HIV/AIDS

SURVEILLANCE YEAR-END EDITION

U.S. AIDS cases reported through December 1991 **Issued January 1992**

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Acquired immunodeficiency syndrome (AIDS) is a specific group of diseases or conditions which are indicative of severe immunosuppression related to infection with the human immunodeficiency virus (HIV).

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Center for Infectious Diseases
Division of HIV/AIDS

CDC
CENTERS FOR DISEASE CONTROL

Notice to readers: To conserve limited resources, CDC is considering reducing the frequency of this publication to once each quarter beginning April 1992. Comments on this change may be sent to Editor, HIV/AIDS Surveillance Report, Mailstop E-48, Division of HIV/AIDS, National Centers for Infectious Diseases, Centers for Disease Control, Atlanta, GA 30333.

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Centers for Disease Control ..... William L. Roper, M.D., M.P.H.
Director

Gary R. Noble, M.D., M.P.H.
Deputy Director (HIV)

National Center for Infectious Diseases ..... James M. Hughes, M.D.
Director

Division of HIV/AIDS ..... James W. Curran, M.D., M.P.H.
Director

Surveillance Branch ..... Ruth L. Berkelman, M.D.
Chief

Reporting and Analysis Section ..... John W. Ward, M.D.
Chief

Statistics and Data Management Branch ..... W. Meade Morgan, Ph.D.
Chief

Xenophon M. Santas
Computer Specialist

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Figure 1. AIDS annual rates per 100,000 population, for cases reported in 1991, United States

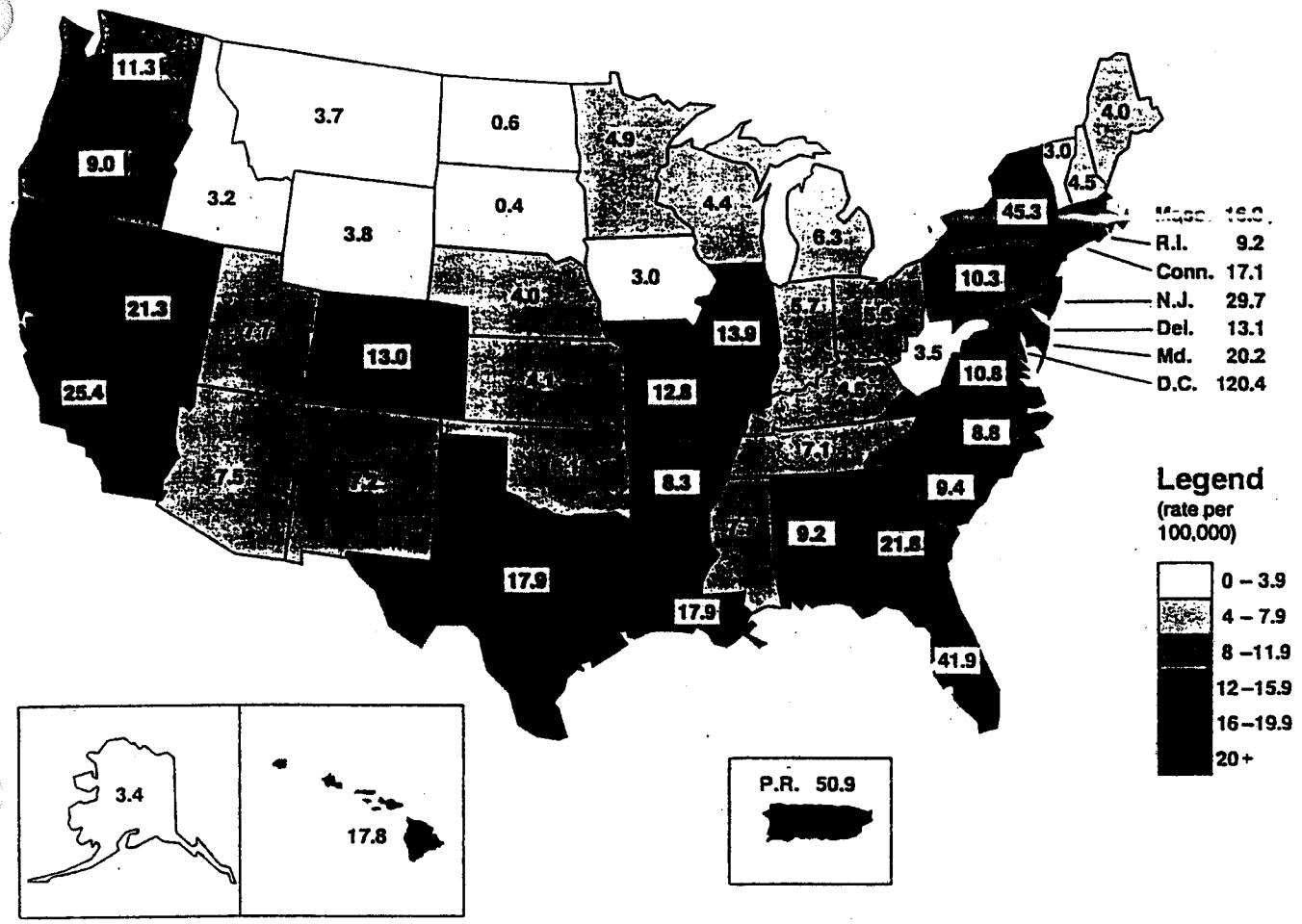


Figure 2. Adult/adolescent and pediatric AIDS cases, reported in 1991, United States

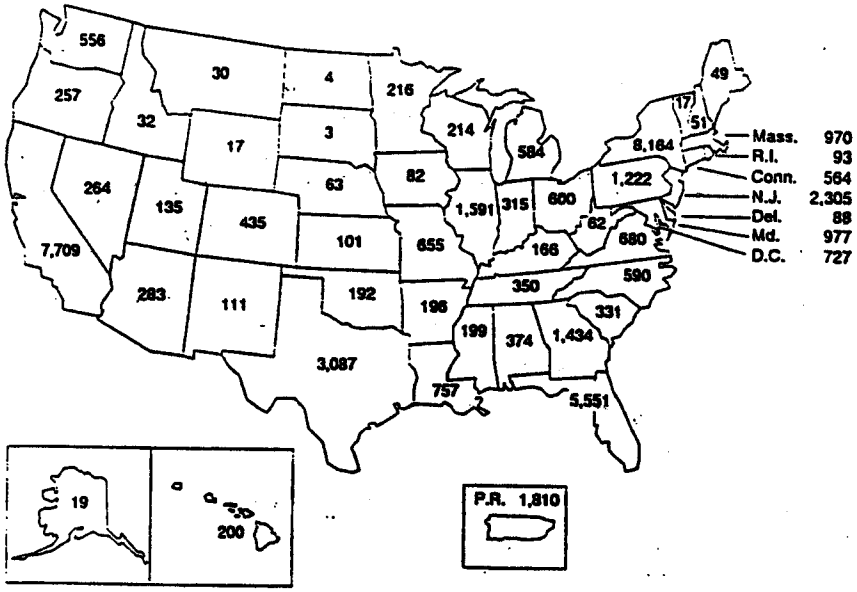


Figure 3. Pediatric AIDS cases, reported in 1991, United States

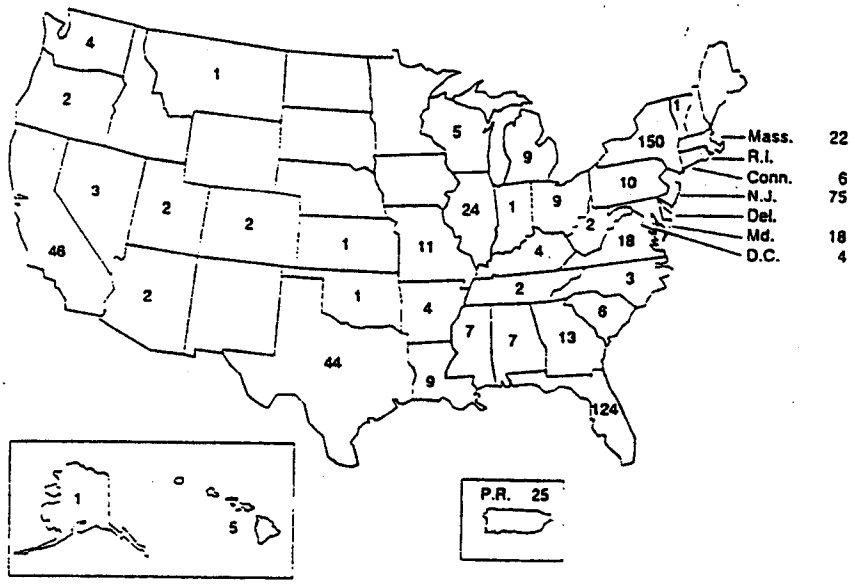


Figure 4. AIDS cases by quarter-year of report, reported January 1982 through December 1991, United States

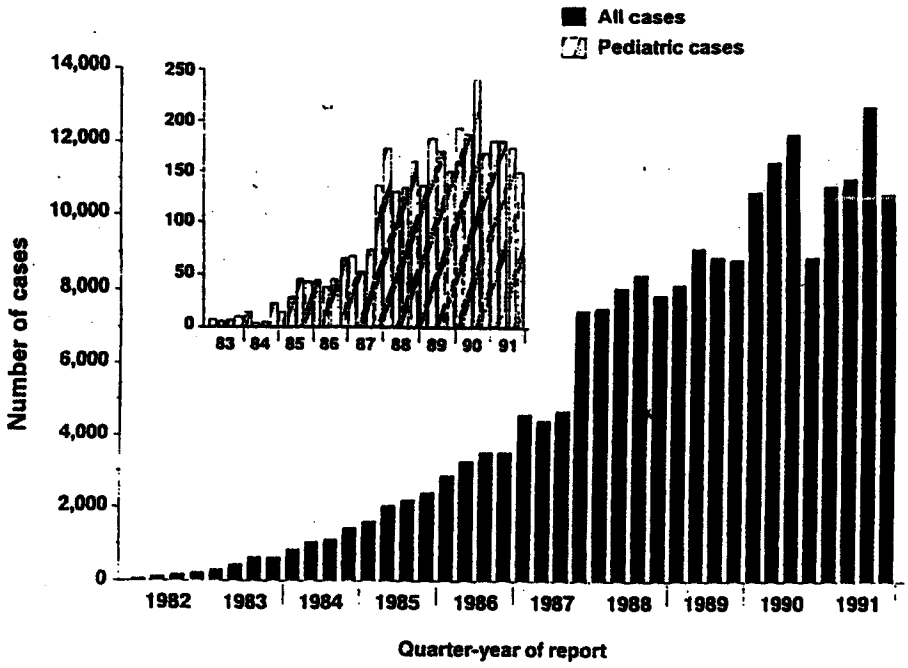
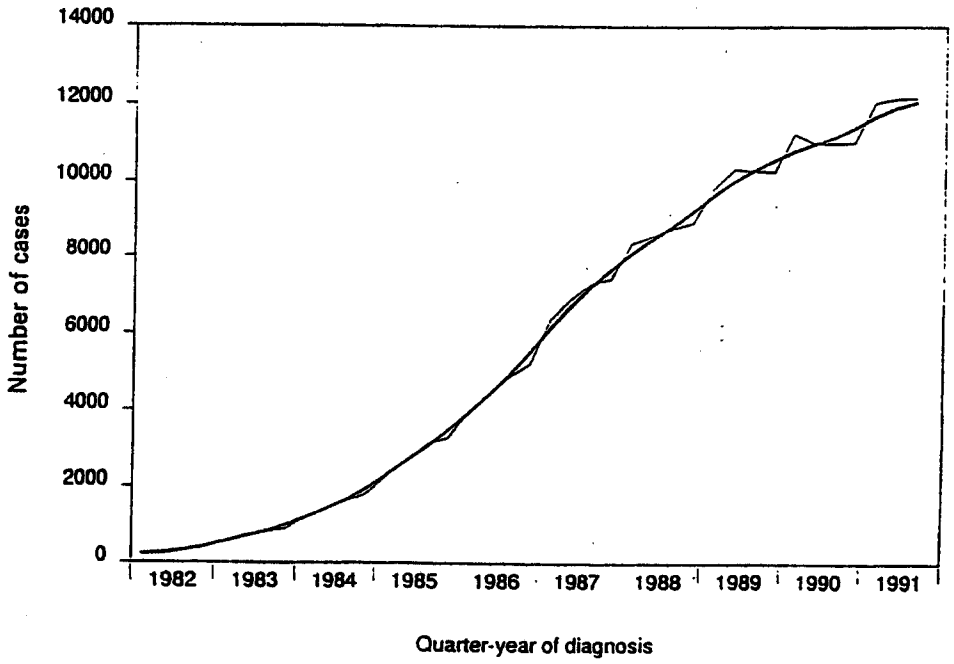


Figure 5. AIDS cases by quarter of diagnosis, adjusted for reporting delays,[1] January 1982 through September 1991, United States



[1]See technical notes for explanation of adjusting and smoothing of data. Adjusted numbers of diagnosed cases for the most recent quarter are not shown because of the imprecision of these estimates.

Table 1. AIDS cases and annual rates per 100,000 population, by state, reported in 1990 and 1991; and cumulative totals, by state and age group, through December 1991[1]

State of residence	1990		1991		Cumulative totals		
	No.	Rate	No.	Rate	Adults/ adolescents	Children < 13 years old	Total
Alabama	238	5.9	374	9.2	1,239	28	1,267
Alaska	24	4.4	19	3.4	115	3	118
Arizona	311	8.5	283	7.5	1,556	10	1,566
Arkansas	209	8.9	196	8.3	638	14	652
California	7,342	24.7	7,709	25.4	38,073	256	38,329
Colorado	360	10.9	435	13.0	2,014	11	2,025
Connecticut	423	12.9	564	17.1	2,359	69	2,428
Delaware	93	14.0	88	13.1	396	4	400
District of Columbia	740	121.9	727	120.4	3,394	44	3,438
Florida	4,021	31.1	5,551	41.9	18,953	511	19,464
Georgia	1,227	18.9	1,434	21.8	5,643	57	5,700
Hawaii	156	14.1	200	17.8	821	7	828
Idaho	28	2.8	32	3.2	109	2	111
Illinois	1,276	11.2	1,591	13.9	6,222	91	6,313
Indiana	292	5.3	315	5.7	1,334	11	1,345
Iowa	68	2.4	82	3.0	310	3	313
Kansas	137	5.5	101	4.1	542	4	546
Kentucky	190	5.2	166	4.5	662	9	671
Louisiana	704	16.7	757	17.9	2,999	49	3,048
Maine	66	5.4	49	4.0	267	2	269
Maryland	994	20.8	977	20.2	4,024	86	4,110
Massachusetts	842	14.0	970	16.0	4,215	92	4,307
Michigan	577	6.2	584	6.3	2,546	42	2,588
Minnesota	203	4.6	216	4.9	1,038	8	1,046
Mississippi	275	10.7	199	7.7	839	18	857
Missouri	582	11.4	655	12.8	2,464	23	2,487
Montana	17	2.1	30	3.7	84	2	86
Nebraska	58	3.7	63	4.0	246	2	248
Nevada	190	15.8	264	21.3	886	10	896
New Hampshire	65	5.9	51	4.5	240	5	245
New Jersey	2,462	31.8	2,305	29.7	12,315	356	12,671
New Mexico	109	7.2	111	7.2	457	3	460
New York	8,390	46.6	8,164	45.3	41,666	953	42,619
North Carolina	565	8.5	590	8.8	2,217	38	2,255
North Dakota	2	0.3	4	0.6	24	—	24
Ohio	665	6.1	600	5.5	2,857	49	2,906
Oklahoma	203	6.5	192	6.1	892	12	904
Oregon	336	11.8	257	9.0	1,270	7	1,277
Pennsylvania	1,193	10.0	1,222	10.3	5,563	85	5,648
Rhode Island	88	8.8	93	9.2	465	9	474
South Carolina	353	10.1	331	9.4	1,356	27	1,383
South Dakota	9	1.3	3	0.4	28	—	28
Tennessee	340	7.0	350	7.1	1,438	17	1,455
Texas	3,342	19.7	3,087	17.9	14,320	155	14,475
Utah	98	5.7	135	7.7	464	10	474
Vermont	22	3.9	17	3.0	93	2	95
Virginia	743	12.0	680	10.8	2,688	54	2,742
Washington	710	14.6	556	11.3	2,772	16	2,788
West Virginia	64	3.6	62	3.5	239	4	243
Wisconsin	209	4.3	214	4.4	832	9	841
Wyoming	5	1.1	17	3.8	53	—	53
U.S. total	**41,616**	**16.7**	**43,672**	**17.2**	**196,237**	**3,279**	**199,516**
Guam	2	1.5	3	2.2	11	—	11
Pacific Islands, U.S.	1	0.4	—	—	2	—	2
Puerto Rico	1,722	48.9	1,810	50.9	6,575	188	6,763
Virgin Islands, U.S.	11	10.8	21	20.5	96	4	100
Total	**43,352**	**17.2**	**45,506**	**17.8**	**202,921**	**3,471**	**206,392**

[1]During December 1991, 3,504 cases and 2,526 deaths among adults/adolescents and 45 cases and 20 deaths among children were reported to the CDC.

Table 2. AIDS cases and annual rates per 100,000 population, by metropolitan area with 500,000 or more population, reported in 1990 and 1991; and cumulative totals, by area and age group, through December 1991

Metropolitan area of residence	1990		1991		Cumulative totals		
	No.	Rate	No.	Rate	Adults/ adolescents	Children <13 years old	Total
Akron, Ohio	29	4.4	32	4.9	138	—	138
Albany-Schenectady, N.Y.	81	9.3	93	10.6	408	9	417
Allentown, Pa.	59	8.6	38	5.5	193	5	198
Anaheim, Calif.	369	15.3	430	17.5	1,730	10	1,740
Atlanta, Ga.	947	33.4	1,092	37.6	4,323	33	4,356
Austin, Tex.	234	29.9	204	25.3	913	11	924
Bakersfield, Calif.	37	6.8	51	9.1	166	2	168
Baltimore, Md.	652	27.4	582	24.2	2,418	63	2,481
Baton Rouge, La.	59	11.2	78	14.7	270	4	274
Bergen-Passaic, N.J.	351	27.5	246	19.3	1,559	39	1,598
Birmingham, Ala.	74	8.2	113	12.4	391	7	398
Boston, Mass.	602	15.9	687	18.1	3,216	66	3,282
Bridgeport, Conn.	115	13.9	153	18.4	691	23	714
Buffalo, N.Y.	93	9.6	78	8.1	336	3	339
Charleston, S.C.	78	15.4	64	12.4	295	3	298
Charlotte, N.C.	98	8.4	84	7.1	406	7	413
Chicago, Ill.	1,072	17.7	1,285	21.2	5,199	73	5,272
Cincinnati, Ohio	135	9.3	99	6.8	446	9	455
Cleveland, Ohio	142	7.8	176	9.6	749	15	764
Columbus, Ohio	141	10.2	116	8.3	613	4	617
Dallas, Tex.	799	31.3	712	27.2	3,490	21	3,511
Dayton, Ohio	71	7.5	50	5.3	281	7	288
Denver, Colo.	301	18.5	360	21.9	1,655	7	1,662
Detroit, Mich.	394	9.0	406	9.3	1,777	29	1,806
El Paso, Tex.	32	5.4	48	8.0	155	1	156
Fort Lauderdale, Fla.	831	66.2	953	74.5	3,360	71	3,431
Fort Worth, Tex.	204	15.3	196	14.3	826	12	838
Fresno, Calif.	63	9.4	77	11.3	269	2	271
Gary, Ind.	21	3.5	36	6.0	128	1	129
Grand Rapids, Mich.	35	5.1	40	5.7	142	2	144
Greensboro, N.C.	95	10.1	104	10.9	355	7	362
Greenville, S.C.	42	6.6	42	6.5	168	—	168
Harrisburg, Pa.	34	5.8	43	7.3	202	4	206
Hartford, Conn.	149	13.3	173	15.3	712	16	728
Honolulu, Hawaii	116	13.9	132	15.6	612	4	616
Houston, Tex.	1,351	40.9	1,204	35.8	5,919	60	5,979
Indianapolis, Ind.	135	10.8	145	11.5	622	3	625
Jacksonville, Fla.	278	30.7	226	24.4	987	28	1,015
Jersey City, N.J.	354	64.0	423	76.5	2,107	60	2,167
Kansas City, Mo.	289	18.5	238	15.1	1,226	6	1,232
Knoxville, Tenn.	31	5.1	35	5.7	146	1	147
Lake County, Ill.	15	2.9	41	7.8	113	3	116
Las Vegas, Nev.	155	20.9	201	26.1	662	10	672
Little Rock, Ark.	81	15.8	68	13.2	246	7	253
Los Angeles, Calif.	2,376	26.8	2,642	29.3	13,398	111	13,509
Louisville, Ky.	72	7.6	73	7.7	275	5	280
Memphis, Tenn.	106	10.8	104	10.5	454	6	460
Miami, Fla.	1,058	54.6	2,055	104.4	6,084	198	6,282
Middlesex, N.J.	166	16.3	196	19.0	996	27	1,023
Milwaukee, Wis.	116	8.1	107	7.5	458	5	463
Minneapolis-Saint Paul, Minn.	178	7.2	189	7.6	922	6	928
Monmouth-Ocean City, N.J.	203	20.6	160	16.0	809	29	838
Nashville, Tenn.	112	11.4	120	12.0	477	8	485
Nassau-Suffolk, N.Y.	390	14.9	344	13.2	1,930	47	1,977
New Bedford, Mass.	50	9.9	70	13.7	222	5	227
New Haven, Conn.	130	16.2	203	25.1	772	28	800
New Orleans, La.	394	31.8	448	36.2	1,867	26	1,893
New York, N.Y.	7,308	85.5	6,986	81.5	36,166	857	37,023

Table 2. AIDS cases and annual rates per 100,000 population, by metropolitan area with 500,000 or more population, reported in 1990 and 1991; and cumulative totals, by area and age group, through December 1991 — Continued

Metropolitan area of residence	1990		1991		Cumulative totals		
	No.	Rate	No.	Rate	Adults/ adolescents	Children <13 years old	Total
Newark, N.J.	987	54.1	936	51.5	5,115	161	5,276
Norfolk, Va.	188	13.5	142	10.0	587	15	602
Oakland, Calif.	607	29.1	419	19.8	2,464	17	2,481
Oklahoma City, Okla.	101	10.5	99	10.2	455	—	455
Omaha, Neb.	40	6.5	46	7.4	173	1	174
Orlando, Fla.	263	24.5	379	34.1	1,105	15	1,120
Oxnard-Ventura, Calif.	40	6.0	59	8.6	205	—	205
Philadelphia, Pa.	892	18.4	936	19.2	4,214	59	4,273
Phoenix, Ariz.	225	10.6	211	9.7	1,144	6	1,150
Pittsburgh, Pa.	136	6.6	108	5.3	657	4	661
Portland, Oreg.	270	21.8	195	15.6	995	4	999
Providence, R.I.	85	9.3	88	9.6	438	8	446
Raleigh-Durham, N.C.	116	15.8	133	17.7	487	10	497
Richmond, Va.	136	15.7	135	15.4	518	10	528
Riverside-San Bernardino, Calif.	281	10.9	354	13.2	1,357	18	1,375
Rochester, N.Y.	82	8.2	90	9.0	433	6	439
Sacramento, Calif.	150	10.1	230	15.1	858	13	871
Saint Louis, Mo.	294	12.0	362	14.8	1,170	15	1,185
Salt Lake City, Utah	90	8.4	117	10.7	408	7	415
San Antonio, Tex.	235	18.0	213	16.1	1,002	12	1,014
San Diego, Calif.	671	26.9	620	24.2	2,927	20	2,947
San Francisco, Calif.	2,125	132.5	1,978	122.5	11,356	18	11,374
San Jose, Calif.	195	13.0	180	11.9	887	8	895
San Juan, P.R.	1,135	67.2	1,072	62.8	4,058	119	4,177
Scranton, Pa.	45	6.1	40	5.4	163	3	166
Seattle, Wash.	532	27.0	395	19.7	2,076	10	2,086
Springfield, Mass.	86	14.3	104	17.2	295	13	308
Syracuse, N.Y.	39	5.9	39	5.9	193	6	199
Tacoma, Wash.	48	8.2	43	7.2	188	6	194
Tampa-Saint Petersburg, Fla.	412	19.9	530	25.1	2,012	38	2,050
Toledo, Ohio	40	6.5	39	6.4	152	3	155
Tucson, Ariz.	57	8.5	54	7.9	292	3	295
Tulsa, Okla.	55	7.8	62	8.7	259	4	263
Washington, D.C.	1,291	32.9	1,334	33.4	5,850	78	5,928
West Palm Beach, Fla.	353	40.9	406	45.5	1,752	70	1,822
Wilmington, Del.	83	14.3	67	11.5	325	3	328
Worcester, Mass.	55	7.7	55	7.7	231	4	235
Metropolitan areas with 500,000 or more population	**36,343**	**24.7**	**37,621**	**25.3**	**172,251**	**2,893**	**175,144**
Metropolitan areas with 50,000 to 500,000 population	**4,351**	**8.9**	**4,938**	**10.1**	**19,077**	**346**	**19,423**
Non-metropolitan areas	**2,489**	**4.4**	**2,781**	**4.9**	**11,017**	**214**	**11,231**
Total[1]	**43,352**	**17.2**	**45,506**	**17.8**	**202,921**	**3,471**	**206,392**

[1]Totals include 594 patients whose area of residence is unknown.

Table 3. AIDS cases by age group, exposure category, and sex, reported in 1990 and 1991; and cumulative totals, by age group and exposure category, through December 1991, United States

Adult/adolescent exposure category	Males		Females		Totals		
	1990	1991	1990	1991	1990	1991	Cumulative total[1]
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Men who have sex with men	24,053 (64)	23,960 (61)	—	—	24,053 (57)	23,960 (53)	118,362 (58)
Injecting drug use	7,769 (21)	8,403 (21)	2,392 (49)	2,752 (48)	10,161 (24)	11,155 (25)	45,753 (23)
Men who have sex with men and inject drugs	2,445 (6)	2,366 (6)	—	—	2,445 (6)	2,366 (5)	13,135 (6)
Hemophilia/coagulation disorder	329 (1)	314 (1)	9 (0)	10 (0)	338 (1)	324 (1)	1,713 (1)
Heterosexual contact:	1,081 (3)	1,292 (3)	1,718 (35)	2,095 (37)	2,799 (7)	3,387 (8)	11,936 (6)
Sex with injecting drug user	*495*	*559*	*1,105*	*1,239*	*1,600*	*1,798*	*6,366*
Sex with bisexual male	*—*	*—*	*135*	*147*	*135*	*147*	*651*
Sex with person with hemophilia	*2*	*4*	*26*	*21*	*28*	*25*	*104*
Born in Pattern-II[2] country	*303*	*336*	*110*	*174*	*413*	*510*	*2,523*
Sex with person born in Pattern-II country	*24*	*20*	*22*	*24*	*46*	*44*	*174*
Sex with transfusion recipient with HIV infection	*26*	*27*	*43*	*56*	*69*	*83*	*240*
Sex with HIV-infected person, risk not specified	*231*	*346*	*277*	*434*	*508*	*780*	*1,878*
Receipt of blood transfusion, blood components, or tissue[3]	492 (1)	456 (1)	354 (7)	250 (4)	846 (2)	706 (2)	4,347 (2)
Other/undetermined[4]	1,507 (4)	2,302 (6)	415 (8)	623 (11)	1,922 (5)	2,925 (7)	7,675 (4)
Adult/adolescent subtotal	37,676 (100)	39,093 (100)	4,888 (100)	5,730 (100)	42,564 (100)	44,823 (100)	202,921 (100)
Pediatric (<13 years old) exposure category							
Hemophilia/coagulation disorder	31 (7)	22 (6)	—	1 (0)	31 (4)	23 (3)	163 (5)
Mother with/at risk for HIV infection:	346 (83)	318 (86)	347 (94)	278 (88)	693 (88)	596 (87)	2,936 (85)
Injecting drug use	*170*	*136*	*151*	*122*	*321*	*258*	*1,430*
Sex with injecting drug user	*74*	*56*	*79*	*52*	*153*	*108*	*603*
Sex with bisexual male	*5*	*5*	*6*	*6*	*11*	*11*	*61*
Sex with person with hemophilia	*1*	*4*	*1*	*—*	*2*	*4*	*13*
Born in Pattern-II country	*22*	*23*	*20*	*9*	*42*	*32*	*244*
Sex with person born in Pattern-II country	*2*	*1*	*4*	*—*	*6*	*1*	*14*
Sex with transfusion recipient with HIV infection	*1*	*—*	*—*	*1*	*1*	*1*	*13*
Sex with HIV-infected person, risk not specified	*15*	*28*	*23*	*14*	*38*	*42*	*144*
Receipt of blood transfusion, blood components, or tissue	*5*	*8*	*7*	*7*	*12*	*15*	*60*
Has HIV infection, risk not specified	*51*	*57*	*56*	*67*	*107*	*124*	*354*
Receipt of blood transfusion, blood components, or tissue	27 (6)	21 (6)	11 (3)	20 (6)	38 (5)	41 (6)	289 (8)
Undetermined	14 (3)	7 (2)	12 (3)	16 (5)	26 (3)	23 (3)	83 (2)
Pediatric subtotal	418 (100)	368 (100)	370 (100)	315 (100)	788 (100)	683 (100)	3,471 (100)
Total	**38,094**	**39,461**	**5,258**	**6,045**	**43,352**	**45,506**	**206,392**

[1]Includes 3 patients known to be infected with human immunodeficiency virus type 2 (HIV-2). See MMWR 1989;38:572-580.

[2]See technical notes.

[3]Eighteen adults/adolescents and 2 children developed AIDS after receiving blood screened negative for HIV antibody. Five additional adults developed AIDS after receiving tissue or organs from HIV-infected donors. Two of the five received organs or tissue from a donor who was negative for HIV antibody at the time of donation.

[4]"Other" refers to 4 persons who developed AIDS after exposure to HIV-infected blood within the health care setting, as documented by evidence of seroconversion or other laboratory studies. "Undetermined" refers to patients whose mode of exposure to HIV is unknown. This includes patients under investigation; patients who died, were lost to follow-up, or refused interview; and patients whose mode of exposure to HIV remains undetermined after investigation. See Figure 6.

Table 4. AIDS cases by age group, exposure category, and race/ethnicity, reported through December 1991, United States

Adult/adolescent exposure category	White, not Hispanic No. (%)	Black, not Hispanic No. (%)	Hispanic No. (%)	Asian/Pacific Islander No. (%)	American Indian/ Alaska Native No. (%)	Total[4] No. (%)
Men who have sex with men	83,205 (76)	20,540 (35)	13,240 (40)	936 (74)	172 (55)	118,362 (58)
Injecting drug use	9,285 (8)	22,983 (39)	13,274 (40)	56 (4)	58 (18)	45,753 (23)
Men who have sex with men and inject drugs	7,547 (7)	3,578 (6)	1,925 (6)	28 (2)	41 (13)	13,135 (6)
Hemophilia/coagulation disorder	1,402 (1)	137 (0)	140 (0)	18 (1)	8 (3)	1,713 (1)
Heterosexual contact:	2,513 (2)	7,091 (12)	2,242 (7)	46 (4)	13 (4)	11,936 (6)
Sex with injecting drug user	*1,342*	*3,321*	*1,656*	*19*	*10*	*6,366*
Sex with bisexual male	*343*	*216*	*78*	*11*	*1*	*651*
Sex with person with hemophilia	*85*	*11*	*6*	*2*	—	*104*
Born in Pattern-II[1] country	*13*	*2,488*	*14*	*2*	—	*2,523*
Sex with person born in Pattern-II country	*50*	*111*	*11*	*1*	—	*174*
Sex with transfusion recipient with HIV infection	*145*	*47*	*44*	*2*	—	*240*
Sex with HIV-infected person, risk not specified	*535*	*897*	*433*	*9*	*2*	*1,878*
Receipt of blood transfusion, blood components, or tissue[2]	2,993 (3)	767 (1)	479 (1)	90 (7)	6 (2)	4,347 (2)
Other/undetermined[3]	2,701 (2)	3,097 (5)	1,724 (5)	84 (7)	16 (5)	7,675 (4)
Adult/adolescent subtotal	109,646(100)	58,193 (100)	33,024(100)	1,258 (100)	314(100)	202,921(100)
Pediatric (<13years old) exposure category						
Hemophilia/coagulation disorder	112 (15)	22 (1)	26 (3)	3 (18)	—	163 (5)
Mother with/at risk for HIV infection:	465 (63)	1,704 (92)	742 (87)	8 (47)	8(100)	2,936 (85)
Injecting drug use	*224*	*833*	*365*	*2*	*2*	*1,430*
Sex with injecting drug user	*91*	*269*	*238*	*2*	*1*	*603*
Sex with bisexual male	*22*	*24*	*14*	*1*	—	*61*
Sex with person with hemophilia	*9*	*3*	*1*	—	—	*13*
Born in Pattern-II country	*1*	*241*	*2*	—	—	*244*
Sex with person born in Pattern-II country	—	*13*	—	—	—	*14*
Sex with transfusion recipient with HIV infection	*4*	*4*	*4*	—	—	*13*
Sex with HIV-infected person, risk not specified	*30*	*70*	*40*	*1*	*2*	*144*
Receipt of blood transfusion, blood components, or tissue	*22*	*25*	*13*	—	—	*60*
Has HIV infection, risk not specified	*62*	*222*	*65*	*2*	*3*	*354*
Receipt of blood transfusion, blood components, or tissue	152 (21)	65 (4)	66 (8)	6 (35)	—	289 (8)
Undetermined	10 (1)	53 (3)	20 (2)	—	—	83 (2)
Pediatric subtotal	739(100)	1,844 (100)	854(100)	17 (100)	8(100)	3,471(100)
Total	**110,385**	**60,037**	**33,878**	**1,275**	**322**	**206,392**

[1]See technical notes.

[2]Eighteen adults/adolescents and 2 children developed AIDS after receiving blood screened negative for HIV antibody. Five additional adults developed AIDS after receiving tissue or organs from HIV-infected donors. Two of the five received organs or tissue from a donor who was negative for HIV antibody at the time of donation.

[3]"Other" refers to 4 persons who developed AIDS after exposure to HIV-infected blood within the health care setting, as documented by evidence of seroconversion or other laboratory studies. "Undetermined" refers to patients whose mode of exposure to HIV is unknown. This includes patients under investigation; patients who died, were lost to follow-up, or refused interview; and patients whose mode of exposure to HIV remains undetermined after investigation. See Figure 6.

[4]Includes 495 persons whose race/ethnicity is unknown.

Table 5. Adult/adolescent AIDS cases by sex, exposure category, and race/ethnicity, reported through December 1991, United States

Male exposure category	White, not Hispanic No. (%)	Black, not Hispanic No. (%)	Hispanic No. (%)	Asian/Pacific Islander No. (%)	American Indian/ Alaska Native No. (%)	Total[4] No. (%)
Men who have sex with men	83,205 (80)	20,540 (44)	13,240 (46)	936 (81)	172 (64)	118,362 (65)
Injecting drug use	7,017 (7)	16,798 (36)	11,083 (39)	40 (3)	33 (12)	35,048 (19)
Men who have sex with men and inject drugs	7,547 (7)	3,578 (8)	1,925 (7)	28 (2)	41 (15)	13,135 (7)
Hemophilia/coagulation disorder	1,373 (1)	127 (0)	137 (0)	18 (2)	8 (3)	1,671 (1)
Heterosexual contact:	813 (1)	3,307 (7)	548 (2)	9 (1)	3 (1)	4,687 (3)
Sex with injecting drug user	*483*	*1,077*	*313*	*5*	*3*	*1,882*
Sex with person with hemophilia	*7*	*1*	*2*	—	—	*10*
Born in Pattern-II[1] country	*8*	*1,779*	*11*	*2*	—	*1,805*
Sex with person born in Pattern-II country	*40*	*48*	*9*	*1*	—	*98*
Sex with transfusion recipient with HIV infection	*43*	*19*	*16*	—	—	*79*
Sex with HIV-infected person, risk not specified	*232*	*383*	*197*	*1*	—	*813*
Receipt of blood transfusion, blood components, or tissue[2]	1,938 (2)	418 (1)	259 (1)	55 (5)	1 (0)	2,679 (1)
Other/undetermined[3]	2,287 (2)	2,269 (5)	1,432 (5)	67 (6)	11 (4)	6,114 (3)
Male subtotal	104,180 (100)	47,037 (100)	28,624 (100)	1,153 (100)	269 (100)	181,696 (100)
Female exposure category						
Injecting drug use	2,268 (41)	6,185 (55)	2,191 (50)	16 (15)	25 (56)	10,705 (50)
Hemophilia/coagulation disorder	29 (1)	10 (0)	3 (0)	—	—	42 (0)
Heterosexual contact:	1,700 (31)	3,784 (34)	1,694 (39)	37 (35)	10 (22)	7,249 (34)
Sex with injecting drug user	*859*	*2,244*	*1,343*	*14*	*7*	*4,484*
Sex with bisexual male	*343*	*216*	*78*	*11*	*1*	*651*
Sex with person with hemophilia	*78*	*10*	*4*	*2*	—	*94*
Born in Pattern-II country	*5*	*709*	*3*	—	—	*718*
Sex with person born in Pattern-II country	*10*	*63*	*2*	—	—	*76*
Sex with transfusion recipient with HIV infection	*102*	*28*	*28*	*2*	—	*161*
Sex with HIV-infected person, risk not specified	*303*	*514*	*236*	*8*	*2*	*1,065*
Receipt of blood transfusion, blood components, or tissue	1,055 (19)	349 (3)	220 (5)	35 (33)	5 (11)	1,668 (8)
Other/undetermined	414 (8)	828 (7)	292 (7)	17 (16)	5 (11)	1,561 (7)
Female subtotal	5,466 (100)	11,156 (100)	4,400 (100)	105 (100)	45 (100)	21,225 (100)
Total	**109,646**	**58,193**	**33,024**	**1,258**	**314**	**202,921**

[1]See technical notes.

[2]Eighteen adults/adolescents and 2 children developed AIDS after receiving blood screened negative for HIV antibody. Five additional adults developed AIDS after receiving tissue or organs from HIV-infected donors. Two of the five received organs or tissue from a donor who was negative for HIV antibody at the time of donation.

[3]"Other" refers to 4 persons who developed AIDS after exposure to HIV-infected blood within the health care setting, as documented by evidence of seroconversion or other laboratory studies. "Undetermined" refers to patients whose mode of exposure to HIV is unknown. This includes patients under investigation; patients who died, were lost to follow-up, or refused interview; and patients whose mode of exposure to HIV remains undetermined after investigation. See Figure 6.

[4]Includes 433 males and 53 females whose race/ethnicity is unknown.

Table 6. AIDS cases in adolescents and adults under age 25, by exposure category, reported in 1990 and 1991, and cumulative totals through December 1991, United States

Exposure category	13-19 years old						20-24 years old					
	1990		1991		Cumulative total		1990		1991		Cumulative total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Men who have sex with men	27	(16)	32	(20)	197	(25)	825	(51)	674	(45)	4,462	(55)
Injecting drug use	21	(12)	25	(16)	101	(13)	301	(19)	300	(20)	1,406	(17)
Men who have sex with men and inject drugs	5	(3)	5	(3)	33	(4)	144	(9)	105	(7)	731	(9)
Hemophilia/coagulation disorder	54	(32)	48	(30)	242	(31)	35	(2)	38	(3)	207	(3)
Heterosexual contact:	37	(22)	21	(13)	108	(14)	206	(13)	204	(14)	857	(11)
Sex with injecting drug user	*29*		*12*		*73*		*130*		*121*		*493*	
Sex with bisexual male	—		—		*3*		*9*		*10*		*61*	
Sex with person with hemophilia	*1*		*3*		*4*		*3*		*2*		*17*	
Born in Pattern-II[1] country	*2*		*2*		*14*		*18*		*16*		*124*	
Sex with person born in Pattern-II country	—		*1*		*1*		*6*		*1*		*10*	
Sex with transfusion recipient with HIV infection	*1*		—		*1*		*5*		*2*		*9*	
Sex with HIV-infected person, risk not specified	*4*		*3*		*12*		*35*		*52*		*143*	
Receipt of blood transfusion, blood components, or tissue	9	(5)	8	(5)	53	(7)	24	(1)	21	(1)	117	(1)
Undetermined[2]	17	(10)	21	(13)	55	(7)	91	(6)	143	(10)	380	(5)
Total	170	(100)	160	(100)	789	(100)	1,626	(100)	1,485	(100)	8,160	(100)

[1] See technical notes.

[2] "Undetermined" refers to patients whose mode of exposure to HIV is unknown. This includes patients under investigation; patients who died, were lost to follow-up, or refused interview; and patients whose mode of exposure to HIV remains undetermined after investigation. See Figure 6.

Table 7. AIDS cases by age at diagnosis and exposure category, reported through December 1991, United States

Age at diagnosis (years)	Men who have sex with men		Injecting drug use		Men who have sex with men and inject drugs		Hemophillia/ coagulation disorder		Heterosexual contact: sex with person with/at risk for HIV infection	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Under 5	—		—		—		9	(0)	—	
5-12	—		—		—		154	(8)	—	
13-19	197	(0)	101	(0)	33	(0)	242	(13)	94	(1)
20-24	4,462	(4)	1,406	(3)	731	(6)	207	(11)	733	(8)
25-29	19,184	(16)	6,186	(14)	2,750	(21)	267	(14)	1,932	(21)
30-34	28,089	(24)	12,411	(27)	3,844	(29)	251	(13)	2,156	(23)
35-39	25,631	(22)	12,900	(28)	3,103	(24)	206	(11)	1,555	(17)
40-44	17,850	(15)	7,203	(16)	1,561	(12)	157	(8)	1,005	(11)
45-49	10,768	(9)	3,085	(7)	666	(5)	126	(7)	668	(7)
50-54	5,904	(5)	1,410	(3)	256	(2)	67	(4)	468	(5)
55-59	3,586	(3)	691	(2)	124	(1)	49	(3)	310	(3)
60-64	1,775	(1)	257	(1)	44	(0)	63	(3)	238	(3)
65 or older	916	(1)	103	(0)	23	(0)	78	(4)	254	(3)
Total	118,362	(100)	45,753	(100)	13,135	(100)	1,876	(100)	9,413	(100)

Age at diagnosis (years)	Heterosexual contact: born in Pattern-II[1] country		Receipt of transfusion[2]		Mother with/at risk for HIV infection		Other/ undetermined[3]		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Under 5	—		136	(3)	2,592	(88)	65	(1)	2,802	(1)
5-12	—		153	(3)	344	(12)	18	(0)	669	(0)
13-19	14	(1)	53	(1)	—		55	(1)	789	(0)
20-24	124	(5)	117	(3)	—		380	(5)	8,160	(4)
25-29	559	(22)	274	(6)	—		1,050	(14)	32,202	(16)
30-34	747	(30)	343	(7)	—		1,475	(19)	49,316	(24)
35-39	513	(20)	352	(8)	—		1,144	(15)	45,404	(22)
40-44	280	(11)	361	(8)	—		1,037	(13)	29,454	(14)
45-49	122	(5)	322	(7)	—		790	(10)	16,547	(8)
50-54	75	(3)	341	(7)	—		620	(8)	9,141	(4)
55-59	47	(2)	413	(9)	—		471	(6)	5,691	(3)
60-64	21	(1)	527	(11)	—		318	(4)	3,243	(2)
65 or older	21	(1)	1,244	(27)	—		335	(4)	2,974	(1)
Total	2,523	(100)	4,636	(100)	2,936	(100)	7,758	(100)	206,392	(100)

[1] See technical notes.

[2] Eighteen adults/adolescents and 2 children developed AIDS after receiving blood screened negative for HIV antibody. Five additional adults developed AIDS after receiving tissue or organs from HIV-infected donors. Two of the five received organs or tissue from a donor who was negative for HIV antibody at the time of donation.

[3] "Other" refers to 4 persons who developed AIDS after exposure to HIV-infected blood within the health care setting, as documented by evidence of seroconversion or other laboratory studies. "Undetermined" refers to patients whose mode of exposure to HIV is unknown. This includes patients under investigation; patients who died, were lost to follow-up, or refused interview; and patients whose mode of exposure to HIV remains undetermined after investigation. See Figure 6.

Table 8. AIDS cases by sex, age at diagnosis, and race/ethnicity, reported through December 1991, United States

Males Age at diagnosis (years)	White, not Hispanic No. (%)	Black, not Hispanic No. (%)	Hispanic No. (%)	Asian/Pacific Islander No. (%)	American Indian/ Alaska Native No. (%)	Total[1] No. (%)
Under 5	248 (0)	820 (2)	367 (1)	6 (1)	5 (2)	1,449 (1)
5-12	194 (0)	128 (0)	95 (0)	5 (0)	—	424 (0)
13-19	271 (0)	175 (0)	119 (0)	7 (1)	5 (2)	577 (0)
20-24	3,361 (3)	2,065 (4)	1,269 (4)	42 (4)	13 (5)	6,765 (4)
25-29	15,618 (15)	7,355 (15)	4,826 (17)	160 (14)	59 (22)	28,080 (15)
30-34	24,350 (23)	11,667 (24)	7,311 (25)	230 (20)	72 (26)	43,715 (24)
35-39	23,048 (22)	11,160 (23)	6,430 (22)	264 (23)	54 (20)	41,064 (22)
40-44	16,141 (15)	6,730 (14)	4,037 (14)	190 (16)	35 (13)	27,202 (15)
45-49	9,538 (9)	3,616 (8)	2,132 (7)	116 (10)	17 (6)	15,464 (8)
50-54	5,155 (5)	2,026 (4)	1,186 (4)	62 (5)	5 (2)	8,456 (5)
55-59	3,216 (3)	1,196 (2)	723 (2)	40 (3)	4 (1)	5,196 (3)
60-64	1,873 (2)	632 (1)	356 (1)	12 (1)	4 (1)	2,882 (2)
65 or older	1,609 (2)	415 (1)	235 (1)	30 (3)	1 (0)	2,295 (1)
Male subtotal	104,622 (100)	47,985 (100)	29,086 (100)	1,164 (100)	274 (100)	183,569 (100)
Females **Age at diagnosis (years)**						
Under 5	240 (4)	783 (6)	323 (7)	1 (1)	3 (6)	1,353 (6)
5-12	57 (1)	113 (1)	69 (1)	5 (5)	—	245 (1)
13-19	61 (1)	117 (1)	32 (1)	1 (1)	1 (2)	212 (1)
20-24	342 (6)	692 (6)	343 (7)	6 (5)	5 (10)	1,395 (6)
25-29	1,011 (18)	2,093 (17)	992 (21)	8 (7)	7 (15)	4,122 (18)
30-34	1,257 (22)	3,148 (26)	1,149 (24)	20 (18)	15 (31)	5,601 (25)
35-39	907 (16)	2,514 (21)	888 (19)	15 (14)	5 (10)	4,340 (19)
40-44	522 (9)	1,237 (10)	465 (10)	21 (19)	5 (10)	2,252 (10)
45-49	279 (5)	565 (5)	222 (5)	9 (8)	3 (6)	1,083 (5)
50-54	204 (4)	338 (3)	134 (3)	7 (6)	1 (2)	685 (3)
55-59	219 (4)	191 (2)	78 (2)	5 (5)	—	495 (2)
60-64	183 (3)	122 (1)	46 (1)	8 (7)	2 (4)	361 (2)
65 or older	481 (8)	139 (1)	51 (1)	5 (5)	1 (2)	679 (3)
Female subtotal	5,763 (100)	12,052 (100)	4,792 (100)	111 (100)	48 (100)	22,823 (100)
Total	**110,385**	**60,037**	**33,878**	**1,275**	**322**	**206,392**

[1]Includes 495 persons whose race/ethnicity is unknown.

Table 9. AIDS cases and annual rates per 100,000 population, by race/ethnicity, age group, and sex, reported in 1991, United States

Race/ethnicity	Adults/adolescents						Children <13 years old		Total	
	Males		Females		Total					
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
White, not Hispanic	20,716	27.8	1,358	1.7	22,074	14.2	142	0.4	22,216	11.7
Black, not Hispanic	11,059	95.3	3,102	24.6	14,161	58.5	400	7.4	14,561	49.2
Hispanic	6,850	69.9	1,213	12.6	8,063	41.5	133	2.0	8,196	31.4
Asian/Pacific Islander	247	8.5	24	0.8	271	4.5	4	0.3	275	3.7
American Indian/Alaska Native	65	9.2	12	1.6	77	5.2	2	0.6	79	4.4
Total[1]	**39,093**	**39.3**	**5,730**	**5.4**	**44,823**	**21.7**	**683**	**1.4**	**45,506**	**17.8**

[1] Includes 179 persons whose race/ethnicity is unknown.

Table 10. AIDS cases by year of diagnosis and definition category, diagnosed through December 1991, United States

Definition category	Year of diagnosis					Cumulative total
	Before 1988	1988	1989	1990	1991	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Pre-1987 definition	59,895 (88)	24,171 (72)	26,442 (69)	25,143 (66)	17,472 (62)	153,123 (74)
1987 definition:	8,079 (12)	9,419 (28)	11,712 (31)	13,137 (34)	10,922 (38)	53,269 (26)
Specific disease presumptively diagnosed	*4,340*	*5,338*	*6,764*	*8,166*	*6,682*	*31,290*
Specific disease definitively diagnosed	*909*	*649*	*799*	*837*	*646*	*3,840*
HIV encephalopathy	*986*	*1,147*	*1,353*	*1,362*	*969*	*5,817*
HIV wasting syndrome	*1,844*	*2,285*	*2,796*	*2,772*	*2,625*	*12,322*
Total	**67,974 (100)**	**33,590 (100)**	**38,154 (100)**	**38,280 (100)**	**28,394 (100)**	**206,392 (100)**

[1] Persons who meet the criteria for more than one definition category are classified in the definition category listed first.

Table 11. AIDS-indicator diseases diagnosed in patients reported in 1991, by age group, United States

AIDS-indicator disease	Adults/adolescents No.	(%)[1]	Children < 13 years old No.	(%)[1]
Bacterial infections, multiple or recurrent	NA[2]		120	(18)
Candidiasis of bronchi, trachea, or lungs	957	(2)	31	(5)
Candidiasis of esophagus				
Definitive diagnosis	3,336	(7)	56	(8)
Presumptive diagnosis	3,383	(8)	39	(6)
Coccidioidomycosis, disseminated or extrapulmonary	74	(0)	1	(0)
Cryptococcosis, extrapulmonary	2,439	(5)	3	(0)
Cryptosporidiosis, chronic intestinal	911	(2)	20	(3)
Cytomegalovirus disease other than retinitis	1,670	(4)	37	(5)
Cytomegalovirus retinitis				
Definitive diagnosis	962	(2)	2	(0)
Presumptive diagnosis	719	(2)	3	(0)
HIV encephalopathy (dementia)	2,705	(6)	96	(14)
Herpes simplex, with esophagitis, pneumonitis, or chronic mucocutaneous ulcers	1,632	(4)	17	(2)
Histoplasmosis, disseminated or extrapulmonary	423	(1)	1	(0)
Isosporiasis, chronic intestinal	98	(0)	0	(0)
Kaposi's sarcoma				
Definitive diagnosis	3,608	(8)	2	(0)
Presumptive diagnosis	1,056	(2)	0	(0)
Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia	NA[2]			
Definitive diagnosis			55	(8)
Presumptive diagnosis			87	(13)
Lymphoma, Burkitt's (or equivalent term)	275	(1)	5	(1)
Lymphoma, immunoblastic (or equivalent term)	960	(2)	2	(0)
Lymphoma, primary in brain	303	(1)	2	(0)
Mycobacterium avium or *M. kansasii*, disseminated or extrapulmonary				
Definitive diagnosis	2,211	(5)	19	(3)
Presumptive diagnosis	228	(1)	0	(0)
M. tuberculosis, disseminated or extrapulmonary				
Definitive diagnosis	1,107	(2)	7	(1)
Presumptive diagnosis	237	(1)	0	(0)
Mycobacterial disease, other, disseminated or extrapulmonary				
Definitive diagnosis	473	(1)	3	(0)
Presumptive diagnosis	241	(1)	1	(0)
Pneumocystis carinii pneumonia				
Definitive diagnosis	13,524	(30)	173	(25)
Presumptive diagnosis	7,132	(16)	57	(8)
Progressive multifocal leukoencephalopathy	386	(1)	0	(0)
Salmonella septicemia, recurrent	156	(0)	NA[3]	
Toxoplasmosis of brain				
Definitive diagnosis	860	(2)	6	(1)
Presumptive diagnosis	1,466	(3)	2	(0)
HIV wasting syndrome	8,486	(19)	84	(12)

[1] Percentages are based on 44,823 adult/adolescent and 683 pediatric cases reported to CDC in 1991. The sum of percentages is greater than 100, because some patients have more than one disease.

[2] Not applicable as indicator of AIDS in adults/adolescents.

[3] Tabulated above in "Bacterial infections, multiple or recurrent."

Table 12. AIDS cases, case-fatality rates, and deaths, by half-year and age group, through December 1991, United States

Half-year	Adults/adolescents			Children < 13 years old		
	Cases diagnosed during interval	Case-fatality rate	Deaths occurring during interval	Cases diagnosed during interval	Case-fatality rate	Deaths occurring during interval
Before 1981	80	86.3	31	6	66.7	1
1981 Jan.-June	92	91.3	39	10	80.0	2
July-Dec.	207	90.8	86	5	100.0	7
1982 Jan.-June	393	92.1	152	14	78.6	7
July-Dec.	691	89.3	284	15	80.0	5
1983 Jan.-June	1,281	93.0	520	33	97.0	13
July-Dec.	1,645	92.5	927	42	83.3	16
1984 Jan.-June	2,560	90.7	1,387	49	85.7	26
July-Dec.	3,378	91.5	1,945	62	80.6	24
1985 Jan.-June	4,856	90.7	2,797	98	74.5	44
July-Dec.	6,276	89.5	3,823	129	78.3	70
1986 Jan.-June	8,273	88.2	5,040	135	78.5	66
July-Dec.	9,898	85.6	6,429	188	69.1	91
1987 Jan.-June	12,847	85.7	7,469	221	68.3	117
July-Dec.	14,237	81.3	7,824	253	62.5	163
1988 Jan.-June	16,294	77.3	9,161	244	56.6	133
July-Dec.	16,722	74.5	10,424	330	53.9	164
1989 Jan.-June	18,797	67.2	11,979	333	52.6	166
July-Dec.	18,709	61.9	13,653	315	47.0	180
1990 Jan.-June	19,477	51.9	13,254	326	37.4	179
July-Dec.	18,156	41.6	13,707	321	29.9	171
1991 Jan.-June	17,900	28.1	12,849	245	24.9	135
July-Dec.	10,152	15.8	7,406	97	14.4	64
Total[1]	**202,921**	**64.7**	**131,383**	**3,471**	**53.3**	**1,850**

[1] Death totals include 197 adults/adolescents and 6 children known to have died, but whose dates of death are unknown.

Table 13. AIDS deaths by race/ethnicity, age at death, and sex, occurring in 1989 and 1990, and cumulative totals reported through December 1991, United States[1]

Race/ethnicity and age at death[2]	Males			Females			Both Sexes		
	1989	1990	Cumulative total	1989	1990	Cumulative total	1989	1990	Cumulative total
White, not Hispanic									
Under 15	46	33	253	44	28	177	90	61	430
15-24	276	200	1,478	36	47	181	312	247	1,659
25-34	4,186	4,373	22,481	259	251	1,269	4,445	4,624	23,750
35-44	5,160	5,736	27,341	166	216	853	5,326	5,952	28,194
45-54	2,217	2,426	11,540	65	68	330	2,282	2,494	11,870
55 or older	1,082	1,075	5,738	116	133	742	1,198	1,208	6,480
All ages	12,967	13,843	68,920	686	743	3,560	13,653	14,586	72,480
Black, not Hispanic									
Under 15	80	103	485	86	100	487	166	203	972
15-24	206	164	1,091	66	74	378	272	238	1,469
25-34	2,172	2,223	11,565	633	644	3,160	2,805	2,867	14,725
35-44	2,529	2,630	11,974	511	639	2,420	3,040	3,269	14,394
45-54	784	852	3,941	142	139	606	926	991	4,547
55 or older	370	403	1,750	58	86	343	428	489	2,093
All ages	6,141	6,375	30,848	1,496	1,682	7,416	7,637	8,057	38,264
Hispanic									
Under 15	45	41	232	46	41	211	91	82	443
15-24	126	101	647	29	31	158	155	132	805
25-34	1,462	1,402	7,114	260	255	1,208	1,722	1,657	8,322
35-44	1,460	1,526	7,028	174	210	824	1,634	1,736	7,852
45-54	536	502	2,437	51	59	234	587	561	2,671
55 or older	204	210	1,005	29	27	117	233	237	1,122
All ages	3,833	3,782	18,492	589	623	2,761	4,422	4,405	21,253
Asian/Pacific Islander									
Under 15	—	1	8	1	—	3	1	1	11
15-24	4	—	16	—	—	3	4	—	19
25-34	43	42	222	5	2	17	48	44	239
35-44	60	67	289	6	5	26	66	72	315
45-54	31	30	131	2	2	14	33	32	145
55 or older	14	19	71	4	3	16	18	22	87
All ages	152	159	739	18	12	80	170	171	819
American Indian/Alaska Native									
Under 15	1	1	5	—	—	1	1	1	6
15-24	2	3	10	—	1	1	2	4	11
25-34	13	16	75	1	3	12	14	19	87
35-44	11	12	58	3	1	6	14	13	64
45-54	4	3	22	1	—	2	5	3	24
55 or older	—	1	9	—	—	1	—	1	10
All ages	31	36	179	5	5	24	36	41	203
All racial/ethnic groups									
Under 15	172	181	985	178	169	881	350	350	1,866
15-24	614	468	3,246	131	153	722	745	621	3,968
25-34	7,890	8,068	41,507	1,159	1,158	5,672	9,049	9,226	47,179
35-44	9,245	9,988	46,779	863	1,073	4,135	10,108	11,061	50,914
45-54	3,581	3,824	18,103	262	269	1,189	3,843	4,093	19,292
55 or older	1,674	1,710	8,588	209	250	1,223	1,883	1,960	9,811
All ages	23,176	24,239	119,370	2,802	3,072	13,863	25,978	27,311	133,233

[1] Data tabulations for 1989 and 1990 are based on date of death occurence. Data for deaths occurring in 1991 are incomplete and not tabulated separately, but are included in the cumulative totals. Tabulations for 1989 and 1990 may increase as additional deaths are reported to the CDC.

[2] Data tabulated under "All ages" include 203 persons whose age at death is unknown. Data tabulated under "All racial/ethnic groups" include 214 persons whose race/ethnicity is unknown.

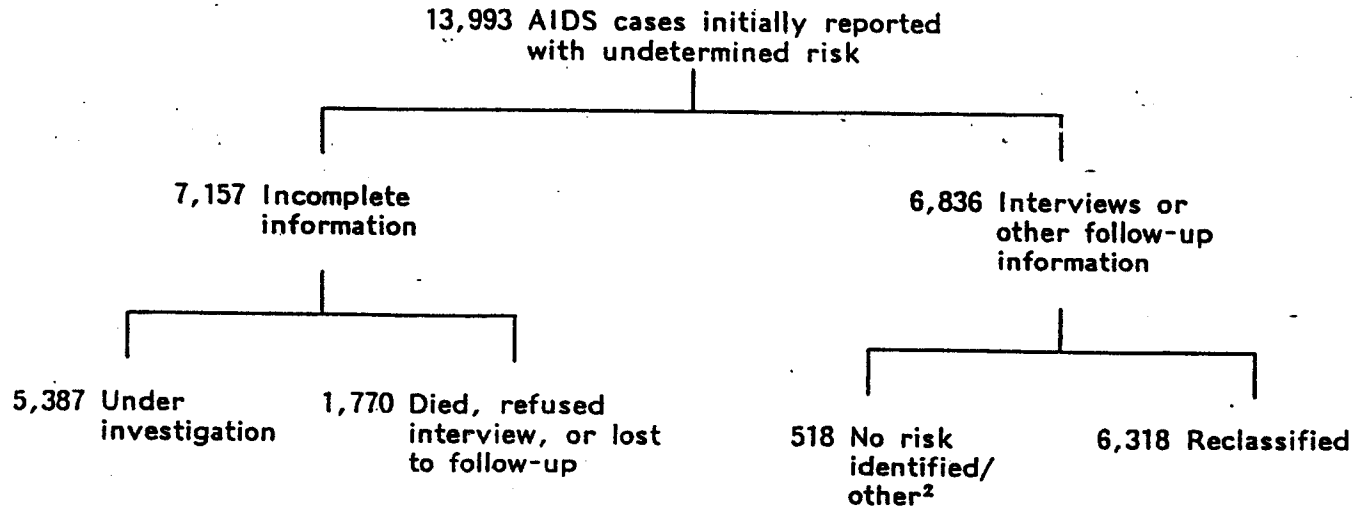
Table 14. Adult/adolescent AIDS cases by single and multiple exposure categories, reported through December 1991, United States

Exposure category	AIDS cases	
	No.	(%)
Single mode of exposure		
Men who have sex with men	113,804	(56)
Injecting drug use	39,039	(19)
Hemophilia/coagulation disorder	1,106	(1)
Heterosexual contact	11,442	(6)
Receipt of transfusion of blood, blood component, or tissue[1]	4,347	(2)
Other/undetermined[2]	7,675	(4)
Single mode of exposure subtotal	177,413	(87)
Multiple modes of exposure		
Men who have sex with men; injecting drug use	11,780	(6)
Men who have sex with men; hemophilia	41	(0)
Men who have sex with men; heterosexual contact	2,451	(1)
Men who have sex with men; receipt of transfusion	1,922	(1)
Injecting drug use; hemophilia	45	(0)
Injecting drug use; heterosexual contact	5,555	(3)
Injecting drug use; receipt of transfusion	823	(0)
Hemophilia; heterosexual contact	9	(0)
Hemophilia; receipt of transfusion	584	(0)
Heterosexual contact; receipt of transfusion	494	(0)
Men who have sex with men; injecting drug use; hemophilia	12	(0)
Men who have sex with men; injecting drug use; heterosexual contact	1,004	(0)
Men who have sex with men; injecting drug use; receipt of transfusion	290	(0)
Men who have sex with men; hemophilia; heterosexual contact	3	(0)
Men who have sex with men; hemophilia; receipt of transfusion	23	(0)
Men who have sex with men; heterosexual contact; receipt of transfusion	118	(0)
Injecting drug use; hemophilia; heterosexual contact	6	(0)
Injecting drug use; hemophilia; receipt of transfusion	23	(0)
Injecting drug use; heterosexual contact; receipt of transfusion	254	(0)
Hemophilia; heterosexual contact; receipt of transfusion	14	(0)
Men who have sex with men; injecting drug use; hemophilia; heterosexual contact	1	(0)
Men who have sex with men; injecting drug use; hemophilia; receipt of transfusion	6	(0)
Men who have sex with men; injecting drug use; heterosexual contact; receipt of transfusion	42	(0)
Injecting drug use; hemophilia; heterosexual contact; receipt of transfusion	8	(0)
Multiple modes of exposure subtotal	25,508	(13)
Total	202,921	(100)

[1]Eighteen adults/adolescents and 2 children developed AIDS after receiving blood screened negative for HIV antibody. Five additional adults developed AIDS after receiving tissue or organs from HIV-infected donors. Two of the five received organs or tissue from a donor who was negative for HIV antibody at the time of donation.

[2]"Other" refers to 4 persons who developed AIDS after exposure to HIV-infected blood within the health care setting, as documented by evidence of seroconversion or other laboratory studies. "Undetermined" refers to patients whose mode of exposure to HIV is unknown. This includes patients under investigation; patients who died, were lost to follow-up, or refused interview; and patients whose mode of exposure to HIV remains undetermined after investigation. See Figure 6.

Figure 6. Results of investigations of adult/adolescent AIDS cases with undetermined risk reported through December 1991[1]



[1] Excludes 83 children under 13 years of age who have an undetermined risk: 73 children are under investigation and 10 have died, refused interview, or were lost to follow-up. An additional 123 children who were initially reported with an undetermined risk hav been reclassified after investigation.

[2] Of the 518 persons classified as "No risk identified/other," 4 are persons who developed AIDS after exposure to HIV-infected blood within the health-care setting, as documented by evidence of seroconversion or other laboratory studies. For the remaining 514, the mode of exposure to HIV remains undetermined after investigation.

Health-care workers. 84 of the 514 patients who had no risk identified after follow-up are health-care workers, 75 of whom responded to a standardized questionaire. 45 (60%) reported needlesticks and/or mucous membrane exposures to blood and other body fluids of patients. None of the source patients was known to be infected with HIV at the time of exposure and none of the health-care workers was evaluated at the time of the exposure to document seroconversion to HIV antibody. See *MMWR*,"Update: Acquired Immunodeficiency Syndrome and Human Immunodeficiency Virus Infection Among Health-Care Workers," (April 22, 1988)37:229-234,239.

Heterosexual transmission. 455 of the 514 patients who had no risk identified after follow-up responded to a standardized questionnaire; 145 (35%) of 418 persons responding to questions related to sexually transmitted disease gave a history of such disease and 104 (36%) of 290 interviewed men reported sexual contact with a prostitute. Some of these persons may represent unreported or unrecognized heterosexual transmission of HIV. See *MMWR*, "Update: Heterosexual Transmission of AIDS and HIV Infection — U.S.," (June 23, 1989) 38:423-424,429-434.

Technical notes

Surveillance and reporting of AIDS

All 50 states, the District of Columbia, U.S. dependencies and possessions, and independent nations in free association with the U.S.[1] report AIDS cases to CDC using a uniform case definition and case report form. The original definition was modified in 1985 (*MMWR* 1985;34:373-5) and again in 1987 (*MMWR* 1987;36 [suppl. no. 1S]:1S-15S). The revisions incorporated a broader range of AIDS-indicator diseases and conditions and used human immunodeficiency virus (HIV) diagnostic tests to improve the sensitivity and specificity of the definition. For persons with laboratory-confirmed HIV infection, the 1987 revision incorporated HIV encephalopathy, wasting syndrome, and other indicator diseases that are diagnosed presumptively (i.e., without confirmatory laboratory evidence of the opportunistic disease). AIDS cases that meet the criteria of both the pre-1987 and 1987 definitions are classified in the pre-1987 definition category. Compared with patients who meet the pre-1987 case definition, a higher proportion of patients who meet only the 1987 case definition were female, black, or Hispanic, or were injecting drug users (*MMWR* 1989;38:229-36).

Each issue of this report includes information received and tabulated by CDC through the last day of the previous month. Data are tabulated by date of report to CDC unless otherwise noted. Data for U.S. dependencies and possessions and for associated independent nations are included in the totals.

Age group tabulations are based on the person's age at diagnosis of AIDS: adult/adolescent cases include persons 13 years of age and older; pediatric cases include children under 13 years of age. Age group tabulations in Table 13 (only included in the year-end edition) are based on age at death.

Metropolitan areas are defined as the Metropolitan Statistical Areas (MSA) for all areas except the 6 New England states. For these states, the New England County Metropolitan Areas (NECMA) are used. Metropolitan areas are named for a central city in the MSA or NECMA, may include several cities and counties, and may cross state boundaries. For example, AIDS cases and annual rates presented for the District of Columbia in Table 1 include only persons residing within the geographic boundaries of the District. AIDS cases and annual rates for Washington, D.C., in Table 2 include persons residing within the metropolitan area which includes counties in both Maryland and Virginia. State or metropolitan area data tabulations are based on the person's residence at diagnosis of the first AIDS-indicator disease(s). The cities and counties which comprise each metropolitan area in Table 2 are listed in the Bureau of Census publication, "State and Metropolitan Area Data Book, 1986."

Data in this report are provisional. Reporting delays (time between diagnosis and report to CDC) vary widely among exposure, geographic, racial/ethnic, and age categories and have been several years for some cases. About 55 percent of all cases are reported within 3 months of diagnosis, but about 20 percent are reported more than 1 year after diagnosis.

Completeness of reporting of diagnosed cases to state and local health departments varies by geographic region and patient population; however, mortality studies suggest that 70 to 90 percent of HIV-related deaths in men 25 to 44 years old are identified through national surveillance of AIDS (*MMWR* 1989;38:561-3). In addition, multiple routes of exposure, opportunistic diseases diagnosed after the initial case report was submitted to CDC, and vital status may not be determined or reported for all cases. Caution should be used in interpreting case-fatality rates because reporting of deaths is known to be incomplete.

Exposure categories

For surveillance purposes, AIDS cases are counted only once in a hierarchy of exposure categories. Persons with more than one reported mode of exposure to HIV are classified in the category listed first in the hierarchy, except for men with both a history of sexual contact with other men and injecting drug use. They make up a separate category.

"Men who have sex with men" cases include men who report sexual contact with other men (i.e., homosexual contact) and men who report sexual contact with both men and women (i.e., bisexual contact).

[1] Included among the dependencies, possessions, and independent nations are Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Republic of Palau, the Republic of the Marshall Islands, the Commonwealth of the Northern Mariana Islands, and the Federated States of Micronesia. The latter 5 comprise the category "Pacific Islands, U.S." listed in Table 1.

"Heterosexual contact" cases include persons who report either specific heterosexual contact with a person with, or at increased risk for, HIV infection (e.g., an intravenous drug user), or persons presumed to have acquired HIV infection through heterosexual contact because they were born in countries with a distinctive pattern of transmission termed "Pattern II" by the World Health Organization (*MMWR* 1988;37:286-8,293-5). Pattern II transmission is observed in areas of sub-Saharan Africa and in some Caribbean countries. In these countries, most of the reported cases occur in heterosexuals and the male-to-female ratio is approximately 1:1. Injecting drug use and homosexual transmission either do not occur or occur at a low level.

"Undetermined" cases are persons with no reported history of exposure to HIV through any of the routes listed in the hierarchy of exposure categories. Undetermined cases include persons who are currently under investigation by local health department officials; persons whose exposure history is incomplete because of death, refusal to be interviewed, or loss to follow-up; and persons who were interviewed or for whom other follow-up information was available and no exposure mode was identified. Persons who have an exposure mode identified at the time of follow-up are reclassified into the appropriate exposure category.

Rates

Rates are on an annual basis per 100,000 population. The denominators for computing rates are based on U.S. Bureau of Census data from the 1990 census and on extrapolations from the 1980 and 1990 census. Each 12-month rate is the number of cases for a 12-month period divided by the 1990 or 1991 population, multiplied by 100,000. Race-specific rates are the number of cases reported for a particular race/ethnicity during the preceding 12-month period divided by the 1991 census estimate for that race/ethnicity, multiplied by 100,000.

Case-fatality rates are on a semiannual basis by date of diagnosis. Each 6-month case-fatality rate is the number of fatal cases reported, divided by the number of total cases diagnosed in that period, multiplied by 100.

Trends in AIDS incidence

Tabulations of AIDS cases by date of report g[illegible] a general description of AIDS cases, but analys[illegible] by date of diagnosis give a more accurate description of trends. Delays in reporting, however, can have a substantial impact on tabulated numbers of cases diagnosed in recent time periods. About 55 percent of all cases are reported within 3 months of diagnosis, but about 20 percent are reported more than 1 year after diagnosis. Delays are substantially longer for pediatric cases and for transfusion-associated cases in adults.

Figure 5 (included only in the year-end edition) shows trends in AIDS incidence by quarter of diagnosis. The jagged line on the plot shows the estimated numbers of cases diagnosed, after adjusting for estimated delays in reporting. Reporting delays were estimated by a maximum likelihood statistical procedure, taking into account possible differences in reporting delays among exposure, geographic, racial/ethnic, and age categories, but assuming that reporting delays within these groups have not changed over time (J.M. Karon, O.J. Devine, and W.M. Morgan "Predicting AIDS incidence by exrapolating from recent trends." In: C. Castillo-Chavex ed. *Mathematical and Statistical Approaches AIDS Epidemiology. Lecture Notes in Biomathematics*, Vol. 83, Springer Verlag, Berlin, 1989).

The smooth curve is obtained by connecting smoothed values computed for each quarter. The smoothed value at time t is a weighted average of adjusted incidences in the interval $t \pm 1$ year; the weights decrease for times further from t.

The smooth curve should be considered a description of the overall trend in AIDS cases but predictions of future number of cases should not be made by extrapolating the curve. This curve emphasizes that the rate of increase in incidence slowed during the middle of 1987 (see *MMWR* 1990;39:81-86).

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