

CENTERS FOR DISEASE CONTROL  
**HIV/AIDS**  
**SURVEILLANCE**

AIDS cases reported through December 1988

Issued January 1989

**Contents**

Figure 1. AIDS annual incidence rates per 100,000 population, United States.....3

Figure 2. Adult/adolescent and pediatric AIDS cases, United States .....4

Figure 3. Pediatric AIDS cases, United States .....4

Table 1. AIDS cases and annual incidence rates per 100,000 population, by state .....5

Table 2. AIDS cases and annual incidence rates per 100,000 population, by metropolitan area with 500,000 or more population.....6

Table 3. AIDS cases by age group, exposure category, and sex.....8

Table 4. AIDS cases by age group, exposure category, and race/ethnicity .....9

Table 5. Adult/adolescent AIDS cases by sex, exposure category, and race/ethnicity .....10

Table 6. AIDS cases by sex, age at diagnosis, and race/ethnicity .....11

Table 7. AIDS deaths and case-fatality rates, by half-year of diagnosis and age group.....12

Table 8. AIDS cases by year of diagnosis and definition category.....12

Table 9. Adult/adolescent AIDS cases by single and multiple exposure categories .....13

Technical notes .....14

Acquired immunodeficiency syndrome (AIDS) is a life-threatening manifestation of infection with the human immunodeficiency virus (HIV).

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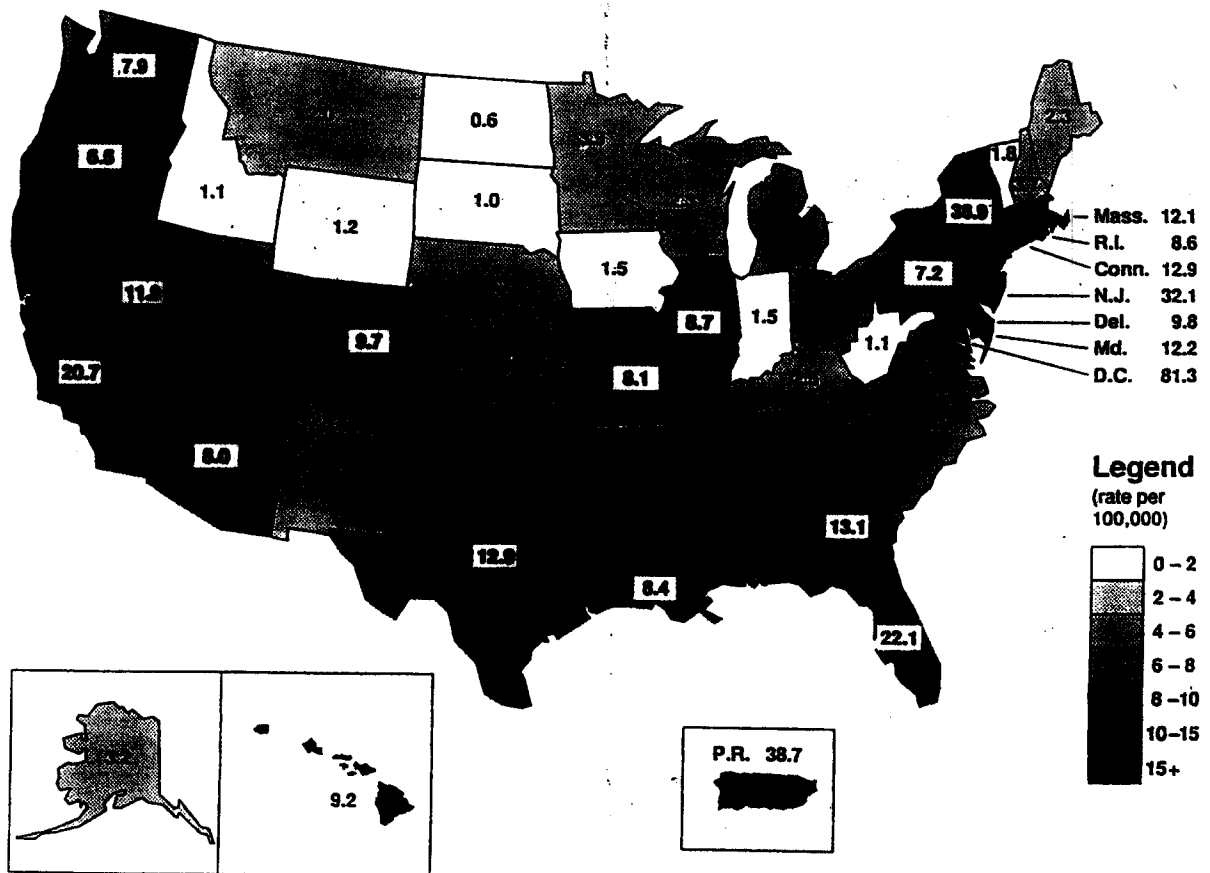
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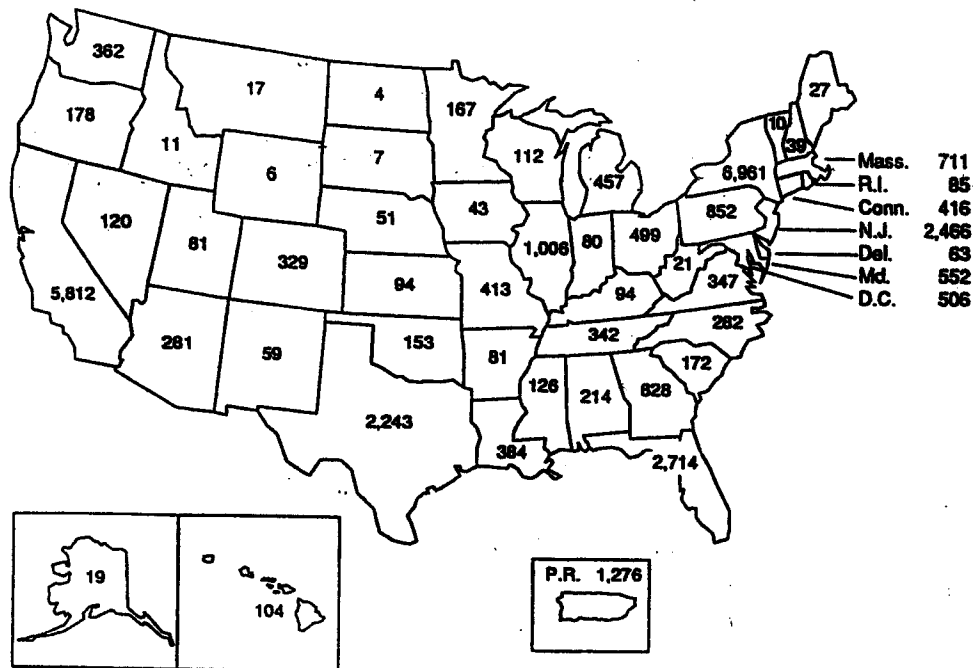
**Figure 1. AIDS annual incidence rates per 100,000 population, United States, for cases reported January 1988 through December 1988**



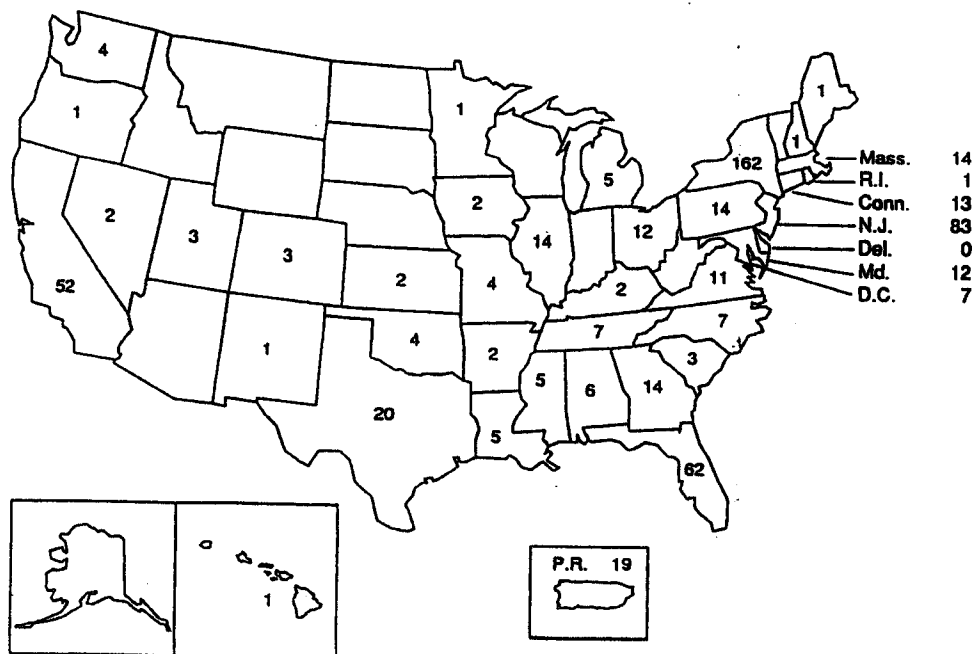
**Legend**  
(rate per 100,000)

0-2
2-4
4-6
6-8
8-10
10-15
15+

**Figure 2. Adult/adolescent and pediatric AIDS cases, United States, reported January 1988 through December 1988**



**Figure 3. Pediatric AIDS cases, United States, reported January 1988 through December 1988**



**Table 1. AIDS cases and annual incidence rates per 100,000 population, by state, reported January 1987 through December 1987 and January 1988 through December 1988, and cumulative totals, by state and age group, through December 1988**

State of residence	Jan. 1987- Dec. 1987		Jan. 1988- Dec. 1988		Cumulative totals		
	No.	Rate	No.	Rate	Adults/ adolescents	Children < 13 years old	Total
Alabama	153	3.8	214	5.2	426	13	439
Alaska	15	2.7	19	3.2	56	1	57
Arizona	219	6.4	281	8.0	656	3	659
Arkansas	48	2.0	81	3.4	168	2	170
California	4,881	17.7	5,812	20.7	16,794	106	16,900
Colorado	227	6.8	329	9.7	846	5	851
Connecticut	248	7.7	416	12.9	980	34	1,014
Delaware	40	6.3	63	9.8	141	2	143
District of Columbia	467	74.8	506	81.3	1,472	16	1,488
Florida	1,640	13.7	2,714	22.1	6,295	156	6,451
Georgia	510	8.2	828	13.1	1,894	28	1,922
Hawaii	83	7.5	104	9.2	289	2	291
Idaho	10	1.0	11	1.1	26	2	28
Illinois	634	5.5	1,006	8.7	2,321	30	2,351
Indiana	132	2.4	80	1.5	336	3	339
Iowa	28	1.0	43	1.5	104	3	107
Kansas	50	2.0	94	3.8	196	3	199
Kentucky	47	1.3	94	2.5	202	2	204
Louisiana	338	7.4	384	8.4	1,048	14	1,062
Maine	29	2.5	27	2.3	86	2	88
Maryland	460	10.3	552	12.2	1,406	31	1,437
Massachusetts	456	7.8	711	12.1	1,715	32	1,747
Michigan	212	2.3	457	5.0	910	14	924
Minnesota	130	3.1	167	3.9	451	2	453
Mississippi	52	2.0	126	4.7	213	5	218
Missouri	236	4.6	413	8.1	800	8	808
Montana	7	0.8	17	2.0	30	—	30
Nebraska	24	1.5	51	3.2	95	—	95
Nevada	90	9.2	120	11.9	265	2	267
New Hampshire	32	3.1	39	3.7	90	3	93
New Jersey	1,516	19.8	2,466	32.1	5,521	182	5,703
New Mexico	47	3.1	59	3.8	144	1	145
New York	3,969	22.2	6,961	38.9	19,714	412	20,126
North Carolina	214	3.3	282	4.3	665	11	676
North Dakota	1	0.1	4	0.6	11	—	11
Ohio	329	3.1	499	4.6	1,119	18	1,137
Oklahoma	107	3.2	153	4.5	336	8	344
Oregon	160	5.9	178	6.5	455	2	457
Pennsylvania	650	5.5	852	7.2	2,116	34	2,150
Rhode Island	69	7.0	85	8.6	203	4	207
South Carolina	84	2.4	172	4.9	362	8	370
South Dakota	2	0.3	7	1.0	12	—	12
Tennessee	73	1.5	342	7.0	504	8	512
Texas	1,677	9.8	2,243	12.9	5,655	49	5,704
Utah	39	2.3	81	4.7	162	5	167
Vermont	15	2.8	10	1.8	35	—	35
Virginia	243	4.2	347	5.9	907	20	927
Washington	337	7.4	362	7.9	1,043	7	1,050
West Virginia	21	1.1	21	1.1	61	2	63
Wisconsin	97	2.0	112	2.3	286	1	287
Wyoming	1	0.2	6	1.2	12	—	12
<b>U.S. total</b>	<b>21,149</b>	<b>8.7</b>	<b>31,001</b>	<b>12.6</b>	<b>79,634</b>	<b>1,296</b>	<b>80,930</b>
Guam	3	2.3	1	0.8	5	—	5
Pacific Islands, Trust Territory	—	—	1	0.7	1	—	1
Puerto Rico	203	6.2	1,276	38.7	1,740	49	1,789
Virgin Islands, U.S.	—	—	32	28.3	38	1	39
<b>Total</b>	<b>21,355</b>	<b>8.7</b>	<b>32,311</b>	<b>13.0</b>	<b>81,418</b>	<b>1,346</b>	<b>82,764</b>

January 1989

**Table 2. AIDS cases and annual incidence rates per 100,000 population, by metropolitan area with 500,000 or more population, reported January 1987 through December 1987 and January 1988 through December 1988; and cumulative totals, by area and age group, through December 1988**

Metropolitan area of residence	Jan. 1987- Dec. 1987		Jan. 1988- Dec. 1988		Cumulative totals		
	No.	Rate	No.	Rate	Adults/ adolescents	Children <13 years old	Total
Akron, Ohio	14	2.2	25	3.9	53	—	53
Albany-Schenectady, N.Y.	44	5.2	74	8.7	176	1	177
Allentown, Pa.	14	2.1	30	4.6	63	3	66
Anaheim, Calif.	233	10.6	243	10.9	649	7	656
Atlanta, Ga.	364	13.8	609	22.6	1,417	13	1,430
Austin, Tex.	85	11.0	108	13.4	283	1	284
Bakersfield, Calif.	15	2.9	21	4.0	44	—	44
Baltimore, Md.	226	9.9	314	13.7	726	22	748
Baton Rouge, La.	21	3.7	33	5.8	82	—	82
Bergen-Passaic, N.J.	211	16.2	297	22.8	756	22	778
Birmingham, Ala.	43	4.7	69	7.5	129	5	134
Boston, Mass.	358	9.6	557	14.9	1,366	25	1,391
Bridgeport, Conn.	70	8.4	115	13.8	279	9	288
Buffalo, N.Y.	24	2.5	46	4.8	104	—	104
Charleston, S.C.	19	3.8	40	7.8	90	—	90
Charlotte, N.C.	50	4.6	68	6.2	143	4	147
Chicago, Ill.	538	8.6	877	14.0	2,000	22	2,022
Cincinnati, Ohio	57	4.0	67	4.7	153	3	156
Cleveland, Ohio	88	4.8	128	7.0	308	5	313
Columbus, Ohio	68	5.2	121	9.2	252	1	253
Dallas, Tex.	496	20.1	552	21.8	1,453	6	1,459
Dayton, Ohio	32	3.4	44	4.7	105	3	108
Denver, Colo.	186	11.1	260	15.2	684	3	687
Detroit, Mich.	141	3.3	324	7.6	642	10	652
El Paso, Tex.	15	2.7	19	3.3	43	—	43
Fort Lauderdale, Fla.	295	25.2	369	31.0	1,012	11	1,023
Fort Worth, Tex.	87	6.7	124	9.3	281	1	282
Fresno, Calif.	20	3.3	40	6.4	80	—	80
Gary, Ind.	8	1.3	8	1.3	29	—	29
Grand Rapids, Mich.	13	2.0	21	3.2	41	1	42
Greensboro, N.C.	32	3.5	40	4.4	94	2	96
Greenville, S.C.	18	2.9	14	2.3	44	—	44
Harrisburg, Pa.	25	4.3	40	6.9	78	2	80
Hartford, Conn.	67	6.2	109	10.0	250	7	257
Honolulu, Hawaii	66	7.7	87	10.1	239	1	240
Houston, Tex.	709	21.3	916	26.8	2,521	23	2,544
Indianapolis, Ind.	57	4.7	38	3.1	145	1	146
Jacksonville, Fla.	98	11.3	167	18.8	298	9	307
Jersey City, N.J.	262	47.1	469	84.3	1,040	31	1,071
Kansas City, Mo.	128	8.4	250	16.3	461	3	464
Knoxville, Tenn.	13	2.2	28	4.6	58	—	58
Las Vegas, Nev.	69	11.7	87	14.4	189	2	191
Little Rock, Ark.	23	4.5	33	6.4	72	1	73
Los Angeles, Calif.	1,745	20.9	1,954	23.1	5,966	46	6,012
Louisville, Ky.	19	2.0	45	4.6	88	1	89
Memphis, Tenn.	29	3.0	108	11.2	165	4	169
Miami, Fla.	481	26.8	705	39.1	2,015	77	2,092
Middlesex, N.J.	132	13.9	203	21.1	445	16	461
Milwaukee, Wis.	58	4.2	66	4.8	167	—	167
Minneapolis-Saint Paul, Minn.	110	4.7	151	6.4	389	2	391
Monmouth-Ocean City, N.J.	86	9.0	142	14.6	282	10	292
Nashville, Tenn.	11	1.2	136	14.3	175	3	178
Nassau-Suffolk, N.Y.	209	7.9	354	13.3	886	26	912
New Haven, Conn.	81	10.3	148	18.8	326	18	344
New Orleans, La.	241	18.0	239	17.7	716	8	724
New York, N.Y.	3,438	40.3	5,935	69.3	17,312	372	17,684
Newark, N.J.	628	33.4	1,073	57.1	2,330	84	2,414
Norfolk, Va.	58	4.3	91	6.6	190	6	196

**Table 2. AIDS cases and annual incidence rates per 100,000 population, by metropolitan area with 500,000 or more population, reported January 1987 through December 1987 and January 1988 through December 1988; and cumulative totals, by area and age group, through December 1988 — Continued**

Metropolitan area of residence	Jan. 1987- Dec. 1987		Jan. 1988- Dec. 1988		Cumulative totals		
	No.	Rate	No.	Rate	Adults/ adolescents	Children <13 years old	Total
Oakland, Calif.	311	15.8	363	18.2	1,007	4	1,011
Oklahoma City, Okla.	53	5.3	29	2.8	128	—	128
Omaha, Neb.	14	2.3	36	5.7	66	—	66
Orlando, Fla.	60	6.4	186	19.2	319	4	323
Oxnard-Ventura, Calif.	23	3.7	43	6.7	80	—	80
Philadelphia, Pa.	504	10.5	637	13.2	1,651	23	1,674
Phoenix, Ariz.	154	7.7	223	10.8	483	2	485
Pittsburgh, Pa.	84	4.0	95	4.6	250	1	251
Portland, Oreg.	129	11.1	138	11.8	358	1	359
Providence, R.I.	62	6.9	76	8.5	174	4	178
Raleigh-Durham, N.C.	45	6.7	67	9.8	150	3	153
Richmond, Va.	48	5.9	59	7.2	163	1	164
Riverside-San Bernardino, Calif.	178	8.6	189	8.9	471	8	479
Rochester, N.Y.	46	4.7	97	9.8	202	1	203
Sacramento, Calif.	118	8.9	141	10.4	326	3	329
Saint Louis, Mo.	89	3.7	171	7.0	335	5	340
Salt Lake City, Utah	33	3.1	69	6.4	143	4	147
San Antonio, Tex.	57	4.4	234	17.6	365	7	372
San Diego, Calif.	391	17.4	447	19.4	1,123	8	1,131
San Francisco, Calif.	1,401	86.1	1,760	106.9	5,620	6	5,626
San Jose, Calif.	115	8.0	164	11.2	399	5	404
San Juan, P.R.	143	12.8	641	57.3	946	31	977
Scranton, Pa.	21	2.9	19	2.6	53	2	55
Seattle, Wash.	258	14.5	262	14.5	791	6	797
Springfield, Mass.	21	3.6	33	5.6	80	1	81
Syracuse, N.Y.	11	1.7	33	5.0	84	3	87
Tacoma, Wash.	20	3.7	24	4.4	62	1	63
Tampa, Fla.	199	10.1	408	20.3	733	13	746
Toledo, Ohio	14	2.3	24	4.0	50	1	51
Tucson, Ariz.	53	8.7	35	5.7	127	1	128
Tulsa, Okla.	24	3.2	49	6.4	93	2	95
Washington, D.C.	760	21.2	818	22.5	2,373	31	2,404
West Palm Beach, Fla.	197	25.3	304	37.7	709	24	733
Wilmington, Del.	34	6.1	51	9.1	113	1	114
Worcester, Mass.	20	3.0	42	6.3	83	2	85
Youngstown, Ohio	8	1.6	17	3.4	34	—	34
<b>Metropolitan area subtotal<sup>1</sup></b>	<b>18,426</b>	<b>13.0</b>	<b>27,215</b>	<b>19.0</b>	<b>70,528</b>	<b>1,142</b>	<b>71,670</b>
<b>Non-metropolitan areas</b>	<b>2,929</b>	<b>2.8</b>	<b>5,096</b>	<b>4.8</b>	<b>10,890</b>	<b>204</b>	<b>11,094</b>
<b>Total</b>	<b>21,355</b>	<b>8.7</b>	<b>32,311</b>	<b>13.0</b>	<b>81,418</b>	<b>1,346</b>	<b>82,764</b>

<sup>1</sup>Includes data from all metropolitan areas with 50,000 or more population.

**Table 3. AIDS cases by age group, exposure category, and sex, reported January 1987 through December 1987 and January 1988 through December 1988; and cumulative totals, by age group and exposure category, through December 1988, United States**

Adult/adolescent exposure category	Males		Females		Totals		Cumulative total No. (%)
	Jan. 1987- Dec. 1987	Jan. 1988- Dec. 1988	Jan. 1987- Dec. 1987	Jan. 1988- Dec. 1988	Jan. 1987- Dec. 1987	Jan. 1988- Dec. 1988	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	
Male homosexual/bisexual contact	13,563 (70)	17,993 (63)			13,563 (65)	17,993 (57)	50,325 (62)
Intravenous (IV) drug use (female and heterosexual male)	2,777 (14)	5,789 (20)	834 (49)	1,742 (53)	3,611 (17)	7,531 (24)	16,151 (20)
Male homosexual/bisexual contact and IV drug use	1,535 (8)	2,055 (7)	—	—	1,535 (7)	2,055 (6)	5,874 (7)
Hemophilia/coagulation disorder	215 (1)	291 (1)	4 (0)	8 (0)	219 (1)	299 (1)	773 (1)
Heterosexual contact:	334 (2)	591 (2)	518 (31)	950 (29)	852 (4)	1,541 (5)	3,558 (4)
Sex with IV drug user	106	227	303	620	409	847	1,657
Sex with bisexual male	—	—	65	88	65	88	240
Sex with person with hemophilia	1	2	11	12	12	14	32
Born in Pattern-I <sup>1</sup> country	193	270	73	109	266	379	1,249
Sex with person born in Pattern-II country	9	17	4	4	13	21	52
Sex with transfusion recipient with HIV infection	1	10	13	15	14	25	48
Sex with person with HIV infection, risk not specified	24	65	49	102	73	167	280
Receipt of transfusion of blood, blood components, or tissue <sup>2</sup>	417 (2)	523 (2)	212 (13)	339 (10)	629 (3)	862 (3)	2,044 (3)
Other/undetermined <sup>3</sup>	492 (3)	1,190 (4)	122 (7)	257 (8)	614 (3)	1,447 (5)	2,693 (3)
Adult/adolescent subtotal	19,333 (100)	28,432 (100)	1,690 (100)	3,296 (100)	21,023 (100)	31,728 (100)	81,418 (100)
<b>Pediatric (&lt;13 years old) exposure category</b>							
Hemophilia/coagulation disorder	22 (13)	38 (12)	—	—	22 (7)	38 (7)	83 (6)
Mother with/at risk for AIDS/ HIV infection:	127 (72)	225 (69)	129 (83)	222 (86)	256 (77)	447 (77)	1,044 (78)
IV drug use	62	118	73	113	135	231	561
Sex with IV drug user	31	45	23	38	54	83	200
Sex with bisexual male	1	3	6	6	7	9	23
Sex with person with hemophilia	1	2	2	1	3	3	7
Born in Pattern-II country	14	22	8	20	22	42	115
Sex with person born in Pattern-II country	—	1	—	1	—	2	3
Sex with transfusion recipient with HIV infection	—	2	—	3	—	5	5
Sex with person with HIV infection, risk not specified	5	11	2	7	7	18	34
Receipt of transfusion of blood, blood components, or tissue	2	4	7	9	9	13	26
Has HIV infection, risk not specified	11	17	8	24	19	41	70
Receipt of transfusion of blood, blood components, or tissue	24 (14)	45 (14)	21 (13)	22 (9)	45 (14)	67 (11)	169 (13)
Undetermined	3 (2)	17 (5)	6 (4)	14 (5)	9 (3)	31 (5)	50 (4)
Pediatric subtotal	176 (100)	325 (100)	156 (100)	258 (100)	332 (100)	583 (100)	1,346 (100)
<b>Total</b>	<b>19,509</b>	<b>28,757</b>	<b>1,846</b>	<b>3,554</b>	<b>21,355</b>	<b>32,311</b>	<b>82,764</b>

<sup>1</sup> See technical notes.

<sup>2</sup> Includes 1 tissue recipient and 2 transfusion recipients who received blood screened for HIV antibody.

<sup>3</sup> "Other" is 1 health-care worker who seroconverted to HIV and developed AIDS after needlestick exposure to HIV-infected blood. "Undetermined" includes 1,856 adults/adolescents (44 children) under investigation; 468 adults/adolescents (6 children) who died, were lost to follow-up, or refused interview; and 339 adults/adolescents (0 children) whose mode of exposure to HIV remains undetermined after investigation.



**Table 4. AIDS cases by age group, exposure category, and race/ethnicity, reported through December 1988, United States**

Adult/adolescent exposure category	White, not Hispanic	Black, not Hispanic	Hispanic	Asian/Pacific Islander	American Indian/Alaskan Native	Total <sup>4</sup>
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Male homosexual/bisexual contact	36,733 (78)	7,917 (37)	5,161 (43)	360 (75)	46 (53)	50,325 (62)
Intravenous (IV) drug use (female and heterosexual male)	3,201 ( 7)	8,114 (38)	4,765 (39)	16 ( 3)	14 (16)	16,151 (20)
Male homosexual/bisexual contact and IV drug use	3,524 ( 7)	1,472 ( 7)	849 ( 7)	8 ( 2)	13 (15)	5,874 ( 7)
Hemophilia/coagulation disorder	649 ( 1)	52 ( 0)	56 ( 0)	10 ( 2)	3 ( 3)	773 ( 1)
Heterosexual contact:	679 ( 1)	2,316 (11)	539 ( 4)	15 ( 3)	3 ( 3)	3,558 ( 4)
<i>Sex with IV drug user</i>	367	840	441	5	1	1,657
<i>Sex with bisexual male</i>	127	80	30	3	—	240
<i>Sex with person with hemophilia</i>	27	2	2	1	—	32
<i>Born in Pattern-II<sup>1</sup> country</i>	5	1,232	9	1	—	1,249
<i>Sex with person born in Pattern-II country</i>	14	34	4	—	—	52
<i>Sex with transfusion recipient with AIDS/HIV infection</i>	33	8	4	2	—	48
<i>Sex with person with HIV infection, risk not specified</i>	106	120	49	3	2	280
Receipt of transfusion of blood, blood components, or tissue <sup>2</sup>	1,502 ( 3)	323 ( 2)	170 ( 1)	41 ( 9)	3 ( 3)	2,044 ( 3)
Other/undetermined <sup>3</sup>	1,019 ( 2)	1,028 ( 5)	593 ( 5)	32 ( 7)	5 ( 6)	2,693 ( 3)
<b>Adult/adolescent subtotal</b>	<b>47,307(100)</b>	<b>21,222 (100)</b>	<b>12,133(100)</b>	<b>482(100)</b>	<b>87(100)</b>	<b>81,418(100)</b>
<b>Pediatric (&lt;13 years old) exposure category</b>						
Hemophilia/coagulation disorder	60 (19)	10 ( 1)	11 ( 4)	2 (33)	—	83 ( 6)
Mother with/at risk for AIDS/HIV infection:	158 (49)	629 (89)	251 (81)	2 (33)	2(100)	1,044 (78)
<i>IV drug use</i>	70	335	154	1	1	561
<i>Sex with IV drug user</i>	31	103	66	—	—	200
<i>Sex with bisexual male</i>	10	11	2	—	—	23
<i>Sex with person with hemophilia</i>	5	1	1	—	—	7
<i>Born in Pattern-II country</i>	2	111	1	—	—	115
<i>Sex with person born in Pattern-II country</i>	—	2	—	—	—	3
<i>Sex with transfusion recipient with HIV infection</i>	4	1	—	—	—	5
<i>Sex with person with HIV infection, risk not specified</i>	8	15	10	1	—	34
<i>Receipt of transfusion of blood, blood components, or tissue</i>	10	10	6	—	—	26
<i>Has HIV infection, risk not specified</i>	18	40	11	—	1	70
Receipt of transfusion of blood, blood components, or tissue	94 (29)	38 ( 5)	35 (11)	2 (33)	—	169 (13)
Undetermined	9 ( 3)	30 ( 4)	11 ( 4)	—	—	50 ( 4)
<b>Pediatric subtotal</b>	<b>321(100)</b>	<b>707 (100)</b>	<b>308(100)</b>	<b>6(100)</b>	<b>2(100)</b>	<b>1,346(100)</b>
<b>Total</b>	<b>47,628</b>	<b>21,929</b>	<b>12,441</b>	<b>488</b>	<b>89</b>	<b>82,764</b>

<sup>1</sup> See technical notes.

<sup>2</sup> Includes 1 tissue recipient and 2 transfusion recipients who received blood screened for HIV antibody.

<sup>3</sup> "Other" is 1 health-care worker who seroconverted to HIV and developed AIDS after needlestick exposure to HIV-infected blood. "Undetermined" includes 1,856 adults/adolescents (44 children) under investigation; 468 adults/adolescents ( 6 children) who died, were lost to follow-up, or refused interview; and 339 adults/adolescents ( 0 children) whose mode of exposure to HIV remains undetermined after investigation.

<sup>4</sup> Includes 189 persons whose race/ethnicity is unknown.

**Table 5. Adult/adolescent AIDS cases by sex, exposure category, and race/ethnicity, reported through December 1988, United States**

Male exposure category	White, not Hispanic	Black, not Hispanic	Hispanic	Asian/Pacific Islander	American Indian/Alaskan Native	Total <sup>4</sup>
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Male homosexual/bisexual contact	36,733 (81)	7,917 (45)	5,161 (48)	360 (82)	46 (61)	50,325 (68)
Intravenous (IV) drug use (heterosexual)	2,414 (5)	6,032 (34)	4,037 (37)	8 (2)	7 (9)	12,529 (17)
Male homosexual/bisexual contact and IV drug use	3,524 (8)	1,472 (8)	849 (8)	8 (2)	13 (17)	5,874 (8)
Hemophilia/coagulation disorder	633 (1)	46 (0)	56 (1)	10 (2)	3 (4)	751 (1)
Heterosexual contact:	200 (0)	1,217 (7)	77 (1)	3 (1)	0 (0)	1,499 (2)
<i>Sex with IV drug user</i>	131	225	50	1	—	407
<i>Sex with person with hemophilia</i>	2	1	—	—	—	3
<i>Born in Pattern-II<sup>1</sup> country</i>	4	932	6	1	—	944
<i>Sex with person born in Pattern-II country</i>	14	14	3	—	—	31
<i>Sex with transfusion recipient with HIV infection</i>	6	5	—	1	—	13
<i>Sex with person with HIV infection, risk not specified</i>	43	40	18	—	—	101
Receipt of transfusion of blood, blood components, or tissue <sup>2</sup>	991 (2)	175 (1)	99 (1)	26 (6)	1 (1)	1,297 (2)
Other/undetermined <sup>3</sup>	864 (2)	759 (4)	494 (5)	25 (6)	5 (7)	2,160 (3)
<b>Male subtotal</b>	<b>45,359 (100)</b>	<b>17,618 (100)</b>	<b>10,773 (100)</b>	<b>440 (100)</b>	<b>75 (100)</b>	<b>74,435 (100)</b>
<b>Female exposure category</b>						
IV drug use	787 (40)	2,082 (58)	728 (54)	8 (19)	7 (58)	3,622 (52)
Hemophilia/coagulation disorder	16 (1)	6 (0)	—	—	—	22 (0)
Heterosexual contact:	479 (25)	1,099 (30)	462 (34)	12 (29)	3 (25)	2,059 (29)
<i>Sex with IV drug user</i>	236	615	391	4	1	1,250
<i>Sex with bisexual male</i>	127	80	30	3	—	240
<i>Sex with person with hemophilia</i>	25	1	2	1	—	29
<i>Born in Pattern-II country</i>	1	300	3	—	—	305
<i>Sex with person born in Pattern-II country</i>	—	20	1	—	—	21
<i>Sex with transfusion recipient with HIV infection</i>	27	3	4	1	—	35
<i>Sex with person with HIV infection, risk not specified</i>	63	80	31	3	2	179
Receipt of transfusion of blood, blood components, or tissue	511 (26)	148 (4)	71 (5)	15 (36)	2 (17)	747 (11)
Other/undetermined	155 (8)	269 (7)	99 (7)	7 (17)	—	533 (8)
<b>Female subtotal</b>	<b>1,948 (100)</b>	<b>3,604 (100)</b>	<b>1,360 (100)</b>	<b>42 (100)</b>	<b>12 (100)</b>	<b>6,983 (100)</b>
<b>Total</b>	<b>47,307</b>	<b>21,222</b>	<b>12,133</b>	<b>482</b>	<b>87</b>	<b>81,418</b>

<sup>1</sup> See technical notes.

<sup>2</sup> Includes 2 transfusion recipients who received blood screened for HIV antibody.

<sup>3</sup> "Other" is 1 health-care worker who seroconverted to HIV and developed AIDS after needlestick exposure to HIV-infected blood. "Undetermined" includes 1,856 adults/adolescents under investigation; 468 persons who died, were lost to follow-up, or refused interview; and 339 persons whose mode of exposure to HIV remains undetermined after investigation.

<sup>4</sup> Includes 170 males and 17 females whose race/ethnicity is unknown.

**Table 6. AIDS cases by sex, age at diagnosis, and race/ethnicity, reported through December 1988, United States**

Males Age at diagnosis (years)	White, not Hispanic	Black, not Hispanic	Hispanic	Asian/Pacific Islander	American Indian/ Alaskan Native	Total <sup>1</sup>
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Under 5	111 (0)	318 (2)	145 (1)	3 (1)	1 (1)	579 (1)
5-12	92 (0)	42 (0)	22 (0)	3 (1)	—	159 (0)
13-19	142 (0)	78 (0)	50 (0)	4 (1)	1 (1)	276 (0)
20-24	1,712 (4)	902 (5)	534 (5)	22 (5)	8 (11)	3,184 (4)
25-29	6,926 (15)	3,055 (17)	1,864 (17)	56 (13)	9 (12)	11,933 (16)
30-34	10,762 (24)	4,641 (26)	2,878 (26)	91 (20)	21 (28)	18,430 (25)
35-39	9,988 (22)	4,050 (23)	2,305 (21)	96 (22)	13 (17)	16,490 (22)
40-44	6,653 (15)	2,188 (12)	1,515 (14)	58 (13)	10 (13)	10,454 (14)
45-49	3,931 (9)	1,225 (7)	765 (7)	55 (12)	6 (8)	5,994 (8)
50-54	2,238 (5)	739 (4)	432 (4)	25 (6)	3 (4)	3,446 (5)
55-59	1,475 (3)	429 (2)	259 (2)	15 (3)	2 (3)	2,190 (3)
60-64	796 (2)	206 (1)	106 (1)	5 (1)	2 (3)	1,117 (1)
65 or older	736 (2)	105 (1)	65 (1)	13 (3)	—	921 (1)
<b>Male subtotal</b>	<b>45,562 (100)</b>	<b>17,978 (100)</b>	<b>10,940 (100)</b>	<b>446 (100)</b>	<b>76 (100)</b>	<b>75,173 (100)</b>
<b>Females</b>						
<b>Age at diagnosis (years)</b>						
Under 5	98 (5)	307 (8)	124 (8)	—	1 (8)	531 (7)
5-12	20 (1)	40 (1)	17 (1)	—	—	77 (1)
13-19	14 (1)	35 (1)	9 (1)	1 (2)	—	59 (1)
20-24	134 (6)	225 (6)	118 (8)	2 (5)	—	482 (6)
25-29	394 (19)	772 (20)	343 (23)	4 (10)	1 (8)	1,521 (20)
30-34	431 (21)	1,138 (29)	389 (26)	12 (29)	5 (38)	1,978 (26)
35-39	275 (13)	747 (19)	265 (18)	5 (12)	2 (15)	1,296 (17)
40-44	155 (8)	338 (9)	119 (8)	6 (14)	1 (8)	620 (8)
45-49	80 (4)	148 (4)	48 (3)	3 (7)	—	280 (4)
50-54	73 (4)	85 (2)	27 (2)	3 (7)	1 (8)	189 (2)
55-59	80 (4)	48 (1)	14 (1)	1 (2)	—	143 (2)
60-64	83 (4)	32 (1)	14 (1)	2 (5)	1 (8)	132 (2)
65 or older	229 (11)	36 (1)	14 (1)	3 (7)	1 (8)	283 (4)
<b>Female subtotal</b>	<b>2,066 (100)</b>	<b>3,951 (100)</b>	<b>1,501 (100)</b>	<b>42 (100)</b>	<b>13 (100)</b>	<b>7,591 (100)</b>
<b>Total</b>	<b>47,628</b>	<b>21,929</b>	<b>12,441</b>	<b>488</b>	<b>89</b>	<b>82,764</b>

<sup>1</sup>Includes 189 persons whose race/ethnicity is unknown.

**Table 7. AIDS deaths and case-fatality rates, by half-year of diagnosis and age group, diagnosed through December 1988, United States**

Half-year of diagnosis	Adults/adolescents			Children <13 years old		
	Cases	Deaths	Case-fatality rate	Cases	Deaths	Case-fatality rate
Before 1981	80	66	82.5	8	5	62.5
1981 Jan.-June	88	81	92.0	7	5	71.4
July-Dec.	193	177	91.7	5	5	100.0
1982 Jan.-June	374	335	89.6	12	9	75.0
July-Dec.	653	586	89.7	14	11	78.6
1983 Jan.-June	1,240	1,125	90.7	34	31	91.2
July-Dec.	1,583	1,431	90.4	42	30	71.4
1984 Jan.-June	2,480	2,073	83.6	52	42	80.8
July-Dec.	3,256	2,732	83.9	57	39	68.4
1985 Jan.-June	4,621	3,800	82.2	83	54	65.1
July-Dec.	5,945	4,726	79.5	116	84	72.4
1986 Jan.-June	7,692	5,706	74.2	118	74	62.7
July-Dec.	9,218	6,020	65.3	147	91	61.9
1987 Jan.-June	11,362	6,419	56.5	185	99	53.5
July-Dec.	12,357	5,237	42.4	204	96	47.1
1988 Jan.-June	12,558	3,700	29.5	150	47	31.3
July-Dec.	7,718	1,388	18.0	112	20	17.9
<b>Total</b>	<b>81,418</b>	<b>45,602</b>	<b>56.0</b>	<b>1,346</b>	<b>742</b>	<b>55.1</b>

**Table 8. AIDS cases by year of diagnosis and definition category, diagnosed through December 1988, United States**

Definition category <sup>1</sup>	Year of diagnosis					Cumulative total
	Before Jan. 1985	Jan. 1985- Dec. 1985	Jan. 1986- Dec. 1986	Jan. 1987- Dec. 1987	Jan. 1988- Dec. 1988	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Pre-1987 definition	10,084 (99)	10,234 (95)	15,596 (91)	19,561 (81)	14,622 (71)	70,097 (85)
1987 definition:	94 (1)	531 (5)	1,579 (9)	4,547 (19)	5,916 (29)	12,667 (15)
<i>Specific disease</i>						
<i>presumptively diagnosed</i>	38	289	851	2,433	3,339	6,950
<i>Specific disease</i>						
<i>definitively diagnosed</i>	39	102	241	452	429	1,263
<i>HIV encephalopathy</i>	4	41	152	602	700	1,499
<i>HIV wasting syndrome</i>	13	99	335	1,060	1,448	2,955
<b>Total</b>	<b>10,178 (100)</b>	<b>10,765 (100)</b>	<b>17,175 (100)</b>	<b>24,108 (100)</b>	<b>20,538 (100)</b>	<b>82,764 (100)</b>

<sup>1</sup> Persons who meet the criteria for more than one definition category are classified in the definition category listed first.

**Table 9. Adult/adolescent AIDS cases by single and multiple exposure categories, reported through December 1988, United States**

Exposure category	AIDS cases	
	No.	( % )
<b>Single mode of exposure</b>		
Male homosexual/bisexual contact	48,454	( 60 )
Intravenous (IV) drug use (female and heterosexual male)	14,085	( 17 )
Hemophilia/coagulation disorder	452	( 1 )
Heterosexual contact	3,376	( 4 )
Receipt of transfusion of blood, blood component, or tissue	2,046	( 3 )
Other/undetermined	2,691	( 3 )
<b>Single mode of exposure subtotal</b>	<b>71,104</b>	<b>( 87 )</b>
<b>Multiple modes of exposure</b>		
Male homosexual/bisexual contact; IV drug use	5,352	( 7 )
Male homosexual/bisexual contact; hemophilia	32	( 0 )
Male homosexual/bisexual contact; heterosexual contact	799	( 1 )
Male homosexual/bisexual contact; receipt of transfusion	962	( 1 )
IV drug use; hemophilia	22	( 0 )
IV drug use; heterosexual contact	1,491	( 2 )
IV drug use; receipt of transfusion	432	( 1 )
Hemophilia; heterosexual contact	4	( 0 )
Hemophilia; receipt of transfusion	315	( 0 )
Heterosexual contact; receipt of transfusion	182	( 0 )
Male homosexual/bisexual contact; IV drug use; hemophilia	10	( 0 )
Male homosexual/bisexual contact; IV drug use; heterosexual contact	316	( 0 )
Male homosexual/bisexual contact; IV drug use; receipt of transfusion	171	( 0 )
Male homosexual/bisexual contact; hemophilia; heterosexual contact	2	( 0 )
Male homosexual/bisexual contact; hemophilia; receipt of transfusion	27	( 0 )
Male homosexual/bisexual contact; heterosexual contact; receipt of transfusion	48	( 0 )
IV drug use; hemophilia; heterosexual contact	4	( 0 )
IV drug use; hemophilia; receipt of transfusion	15	( 0 )
IV drug use; heterosexual contact; receipt of transfusion	100	( 0 )
Hemophilia; heterosexual contact; receipt of transfusion	2	( 0 )
Male homosexual/bisexual contact; IV drug use; hemophilia; receipt of transfusion	8	( 0 )
Male homosexual/bisexual contact; IV drug use; heterosexual contact; receipt of transfusion	17	( 0 )
Male homosexual/bisexual contact; hemophilia; heterosexual contact; receipt of transfusion	1	( 0 )
IV drug use; hemophilia; heterosexual contact; receipt of transfusion	2	( 0 )
<b>Multiple modes of exposure subtotal</b>	<b>10,314</b>	<b>( 13 )</b>
<b>Total</b>	<b>81,418</b>	<b>( 100 )</b>

# Technical notes

## Surveillance and reporting of AIDS

All 50 states, the District of Columbia, and U.S. dependencies and possessions 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. The CDC case report form includes demographic, clinical, laboratory, and exposure information.

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

Reporting by age is based on the person's age at the time of diagnosis of AIDS: adult/adolescent cases include persons 13 years of age and older; pediatric cases include children under 13 years of age.

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 and may include several counties. For example, AIDS cases and incidence rates presented for the District of Columbia in Table 1 include only persons residing within the geographic boundaries of the District. AIDS cases and incidence rates for Washington, D.C., in Table 2 include persons residing within several counties in the MSA. State or metropolitan area data tabulations are based on the person's residence at the time of onset of HIV-related symptoms.

Data in this report are provisional; completeness of reporting to state and local health departments varies. 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 exposure category listed first in the hierarchy, except for persons with a history of both homosexual/bisexual contact and intravenous drug use. They make up a separate exposure category.

"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 is observed in areas of central, eastern, and southern Africa and in some Caribbean countries. In these countries, most of the reported cases occur in heterosexuals; the male-to-female ratio is approximately 1:1; and perinatal transmission is more common than in other areas. Intravenous drug use and homosexual transmission either do not occur or occur at a low level.

"Undetermined" cases are in 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 denominator for computing the rates is based on population estimates derived from 1980 census data and post-census population estimates. Each 12-month rate is the number of cases for a 12-month period divided by the estimated midyear 1987 or 1988 population multiplied by 100,000.

Case-fatality rates are on a semiannual basis by date of diagnosis. Each 6-month case-fatality rate is the sum of fatal cases reported per number of cases diagnosed in that period. Deaths reported for cases diagnosed in particular half-year period may have occurred after that period.