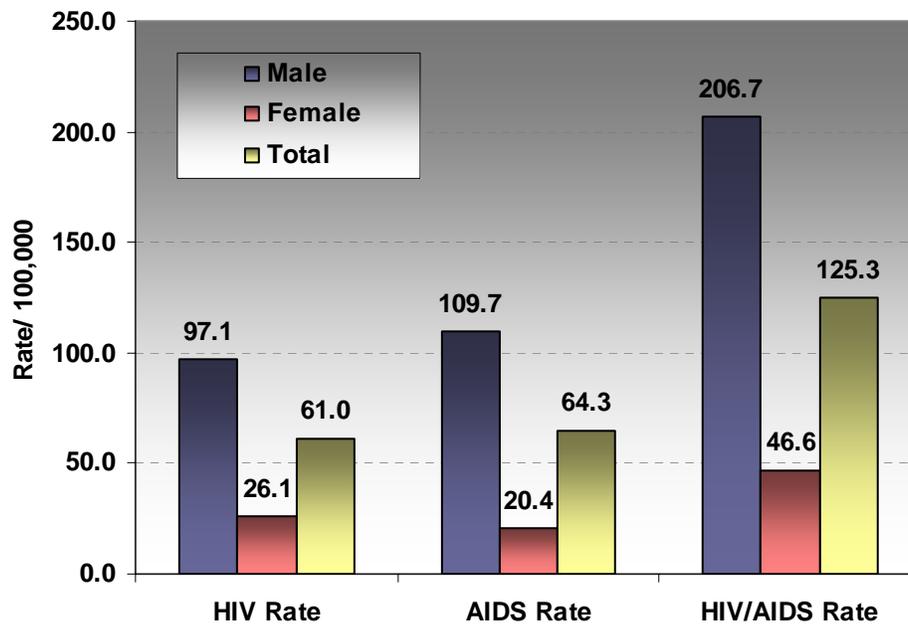


Prevalence of HIV/AIDS in Indiana

Prevalence numbers describe the number of cases of a disease in a population up to a certain point in time. In the case of this report, Prevalence describes the number of persons diagnosed with HIV/AIDS in Indiana that were alive by December 31, 2005 and that were reported in the HIV/AIDS Surveillance Report.

The prevalence rate for HIV/AIDS in Indiana shows some significant details when breaking out the rate by gender, race/ethnicity or age. Figure 13 shows the HIV/AIDS rates by sex.

Figure 13: Prevalence Rates for HIV, AIDS, and HIV/AIDS by Sex, Indiana 2005



The rate of infected males per 100,000 people of the overall male population is at 206.7 persons per 100,000, up from 193.7 in 2004. Males have an almost 4.5 times larger HIV/AIDS prevalence rate than females do. The female prevalence rate is at 46.6 42.9 persons per 100,000 females of the overall population, also up from 42.9 in 2004. For HIV and AIDS separately, males continue to be affected much stronger than their female counterparts. HIV/AIDS continues to affect more males than females. Table 8 breaks out the absolute numbers, percentages and rates by gender and disease status.

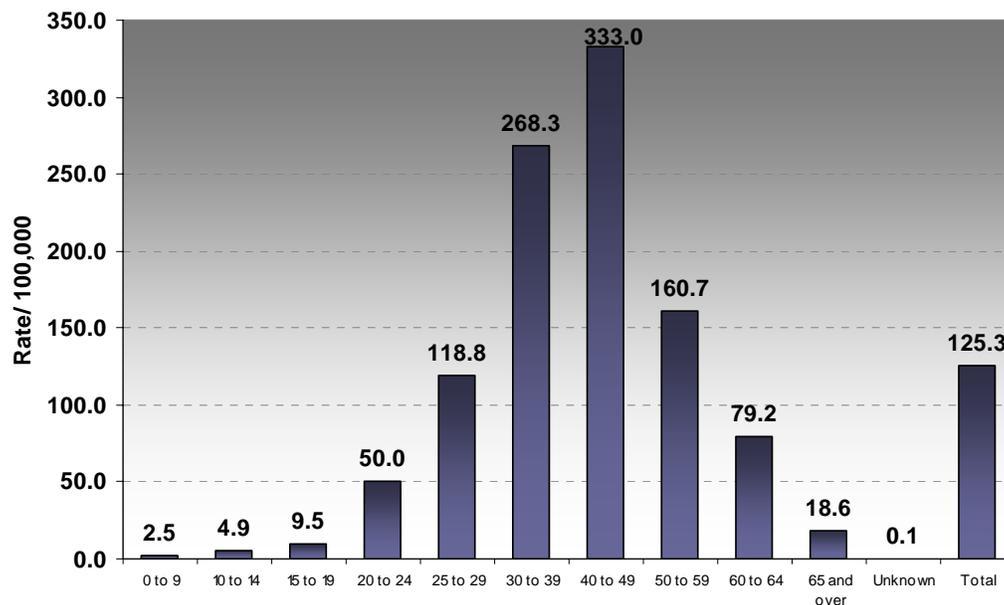
Table 8: Prevalence Numbers for HIV, AIDS, and HIV/AIDS by Sex, 2005

	HIV			AIDS			HIV/AIDS		
	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000
Male	2,957	78.2	97.1	3,342	83.9	109.7	6,299	81.1	206.7
Female	823	21.8	26.1	643	16.1	20.4	1,466	18.9	46.6
Total	3,780	100.0	61.0	3,985	100.0	64.3	7,765	100.0	125.3

Prevalence of HIV/AIDS by Age

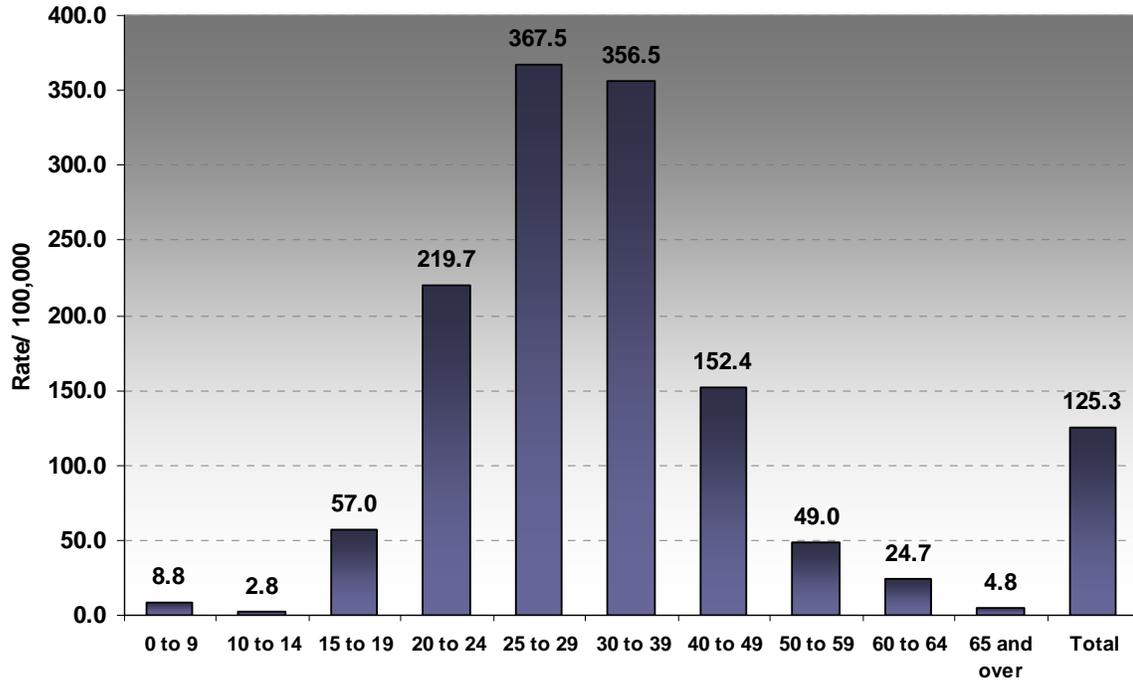
In order to better understand the dynamics at play with infected persons it is helpful to look at two different age definitions. One is the age of infected persons at the end of December 2005. The other is the age distribution for persons at the time of their infection. Figure 14 shows the age group distribution for infected persons that were alive at the end of 2005.

Figure 14: Prevalence Rate for HIV/AIDS by Age in December 2005



The majority of infected persons are in the groups of 30 to 39 years old and 40 to 49 years of age. In comparison, Figure 15 shows the age group distribution by age at time of diagnosis.

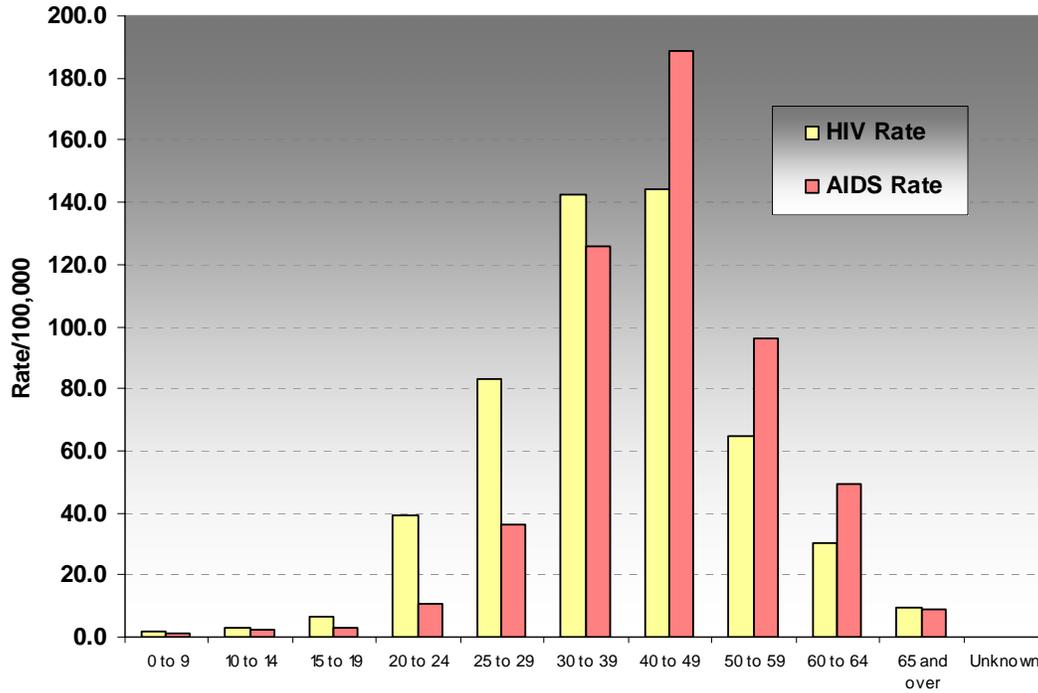
Figure 15: Prevalence Rate for HIV/AIDS by Age at Time of Diagnosis, 2005



It is interesting to note the difference in the age distribution between the two age profiles. Whereas the majority of infected persons alive at the end of 2005 were in their thirties and forties, a majority of persons were diagnosed in their twenties and thirties. For one, this discrepancy in the age distribution shows the effects of the availability and effectiveness of HIV/AIDS medications that have increased the long-term survival rate of infected persons. In other words, infected persons are living longer because of more effective medications, which is reflected in the greater number of infected persons in the older age groups. As a group, the persons that have been infected longer ago have moved from the age group of their initial diagnosis to their current age group at the end of 2005. In contrast, the majority of new infections and new diagnoses still occur in the age groups of 25 to 29 years of age and 30 to 39 years of age. As the group of the “initial” diagnoses is aging, the differences in age at time of diagnosis and age at the time of this study continues to grow.

Similar to this finding is the breakout by HIV and AIDS by age group. Figure 16 shows the corresponding distributions.

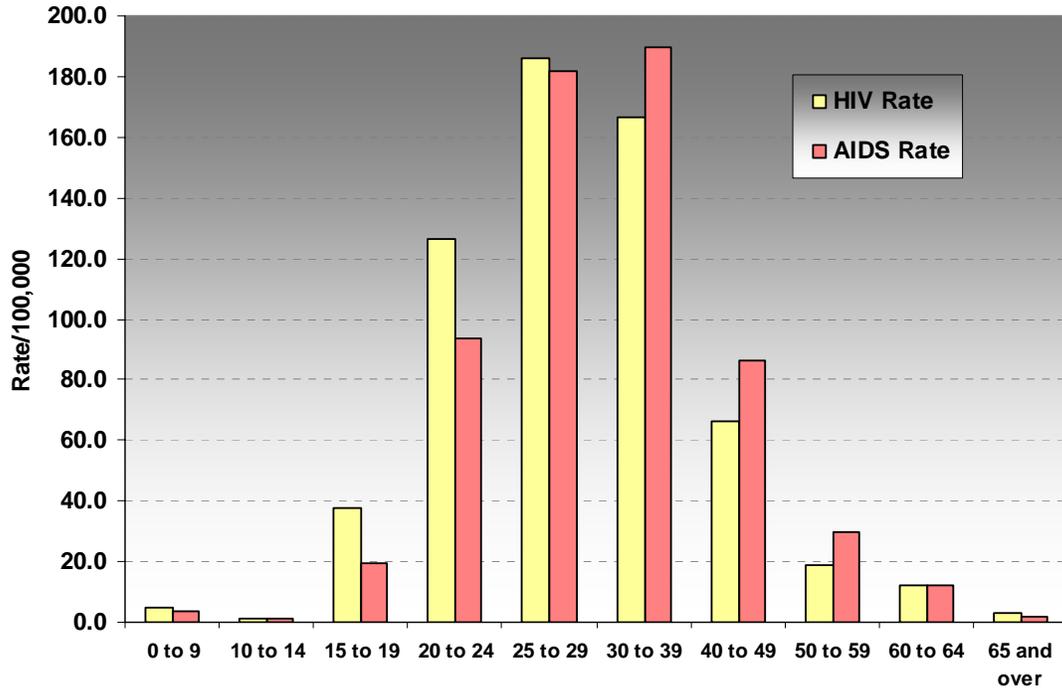
Figure 16: Prevalence Rate for HIV and AIDS by Age at End of Study, December 2005



The majority of infected persons are diagnosed with HIV first in their thirties and forties. The majority of AIDS diagnosis occurs for persons in their late thirties and forties. The figure above gives a snapshot of the age distribution of the infected population at the end of 2005.

The corresponding diagnoses ages for HIV and AIDS are in Figure 17. They show similarities between the age distributions at the time of diagnosis and at the end of this study in 2005.

Figure 17: Prevalence Rate for HIV and AIDS by Age at Time of Diagnosis, 2005



The absolute numbers, percentages and rates for HIV, AIDS, and HIV/AIDS by age at end of study are presented in Table 9 and for age at time of diagnosis in Table 10.

Table 9: Prevalence Numbers for HIV, AIDS, and HIV/AIDS by Age at End of Study, December 2005

Age	HIV			AIDS			HIV/AIDS		
	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000
0 to 9	13	0.3	1.5	9	0.2	1.0	22	0.3	2.5
10 to 14	13	0.3	2.8	10	0.3	2.2	23	0.3	4.9
15 to 19	30	0.8	6.8	12	0.3	2.7	42	0.5	9.5
20 to 24	180	4.8	39.1	50	1.3	10.9	230	3.0	50.0
25 to 29	330	8.7	82.9	143	3.6	35.9	473	6.1	118.8
30 to 39	1,218	32.2	142.5	1,075	27.0	125.8	2,293	29.5	268.3
40 to 49	1,363	36.1	144.4	1,781	44.7	188.6	3,144	40.5	333.0
50 to 59	477	12.6	64.6	710	17.8	96.1	1,187	15.3	160.7
60 to 64	78	2.1	30.1	127	3.2	49.1	205	2.6	79.2
over 65	74	2.0	9.7	68	1.7	8.9	142	1.8	18.6
Unknown	4	0.1	0.1	0	0.0	0.0	4	0.1	0.1
Total	3,780	100.0	61.0	3,985	100.0	64.3	7,765	100.0	125.3

Note that 10-19 and 20-29 are split into two age groups.

Table 10: Prevalence Numbers for HIV, AIDS, and HIV/AIDS by Age at Time of Diagnosis, December 2005

Age	HIV			AIDS			HIV/AIDS		
	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000
0 to 9	43	1.1	4.9	34	0.9	3.9	77	1.0	8.8
10 to 14	6	0.2	1.3	7	0.2	1.5	13	0.2	2.8
15 to 19	167	4.4	37.8	85	2.1	19.2	252	3.2	57.0
20 to 24	581	15.4	126.3	430	10.8	93.5	1,011	13.0	219.7
25 to 29	740	19.6	185.9	723	18.1	181.6	1,463	18.8	367.5
30 to 39	1,424	37.7	166.6	1,623	40.7	189.9	3,047	39.2	356.5
40 to 49	624	16.5	66.1	815	20.5	86.3	1,439	18.5	152.4
50 to 59	141	3.7	19.1	221	5.5	29.9	362	4.7	49.0
60 to 64	32	0.8	12.4	32	0.8	12.4	64	0.8	24.7
over 65	22	0.6	2.9	15	0.4	2.0	37	0.5	4.8
Total	3,780	100.0	61.0	3,985	100.0	64.3	7,765	100.0	125.3

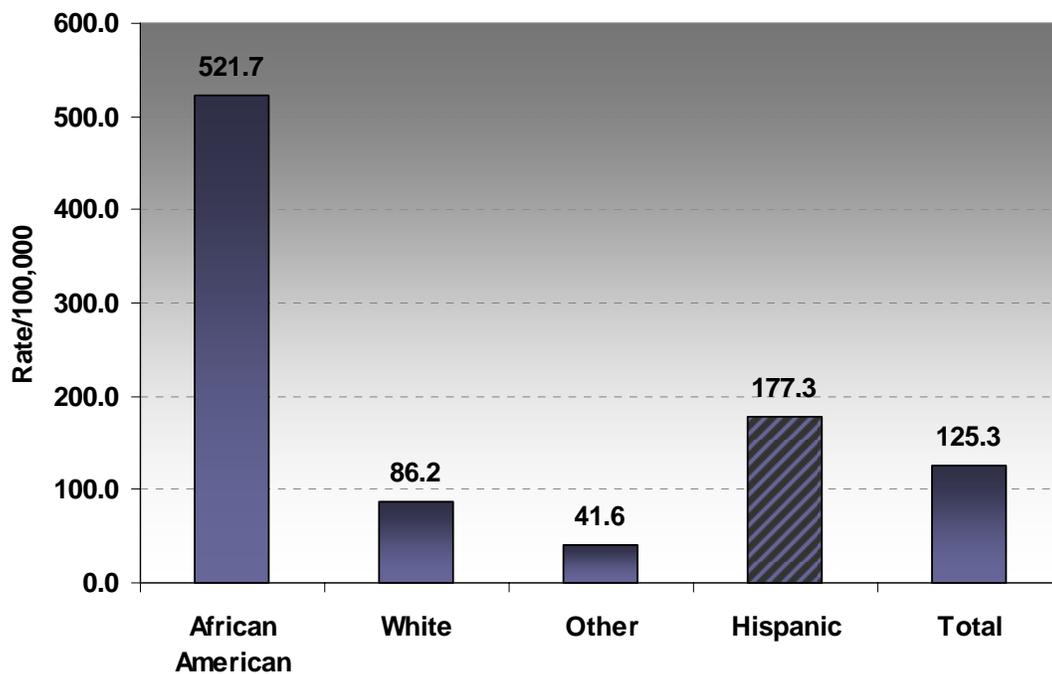
Note that 10-19 and 20-29 are split into two age groups.

Prevalence of HIV/AIDS by Race/Ethnicity

A look at the racial and ethnic make-up provides further details on the composition of the infected population.

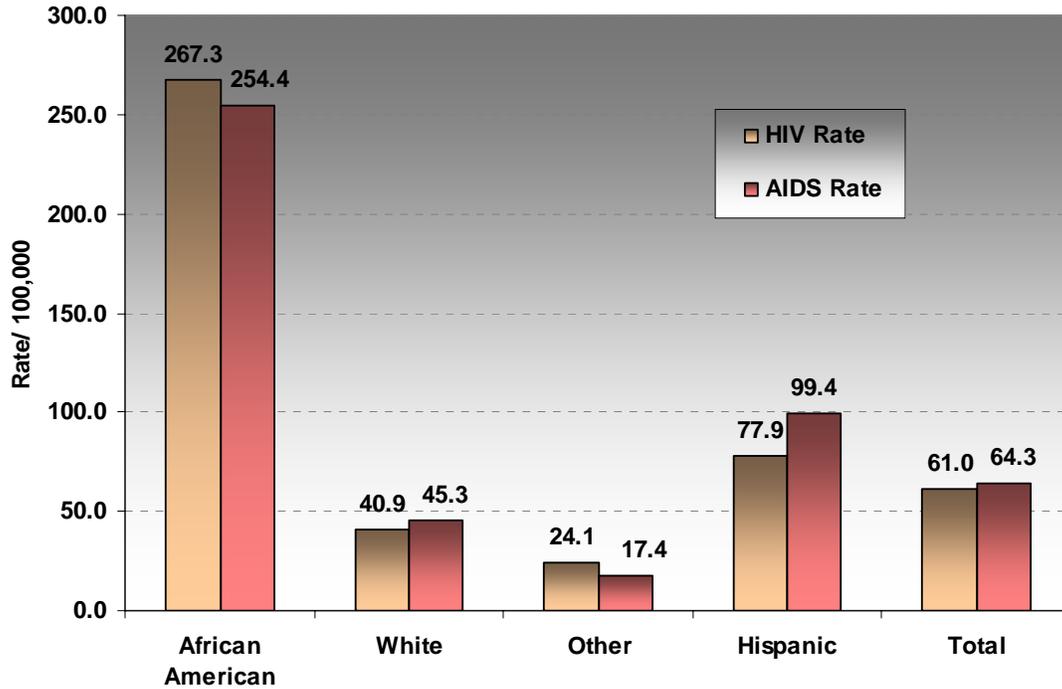
Indiana is overwhelmingly white and Non-Hispanic. Figure 18 shows the prevalence rate by race/ethnicity at the end of 2005. The racial and ethnic composition of infected persons in Indiana differs to a great extent from the racial/ethnic distribution of the state's overall population

Figure 18: Prevalence Rates of HIV/AIDS by Race/Ethnicity in 2005



The overwhelming majority of infected cases are among Black/African Americans, even though African Americans account for only about 8.4% of the overall population. In other words, HIV/AIDS is overwhelmingly more prevalent among Black/African Americans than any other racial or ethnic group. The separate view of HIV and AIDS reveals further details about racial and ethnic differences among the infected population.

Figure 19: Prevalence Rates of HIV and AIDS by Race/Ethnicity in 2005



Black/African Americans show a higher rate of HIV infections over AIDS diagnoses. In contrast, both the White and Hispanic groups have slightly higher rates of AIDS diagnosis than HIV infections. Table 11 lists the numbers, percentages and rates for HIV, AIDS, and HIV/AIDS by race/ethnicity.

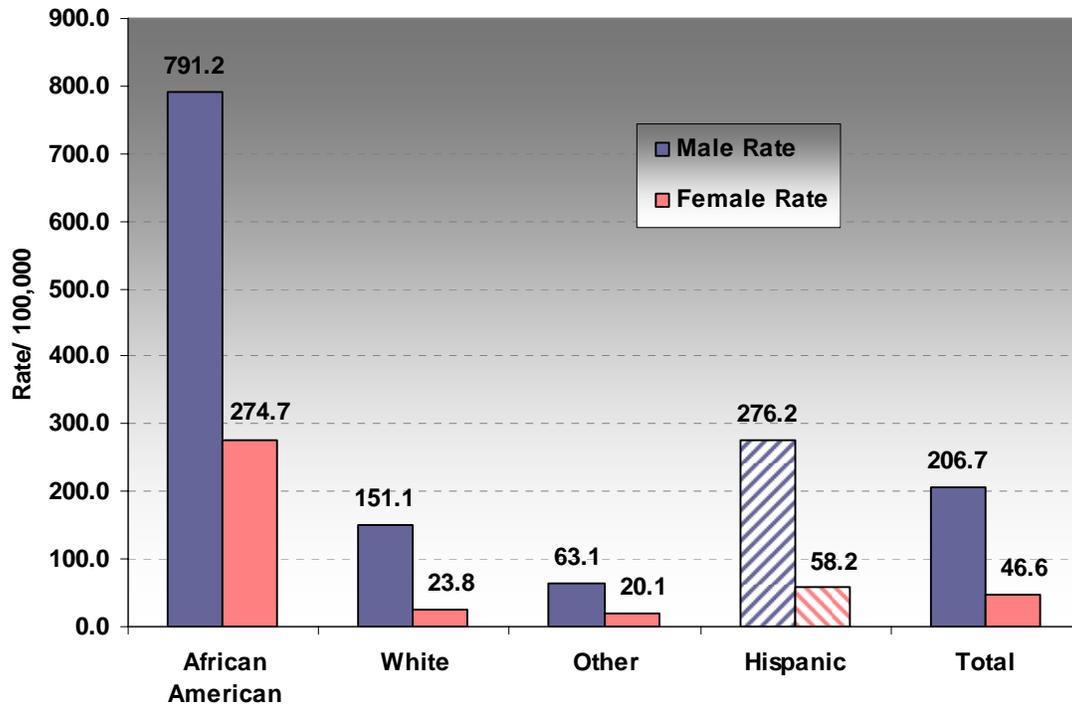
Table 11: Prevalence Rates of HIV, AIDS, and HIV/AIDS by Race/Ethnicity in 2005

Race/ Ethnicity	HIV			AIDS			HIV/AIDS		
	Number	%	Rate	Number	%	Rate	Number	%	Rate
African American	1,393	36.9	267.3	1,326	33.3	254.4	2,719	35.0	521.7
Hispanic	189	5.0	77.9	241	6.0	99.4	430	5.5	177.3
White	2,162	57.2	40.9	2,392	60.0	45.3	4,554	58.6	86.2
Other	36	1.0	24.1	26	0.7	17.4	62	0.8	41.6
Total	3,780	100.0	61.0	3,985	100.0	64.3	7,765	100.0	125.3

Prevalence of HIV/AIDS by Race/Ethnicity and Sex

Given the large differences between the racial and ethnic groups as well as the sex of infected and diagnosed clients, this profile will take a closer look at the distribution of race and ethnicity by sex.

Figure 20: Prevalence Numbers by Race/Ethnicity and Sex, 2005



The highest prevalence rates for HIV/AIDS are found for males among all racial and ethnic population groups. Among the infected male population, African American males continue to be disproportionately represented. Their prevalence rate is five times the rate of White males, and almost three times the Hispanic male prevalence rate (Figure 20). The current rates for both males and females are comparable to the rates from the previous year. They are slightly higher across all racial and ethnic groups than the previous year, which reflects the larger number of infected and diagnosed persons. In absolute numbers African American men are roughly half the number of their White counterparts.

A similar picture emerges when comparing the female prevalence rates among the racial/ethnic groups. The highest prevalence rates are among African American females. Their HIV/AIDS prevalence rate is more than ten times higher than their White counterparts and still almost five times the rate of Hispanic females. In absolute numbers among the female infected population half are African-American, while a comparable number of infected and diagnosed females are White.

Table 12 shows the absolute numbers, percentages and rates per 100,000 by race/ethnicity and sex.

Table 12: Prevalence Numbers, Percentages and Rates of HIV/AIDS by Race/Ethnicity and Sex in 2005

Race/ Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
African American	1,972	31.3	791.2	747	51.0	274.7
Hispanic	366	5.8	276.2	64	4.4	58.2
White	3,914	62.1	151.1	640	43.7	23.8
Other	47	0.7	63.1	15	1.0	20.1
Total	6,299	100.0	206.7	1,466	100.0	46.6

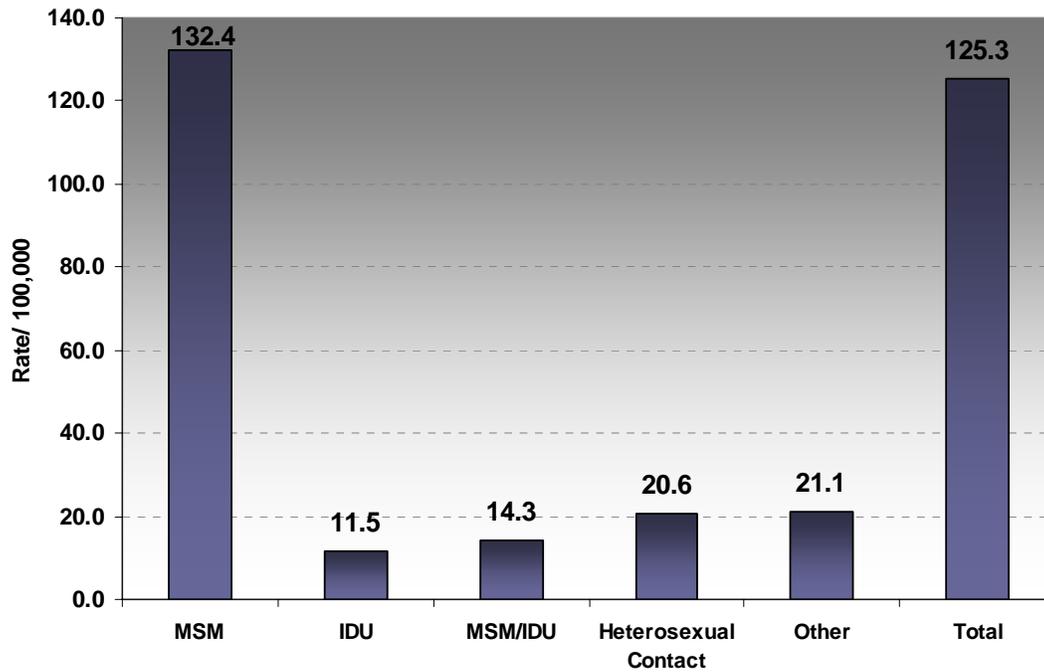
Prevalence of HIV/AIDS by Mode of Transmission

Modes of transmission of the virus were first classified and introduced by the Centers for Disease Control and Prevention (CDC). Those transmission categories are Men having Sex with Men (MSM), Injection Drug Users (IDU), Men having Sex with Men and Injection Drug Users (MSM/IDU), Heterosexual Contact and Other. The *Other* category was created to encompass risk categories such as hemophilia and coagulation disorders, transfusion of blood or blood components or tissue transplants, infected mothers, no reported risk mode of transmission, or other categories. Due to the small numbers of all those categories, they are grouped into one category.

During each test for HIV, a person reports information about his or her behavior and events which in turn allows for a risk category classification. In case a person falls into multiple risk categories, the priority follows the sequence of transmission modes as outlined above.

The differences between the transmission mode prevalence rates are considerable. The overwhelming majority of HIV transmissions occurred through Men having Sex with Men (MSM). The rate for MSM transmission is between 6 and 11 times larger than the other four categories. Figure 21 shows the prevalence rates for HIV/AIDS by mode of transmission.

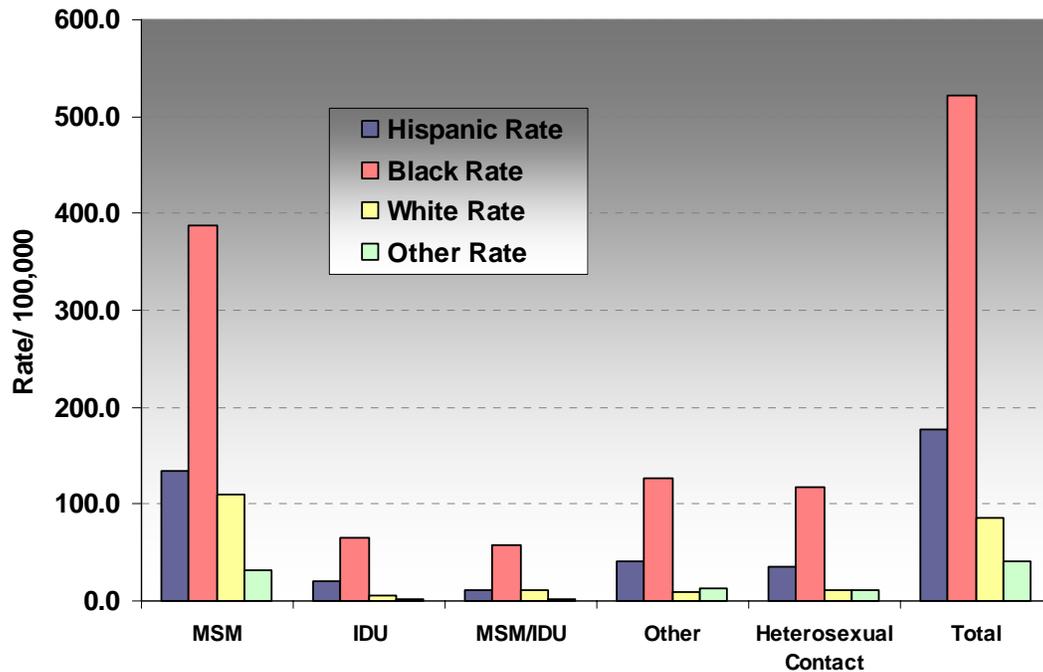
Figure 21: Prevalence Rates for HIV/AIDS by Mode of Transmission in 2005



The calculation of the risk category rates differ slightly from the regular rate calculations. For example, the rate for MSM was calculated by dividing the number of HIV/AIDS cases in Indiana by the number of all men living in Indiana at that time and by multiplying that by 100,000. Given that only males are potentially possible to get diagnosed as MSM (Men Having Sex with Men) the rate calculation is therefore based on only the male part of the general population. The denominator for the calculation of the IDU rate needs to be the entire population of Indiana, since persons of both gender have the potential of becoming IDU's. The rate for MSM/IDU was again calculated with only the male population of Indiana, while Heterosexual Contact and Other included the entire population.

Not all racial and ethnic groups contribute to the risk groups according to their relative size of the general population. Figure 22 breaks out the prevalence rates for transmission modes by race and ethnicity.

Figure 22: Prevalence Rate for HIV/AIDS by Mode of Transmission and Race/Ethnicity, 2005



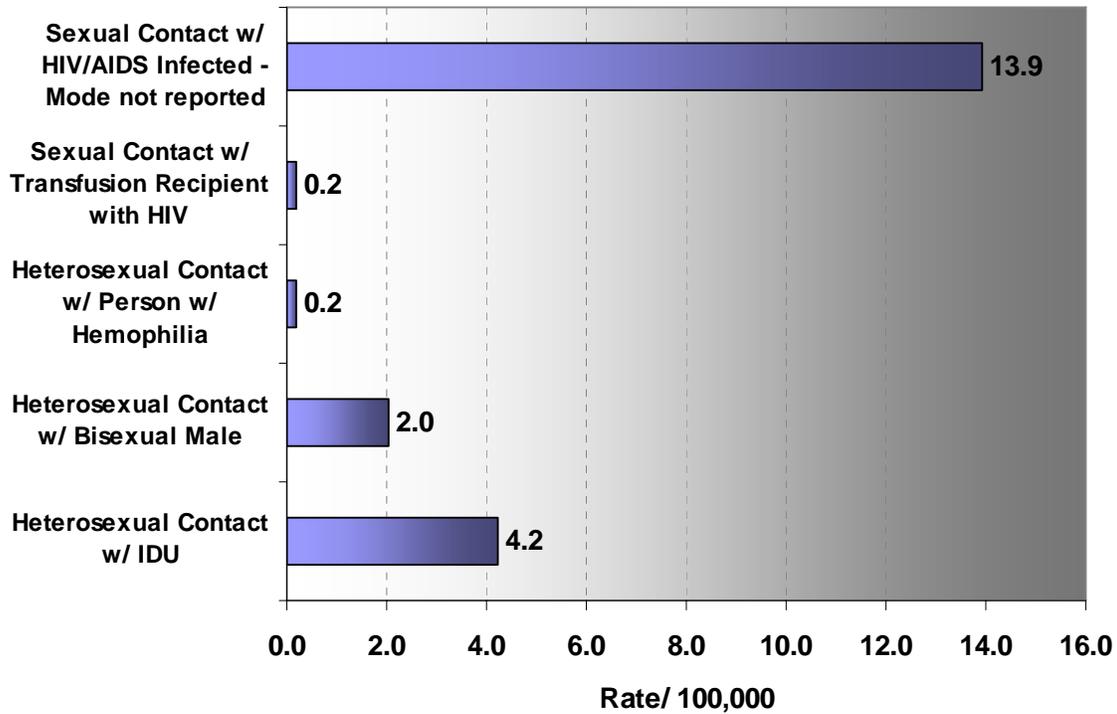
Consistent across all racial/ethnic categories, the highest HIV/AIDS prevalence rates are associated with MSM. The prevalence rate is especially high for Black/African American MSM, even though *Heterosexual Contacts* and *Other* risk factors register prominently for Black/African Americans as well. Table 13 lists the prevalence rates for all racial and ethnic groups.

Table 13: Prevalence Rates for HIV/AIDS by Mode of Transmission and by Race/Ethnicity in 2005

Mode of Transmission	Black		Hispanic		White		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
MSM	967	388.0	178	134.3	2,867	110.7	23	30.9
IDU	343	65.8	51	21.0	316	6.0	2	1.3
MSM/IDU	143	57.4	16	12.1	277	10.7	1	1.3
Heterosexual Contact	610	117.0	86	35.5	562	10.6	17	11.4
Other	656	125.9	99	40.8	532	10.1	19	12.7
Total	2,719	521.7	430	177.3	4,554	86.2	62	41.6

The Heterosexual Contact risk group can be further broken down into categories. Figure 23 shows the prevalence numbers for HIV/AIDS, broken down by subcategories to the Heterosexual Contact category.

Figure 23: Prevalence Numbers for HIV/AIDS by Heterosexual Contact Categories 2005



Within the risk category of Heterosexual Contact, the majority of cases (13.9 per 100,000) occur through sexual contact to persons infected with HIV/AIDS where the risk category of the sexual

partner is not specifically reported. This risk category is more than three times as prevalent as the next category, Sexual Contact with an IDU at 4.2per 100,000. Table 14 lists the components that are included into the category Heterosexual Contact as well as their absolute numbers, percentages and rates per 100,000.

Table 14: Prevalence Numbers, Percentages, and Rates for HIV/AIDS by Heterosexual Contact Categories 2005

Mode of Transmission	Number	Percentage	Rate/100,000*
Heterosexual Contact w/ IDU	262	20.5%	4.2
Heterosexual Contact w/ Bisexual Male	126	9.9%	2.0
Heterosexual Contact w/ Person w/ Hemophilia	12	0.9%	0.2
Sexual Contact w/ Transfusion Recipient with HIV	12	0.9%	0.2
Sexual Contact w/ HIV/AIDS Infected - Mode not reported	863	67.7%	13.9
Total	1,275	100.0%	20.6

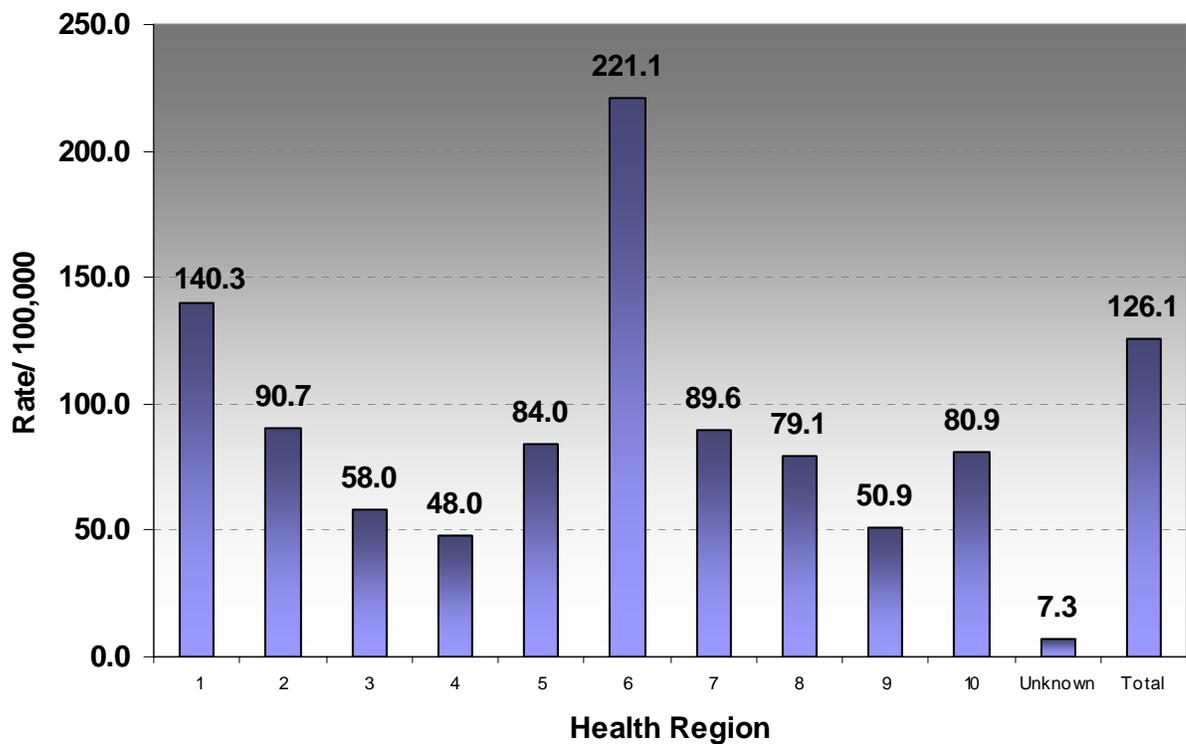
* Rates were calculated based on the entire population in Indiana

Prevalence of HIV/AIDS by Health Regions

So far this profile has found that HIV/AIDS is most prevalent among minority men, mainly African American in their thirties and forties, whose main risk category is MSM. A look at the regional distribution of the infected population will provide further insight.

Figure 24 shows the prevalence rates per 100,000 people of the population of HIV/AIDS by Indiana's Health Regions. The rates per health region were calculated using the population estimates in Table 5 for 2005.

Figure 24: Prevalence Rate for HIV/AIDS by Health Region, 2005



Note: In order to calculate the prevalence rates for each Health Region the author had to add the population numbers of each county to their respective health regions. County level population numbers could only be found based on the 2000 Census, not on the 2003 Projections. The slight difference in the Health Region populations explains the difference in total prevalence rates. The discrepancy is less than 1%.

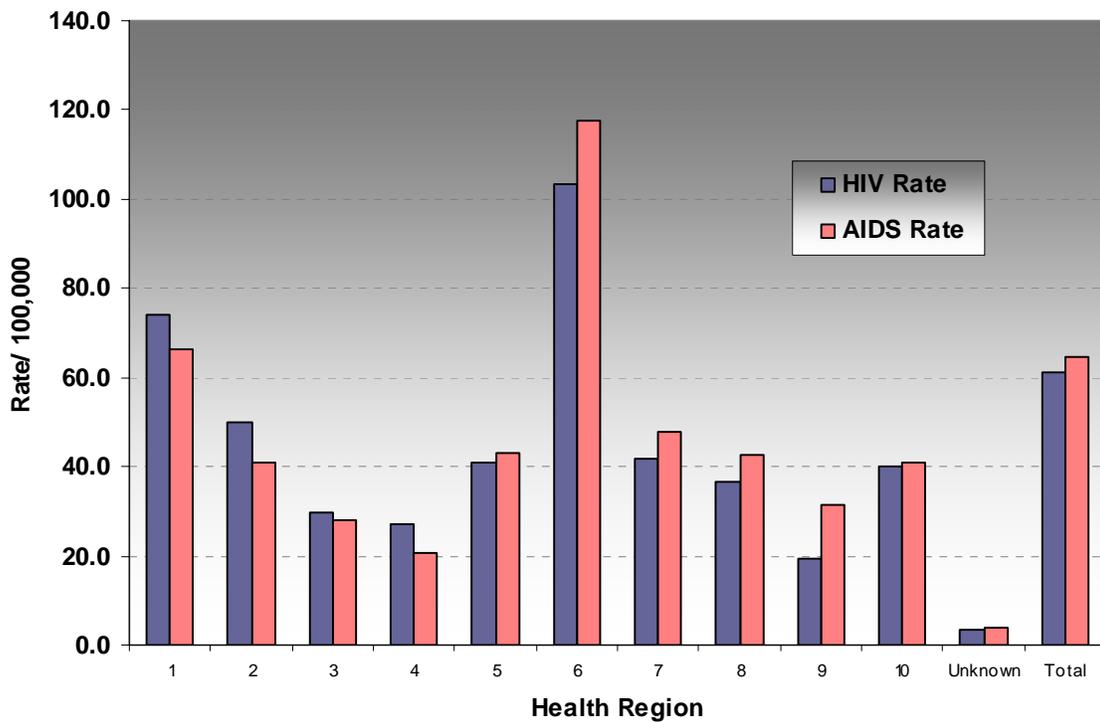
Indiana shows very distinct regional differences in its prevalence rate for HIV/AIDS. Health Region 6, which covers Indianapolis and the surrounding counties, shows the highest prevalence rate of the entire state, with a rate of 221.1 per 100,000 persons. The next highest rates are in Regions 1 and 2 which includes Lake, Porter and La Porte Counties in northern Indiana, with a rate of 140.3 and 90.7 per 100,000 people respectively. Similar to the Indianapolis metro area, the proximity of the Chicago metro

area is influencing the number of infected persons in that region. The highest prevalence rates are all associated with Indiana's larger cities, such as

Evansville and Terre Haute in Region 7, Kokomo and Muncie/Anderson in Region 5, and Bloomington in south-central Indiana in Region 8.

Figure 25 breaks out the prevalence rate by HIV and AIDS separately for each Health Region. Most of the Health Regions show no large differences between their HIV and AIDS prevalence rates.

Figure 25: Prevalence for HIV and AIDS by Health Region, 2005



The corresponding rates for HIV and AIDS by Health Region are listed in Table 15.

Table 15: Prevalence Numbers, Percentages and Rates for HIV and AIDS by Health Region, 2005

Region	HIV			AIDS			HIV/AIDS		
	Number	%	Rate	Number	%	Rate	Number	%	Rate
1	554	14.7%	74.1	495	12.4%	66.2	1,049	13.5%	140.3
2	278	7.4%	49.9	227	5.7%	40.8	505	6.5%	90.7
3	219	5.8%	29.8	207	5.2%	28.2	426	5.5%	58.0
4	95	2.5%	27.1	73	1.8%	20.9	168	2.2%	48.0
5	231	6.1%	41.0	242	6.1%	43.0	473	6.1%	84.0
6	1,576	41.7%	103.5	1,791	44.9%	117.6	3,367	43.4%	221.1
7	297	7.9%	41.7	341	8.6%	47.9	638	8.2%	89.6
8	101	2.7%	36.5	118	3.0%	42.6	219	2.8%	79.1
9	57	1.5%	19.2	94	2.4%	31.7	151	1.9%	50.9
10	160	4.2%	40.2	162	4.1%	40.7	322	4.1%	80.9
Unknown	212	5.6%	3.4	235	5.9%	3.8	447	5.8%	7.3
Total	3,780	100.0%	61.4	3,985	100.0%	64.7	7,765	100.0%	126.1

Please note that in order to calculate the rate for each region, the number of HIV positive and AIDS diagnosed persons is divided by the total number of people living in each region (based on the 2000 Census numbers) and multiplied by 100,000.

Prevalence of HIV/AIDS by Current State of Residence

At the time of this report, the vast majority of infected persons that are eligible for the programs and services provided by ISDH also reside in the state. Some of the infected persons that had been diagnosed with HIV/AIDS in Indiana have either moved out of the state since their diagnosis, or they lived outside the state of Indiana and were only diagnosed here. Table 16 lists, in descending order, the states of residence of infected persons.

Table 16: Number of Infected Persons (HIV/AIDS) by State of Residence at the Time of this Report 2005

State of Residence	Number of Infected	State of Residence	Number of Infected
Indiana	7,203	Louisiana	3
Illinois	219	Nevada	3
Kentucky	80	North Carolina	3
Michigan	40	Kansas	2
Florida	33	Nebraska	2
Ohio	28	New York	2
Texas	22	North Dakota	2
Tennessee	15	Oklahoma	2
California	11	Rhode Island	2
Arizona	10	South Carolina	2
Minnesota	9	Utah	2
Alabama	8	Washington	2
Georgia	8	Arkansas	1
Iowa	8	Hawaii	1
Wisconsin	8	Maryland	1
Colorado	5	Mississippi	1
Massachusetts	4	New Jersey	1
Missouri	4	South Dakota	1
New Mexico	4	West Virginia	1
Pennsylvania	4	Wyoming	1
Virginia	4	Total	7,765
Foreign Country	3		

Within the state of Indiana most infected persons resided in Marion County. Table 17 lists the number of infected persons by Indiana counties, ranked in descending order.

Table 17: Number of Infected Persons with HIV/AIDS by Indiana County of Residence at Time of Report 2005

County of Residence	Number of Infected	HIV/AIDS Rate	County of Residence	Number of Infected	HIV/AIDS Rate
Marion	2,983	345.5	Clay	13	48.5
Lake	787	161.3	Washington	13	47.0
St. Joseph	356	134.0	Brown	12	78.5
Allen	314	92.3	Dearborn	12	25.0
Vanderburgh	225	130.4	Greene	12	36.0
Vigo	164	157.3	Owen	12	52.4
La Porte	162	147.6	Gibson	11	33.3
Madison	155	118.3	Jasper	11	35.3
Monroe	140	116.2	Jay	11	50.7
Clark	111	111.6	Daviess	10	33.3
Elkhart	111	58.7	Marshall	10	21.6
Hamilton	110	49.8	Steuben	10	29.7
Porter	99	64.8	Decatur	9	36.4
Tippecanoe	92	60.9	Dubois	9	22.3
Hendricks	91	76.6	Jennings	9	32.0
Delaware	84	71.0	Perry	9	47.7
Howard	84	99.0	Starke	9	39.7
Johnson	73	59.1	White	9	36.2
Wayne	70	99.7	Adams	8	23.7
Floyd	66	92.6	Posey	8	29.7
Putnam	58	158.2	Vermillion	8	48.4
Miami	47	130.0	Lagrange	7	19.4
Grant	42	58.3	Pulaski	7	50.7
Bartholomew	35	48.4	Whitley	7	22.0
Kosciusko	32	42.5	Fayette	6	24.0
Hancock	28	46.9	Blackford	5	35.9
Boone	26	52.5	Fulton	5	24.4
Morgan	26	37.9	Martin	5	48.3
Knox	25	65.0	Fountain	4	22.6
Sullivan	23	105.2	Newton	4	27.7
Cass	22	54.4	Orange	4	20.4
De Kalb	20	48.7	Rush	4	22.2
Montgomery	19	50.3	Spencer	4	19.7
Jackson	18	43.2	Switzerland	4	42.4
Lawrence	18	38.9	Carroll	3	14.6
Warrick	18	32.9	Franklin	3	13.2
Henry	17	35.6	Ripley	3	11.0
Jefferson	17	53.1	Wabash	3	8.7
Parke	17	97.8	Wells	3	10.7
Shelby	17	39.0	Benton	2	21.6
Clinton	16	47.1	Union	2	27.6
Huntington	16	41.9	Crawford	1	9.0
Harrison	14	39.2	Ohio	1	17.4
Noble	14	29.8	Pike	1	7.7
Randolph	14	52.1	Warren	1	11.5
Scott	14	59.4	Tipton	0	0.0
Total	7,194	116.1			

The author would like to point out that there is a difference between the total number of infected persons for Indiana in Table 16 (7,203) and the Total number of infected persons in Table 17 (7,194). Based on the available information it is not possible to determine in which counties the 9 “missing” persons in Table 17 were residing by the end of 2005. Considering the very dynamic and fluid nature of the data in the HIV/AIDS Surveillance Report and the HARS database, the “missing” cases are likely to be assigned to counties of residence in an updated version of the database. Given the total number of infected persons in Indiana the missing cases would account for a maximum error of about 0.1%.