTRAL	17	1	9	-	-	6	61	21	205	-	29	36	-	4	-
Ark.	-	-	-	-	-	-	8	1	3	-	5	2	-	3	-
La.	1	-	-	-	-	-	17	13	81	-	2	6	-	-	-
Okla.	5	-	8	-	-	1	6	-	51	-	22	28	-	1	-
Tex.	11	1	1	-	-	5	30	7	70	-	-	-	-	-	-
MOUNTAIN	10	-	113	-	-	217	35	6	81	34	238	48	-	2	6
Mont.	1	-	-	-	-	1	-	-	-	-	1	2	-	-	-
Idaho	-	-	-	-	-	-	2	-	1	32	208	17	-	-	1
Wyo.	-	-	-	-	-	-	-	-	2	-	1	2	-	-	1
Colo.	4	-	113	-	-	-	9	-	17	1	4	17	-	1	-
N. Mex.	1	-	-	-	-	214	8	N	N	-	1	1	-	-	-
Ariz.	2	-	-	-	-	2	9	4	51	-	13	8	-	-	-
Utah	1	-	-	-	-	-	6	1	2	1	9	1	-	-	4
Nev.	1	-	-	-	-	-	1	1	8	-	1	-	-	1	-
PACIFIC	63	3	85	1	20	381	305	21	202	11	109	113	1	28	48
Wash.	3	-	-	-	-	-	25	1	8	4	21	20	-	-	-
Oreg.	4	-	-	-	-	27	16	N	N	1	3	13	-	-	1
Calif.	55	3	85	1†	19	352	249	18	189	6	63	52	1	26	45
Alaska	1	-	-	-	-	-	4	2	5	-	3	3	-	-	-
Hawaii	-	-	-	-	1	2	11	-	-	-	19	25	-	2	2
Guam	-	-	-	-	1	2	-	-	2	-	-	-	-	1	-
P.R.	1	10	104	-	-	239	4	-	3	-	3	11	-	-	1
V.I.	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
C.N.M.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*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 April 9, 1988 and April 11 1987 (14th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1988	Cum. 1987	Cum. 1988	Cum. 1988	Cum. 1987	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988
UNITED STATES	9,925	9,110	74	4,664	5,215	27	87	19	968
NEW ENGLAND	283	131	7	82	118	1	7	-	3
Maine	5	1	1	2	10	-	-	-	1
N.H.	2	2	2	-	5	-	-	-	2
Vt.	-	1	2	-	3	-	-	-	-
Mass.	115	70	2	51	36	1	5	-	-
R.I.	11	2	-	7	16	-	-	-	-
Conn.	150	55	-	22	48	-	2	-	-
MID. ATLANTIC	1,953	1,512	12	856	966	-	13	1	102
Upstate N.Y.	133	57	6	160	169	-	1	-	1
N.Y. City	1,303	1,070	2	336	465	-	6	1	-
N.J.	219	169	2	180	148	-	6	-	-
Pa.	298	216	2	180	184	-	-	-	101
E.N. CENTRAL	300	276	11	584	615	1	9	-	16
Ohio	29	29	8	105	123	-	2	-	-
Ind.	17	15	-	62	52	-	2	-	2
Ill.	150	168	-	223	264	-	4	-	5
Mich.	97	43	3	159	157	1	1	-	2
Wis.	7	21	-	35	19	-	-	-	7
W.N. CENTRAL	65	37	11	134	139	10	2	1	130
Minn.	6	4	-	24	38	-	1	-	56
Iowa	6	6	2	10	8	-	-	-	13
Mo.	34	20	5	66	67	8	1	1	5
N. Dak.	1	-	-	1	1	-	-	-	15
S. Dak.	5	3	-	14	6	-	-	-	32
Nebr.	7	3	2	4	11	1	-	-	1
Kans.	6	1	2	15	8	1	-	-	8
S. ATLANTIC	3,532	3,080	8	1,021	1,042	5	14	11	330
Del.	46	25	-	11	11	1	-	-	13
Md.	189	171	1	85	93	-	-	-	82
D.C.	161	89	-	48	31	-	-	-	1
Va.	118	71	-	120	100	3	6	-	119
W. Va.	1	4	-	27	31	-	-	-	23
N.C.	224	174	5	52	103	-	1	10	-
S.C.	153	210	-	109	98	-	-	1	18
Ga.	552	452	-	156	141	1	2	-	59
Fla.	2,088	1,884	2	413	434	-	5	-	15
E.S. CENTRAL	527	582	10	402	438	4	1	3	97
Ky.	18	3	3	113	112	3	1	-	43
Tenn.	198	270	4	100	123	-	-	1	32
Ala.	163	148	3	120	150	-	-	2	22
Miss.	148	161	-	69	53	1	-	-	-
W.S. CENTRAL	1,089	1,180	5	560	550	3	2	1	117
Ark.	55	55	-	55	49	1	-	-	23
La.	194	201	-	92	80	-	2	-	-
Okla.	42	42	2	54	64	2	-	1	5
Tex.	798	882	3	359	357	-	-	-	89
MOUNTAIN	191	194	6	106	152	3	3	1	79
Mont.	2	7	-	-	8	-	1	-	63
Idaho	-	1	1	2	14	-	-	1	-
Wyo.	-	-	-	-	-	-	-	-	6
Colo.	25	28	1	8	22	3	2	-	-
N. Mex.	17	15	-	25	27	-	-	-	3
Ariz.	53	98	1	56	72	-	-	-	6
Utah	7	7	3	-	1	-	-	-	1
Nev.	87	38	-	15	8	-	-	-	-
PACIFIC	1,985	2,118	4	919	1,195	-	36	1	94
Wash.	29	39	-	53	50	-	3	-	-
Oreg.	75	58	-	32	28	-	4	-	-
Calif.	1,869	2,016	4	777	1,037	-	27	1	92
Alaska	3	2	-	10	21	-	-	-	2
Hawaii	9	3	-	47	59	-	2	-	-
Guam	-	1	-	7	4	-	-	-	-
P.R.	175	277	-	54	70	-	2	-	19
V.I.	1	3	-	3	2	-	-	-	-
Amer. Samoa	-	83	-	-	47	-	-	-	-
C.N.M.I.	-	2	-	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending April 9, 1988 (14th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	677	476	127	49	9	14	82
Boston, Mass.	190	114	43	18	5	9	25
Bridgeport, Conn.	42	31	5	6	-	-	2
Cambridge, Mass.	26	21	3	1	-	-	4
Fall River, Mass.	24	22	1	1	-	-	-
Hartford, Conn.	69	41	16	8	2	2	7
Lowell, Mass.	28	24	2	2	-	-	4
Lynn, Mass.	20	18	2	-	-	-	2
New Bedford, Mass.	30	22	7	1	-	-	1
New Haven, Conn.	48	32	15	1	-	-	6
Providence, R.I.	44	33	8	1	-	2	4
Somerville, Mass.	9	6	1	1	1	-	2
Springfield, Mass.	44	31	9	4	-	-	11
Waterbury, Conn.	43	34	5	3	1	-	11
Worcester, Mass.	60	47	10	2	-	1	3
MID. ATLANTIC	2,792	1,897	538	240	52	65	186
Albany, N.Y.	53	39	9	2	1	2	1
Allentown, Pa.	21	16	4	1	-	-	-
Buffalo, N.Y.	121	83	24	9	3	2	13
Camden, N.J.	37	21	8	3	1	4	2
Elizabeth, N.J.	29	23	4	2	-	-	1
Erie, Pa.†	28	22	4	1	1	-	4
Jersey City, N.J.	76	50	12	8	-	6	2
N.Y. City, N.Y.	1,411	936	288	140	21	26	77
Newark, N.J.	84	37	16	21	6	4	6
Paterson, N.J.	26	15	3	4	2	2	1
Philadelphia, Pa.	392	260	87	22	12	11	29
Pittsburgh, Pa.†	77	56	15	6	-	-	4
Reading, Pa.	41	37	3	1	-	-	10
Rochester, N.Y.	121	92	18	8	1	2	18
Schenectady, N.Y.	43	32	8	-	1	2	3
Scranton, Pa.†	39	30	6	2	-	1	1
Syracuse, N.Y.	76	59	11	3	2	1	4
Trenton, N.J.	63	45	13	4	-	1	4
Utica, N.Y.	22	20	-	2	-	-	2
Yonkers, N.Y.	32	24	5	1	1	1	4
E.N. CENTRAL	2,321	1,544	473	167	63	74	105
Akron, Ohio	80	52	18	6	2	2	-
Canton, Ohio	47	32	12	2	1	-	2
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	118	79	24	5	5	5	13
Cleveland, Ohio	153	109	25	11	5	3	4
Columbus, Ohio	132	85	24	14	5	4	4
Dayton, Ohio	108	76	24	5	1	2	3
Detroit, Mich.	228	135	47	27	11	8	6
Evansville, Ind.	56	40	10	3	1	2	6
Fort Wayne, Ind.	63	38	17	3	4	1	2
Gary, Ind.	19	11	4	4	-	-	-
Grand Rapids, Mich.	77	47	16	6	2	6	11
Indianapolis, Ind.	168	116	35	10	3	4	-
Madison, Wis.	33	21	5	3	4	-	6
Milwaukee, Wis.	153	102	31	13	3	4	5
Peoria, Ill.	48	38	8	-	-	2	10
Rockford, Ill.	47	36	7	2	1	1	3
South Bend, Ind.	54	46	4	3	1	-	4
Toledo, Ohio	124	85	28	2	2	7	10
Youngstown, Ohio	49	34	9	3	2	1	-
W.N. CENTRAL	859	587	160	55	26	30	63
Des Moines, Iowa	98	69	17	9	1	1	8
Duluth, Minn.	35	29	6	-	-	-	8
Kansas City, Kans.	52	29	15	3	2	3	2
Kansas City, Mo.	106	64	25	7	5	5	6
Lincoln, Nebr.	22	16	4	-	-	2	3
Minneapolis, Minn.	169	137	15	6	6	5	14
Omaha, Nebr.	96	53	25	10	4	4	5
St. Louis, Mo.	140	85	34	10	6	5	8
St. Paul, Minn.	61	45	8	3	1	4	-
Wichita, Kans.	80	60	11	7	1	1	9
S. ATLANTIC	1,225	750	266	112	39	56	63
Atlanta, Ga.	149	78	32	20	1	18	6
Baltimore, Md.	231	134	55	17	11	14	10
Charlotte, N.C.	52	31	15	4	2	-	2
Jacksonville, Fla.	110	72	24	7	4	3	7
Miami, Fla.	98	52	20	14	8	2	1
Norfolk, Va.	69	44	12	5	2	6	4
Richmond, Va.	86	57	20	7	1	1	12
Savannah, Ga.	49	35	9	2	3	-	1
St. Petersburg, Fla.	70	59	9	1	-	1	4
Tampa, Fla.	85	56	22	5	-	2	9
Washington, D.C.	201	112	45	28	7	9	7
Wilmington, Del.	25	20	3	2	-	-	-
E.S. CENTRAL	872	556	208	54	24	30	72
Birmingham, Ala.	123	79	28	8	4	4	7
Chattanooga, Tenn.	69	42	19	5	2	1	3
Knoxville, Tenn.	79	57	17	1	3	1	9
Louisville, Ky.	129	72	35	6	8	8	8
Memphis, Tenn.	196	128	45	13	2	8	18
Mobile, Ala.	108	69	31	6	-	2	13
Montgomery, Ala.	42	29	8	4	1	-	2
Nashville, Tenn.	126	80	25	11	4	6	12
W.S. CENTRAL	1,329	840	278	120	47	44	58
Austin, Tex.	50	32	9	7	1	1	4
Baton Rouge, La.	42	34	6	1	-	1	1
Corpus Christi, Tex.	45	27	10	5	1	2	-
Dallas, Tex.	180	105	45	16	6	8	3
El Paso, Tex.	35	30	2	2	1	-	1
Fort Worth, Tex	114	72	19	8	8	7	5
Houston, Tex.§	308	176	74	34	13	11	7
Little Rock, Ark.	75	47	16	4	4	4	4
New Orleans, La.	105	60	31	10	1	3	-
San Antonio, Tex.	163	90	42	19	9	3	10
Shreveport, La.	69	55	8	5	-	1	8
Tulsa, Okla.	143	112	16	9	3	3	15
MOUNTAIN	711	471	137	58	26	18	49
Albuquerque, N. Mex.	89	54	24	5	2	4	14
Colo. Springs, Colo.	56	31	15	4	5	1	2
Denver, Colo.	101	66	19	13	1	2	3
Las Vegas, Nev.	111	73	22	11	2	3	4
Ogden, Utah	30	23	1	1	3	2	8
Phoenix, Ariz.	98	64	20	5	5	4	6
Pueblo, Colo.	26	18	6	1	1	-	3
Salt Lake City, Utah	58	30	13	9	3	2	-
Tucson, Ariz.	142	112	17	9	4	-	9
PACIFIC	2,176	1,446	396	202	67	59	110
Berkeley, Calif.	23	14	2	4	1	2	2
Fresno, Calif.	90	64	16	5	3	2	5
Glendale, Calif.	24	19	4	1	-	-	2
Honolulu, Hawaii	79	61	14	2	1	1	13
Long Beach, Calif.	84	60	14	2	5	3	18
Los Angeles Calif.	704	452	137	78	25	6	17
Oakland, Calif.	76	52	17	4	2	1	7
Pasadena, Calif.	42	29	9	2	2	-	2
Portland, Oreg.	131	84	22	16	3	6	8
Sacramento, Calif.	157	113	25	12	2	5	2
San Diego, Calif.	192	118	28	20	13	13	10
San Francisco, Calif.	142	82	25	25	1	9	1
San Jose, Calif.	200	136	39	13	7	5	21
Seattle, Wash.	135	93	25	12	2	3	-
Spokane, Wash.	57	42	10	2	-	3	2
Tacoma, Wash.	40	27	9	4	-	-	-
TOTAL	12,962††	8,567	2,583	1,057	353	390	788

*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 available 4 weeks.

Rabies – Continued

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Current Trends

Quarterly Report to the Domestic Policy Council on the Prevalence and Rate of Spread of HIV and AIDS in the United States

On December 18, 1987, CDC published the first in a series of articles about the prevalence and rate of spread of human immunodeficiency virus (HIV) infection in the United States (*1*). The article summarized a report presented to the Domestic Policy Council on November 30, 1987. The full report, published as a supplement to the *MMWR* (*2*), contained an extensive review of published and unpublished data on the prevalence and incidence of HIV infection. To update that information, CDC plans to publish summaries of all future quarterly reports presented to the Domestic Policy Council.

The second report was delivered to the Domestic Policy Council on March 23, 1988. The major points from this report are summarized below.

A. Trends in Reported Cases of Acquired Immunodeficiency Syndrome (AIDS)

- By March 14, 1988, a total of 56,212 cases of AIDS had been reported in the United States; nearly 10,000 of these cases have been reported since the last report, on November 30, 1987. More than 31,400 cases have resulted in death.
- In the past 12 months, 23,200 cases were reported. This total represents an increase of 58% over the previous year.

HIV and AIDS — Continued

- During the past 12 months, cases among adults continued to be reported mainly among homosexual and bisexual men (68%) and among heterosexual men and women with a history of intravenous drug abuse (19%). Approximately 4% of cases were attributed to heterosexual transmission (e.g., partners of persons infected or at increased risk of acquiring AIDS; persons without other identified risk who were born in countries where AIDS is primarily transmitted heterosexually).
- The 416 cases of AIDS reported during the past 12 months among children under 13 years of age represent an 85% increase over the total for the previous year; 75% of these children acquired their infection perinatally, probably before birth, from their infected mothers.
- In September 1987, the CDC AIDS case definition was expanded to encompass additional life-threatening manifestations of HIV infection and to include cases that are diagnosed presumptively by physicians (*3*). As of March 4, 1988, 7.7% of all reported cases met only this revised portion of the definition. CDC is examining the implications of these revisions for projected trends of AIDS.
- The number of cases reported in 1987 represents 92% of the number originally projected to occur in that year by the Public Health Service in 1986 (*4*). However, current case reporting for AIDS may be less complete, or at least slower, than in past years; for example, there were longer delays between diagnosis and case reporting in 1987 than in 1986. CDC is working with state and local health departments to improve reporting and to evaluate its completeness.

B. Trends in Prevalence and Incidence of Human Immunodeficiency Virus Type 1 (HIV-1) Infection

- Accurate estimates of the prevalence and rate of spread of HIV-1 infection in the entire U.S. population are not possible at this time. More precise estimates are available only for certain subgroups of the general population such as blood donors and applicants for military service. Among active-duty U.S. Army personnel who have been tested more than once, 7.7/10,000 per year have become infected since their first test (Division of Preventive Medicine, Walter Reed Army Institute of Research, unpublished data).
- From surveys of specific groups, the highest prevalence of HIV-1 infection is found among persons with hemophilia, homosexual and bisexual men, intravenous drug abusers, heterosexual partners of persons infected with HIV-1, and children born to mothers infected with HIV-1. In general, males have higher prevalence rates than females, black and Hispanic minorities have higher prevalence rates than other minorities and whites, and persons between 20 and 45 years of age have higher prevalence rates than persons in other age groups.
- The prevalence of HIV-1 infection among childbearing women varies considerably by geographic area. In blinded serologic screening of newborns, prevalence of infection was 0.2% in Massachusetts and 0.8% in the state of New York. In New York, rates were 0.2% outside New York City, 1.6% in New York City as a whole, and over 3.0% in some parts of the city (New York State Department of Health, unpublished data).
- CDC's estimate of the total number of persons infected in the United States is 1 million to 1.5 million; no new data have become available to prompt a change

HIV and AIDS — Continued

of this estimate. The Public Health Service will reexamine estimates of the prevalence and rate of spread of HIV-1 infection and projected trends of AIDS in preparing subsequent quarterly reports as new test data and modeling techniques become available.

C. Status of HIV-1 Antibody Surveys

- *Implementation of the Comprehensive Family of HIV Surveys.* Since November 30, 1987, plans to implement the family of HIV-1 antibody surveys have proceeded rapidly. Effective January 29, 1988, funds were awarded to support over 420 different surveys in 30 major metropolitan areas.
- *Childbearing Women.* HIV-1 antibody prevalence for childbearing women has been measured by using blinded serologic testing of blood samples collected on filter paper from newborns to measure maternal antibody. In the state of New York, preliminary results of 52,326 tests indicate an overall HIV-1 antibody prevalence of 0.8%. In New York City, one woman in 61 giving birth had HIV-1 antibody. An estimated 40% of these women passed the infection to their newborns. This survey was instrumental in promoting the recent institution of a New York policy to encourage counseling all women of childbearing age and to offer both counseling and testing to women contemplating pregnancy or in the early stages of pregnancy.
- *Sentinel Hospitals.* HIV-1 antibody prevalence among hospital patients without AIDS or associated conditions is measured in CDC's blinded surveys in sentinel hospitals. In the first four institutions enrolled (all from the Midwest), overall prevalence was 0.3% for the first 12,000 individuals tested. HIV-1 antibody prevalence was highest for adults in the 25- to 44-year age group, higher for black and Hispanic minorities than for whites, and higher for men than for women. A total of 40 sentinel hospitals in 30 cities is expected to be enrolled by September 1988.
- *Prison Surveys.* The Federal Bureau of Prisons implemented an HIV-1 testing program in June 1987. Of 29,193 inmates tested, 843 (2.9%) were positive for HIV-1. CDC and the National Institute of Justice are contracting with a major university to conduct a serosurvey of 10,000 inmates in ten state prisons beginning in June 1988.
- *College Students.* A cooperative agreement was awarded on April 1, 1988, to enable 15 private and public colleges each to perform blinded tests on approximately 1,000 blood specimens drawn for routine diagnostic purposes at college health clinics. Testing is expected to begin in April 1988.
- *National Household Seroprevalence Survey.* A contract will be awarded by the end of April to initiate a nationwide household-based sample survey. The survey will be conducted in two phases, a pilot phase followed by a national survey, if the pilot phase indicates that this would be feasible. Results of the first of the pilot studies are projected to be available by October 1, 1988, and results from the second and third pilot studies, by February 1 and June 1, 1989, respectively. The pilot studies will begin with a sample of 800 persons in one community, followed by two samples of 1,500 persons. If the national survey is conducted, it will start in June 1989, and results would be expected in June 1990.

HIV and AIDS — Continued

An evaluation of the level of public participation and potential self-selection bias is being undertaken. Provisional data from the AIDS information questionnaire administered as part of the National Health Interview Survey in August and September 1987 indicate that 71% of the 3,097 adults queried were willing to have their blood tested with assurances of privacy of test results (*5*). Other surveys have shown that a high percentage of infected persons is concentrated in the minority of persons who are not willing to be tested. A recent study of childbearing women in New York City found that voluntary testing failed to detect 86% of the women who were infected with HIV-1 (*6*).

D. Human Immunodeficiency Virus Type 2 (HIV-2)

- The first reported case of AIDS caused by HIV-2 in the United States was diagnosed in December 1987 (*7*). The patient was a recent visitor from West Africa, where HIV-2 was originally described, and denied sexual intercourse, use of nonsterile needles, or donation of blood while in the United States.
- Since 1987, CDC, the Food and Drug Administration, and others have tested nearly 23,000 specimens from 8,500 blood donors and 14,500 persons at increased risk for HIV infection. No evidence of HIV-2 infection has been found. Because the modes of transmission are the same as those for HIV-1, the same preventive measures have been recommended.

E. Comparison of AIDS Mortality and Years of Potential Life Lost (YPLL) with Other Major Diseases

- 1986 data on heart disease, all cancers, and cerebrovascular diseases (including stroke) show that these conditions each killed 10 to 50 times as many Americans as AIDS (*8*). However, AIDS is the only major disease in the United States where mortality is substantially increasing; the impact on mortality for men 25–44 years of age, for minorities, and for selected cities is much higher than the national average. In YPLL before age 65 years, AIDS increased in rank among diseases from 13th in 1984 to 8th in 1986, a change that reflects the young age of those it kills and the increasing number of deaths.

Reported by: AIDS Program, Center for Infectious Diseases, CDC.

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Notice to Readers

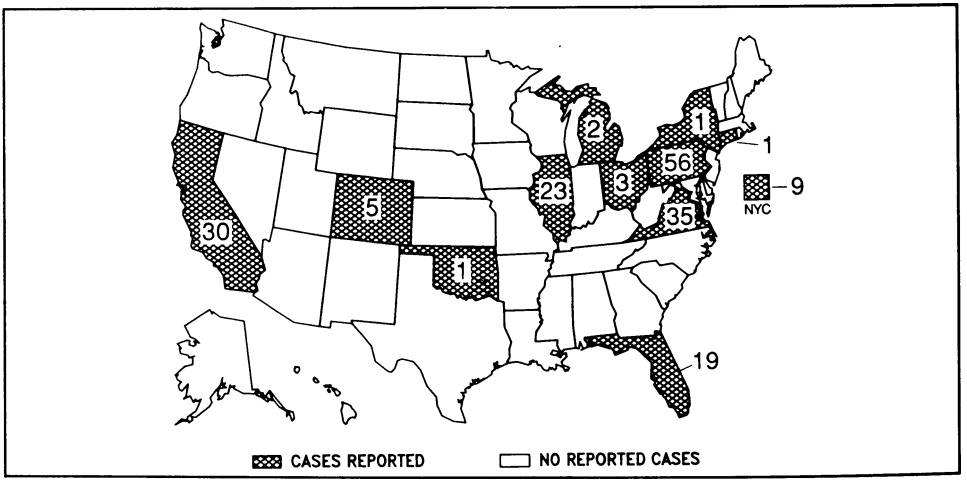
National Conference on Clustering of Health Events

On February 16–17, 1989, the National Conference on Clustering of Health Events will be held in Atlanta, Georgia, at the Hotel InterContinental Atlanta. This conference will provide a forum for the comprehensive consideration of the phenomenon of clustering events as it relates to public health. The purpose is to furnish public health workers, the media, and others with a theoretical and practical basis for dealing with clusters of health events such as cancers, suicides, infectious diseases, birth defects, or pneumoconioses.

Investigators are invited to submit abstracts of original work concerning one or more of the following topics: public health approaches to reports of clusters, risk perception and public information, epidemiologic considerations in disease aggregation, statistical considerations in the aggregation of events, and cluster investigations. Abstracts must be submitted on official Abstract Reproduction Forms and postmarked by July 30, 1988. For forms or other comments and questions, contact either Karen Steinberg, Ph.D., ([404] 488-4026) or Martha S. Brocato ([404] 488-4251), Center for Environmental Health and Injury Control, Centers for Disease Control, Atlanta, Georgia 30333.

The conference, which is free and open to the public, is sponsored by the Centers for Disease Control, the Agency for Toxic Substances and Disease Registry, and the Association of State and Territorial Health Officials.

FIGURE I. Reported measles cases — United States, Weeks 10–13, 1988



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The data in this report 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 succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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