Persons Living with HIV Infection (HIV/AIDS) and Linkage to HIV Care

This report summarizes data on the distribution and demographics of reported HIV/AIDS cases in Hawaii as well as new data on linkage to HIV care within 3, 6, and 12 months of new diagnoses. With the availability of increasingly efficacious HIV treatment regimens, linking positive persons with HIV care is critical. "Linkage to HIV care" occurs when newly diagnosed persons with HIV/AIDS make their first appointment to a physician for HIV care.

A total of 4,334 HIV/AIDS cases were diagnosed in Hawaii, including 982 HIV (not-AIDS) and 3,352 AIDS cases, by the end of December 2011 (Page 4). Of these, 44%, 1,909 are known to be deceased. The number of persons living with HIV infection (HIV/AIDS) has increased each year from 2001 to 2011. In 2011, there were 2,425 individuals (56%) known to be living with HIV/AIDS (Fig. 1).

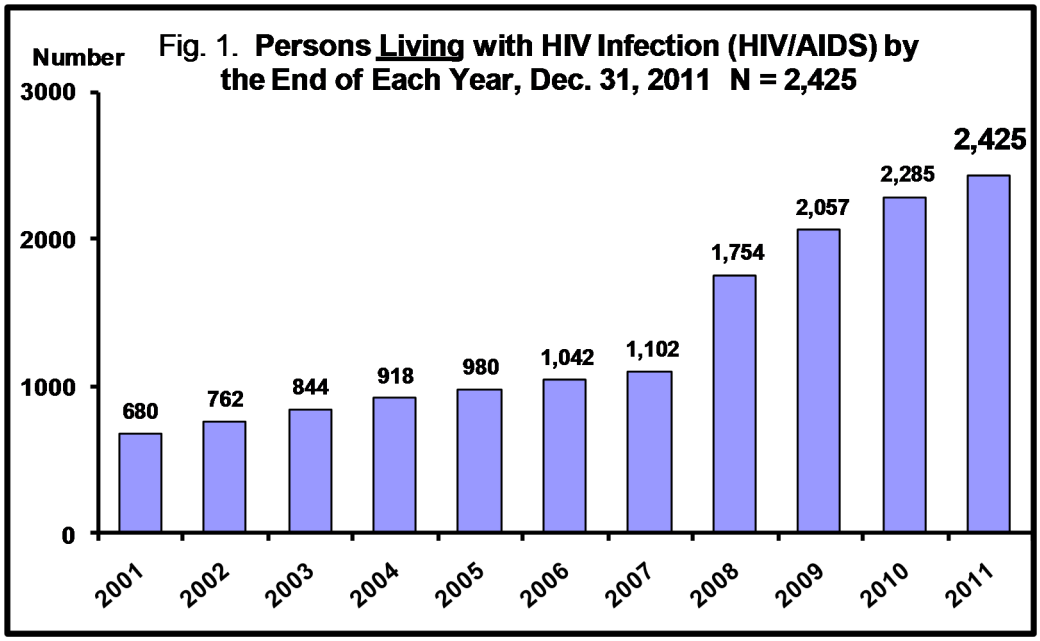


Fig. 1. Persons Living with HIV Infection (HIV/AIDS) by the End of Each Year, Dec. 31, 2011 N = 2,425

An additional 1,349 HIV/AIDS cases were reported in Hawaii, but these had been initially diagnosed elsewhere and, by CDC conventions, they are not counted in Hawaii's case total. All individuals with HIV/AIDS regardless of where they were initially diagnosed require access to HIV medical care.

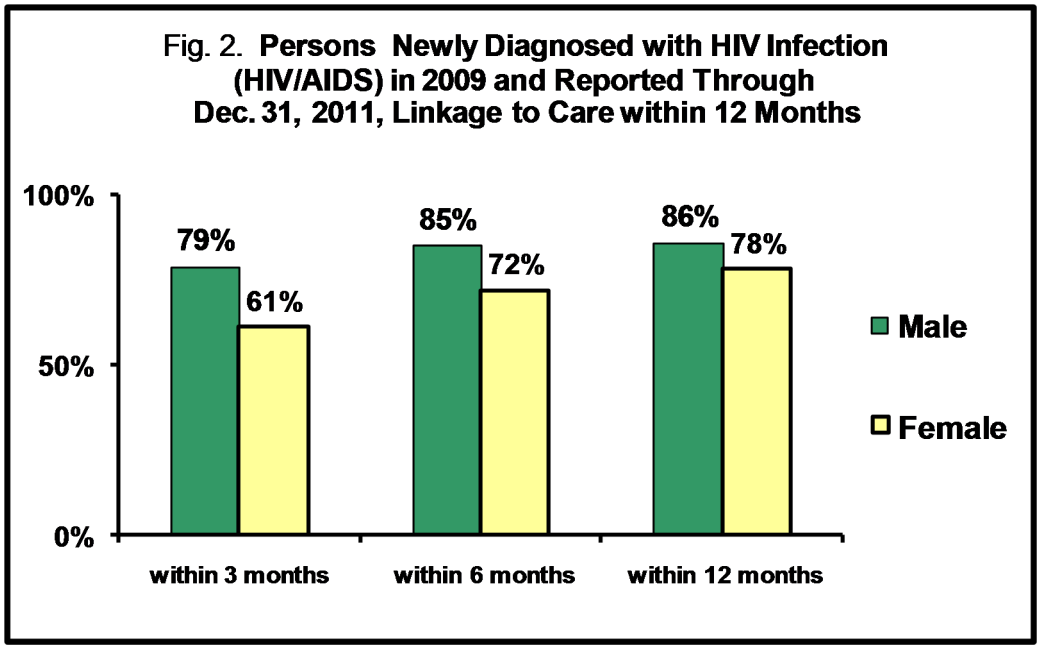


Fig. 2. Persons Newly Diagnosed with HIV Infection (HIV/AIDS) in 2009 and Reported Through Dec. 31, 2011, Linkage to Care within 12 Months

Figure 2 shows "Linkages to HIV care" of Hawaii-diagnosed cases in 2009. Due to reporting delay, these HIV diagnosed cases were reported through 2011. In the first 3 months after HIV diagnosis, only 61% of females were linked to HIV care compared to 79% of males. The percentage of HIV care increased over time for both males and females. The distribution of linkage to care of these newly diagnosed in 2009 by gender, age, race/ethnicity, and transmission risk category is shown on Table 1 (Page 2).

Table 1. HIV Infection (HIV/AIDS) and Linkage to HIV Care for 2009 Hawaii-Diagnosed Cases and Reported Through December 31, 2011

Number and percentage of persons linked to HIV care[a] within 3, 6, and 12 months[b] of their HIV infection diagnosis among persons who were ≥ 13 years of age at diagnosis

		Persons diagnosed with HIV infection	Persons linked to care within 3 months of diagnosis		Persons linked to care within 6 months of diagnosis		Persons linked to care within 12 months of diagnosis	
Characteristics		No.	No.	%	No.	%	No.	%
SEX	Male	71	56	(79)	60	(85)	61	(86)
	Female	18	11	(61)	13	(72)	14	(78)
AGE	13-24	12	10	(83)	12	(100)	12	(100)
	25-44	45	35	(78)	36	(80)	36	(80)
	45-64	32	22	(69)	25	(78)	27	(84)
RACE	Caucasian	37	28	(76)	31	(84)	32	(87)
	African-American	12	9	(75)	10	(83)	10	(83)
	Hispanic	5	4	(80)	4	(80)	4	(80)
	Other[c]	35	26	(74)	28	(80)	29	(83)
RISK	MSM	58	44	(76)	48	(83)	49	(85)
	Injection drug use (IDU)	5	<4	(60)	<4	(60)	4	(80)
	MSM & IDU	<4	<4	(100)	<4	(100)	<4	(100)
	Heterosexual contact[d]	9	8	(89)	9	(100)	9	(100)
	Other/ unknown	16	11	(67)	12	(75)	12	(75)
TOTAL		89	67	(75)	73	(82)	75	(84)

[a]*Persons who have at least one CD4 or viral load test during a specified time period are considered as linked to care during that time.*
[b]*The months difference is calculated between diagnosis date of HIV infection and sample collection date, and only year and month are used in calculation.*
[c]*Multiple race, American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, and unknown race.*
[d]*Heterosexual contact with person known to have, or to be at high risk for, HIV infection.*

Persons Living with HIV Infection (HIV/AIDS) Reported Through December 31, 2011

In Hawaii, 2,425 persons were living with HIV/AIDS by the end of 2011. The largest percentage of those were male (85%) and aged 25-44 years (66%) at the time of diagnosis. There were 1,704 (70%) persons living with HIV infection in Honolulu County, followed by Hawaii County (321, 13%), Maui County (266, 11%), and Kauai County (134, 6%) (Fig. 3 and Table 2) . At the end of 2011, Kauai County had the highest prevalence rate

Fig. 3. **Persons Living with HIV Infection (HIV/AIDS) by County, Dec. 31, 2011, N = 2,425**

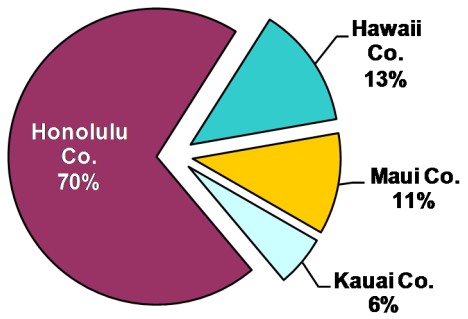
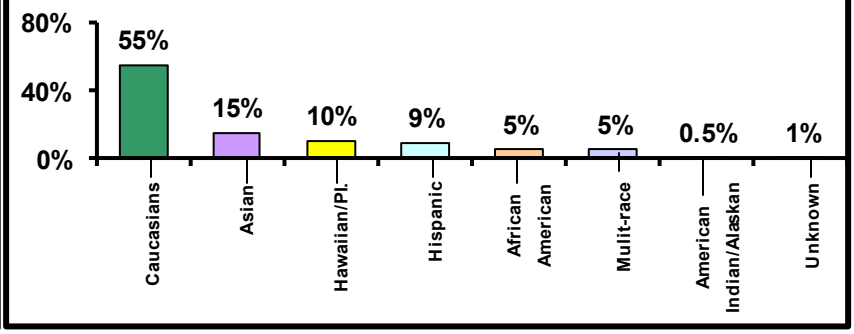


Fig. 4. **Persons Living with HIV Infection (HIV/AIDS) by Race/Ethnicity, Dec. 31, 2011, N = 2,425**



(199 per 100,000 population), followed by Honolulu County (178), Hawaii County (174), and Maui County (173). The majority of persons living with HIV infection were Caucasians (1,332, 55%) followed by Asians (373, 15%), Hawaii/Pacific Islanders (242, 10%), Hispanic (205, 9%), and African American (124, 5%) (Fig. 4).

Tale 2. **Persons Living with HIV Infection (HIV/AIDS) by Race/Ethnicity and by County, December 31, 2011**

Race/Ethnicity	Honolulu Co.	%	Hawaii Co.	%	Maui. Co.		Kauai Co.	%	Total Living
Caucasians	844	(50)	217	(68)	180	(68)	91	(68)	1,332
Asian	302	(18)	24	(7)	27	(10)	20	(15)	373
Hawaiian PI	177	(10)	35	(11)	24	(9)	6	(4)	242
Hispanic, All Races	146	(9)	29	(9)	22	(8)	8	(6)	205
African. American	113	(7)	5	(2)	5	(2)	<4	(1)	124
Am. Indian/Alaskan	7	(<1)	<4	(1)	<4	(1)	0	(0)	12
Muli-Race	115	(6)	8	(2)	6	(2)	8	(6)	137
Total	**1,704**		**321**		**266**		**134**		**2,425**

Fig. 5. **Persons Living with HIV Infection (HIV/AIDS) by Risk, Among Adult and Adolescents >13 Dec. 31, 2011, N = 2,409**

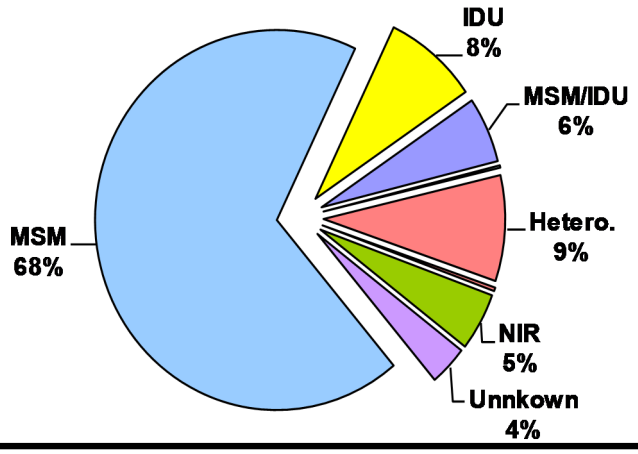


Table 2 shows distribution of persons living with HIV infection by race/ethnicity and by county. The majority of persons living with HIV infection lived in Honolulu county (1,704, 70%) at the time of diagnosis (Fig. 3).

Fig. 5 shows distribution of individuals living with HIV infection by risk. The majority (1,643, 68%) of individuals (over 13 years of age at the time of diagnosis) living with HIV infection had male to male sex (MSM) as their risk factor, followed by heterosexual (9%), IDU (8%), MSM/IDU (6%).

There were only 16 individuals under 13 years of age at the time of diagnosis, who known to be living with HIV infection as of December 31, 2011.

Table 3. **Hawaii HIV (not AIDS) and AIDS Cases by Year Reported Through December 31, 2011**

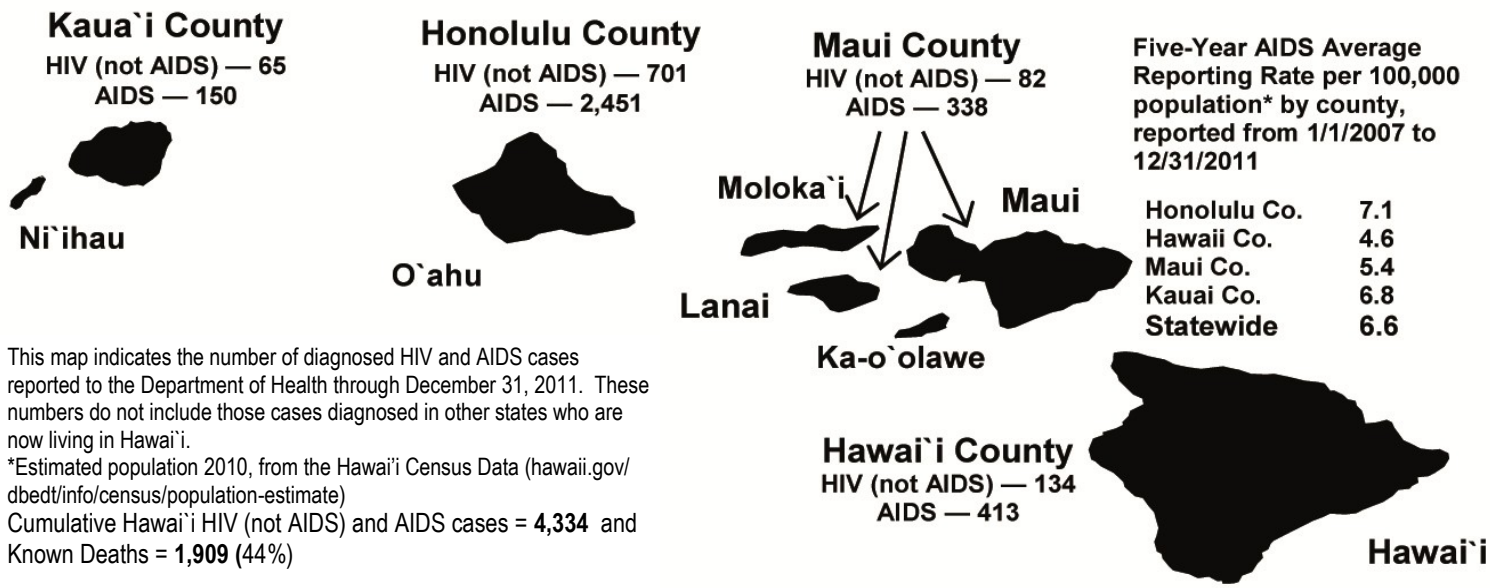
Year of Report	AIDS					HIV (not AIDS)	HIV/AIDS	
	1983-2008	2009	2010	2011	Cumulative	Cumulative	Cumulative	Living Cases
Cases by Year of Report[1]	3,072	87	124	69	3,352	982	4,334	2,425
Rate per 100,000 Population[2]	N/A	6.5	9.1	5	N/A	N/A	N/A	

Demographics/Risk		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
SEX	Male	2,816 (92)	74 (85)	100 (81)	59 (86)	3,049 (91)	817 (83)	3,866 (89)	2,069 (85)
	Female	256 (8)	13 (15)	24 (19)	10 (14)	303 (9)	165 (17)	468 (11)	356 (15)
AGE[3]	<13	17 (<1)	0 (0)	0 (0)	0 (0)	17 (1)	4 (<1)	21 (<1)	16 (<1)
	13-14	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (1)	5 (<1)	5 (<1)
	15-24	90 (3)	4 (5)	6 (5)	4 (6)	104 (3)	121 (12)	225 (5)	182 (8)
	25-34	880 (29)	18 (21)	29 (23)	12 (17)	939 (28)	302 (31)	1,241 (29)	824 (34)
	35-44	1,280 (42)	30 (34)	40 (32)	23 (33)	1,373 (41)	284 (29)	1,657 (38)	865 (36)
	45-54	583 (19)	24 (28)	33 (27)	23 (33)	663 (20)	188 (19)	851 (20)	390 (16)
	55-64	182 (6)	11 (13)	10 (8)	6 (9)	209 (6)	57 (6)	266 (6)	113 (5)
	>=65	40 (1)	0 (0)	6 (5)	<4 (1)	47 (1)	21 (2)	68 (2)	30 (1)
NEW RACE	Non-Hispanic								
	Caucasian	1,800 (59)	46 (53)	55 (44)	25 (36)	1,926 (57)	559 (57)	2,485 (57)	1,332 (55)
	Asian	453 (15)	12 (14)	16 (13)	16 (23)	497 (15)	154 (16)	651 (15)	373 (15)
	Hawaiian/PI	368 (12)	7 (8)	16 (13)	11 (16)	402 (12)	75 (8)	477 (11)	242 (10)
	African-American	136 (4)	5 (6)	14 (11)	7 (10)	162 (5)	43 (4)	205 (5)	124 (5)
	American Indian/Alaskan	10 (<1)	0 (0)	0 (0)	0 (0)	10 (<1)	4 (<1)	14 (<1)	12 (<1)
	Multiple Race & Other*	94 (3)	8 (9)	12 (10)	8 (12)	122 (4)	64 (7)	186 (4)	137 (6)
	Hispanic	211 (7)	9 (10)	11 (9)	2 (3)	233 (7)	83 (8)	316 (7)	205 (8)
RISK	Male to Male Sex (MSM)	2,245 (73)	59 (68)	74 (60)	36 (52)	2,414 (72)	644 (66)	3,058 (70)	1,645 (68)
	Injection Drug Use (IDU)	248 (8)	13 (15)	13 (10)	5 (7)	279 (8)	70 (7)	349 (8)	203 (8)
	MSM & IDU	233 (8)	7 (8)	7 (6)	4 (6)	251 (7)	42 (4)	293 (7)	134 (6)
	Heterosexual	186 (6)	5 (6)	16 (13)	13 (19)	220 (7)	89 (9)	309 (7)	216 (9)
	Transfusion	22 (1)	0 (0)	0 (0)	0 (0)	22 (1)	<4 (<1)	23 (1)	8 (<1)
	Perinatal	14 (<1)	0 (0)	0 (0)	0 (0)	14 (<1)	0 (0)	14 (<1)	6 (<1)
	Hemophiliac	18 (1)	0 (0)	0 (0)	0 (0)	18 (1)	<4 (<1)	20 (1)	6 (<1)
	Undetermined	106 (3)	3 (3)	14 (11)	11 (16)	134 (4)	134 (14)	268 (6)	207 (9)

*Other includes 5 API cases that cannot be classified as either Asian or Pacific Islander in the 1983-2008 column; 1 case without race information in the 2010 column; 2 cases without race information in the 2011 column; 8 API cases that cannot be classified as either Asian or Pacific Islander and 3 cases without race information in the Cumulative AIDS column; 8 cases without race information in the Cumulative HIV (not AIDS) column; 8 API cases that cannot be classified as either Asian or Pacific Islander and 11 cases without race information in the Cumulative HIV/AIDS column; 4 API cases that cannot be classified as either Asian or Pacific Islander and 9 cases without race information in the Living HIV/AIDS column.

[1] The reported number of HIV/AIDS cases may change each year due to the on-going national HIV infections de-duplication project.
[2] Based on reported population from the State of Hawaii Data Book : http://hawaii.gov/dbedt/info/census/population-estimate.
[3] "Age" is the age of cases at diagnosis for HIV and AIDS, except for the "Living Cases" column. Here, "age' is the age of cases as of December 31, 2010.

Fig. 6. **Cumulative Cases of HIV and AIDS by County, Cases to December 31, 2011**



This map indicates the number of diagnosed HIV and AIDS cases reported to the Department of Health through December 31, 2011. These numbers do not include those cases diagnosed in other states who are now living in Hawai`i.

*Estimated population 2010, from the Hawai'i Census Data (hawaii.gov/dbedt/info/census/population-estimate)

Cumulative Hawai`i HIV (not AIDS) and AIDS cases = **4,334** and Known Deaths = **1,909** (44%)

Table 4. **2011 Reported HIV (not AIDS) and AIDS Cases by County, Cases to December 31, 2011**

Cases and Population	Honolulu Co.	Hawai`i Co.	Maui Co.	Kaua`i Co	Statewide
	No.	No.	No.	No.	No.
2011 Reported HIV (not AIDS)	66	11	12	<4	91
2011 Reported AIDS	52	8	6	<4	69
Estimated 2010 Population	**955,775**	**185,406**	**155,124**	**67,226**	**1,363,621**

Table 5. **Cumulative HIV (not AIDS) and Recent Five Years Reported AIDS Cases by County, Cases to 2011**

Sex and Risk		Honolulu Co.		Hawai`i Co.		Maui Co.		Kaua`i Co		Statewide	
		Cum. HIV (not AIDS)	5-Year AIDS	Cum. HIV (not AIDS)	5-Year AIDS	Cum. HIV (not AIDS)	5-Year AIDS	Cum. HIV (not AIDS)	5-Year AIDS	Cum. HIV (not AIDS)	5-Year AIDS
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
SEX	Male	590 (84)	286 (84)	110 (82)	38 (88)	69 (84)	35 (83)	48 (74)	16 (70)	817 (83)	375 (84)
	Female	111 (16)	54 (16)	24 (18)	5 (12)	13 (16)	7 (17)	17 (26)	7 (30)	165 (17)	73 (16)
RISK	Male to Male Sex	465 (66)	208 (61)	92 (69)	31 (72)	58 (71)	25 (60)	29 (45)	13 (57)	644 (66)	277 (62)
	Injection Drug Use	41 (6)	44 (13)	12 (9)	<4 (7)	6 (7)	6 (14)	11 (17)	<4 (13)	70 (7)	56 (13)
	Male/Male Sex & IDU	34 (5)	24 (7)	<4 (<1)	<4 (5)	<4 (<4)	4 (10)	<4 (5)	<4 (9)	42 (4)	32 (7)
	Heterosexual Contact	66 (9)	37 (11)	11 (8)	4 (9)	<4 (<4)	<4 (5)	10 (15)	<4 (13)	89 (9)	46 (10)
	Transfusion	<4 (<1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	<4 (<1)	0 (0)
	Perinatal	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	Hemophiliac	<4 (<1)	0 (0)	<4 (<1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	<4 (<1)	0 (0)
	Undetermined	93 (13)	27 (8)	15 (11)	<4 (7)	14 (17)	5 (12)	12 (18)	<4 (9)	134 (14)	37 (8)
Total Cases		**701**	**340**	**134**	**43**	**82**	**42**	**65**	**23**	**982**	**448**

Table 6. **Hawaii Cumulative HIV (not AIDS) and AIDS Cases by Race/Ethnicity Reported Through December 31, 2011**

Race/Ethnicity		Caucasian No.	Caucasian (%)	African American No.	African American (%)	Hispanic No.	Hispanic (%)	Hawaiian/PI No.	Hawaiian/PI (%)	Asian No.	Asian (%)	American Indian/ Alaskan No.	American Indian/ Alaskan (%)	Multiple Race[a] No.	Multiple Race[a] (%)	Total [b] No.	Total [b] (%)
Cumulative HIV (not AIDS) Infection																	
SEX	Male	494	(88)	32	(74)	77	(93)	53	(71)	112	(73)	<4	(50)	42	(75)	817	(83)
	Female	65	(12)	11	(26)	6	(7)	22	(29)	42	(27)	<4	(50)	14	(25)	165	(17)
RISK	Male to Male Sex	393	(70)	17	(40)	67	(81)	36	(48)	91	(59)	<4	(50)	34	(61)	644	(66)
	Injection Drug Use	40	(7)	6	(14)	<4	(<4)	8	(11)	9	(6)	0	(0)	5	(9)	70	(7)
	Male/Male Sex & IDU	29	(5)	<4	(<4)	5	(6)	<4	(<4)	<4	(<4)	0	(0)	<4	(4)	42	(4)
	Heterosexual Contact	34	(6)	5	(12)	3	(4)	13	(17)	25	(16)	<4	(50)	6	(11)	89	(9)
	Transfusion	0	(0)	0	(0)	0	(0)	0	(0)	<4	(<4)	0	(0)	0	(0)	<4	(<4)
	Perinatal	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
	Hemophiliac	<4	(<4)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	<4	(<4)
	Undetermined	61	(11)	14	(33)	6	(7)	16	(21)	25	(16)	0	(0)	9	(16)	134	(14)
Total		**559**		**43**		**83**		**75**		**154**		**4**		**56**		**982**	
Cumulative AIDS																	
SEX	Male	1823	(95)	139	(86)	208	(89)	336	(84)	440	(89)	10	(100)	83	(75)	3,049	(91)
	Female	103	(5)	23	(14)	25	(11)	66	(16)	57	(11)	0	(0)	28	(25)	303	(9)
RISK	Male to Male Sex	1488	(77)	88	(54)	155	(67)	257	(64)	352	(71)	6	(60)	61	(55)	2,414	(72)
	Injection Drug Use	137	(7)	21	(13)	29	(12)	41	(10)	30	(6)	0	(0)	20	(18)	279	(8)
	Male/Male Sex & IDU	156	(8)	21	(13)	20	(9)	22	(5)	22	(4)	<4	(30)	7	(6)	251	(7)
	Heterosexual Contact	71	(4)	18	(11)	12	(5)	56	(14)	46	(9)	<4	(10)	15	(14)	220	(7)
	Transfusion	11	(<1)	<4	(<1)	<4	(<1)	<4	(<1)	7	(1)	0	(0)	0	(0)	22	(<1)
	Perinatal	<4	(<1)	0	(0)	<4	(<1)	5	(1)	5	(<1)	0	(0)	0	(0)	14	(<1)
	Hemophiliac	13	(<1)	<4	(<1)	0	(0)	<4	(<4)	<4	(1)	0	(0)	0	(0)	18	(<1)
	Undetermined	48	(2)	12	(7)	13	(6)	18	(4)	33	(7)	0	(0)	8	(7)	134	(4)
Total		**1,926**		**162**		**233**		**402**		**497**		**10**		**111**		**3,352**	
Cumulative HIV/AIDS																	
Total		**2,485**		**205**		**316**		**477**		**651**		**14**		**167**		**4,334**	

[a]Data collection of multiple race since 2003.

[b]Total HIV (not AIDS) cases includes 8 unknown race cases; total cumulative AIDS cases include 8 legacy Asian/Pacific Islander cases, and 3 unknown race cases; total cumulative HIV/AIDS cases includes 8 legacy Asian/Pacific Islander cases and 11 unknown race cases.

If you need more information, please visit the Hawaii HIV/AIDS Surveillance Program website: http://healthuser.hawaii.gov/health/healthy-lifestyles/std-aids/aboutus/prg-aids/aids_rep/index.html
If the information you are looking for is not on the website or you have questions regarding forms, reporting requirements, or this report , please contact the Hawai'i HIV/AIDS Surveillance Program by mail: 3627 Kilauea Avenue, Suite 306, Honolulu, HI 96816, by phone: (808) 733-4079, by fax: (808) 733-9015 or by e-mail: hiv_aids_surveillance@doh.hawaii.gov.