U. S. VIRGIN ISLANDS
2008 HIV/AIDS
EPIDEMIOLOGIC PROFILE

VIRGIN ISLANDS DEPARTMENT OF HEALTH
Communicable Disease Division
STD/HIV/TB PROGRAM

Executive Summary

The United States Virgin Islands (USVI) offers a unique perspective when examining HIV/AIDS. While the USVI population is relatively small and the total number of reported cases is low, it is important to note the high rate of HIV/AIDS cases reported in the territory. This is particularly true if we compare it with other communities of similar size. Geographical boundaries further divide it into smaller communities, yet HIV/AIDS rates are comparable with much larger urban cities. In 2008, there were 32 new persons diagnosed with HIV disease in the USVI.

Most HIV/AIDS cases reported in the USVI are among blacks/persons of African descent. However, Hispanic/Latinos are disproportionately impacted by HIV. Although Hispanic/Latinos comprise only 14% of the USVI population, they represent 29% of persons living with HIV disease and 41% of new HIV disease diagnoses in 2008. Slightly more than 1% of Hispanic/Latinos in the USVI are living with HIV disease.

Not identifying persons soon after they have become infected with HIV disease continues to be a problem, as persons unaware of their status are more likely to transmit the virus. In recent years, nearly 50% of persons newly diagnosed with HIV disease were classified as AIDS cases in less than 12 months. Blacks/persons of African descent, males, persons 45-64 years of age, and men who have sex with men are more likely to be late testers. Additional testing efforts should target these populations to improve the number of persons who know their status soon after becoming infected.

Risk behaviors related to HIV infection should be addressed. The number of reported chlamydia and gonorrhea cases has increased from 2006 to 2008, possibly reflecting an increase in risky sexual behavior. Binge alcohol use is greatest among males and whites. Interventions should target these groups to reduce risk behaviors associated with becoming infected with HIV.

The USVI poverty level is approximately 30%, and the majority of clients receiving services through CARE Act funding are not insured, nor recipients of Medicare or Medicaid. Despite improvements in survival and retention of patients in recent years, a significant number of PLWHA are not in care.

Based on data presented in this epidemiologic profile, the USVI STD/HIV/TB Programs must continue to focus on increasing awareness of HIV/AIDS in the community. Heterosexual risk remains the highest risk for women in the USVI. By arming women with appropriate education and preventive measures, prevention staff can work to reduce the risk among women.

Increasing awareness and availability of programs for injecting drug users and men who have sex with men are necessary to stem the tide of the epidemic. St. Croix needs to increase availability of programs for the injecting drug user, as this is the largest risk among men on this island. In St. Thomas/ St. John, men who have sex with men dominate the male HIV/AIDS cases. In order to lower the number of people infected through this risk behavior, increased prevention programs should be working with this population.

It is necessary to increase the consistent and accurate reporting to HIV/AIDS surveillance staff from all medical providers, not just the providers who see the majority of patients. Physicians should be educated about the need to complete reporting forms accurately and update the surveillance staff if patients have changed their diagnosis status, moved to another location or changed providers.

Ancillary data collection continues to be challenging; the lack of a unified epidemiology branch in the Virgin Islands hinder efforts for early trend detection and analysis of other health markers, useful to gauge efficacy of interventions and correlate other additional risk factors.

In order to reduce the continuing threat of HIV/AIDS in the community, efforts must focus on finding individuals who are HIV-positive and not in care, providing opportunities for counseling and testing, and decreasing stigma and discrimination associated with HIV/AIDS in the USVI.

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Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
A/PI	Asian/ Pacific Islander
BRFSS	Behavioral Risk Factor Surveillance System
CARE	Comprehensive AIDS Resources Emergency
CADR	CARE Act Data Report
CBO	Community Based Organization
CDC	Centers for Disease Control and Prevention
CPG	Community Planning Group
C&T	Counseling and Testing
HAART	Highly Active Anti-Retroviral Therapy
eHARS	evaluation HIV/AIDS Reporting System
HIV	Human Immunodeficiency Virus
HRSA	Health Resources Services Administration
IDU	Injecting Drug User
MSM	Men who have Sex with Men
MSM/IDU	Men who have Sex with Men and are Injecting Drug Users
NIR	No Identified Risk
PLWH/A	Person Living With HIV/AIDS
SAMHSA	Substance Abuse and Mental Health Services Administration
STD	Sexually Transmitted Disease
USVI	United States Virgin Islands
VIDOH	Virgin Islands Department of Health

Other important note:
U.S. dependent areas refer to the following areas as listed in the CDC reports cited throughout this document: American Samoa, Guam, Mariana Islands (US), Puerto Rico, and Virgin Islands (US).

Introduction

Why is the epidemiologic profile important?

The Epidemiologic Profile (Epi Profile) provides members of the HIV Prevention community-planning group (CPG), Virgin Islands Department of Health (VIDOH), Ryan White planning group members and interested community members a glimpse into the HIV/AIDS epidemic in the territory. Building upon previous Epi Profiles, developed in 1998, 2000, and 2003, this document serves as an update and comprehensive review of data sources, in an effort to provide a more complete picture of HIV/AIDS. The Epi Profile serves as the starting point in the community planning cycle, and is included in the Comprehensive HIV Prevention Plan, as developed by the CPG. The CPG should use the Epi profile to plan targeted, comprehensive programs that build upon surveillance data to accurately reflect the true extent of the HIV/AIDS epidemic.

The Epi Profile answers five core epidemiologic questions, which form the basis for presenting the data.

1. What are the sociodemographic characteristics of the USVI population?
2. What is the scope of the HIV/AIDS epidemic in the USVI?
3. Who in the USVI is at risk of becoming infected with HIV/AIDS?
4. What are the patterns of service utilization of HIV-infected persons in the USVI?
5. What are the number and characteristics of persons who know they are HIV-positive but who are not receiving HIV primary medical care?

These questions guide the presentation of data. Based on the *Integrated Guidelines for Developing Epidemiologic Profiles for HIV Prevention and Ryan White CARE Act Community Planning* (developed by HRSA and CDC), the authors analyzed data and summarized key points for consideration in future planning processes.

What is included in the profile?
Data included and presented in the Epi Profile are collected by VIDOH, Centers for Disease Control and Prevention (CDC), and many other sources. HIV/AIDS data presented in the Epi Profile that were collected by the VIDOH included persons diagnosed with HIV or AIDS through December 2008 who were reported to VIDOH through February 2009. These data represent a snapshot in time and are subject to change as additional information is reported and as VIDOH complete data quality assurance processes. Table 1 outlines the strengths and limitations of the data sources presented.

Surveillance data relies on complete, accurate and timely reporting of HIV/AIDS cases to VIDOH. With the implementation of an HIV reporting law in March 1998, VIDOH was able to begin collecting accurate data on HIV-infected individuals. The data reported immediately after implementation of this law included many patients who were previously infected and seeking treatment, but had not yet been reported. Therefore, there was an expected initial increase in the number of reported HIV/AIDS cases in 1998. Through evaluation of data based on year of diagnosis, the data appear to be timely. Complete data are required for a full evaluation of the epidemic. The majority of patients are reported from public facilities. Private physicians treat and report few patients; there may be patients who are not included in the surveillance data.

Providers seeking additional information or instructions on HIV/AIDS case reporting should contact the surveillance program at 340-774-7900.

Confidentiality
Data collected by the HIV/AIDS surveillance office are kept confidential, in accordance with CDC security and confidentiality guidelines and VIDOH regulation. Included in the CDC guidelines are recommendations on data-release and presentation to safely present data without risking identification of individuals infected with HIV/AIDS. Tables will not present information that could potentially identify individuals.

Epidemiology 101
Epidemiology is the science dealing with epidemics, determining what factors are influencing whether people are becoming affected with diseases. An official definition of epidemiology follows:

> *Epidemiology is concerned with the patterns of disease occurrence in human populations and the factors that influence these patterns.* (Lilienfeld D, Stolley P. Foundations of Epidemiology Oxford University Press 1994)

Epidemiologists often review data focusing on three variables: person, place and time. The demographics, specific characteristics and behaviors that place a person at risk are examined in epidemiologic studies. Reviewing when a person became ill or was infected and where they were often lends additional information, allowing epidemiologists to focus on potential preventive measures to stop the spread of disease.

Table 1. Data sources, strengths and limitations

Data Source	Description	Strengths	Limitations
HIV/AIDS Reporting System (eHARS)	AIDS data have been collected in the USVI since 1995, and HIV surveillance began in 1998. Surveillance allows VIDOH to monitor new HIV/AIDS cases, describe modes of transmission, evaluate the efficacy of prevention interventions and potentially link newly infected individuals with medical care.	Data have been collected for a lengthy period of time.	Staff turnover in the surveillance office may result in limited historical data.
HIV Counseling and Testing Data (C&T)	Pre- and post-test counseling data collected at public clinics and CBO's.	Standardized data collection.	Only represents clients seeking services at these sites and may include persons who test multiple times.
Ryan White CARE Act Data Reports (CADR)	The CARE Act Data Report results from information collected annually from all Ryan White grantees in the jurisdiction. The report provides data on provider and program characteristics, aggregate demographic data on patients serviced through the Ryan White HIV Program funded services.		Only represents clients seeking services from providers receiving CARE Act funds, which may not be representative of the general population living with HIV.
Sexually Transmitted Disease Surveillance (STD)	Reports on gonorrhea, chlamydia and syphilis indicate the number of cases and incidence of these diseases. They may serve as a surrogate marker for the risky behavior that can lead to HIV infection.	Patients at high risk for STDs are at high risk for HIV.	Reporting from private providers may not be complete. Historical data may not be complete due to limited computer accessibility. Data may include duplicate cases.
CDC National Center for Health Statistics-Vital Statistics System	Compiles statistical information regarding vital events, including births, deaths, marriages, divorces, and fetal deaths in the US and five US dependencies.	Considered to be one of the oldest and most successful public health data sharing collaborations.	Relies on information reported from the states and dependencies.
Behavioral Risk Factor Surveillance System (BRFSS)	State-based, random-digit-dialed telephone survey of adults ($\geq$ 18 years)	Nationwide data collection for comparison.	Only includes individuals who have phones, who are not institutionalized. Data are self-reported.

Epidemiologists use several statistical calculations to review data. A brief explanation follows for incidence, prevalence and case rate.

Case rate is the number of cases divided by the population. As an example, the United States AIDS case rate is calculated by dividing the total number of AIDS cases reported to the CDC by the US Population (according to the US Census). In 2007, CDC received 38,384 AIDS case reports from the US and US dependencies. This results in an AIDS case rate of 12.5 per 100,000 population. The case rate is calculated by dividing the number of AIDS case reports by the population at that time.

[# AIDS case reports in 2007/ US population estimate in 2007] *100,000=AIDS case rate

Prevalence rate measures the number of cases that are present during a specified period of time. The prevalence rate is usually calculated by dividing the number of cases of disease present in the population at a specified period of time by the number of persons at risk of having the disease at that specified time. The result is multiplied by 1,000 or 100,000 population. When calculating prevalence rates of HIV/AIDS, the numerator is the number of individuals living with HIV/AIDS at a specified time divided by the population.

Incidence rate is the estimate of risk of developing a disease during a specified period of time. The incidence rate is calculated by dividing the number of new cases of a disease occurring in the population during a specified time by the number of persons exposed to risk of developing the disease during that period of time. The result is multiplied by 1,000 or 100,000 population. When calculating HIV/AIDS incidence, the numerator is the number of new cases of HIV/AIDS diagnosed during a specified time divided by the population at that specified time. In the Epi Profile, persons newly diagnosed are used as a proxy for incidence. However, the diagnosis can be made at any clinical stage of the disease. Characteristics associated with those newly diagnosed may not reflect characteristics associated with persons recently infected. For data on newly diagnosed HIV/AIDS cases presented in the Epi Profile, *diagnosis rate* is a more appropriate term than *incidence rate.*

Data interpretation and caution

Readers should use caution when reviewing data presented in graphs or charts. While the tables may present information in a quick and easy format, it is equally important to review the narrative accompanying the table for interpretation of the data. Charts and tables often present data for a certain **time** frame. Readers should review what the time frame is; consider whether changes expressed over time are trends or small percentage changes that occur when one or two additional cases are reported. Titles on all tables and charts should be reviewed carefully. Does the data in the chart represent the entire population or a segment of the population (all cases or only male cases)? When reviewing the data, keep in mind the limitations of data sets, as described in Table 1. Data included in this report were obtained from various sources. If false, incomplete, or incorrect information were provided to the VIDOH, then the interpretation of that information would result in incomplete information as well.

Technical Notes

HIV Disease, HIV case, AIDS case

HIV disease includes all individuals diagnosed with the HIV virus regardless of the stage of disease progression. Persons with HIV disease can be classified as either an *AIDS case* (if they are in the later stages of the disease process and have met the case definition for AIDS), or an *HIV case* (if they are in the earlier stages of the disease process and have not met the AIDS case definition). In the Epi Profile, the sub-classification of HIV or AIDS is based on an individual's status of disease progression as of December 31, 2008.

Date of Diagnosis

Represents the date an individual was first diagnosed with the HIV virus, regardless of the stage of disease progression. Often the initial diagnosis of infection does not occur until several years after the initial infection, so trends in diagnosed HIV cases can only approximate actual trends in new HIV infections.

Race/Ethnicity
Race and ethnicity information has been collected under two different systems in the HIV/AIDS reporting system. Since many cases were reported under the old classification system, the use of the race and ethnicity categories from the old classification system will be maintained in the Epi Profile. All cases identified with a Hispanic/Latino ethnicity will be reported as Hispanic/Latino in the Epi Profile, regardless of reported race information. Individuals who reported multiple racial categories or whose race was unknown are included in the category "Other/Unknown".

Reporting Delay
Delays exist between the time HIV infection is diagnosed and the time the infection is reported to VIDOH. As a result of reporting delays, case numbers for the most recent years of diagnosis may not be complete. Data from recent years should be considered provisional. The data presented in the Epi Profile have not been adjusted for reporting delay.

Residence of Diagnosis
Data are presented based on an individual's residence at time of most recent diagnosis of HIV or AIDS. Only persons whose most recent diagnosis was in the USVI are included in the analyses presented in the Epi Profile. This may or may not correspond with the person's residence at the time of initial infection, or to the current residence.

Routine Interstate Duplicate Review (RIDR)
Routine Interstate Duplicate Review (RIDR) was implemented by the CDC in 2002 to address instances when the same HIV infected person has been counted in two or more different states or US dependent areas. Persons with potentially duplicate records throughout the nation are identified. States and US dependent areas with potentially duplicate cases contact one another to compare patient profiles in order to determine the state to which the case belongs, based on residence during the earliest date of diagnosis. This process improves the accuracy of the data, but can result in fluctuations in the data over time.

Small Numbers
When the number of total cases (denominator) is small, slight changes in the number of cases in a group (numerator) can cause large fluctuations in the proportions and rates that are calculated. These changes should be interpreted with caution.

Transmission Category
Persons are assigned to a single most likely transmission category based on a hierarchy developed by the CDC, although persons may engage in behaviors associated with more than one mode of transmission. The large number of persons reported with an undetermined transmission category limits the interpretation of trends associated with this variable.

How was this Epi Profile prepared?
The USVI Department of Health hired a consultant to assist in data analysis and developing the epidemiologic profile.

Question 1: What are the sociodemographic characteristics of the US Virgin Islands population?

The United States Virgin Islands (USVI) encompasses four islands, St. Croix (STX), St. Thomas (STT), St. John (STJ) and the Water Island. In 2008, there were an estimated 109,840 people in the USVI according to the US Census Bureau International Database. Complete population information by island, race, and ethnicity is not available through the International Database. Therefore data presented in the section are based on US Census information from 2000.

According to the 2000 US Census, there were 108,612 people in the USVI. The majority of residents resided in urban areas of the islands (93%). St. Thomas is 32 square miles and had a population of 51,181 in 2000. Ninety-six percent of residents resided in urban areas of the island. According to the US Census, Water Island is a sub-district of St. Thomas. While there were 161 people noted as residents of Water Island, these individuals were included in the St. Thomas Census figures. St. John had a population of 4,197 people and encompasses 20 square miles. Only 65% of residents resided in an urban area of St. John. St. Croix is the largest of the islands and had 53,234 people living in approximately 84 square miles in 2000. Ninety-one percent of residents on St. Croix resided in urban areas. Characteristics by sex and race/ethnicity for each island are presented in Table 2.

Table 2. Percentage distribution of the population, by race, ethnicity and sex by island, USVI, 2000

Characteristic	St. Croix, % N=53,234	St. John, % N = 4,197	St. Thomas, % N = 51,181	Total USVI, % N = 108,612
Sex				
Male	48	49	48	48
Female	52	51	52	52
Race/Ethnicity				
Hispanic/Latino	21	5	7	14
Not Hispanic/Latino	79	95	93	86
Black/African descent	66	55	77	71
White	9	37	12	11
Other	2	1	2	2
More than one race	2	2	2	2

The USVI population was almost evenly split among men and women, though women slightly outnumbered men on each of the islands. Blacks/persons of African descent represented 71% of the USVI population overall, although the proportion varied by island. Blacks/persons of African descent comprised only 55% of the population on St. John, but represented 77% of the population on St. Thomas. St. John had the largest proportion of white, not Hispanic/Latino individuals (37%). Overall Hispanic/Latinos represented 14% of the population, but differences in the proportion of persons of Hispanic/Latino origin existed among the islands. On St. Croix, 21% of persons were of Hispanic/Latino origin, whereas Hispanic/Latinos represented only 5% and 7% of the populations on St. John and St. Thomas, respectively.

Nearly 17% of USVI residents over five years of age spoke Spanish or Spanish Creole at home. This is not surprising given that persons of Hispanic/Latino origin represented 14% of the USVI population. Variation in the proportion of persons speaking Spanish or Spanish Creole at home existed among the islands. On St. Croix 24% of residents spoke Spanish or Spanish Creole at home, whereas the proportion was 10% and 8% on St. Thomas and St. John respectively. This trend coincided with the differences in the proportion of the population of Hispanic/Latino origin on each island. Three-quarters of the population indicated on the US Census that they spoke only English at home. The proportion of the population speaking only English at home was greatest on St. John (82%). Approximately 7% of the respondents indicated they spoke French and French Creole at home.

Approximately 48% of the USVI population was born in the USVI. The Caribbean islands represented the second largest area of birth among USVI residents (31%). The primary Caribbean islands of birth included St. Kitts and Nevis, Dominica, Antigua, and Barbuda. Nearly 15% of USVI residents were born in the United States, and 4% were born in Puerto Rico or other U.S. island areas. Only 1% of residents were born in Asia, and less than 1% of residents were born in Europe, Africa, and Oceania, respectively.

Overall, 61% of USVI respondents 25 years of age or older had at least a high school diploma, while only 17% had a bachelor's degree or higher. About 39% of persons 25 and older did not have a high school diploma. Differences in educational attainment existed among the islands. The proportion of residents 25 years of age or older with a least a high school diploma was 57%, 63%, and 71% for St. Croix, St. Thomas, and St. John, respectively. The distribution of residents with a bachelor's degree followed a similar trend, with 15%, 18%, and 27% of residents 25 years of age or greater receiving at least a bachelor's degree on St. Croix, St. Thomas, and St. John, respectively. When developing island-specific materials and programs, it will become important to take education, nativity, and language into account.

The median age for USVI residents was 33.4 years, but varied slightly by island. Median age was lowest for residents of St. Croix (31.9 years) and greatest for residents of St. John (36.7 years). See Table 3 for the distribution of residents on each island by age. The majority of each island's residents were over the age of 18 years. Forty-one percent of the population was between the ages of 25 and 54. About 13% of the USVI residents were between 25 and 34 years old.

Table 3. Percentage distribution of the population by age, by island, USVI, 2000

Age Group (Years)	St. Croix, % N=53,234	St. John, % N = 4,197	St. Thomas, % N = 51,181	Total USVI, % N = 108,612
Birth- 9	18.7	13.4	16.1	17.2
10-14	9.5	7.4	8.4	8.9
15-19	8.6	5.9	7.6	8.0
20-24	5.3	5.1	5.6	5.4
25-34	11.8	14.7	13.3	12.6
35-44	13.4	17.3	15.4	14.5
45-54	13.7	18.8	14.6	14.3
55-59	6.3	6.2	6.2	6.2
60 and above	12.8	11.2	12.9	12.8

Of the 78,265 individuals 16 years of age or greater, 35% were not in the labor force based on data from the 2000 US Census. This figure varied by island, with St. John having the lowest proportion at 22%, while St. Croix had the highest proportion at 39%. Of all USVI residents at least 16 years of age in the labor force, 9% were unemployed, with unemployment reaching 11% on St. Croix. Overall in 1999, the USVI percent of families below the poverty level was 29% and the percent of individuals was 33%. These figures varied by island, with St. John reporting the lowest poverty level among families (15%) and individuals (19%). As with individuals not in the work force, St. Croix had the highest percentage of families below poverty level (35%) and individuals below the poverty level (39%). In comparison, only 9% of families and 12% of individuals reported income below the poverty level in 1999 in the US overall.

SUMMARY FOR QUESTION 1:

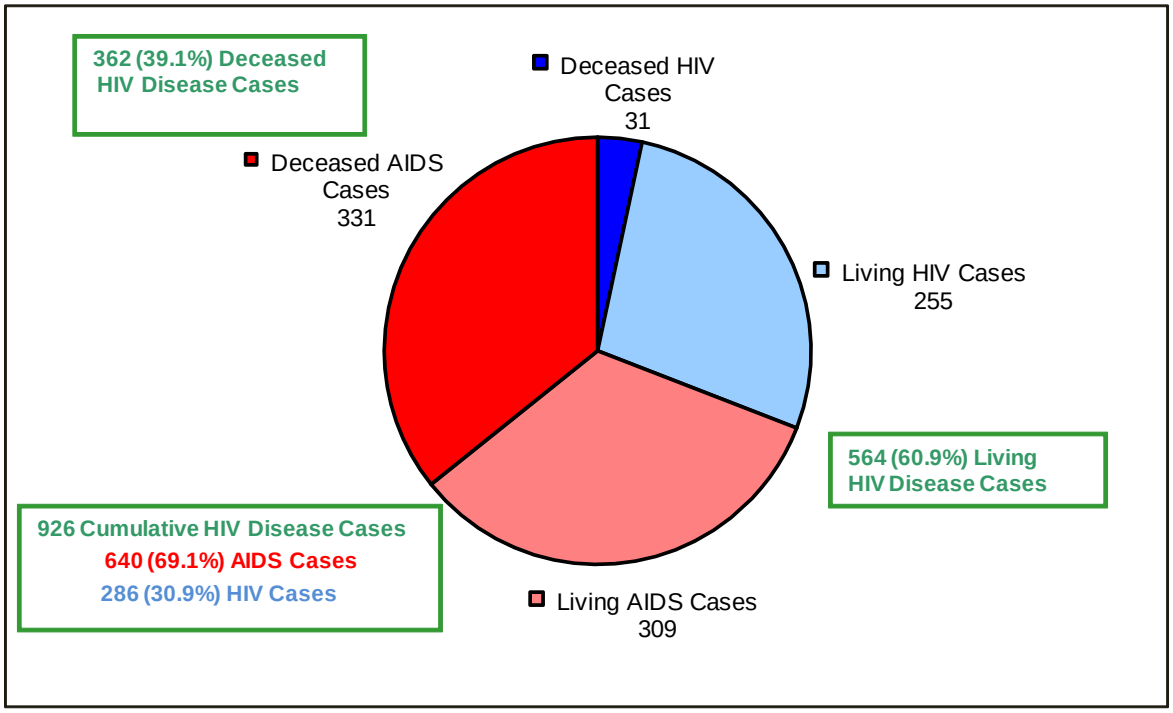
- The majority of USVI residents are black/of African Descent.
- Women represent a slightly greater proportion of island residents compared to men.
- Persons of Hispanic/Latino origin represent 14% of the population, and cannot be left out in future prevention efforts.
- The proportion of persons of Hispanic/Latino ethnicity is greatest on the island of St. Croix.
- Approximately 30% of residents of the USVI live in poverty (individuals: 33% and families: 29%), which is much greater than the proportion observed in the US overall.

Question 2: What is the scope of the HIV/AIDS epidemic in the US Virgin Islands?

This question addresses the number of individuals reported with HIV/AIDS in the USVI and their associated demographic characteristics. This question also examines the changes that have occurred in the populations affected by HIV/AIDS over time. All data presented for this question are attributed to information collected by the VIDOH HIV/AIDS surveillance office unless otherwise noted.

Cumulatively, there have been 926 persons diagnosed with HIV disease through 2008 and reported to VIDOH, whose residence at the time of most recent diagnosis (i.e., HIV or AIDS) was the USVI (Figure 1). Of the cumulative cases, 640 (69%) were classified as AIDS cases, and 286 (31%) were classified as HIV cases. At the end of the 2008, there were 564 persons living with HIV disease who were diagnosed while residing in the USVI.

Figure 1. Cumulative HIV, AIDS, and HIV disease cases by current status, USVI, 2008



Of the cumulative HIV disease cases, the majority (63%) were diagnosed among men (Table 4). Females represented a greater proportion of persons classified as HIV cases (46%) compared to persons classified as AIDS cases (33%). Blacks/persons of African descent represented the majority (63%) of cumulative HIV disease cases. Persons of Hispanic/Latino origin comprised a greater proportion of persons classified as HIV cases (30%) compared to persons classified as AIDS cases (25%). The majority of persons were initially diagnosed with HIV disease between 25 to 44 years of age (62%). A greater proportion of persons classified as HIV cases were 19-24 years at the time of initial HIV disease diagnosis (11%) compared to persons classified as AIDS cases (7%). A large proportion of persons diagnosed with HIV disease had no identified risk for how the virus was transmitted (33%). Persons acquiring HIV disease through heterosexual contact represented the largest number of cases among those with a known transmission category. The large number of persons with no identified transmission category makes trends regarding transmission category difficult to interpret. The differences observed in the distributions of the demographic variables presented between persons classified as HIV and AIDS cases suggest changes in the trends of the populations becoming infected with HIV disease over time.

Table 4. Cumulative HIV disease cases by current status, sex, race/ethnicity, age at diagnosis, and transmission category, USVI, 2008

	HIV*		AIDS**		HIV Disease***	
	Cases	%	Cases	%	Cases	%
Sex						
Male	154	53.8%	431	67.3%	585	63.2%
Female	132	46.2%	209	32.7%	341	36.8%
Total	286	100.0%	640	100.0%	926	100.0%
Race/Ethnicity						
White	25	8.7%	58	9.1%	83	9.0%
Black /African descent	168	58.7%	420	65.6%	588	63.5%
Hispanic/Latino	86	30.1%	159	24.8%	245	26.5%
Other/Unknown	7	2.4%	3	0.5%	10	1.1%
Total	286	100.0%	640	100.0%	926	100.0%
Age at Diagnosis†						
<2	1	0.4%	11	1.7%	12	1.3%
2-12	5	1.8%	4	0.6%	9	1.0%
13-18	4	1.4%	3	0.5%	7	0.8%
19-24	33	11.6%	43	6.7%	76	8.2%
25-44	175	61.4%	398	62.2%	573	61.9%
45-64	61	21.4%	167	26.1%	228	24.6%
65+	6	2.1%	14	2.2%	20	2.2%
Total	285	100.0%	640	100.0%	925	100.0%
Transmission Category						
Men who have sex with men	31	10.8%	137	21.4%	168	18.1%
Injection drug use	23	8.0%	94	14.7%	117	12.6%
Men who have sex with men and inject drugs	3	1.0%	20	3.1%	23	2.5%
Heterosexual contact	89	31.1%	197	30.8%	286	30.9%
Hemophilia/coagulation disorder	0	0.0%	0	0.0%	0	0.0%
Receipt of blood, components, or tissue	1	0.3%	2	0.3%	3	0.3%
Perinatal Exposure	7	2.4%	14	2.2%	21	2.3%
Risk not reported	132	46.2%	176	27.5%	308	33.3%
Total	286	100.0%	640	100.0%	926	100.0%

*Persons which remained sub-categorized as HIV cases as of December 31, 2008

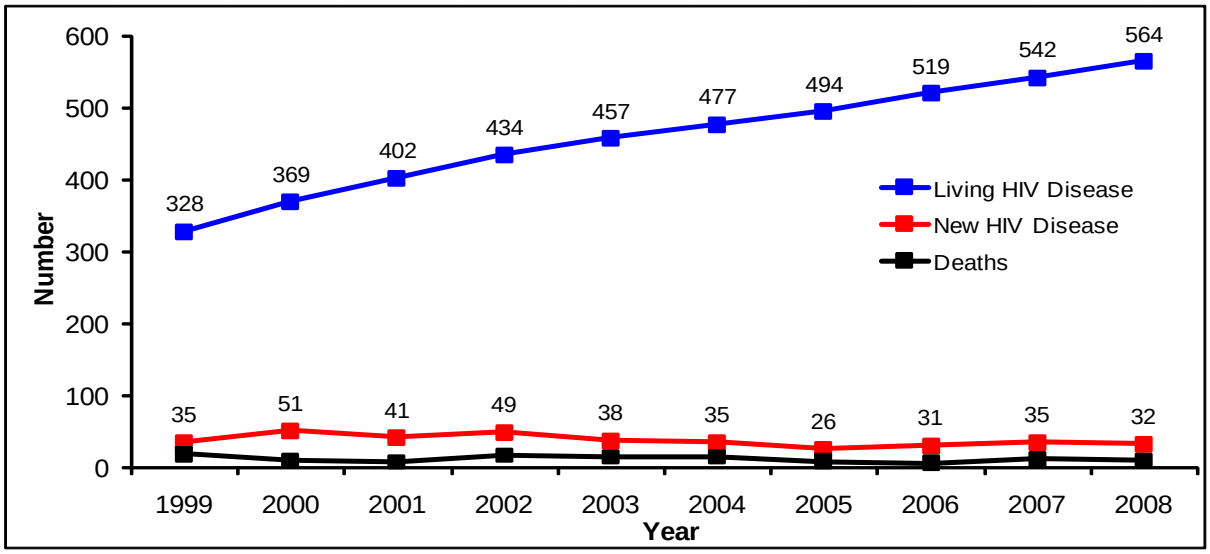
**Persons sub-categorized as AIDS cases as of December 31, 2008

***The sum of HIV and AIDS cases

†Age at initial diagnosis of HIV disease, regardless of current status (i.e., HIV or AIDS case). Age at diagnosis is missing is for one person classified as an HIV case.

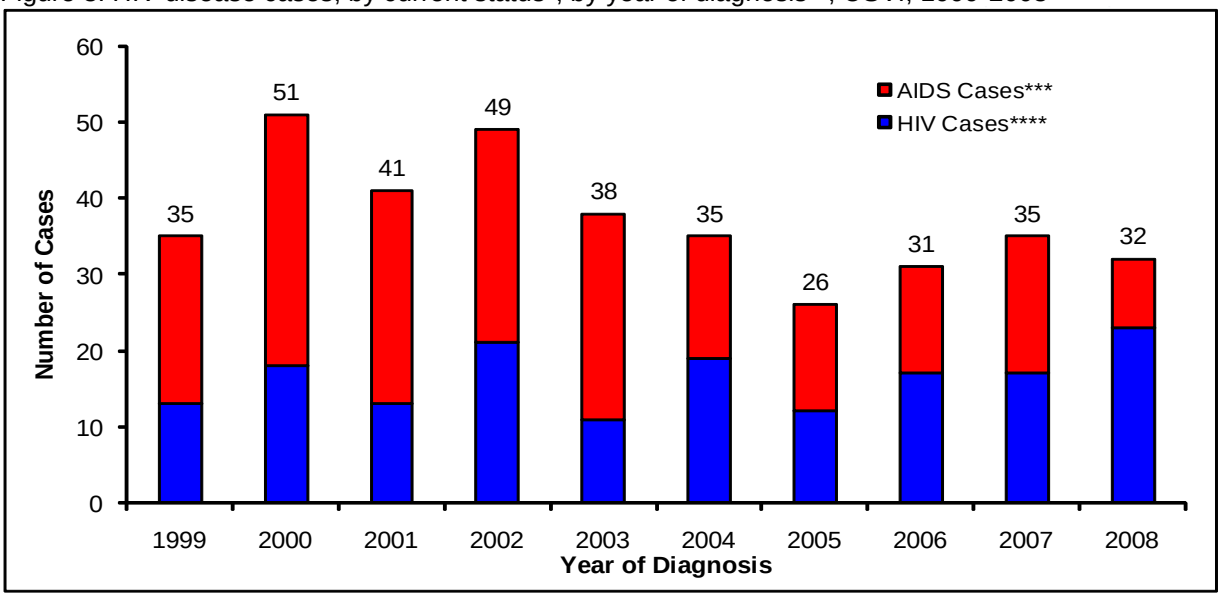
The number of persons living with HIV disease, whose most recent diagnosis (i.e., HIV or AIDS) was in the USVI, has increased steadily between 1999 and 2008 (Figure 2). The number of new HIV disease diagnoses was lower on average between 2004 and 2008 than between 1999 to 2003. The number of deaths among persons with HIV disease fluctuated slightly from 1999 to 2008. This suggests that the rate of HIV transmission among persons living with HIV disease to uninfected persons has decreased over time. This finding highlights the success of prevention and HIV care services efforts.

Figure 2. Living and new HIV disease diagnoses and deaths among persons with HIV disease, USVI, 1999-2008



Between 1999 and 2008 the number of new HIV disease diagnoses in a single year ranged from 26 new diagnoses in 2005 to 51 new diagnoses in 2000 (Figure 3). Please note that the data have not been adjusted for reporting delays, so data presented, especially in recent years, are provisional and likely subject to increase. The proportion of persons classified as AIDS cases was lower in recent years likely because these persons have been living with the virus for a shorter period of time.

Figure 3. HIV disease cases, by current status*, by year of diagnosis**, USVI, 1999-2008



*HIV case vs. AIDS case

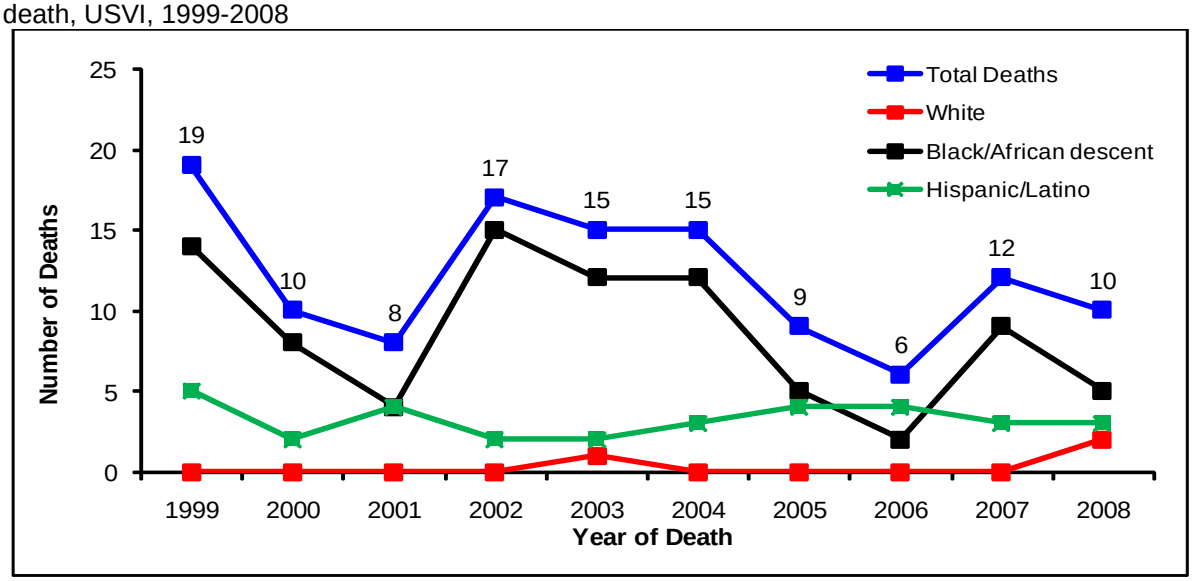
**Year the initial HIV disease diagnosis was reported, regardless of current status

***Cases were either: 1) initally reported as AIDS cases; or 2) initally reported as HIV cases and later reclassified as AIDS cases because they subsequently met the AIDS case definition.

****Cases intially reported as HIV cases that have not met the AIDS case definition as of December 31, 2008

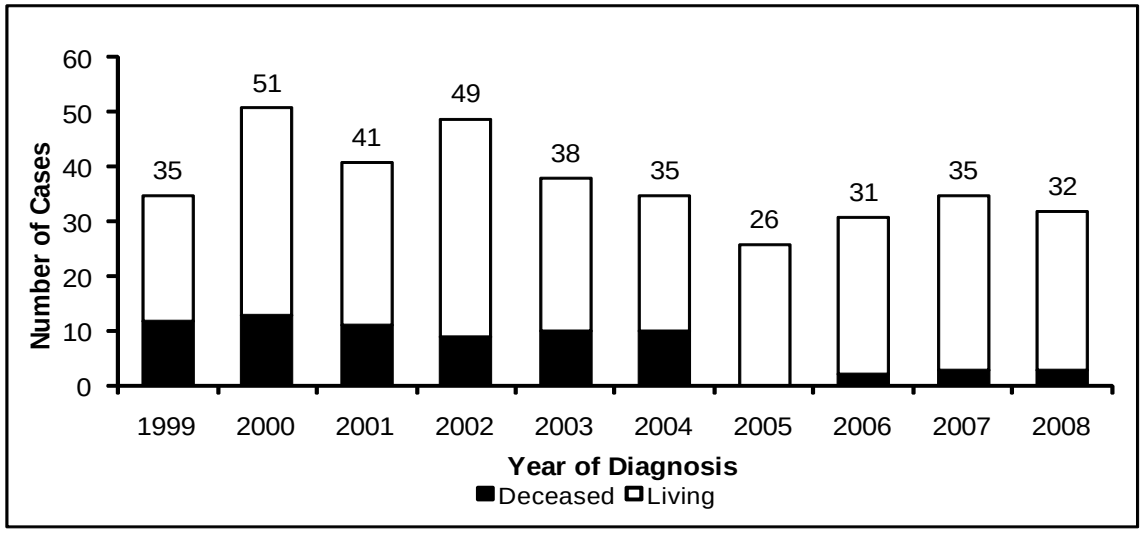
The number of deaths among persons with HIV disease fluctuated between 1999 and 2008 (Figure 4). The greatest number of deaths among persons with HIV disease was reported in 1999 (19 deaths) and the smallest number was reported in 2006 (6 deaths). The largest numbers of deaths were reported among blacks/persons of African descent. These data have not been adjusted for delays in death reporting, so data from recent years should be interpreted with caution.

Figure 4. Deaths among persons diagnosed with HIV disease, by selected race/ethnicity, by year of death, USVI, 1999-2008



Of the 35 persons diagnosed with HIV disease in 1999, 12 (34%) were deceased by the end of 2008 (Figure 5). Among the 32 persons diagnosed in 2008, 3 (9%) were deceased by the end of 2008. There have been no deaths reported through the end of 2008 among persons diagnosed in 2005. Differences in the proportion of persons that were deceased by the end of 2008 by year of diagnosis are related to the length of time individuals had been living with the virus.

Figure 5. Persons diagnosed with HIV disease, by current vital status*, by year of diagnosis, USVI, 1999-2008



*Based on vital status on December 31, 2008

The USVI ranked second in the rate of reported AIDS cases among US states and dependent areas in 2007, behind the District of Columbia (Table 5). In 2007, for every 100,000 persons in the USVI, 31.4 were reported as AIDS cases to the CDC. Although the rate of reported AIDS cases in the USVI (31.4) was much higher than the US total overall (12.5), the number of reported AIDS cases by the USVI was low (34 cases). The USVI represented less than 1% of all reported AIDS cases among US states and dependent areas in 2007.

Table 5 . Reported AIDS cases and rates by area of residence, 2007

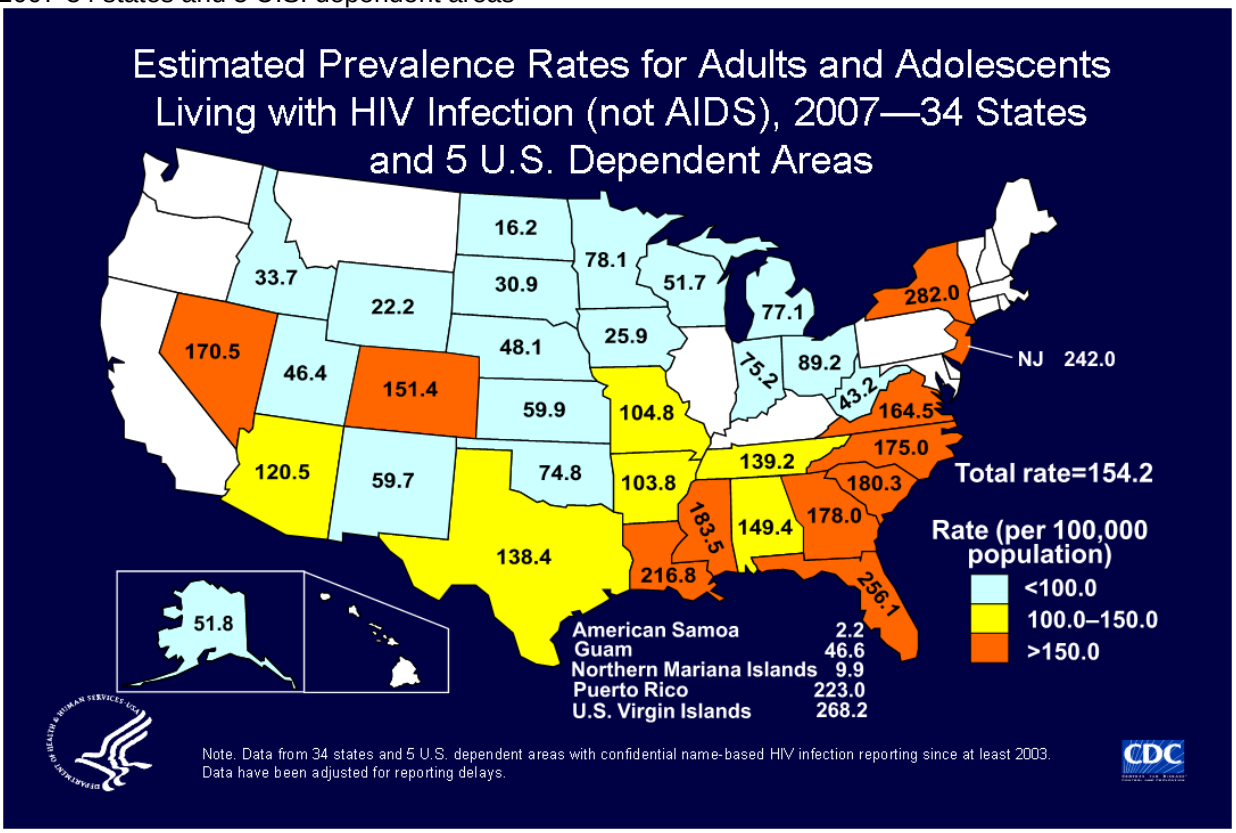
Rank	Area of Residence	No. reported AIDS, 2007	Rate* reported AIDS, 2007	Rank	Area of Residence	No. reported AIDS, 2007	Rate* reported AIDS, 2007
1	District of Columbia	871	148.1	28	Arkansas	196	6.9
2	**US Virgin Islands**	**34**	**31.4**	28	Kentucky	292	6.9
3	New York	4,810	24.9	30	Washington	427	6.6
4	Maryland	1,394	24.8	31	Oregon	239	6.4
5	Florida	3,961	21.7	32	Michigan	628	6.2
6	Puerto Rico	847	21.5	32	Rhode Island	66	6.2
7	Louisiana	879	20.5	34	Hawaii	78	6.1
8	Delaware	171	19.8	34	Ohio	703	6.1
9	Georgia	1,877	19.7	36	New Mexico	113	5.7
10	South Carolina	742	16.8	37	Indiana	329	5.2
11	Connecticut	528	15.1	38	Kansas	132	4.8
12	Pennsylvania	1,750	14.1	39	Alaska	32	4.7
13	California	4,952	13.5	40	Nebraska	80	4.5
14	New Jersey	1,164	13.4	41	West Virginia	76	4.2
15	Nevada	335	13.1	42	New Hampshire	51	3.9
--	**US TOTAL**	**38,384**	**12.5**	43	Minnesota	197	3.8
16	Texas	2,964	12.4	44	Wisconsin	199	3.6
17	Mississippi	352	12.1	45	Maine	46	3.5
18	North Carolina	1,024	11.3	46	Montana	25	2.6
19	Tennessee	658	10.7	46	Utah	68	2.6
20	Illinois	1,348	10.5	48	Iowa	76	2.5
21	Massachusetts	612	9.5	48	Wyoming	13	2.5
22	Arizona	585	9.2	50	South Dakota	15	1.9
22	Missouri	542	9.2	51	Idaho	23	1.5
24	Alabama	391	8.4	52	North Dakota	8	1.3
25	Virginia	634	8.2	53	Vermont	6	1
26	Colorado	355	7.3	54	American Samoa	0	0
27	Oklahoma	264	7.3	54	Guam	0	0
				54	Northern Mariana Islands	0	0

Source: Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2007. Vol. 19. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2009:32-33. http://www.cdc.gov/hiv/topics/surveillance/resources/reports/.

*Rate per 100,000 population

Based on data reported to CDC, the USVI had the second highest rate of adults and adolescents living with HIV (not AIDS) in 2007 among the 34 states and 5 U.S. dependent areas with confidential name-based HIV reporting since at least 2003 (Figure 6). The highest rate of persons living with HIV (not AIDS) was 282.0 per 100,000 population in the state of New York. In the USVI, for every 100,000 persons in the population, 268 were reported to be living with HIV (not AIDS) at the end of 2007.

Figure 6. Estimated prevalence rates for adults and adolescents living with HIV infection (not AIDS), 2007-34 states and 5 U.S. dependent areas



Source: Centers for Disease Control and Prevention. HIV/AIDS Surveillance- General Epidemiology (through 2007) Slide Set. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; http://www.cdc.gov/hiv/topics/surveillance/resources/slides/general/index.htm. Accessed 8/19/2009.

For every 100,000 persons in the USVI, it was estimated that approximately 514 were living with HIV disease at the end of 2008 (Table 6). Of the 564 persons living with HIV disease at the end of 2008 whose most recent diagnosis (i.e., HIV or AIDS) was made while residing in the USVI, the majority were males (59%). However, females represented a greater proportion of persons living with HIV disease who were classified as HIV cases (47%) compared to persons classified as AIDS cases (36%). The rate of persons living with HIV disease was greatest among Hispanic/Latinos, with approximately 1% of persons of Hispanic/Latino origin living with HIV disease in the USVI. Only 0.4% of whites and blacks/persons of African descent were estimated to be living with HIV disease at the end of 2008. Although the rate of persons living with HIV disease was lower among blacks/persons of African descent compared to Hispanic/Latinos, the total number of persons living with HIV disease was greater for Blacks/persons of African descent (337) compared to Hispanic/Latinos (166). Persons 45-64 years of age at the end of 2008 represented the largest number of individuals living with HIV disease (272), followed closely by persons 25 to 44 years of age (247). Persons 25 to 44 years of age represented the greatest proportion of living persons classified as HIV cases (50%); while among persons classified as AIDS cases, the greatest proportion were 45 to 64 years of age at the end of 2008 (53%).

Table 6. Living HIV, AIDS, and HIV disease cases by sex, by race/ethnicity, and current age, USVI, 2008

	HIV*			AIDS**			HIV Disease***		
	Cases	%	Rate****	Cases	%	Rate****	Cases	%	Rate****
Sex									
Male	134	52.5%	257.5	197	63.8%	378.5	331	58.7%	636.0
Female	121	47.5%	209.4	112	36.2%	193.8	233	41.3%	403.1
Total	255	100.0%	232.2	309	100.0%	281.3	564	100.0%	513.5
Race/Ethnicity									
White	22	8.6%	177.2	31	10.0%	249.7	53	9.4%	426.9
Black /African descent	146	57.3%	188.2	191	61.8%	246.3	337	59.8%	434.5
Hispanic/Latino	80	31.4%	520.6	86	27.8%	559.6	166	29.4%	1080.2
Other/Unknown	7	2.7%	N/A	1	0.3%	N/A	8	1.4%	N/A
Total	255	100.0%	232.2	309	100.0%	281.3	564	100.0%	513.5
Current Age‡									
<2	1	0.4%	N/A	0	0.0%	N/A	1	0.2%	N/A
2-12	3	1.2%	N/A	1	0.3%	N/A	4	0.7%	N/A
13-18	3	1.2%	N/A	1	0.3%	N/A	4	0.7%	N/A
19-24	2	0.8%	N/A	2	0.6%	N/A	4	0.7%	N/A
25-44	126	49.6%	N/A	121	39.2%	N/A	247	43.9%	N/A
45-64	107	42.1%	N/A	165	53.4%	N/A	272	48.3%	N/A
65+	12	4.7%	N/A	19	6.1%	N/A	31	5.5%	N/A
Total	254	100.0%	N/A	309	100.0%	281.3	563	100.0%	N/A

*Persons which remained sub-categorized as HIV cases as of December 31, 2008

**Persons sub-categorized as AIDS cases as of December 31, 2008

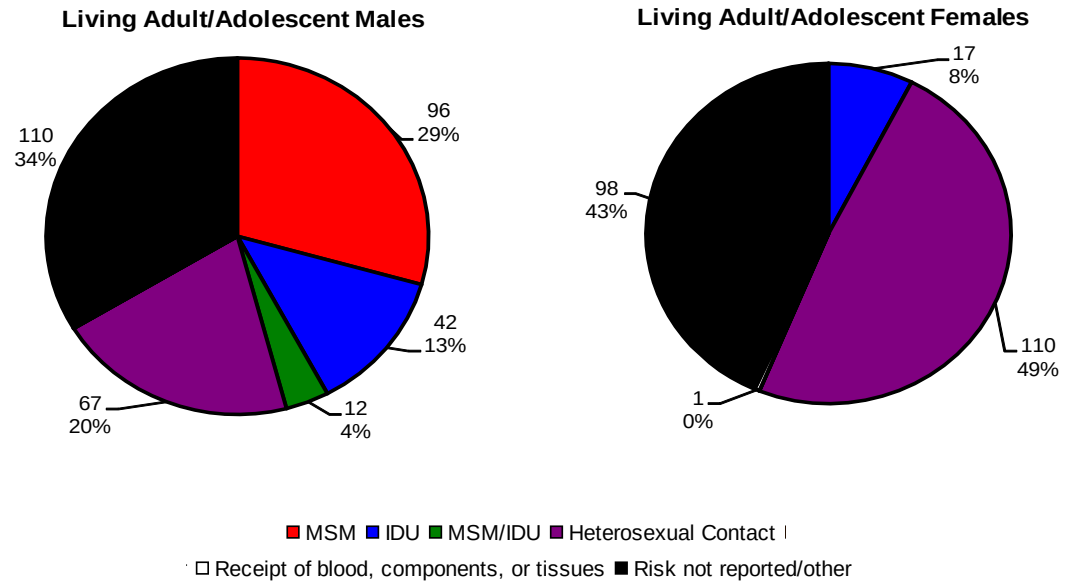
***The sum of HIV and AIDS cases

****Rate per 100,000 population. Total population and population by sex were based on the 2008 estimates from the U.S. Census Bureau International Database. Population estimates by race/ethnicity were based on the proportion of population from the 2000 Census applied to the 2008 total population estimate.

‡Age on December 31, 2008. Current age is missing for one person classified as an HIV case.

There were 327 males diagnosed with HIV disease as an adult/adolescent (>12 years of age) in the USVI who were living at the end of 2008 (Figure 7). Of these males, 34% had no identified risk for how the virus was transmitted. Males who reported sex with other males represented the largest number of persons living with HIV with a known transmission category (96). Males acquiring HIV disease through heterosexual contact represented the second largest number of males living with HIV disease with a known transmission category (67). There were 226 females diagnosed with HIV disease as an adult/adolescent in the USVI who were living at the end of 2008. Of these females, 43% had no identified risk for how the virus was transmitted. Heterosexual contact was the primary transmission category among females with a known transmission category living with HIV disease (110).

Figure 7. Adult/adolescents living with HIV disease by sex and transmission category, USVI, 2008



A total of 32 new HIV disease cases were diagnosed in the USVI during 2008, and reported through April 2009 (Table 7). These data have not been adjusted for reporting delays, and the true number of new HIV disease diagnoses in 2008 is likely higher. Of those newly diagnosed in 2008, 28% progressed to AIDS by the end of 2008. This suggests that more than one-quarter of persons were tested late in the course of disease progression. Understanding differences in the demographic distributions between persons newly diagnosed as HIV cases versus AIDS cases can provide areas to target increased testing to reduce the number of persons testing late in their disease progression. Males comprised the majority of persons newly diagnosed that remained classified as HIV cases at the end of 2008 (61%). However, among those newly diagnosed that progressed to AIDS by the end of 2008, the number of new diagnoses was nearly evenly split between males and females. Hispanic/Latinos and blacks/persons of African descent comprised nearly equal numbers of new diagnosed among those classified as HIV cases, but blacks/persons of African descent represented the majority of new diagnoses classified as AIDS cases. Persons newly diagnosed that were classified as AIDS cases tended to be slightly older at the time of initial diagnosis compared to individuals who remained classified as HIV cases. The large proportion of new diagnoses that were missing transmission category information makes it difficult to interpret trends regarding risk behavior information. There were an additional four persons diagnosed with HIV disease prior to 2008 that progressed to AIDS in 2008; information on these persons is not presented in Table 7.

Table 7. New HIV disease diagnoses by current status, sex, race/ethnicity, age at diagnosis, and transmission category, USVI, 2008

	HIV*		AIDS**		HIV Disease***	
	Cases	%	Cases	%	Cases	%
Sex						
Male	14	60.9%	4	44.4%	18	56.3%
Female	9	39.1%	5	55.6%	14	43.8%
Total	23	100.0%	9	100.0%	32	100.0%
Race/Ethnicity						
White	2	8.7%	0	0.0%	2	6.3%
Black/African descent	9	39.1%	7	77.8%	16	50.0%
Hispanic/Latino	11	47.8%	2	22.2%	13	40.6%
Other/Unknown	1	4.3%	0	0.0%	1	3.1%
Total	23	100.0%	9	100.0%	32	100.0%
Age at Diagnosis†						
<2	1	4.3%	0	0.0%	1	3.1%
2-12	0	0.0%	0	0.0%	0	0.0%
13-18	0	0.0%	0	0.0%	0	0.0%
19-24	1	4.3%	0	0.0%	1	3.1%
25-44	13	56.5%	5	55.6%	18	56.3%
45-64	8	34.8%	3	33.3%	11	34.4%
65+	0	0.0%	1	11.1%	1	3.1%
Total	23	100.0%	9	100.0%	32	100.0%
Transmission Category						
Men who have sex with men	2	8.7%	0	0.0%	2	6.3%
Injection drug use	1	4.3%	0	0.0%	1	3.1%
Men who have sex with men and inject drugs	0	0.0%	0	0.0%	0	0.0%
Heterosexual contact	4	17.4%	2	22.2%	6	18.8%
Hemophilia/coagulation disorder	0	0.0%	0	0.0%	0	0.0%
Receipt of blood, components, or tissue	0	0.0%	0	0.0%	0	0.0%
Perinatal Exposure	1	4.3%	0	0.0%	1	3.1%
Risk not reported	15	65.2%	7	77.8%	22	68.8%
Total	23	100.0%	9	100.0%	32	100.0%

*Persons which remained sub-categorized as HIV cases as of December 31, 2008

**Persons sub-categorized as AIDS cases as of December 31, 2008

***The sum of HIV and AIDS cases

†Age at initial diagnosis of HIV disease, regardless of current status (i.e., HIV or AIDS case)

Of persons newly diagnosed with HIV disease between 1999 and 2007, nearly 50% were diagnosed with AIDS within less than 12 months of their initial diagnosis (Table 8). Males comprised a greater proportion of individuals that progressed to AIDS in less than a year (65%) compared to those that did not progress to AIDS for at least one year (49%). Blacks/persons of African descent were more likely to progress to AIDS in less than 12 months compared to whites and Hispanic/Latinos. Persons first diagnosed with HIV disease between 45-64 years of age represented a greater proportion of individuals that progressed to AIDS in less than 12 months (40%) compared to those that did not progress to AIDS for at least one year (26%). The majority of individuals had no risk reported, regardless of the length of time to progression to AIDS. Persons reporting male to male sexual contact were more likely to progress to AIDS in less than 12 months compared to individuals with other known transmission categories. The data suggest that the following demographic groups are at risk for late testing and should be targeted for increased testing efforts: males, blacks/persons of African descent, persons 45-64 years of age, and men who have sex with men.

Table 8. Progression from HIV to AIDS, by sex, race/ethnicity, age at diagnosis, and transmission category, USVI, 1999-2007

	Diagnosis of AIDS after diagnosis of HIV infection			
	<12 months*		≥12 months**	
	N	%	N	%
Sex				
Male	110	65.1%	85	49.4%
Female	59	34.9%	87	50.6%
Total	169	100.0%	172	100.0%
Race/Ethnicity				
White	10	5.9%	11	6.4%
Black/African descent	120	71.0%	113	65.7%
Hispanic/Latino	39	23.1%	48	27.9%
Other/Unknown	0	0.0%	0	0.0%
Total	169	100.0%	172	100.0%
Age at Diagnosis[†]				
<2	1	0.6%	0	0.0%
2-12	0	0.0%	5	2.9%
13-18	0	0.0%	1	0.6%
19-24	4	2.4%	18	10.5%
25-44	93	55.0%	100	58.1%
45-64	68	40.2%	45	26.2%
65+	3	1.8%	3	1.7%
Total	169	100.0%	172	100.0%
Transmission Category				
Men who have sex with men	35	20.7%	18	10.5%
Injection drug use	10	5.9%	11	6.4%
Men who have sex with men and inject drugs	2	1.2%	1	0.6%
Heterosexual contact	45	26.6%	51	29.7%
Hemophilia/coagulation disorder	0	0.0%	0	0.0%
Receipt of blood, components, or tissue	0	0.0%	0	0.0%
Perinatal exposure	1	0.6%	6	3.5%
Risk not reported	76	45.0%	85	49.4%
Total	169	100.0%	172	100.0%

* Includes persons whose HIV and AIDS diagnoses were made at the same time

** Includes persons who have not yet progressed to AIDS

[†]Age at initial diagnosis of HIV disease, regardless of current status (i.e., HIV or AIDS case)

Although only a small percentage of USVI residents were born in Haiti and the Dominican Republic, these individuals represented a disproportionate number of cumulative HIV diagnoses in the USVI (Figure 8). Although persons born in Haiti represented 0.5% of the USVI population in 2000, they represented 6% of the cumulative HIV cases reported in the USVI. Persons born in the Dominican Republic represented only 3% of the USVI population in 2000, but 6% of reported HIV cases. Culturally appropriate and language specific HIV prevention efforts are needed for these populations to reduce the disproportionate impact.

There have been changes in the distribution of new HIV diagnoses by country of birth between 1999 and 2008 (Figure 9). Between 1999 and 2002 persons born in the USVI represented the greatest number of new diagnoses. However, between 2005 and 2007, persons born in Haiti represented the largest number

of new HIV diagnoses, even though persons born in Haiti comprise less than one percent of the general USVI population.

Figure 8. Cumulative HIV diagnoses through 2008 and the USVI population in 2000 by country of birth

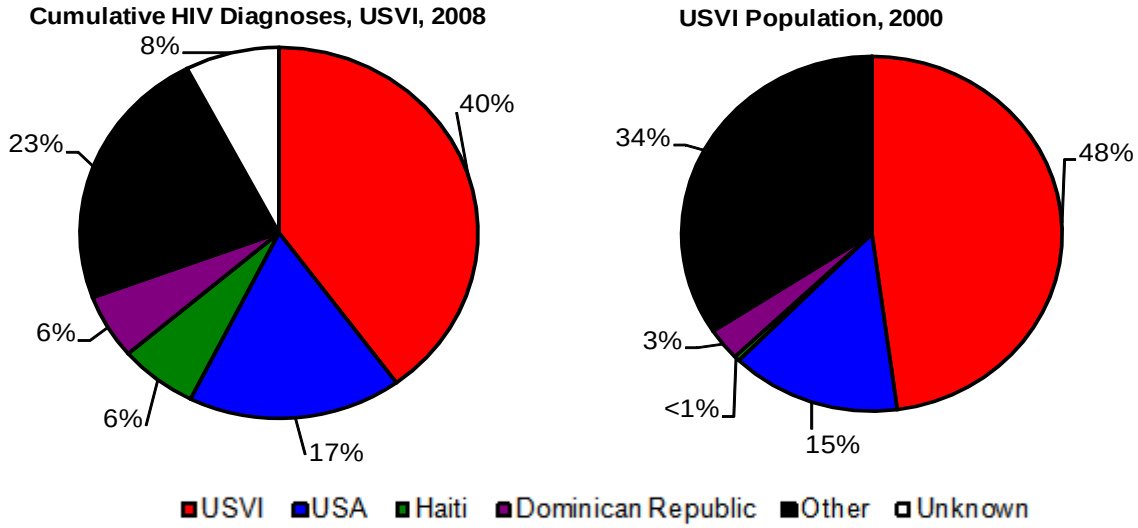
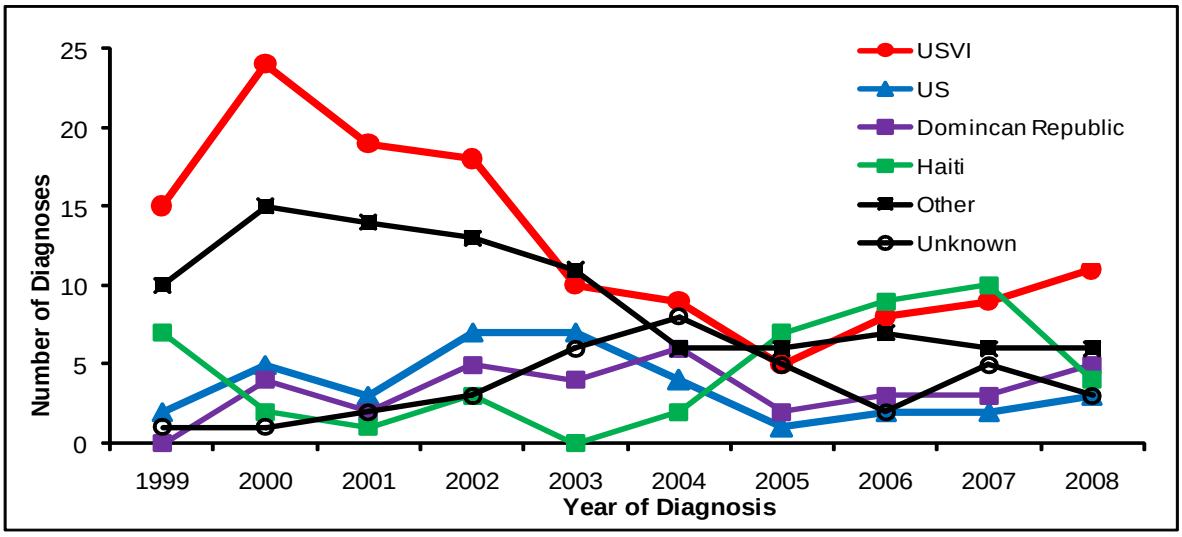


Figure 9. Number of HIV diagnoses by year of diagnosis and country of birth, USVI, 1999-2008



The number of new HIV disease diagnoses by island fluctuated between 1999 and 2008 (Figure 10). In all years, only a small proportion of all cases were diagnosed among residents of St. John. The largest number of new diagnoses among residents of St. John occurred in 2002, with 5 new diagnoses recorded. In general, the largest numbers of new diagnoses in each year were residents of St. Thomas. However, in 2003 and 2005 the number of new diagnoses was nearly equal between St. Thomas and St. Croix. On St. Thomas, the number of new diagnoses generally decreased between 2000 and 2005, and then generally increased through 2008. The slight decrease observed between 2007 and 2008 among residents of St. Thomas may be the result of reporting delays, and should be interpreted with caution. New diagnoses remained generally steady between 2000 and 2003 among St. Croix residents, and then decreased between 2003 and 2006. Between 1999 and 2008 there were an additional 6 residents of the USVI whose island of residence at the time of diagnosis was unknown.

Figure 10. Number of new HIV disease diagnoses by island, USVI, 1999-2008

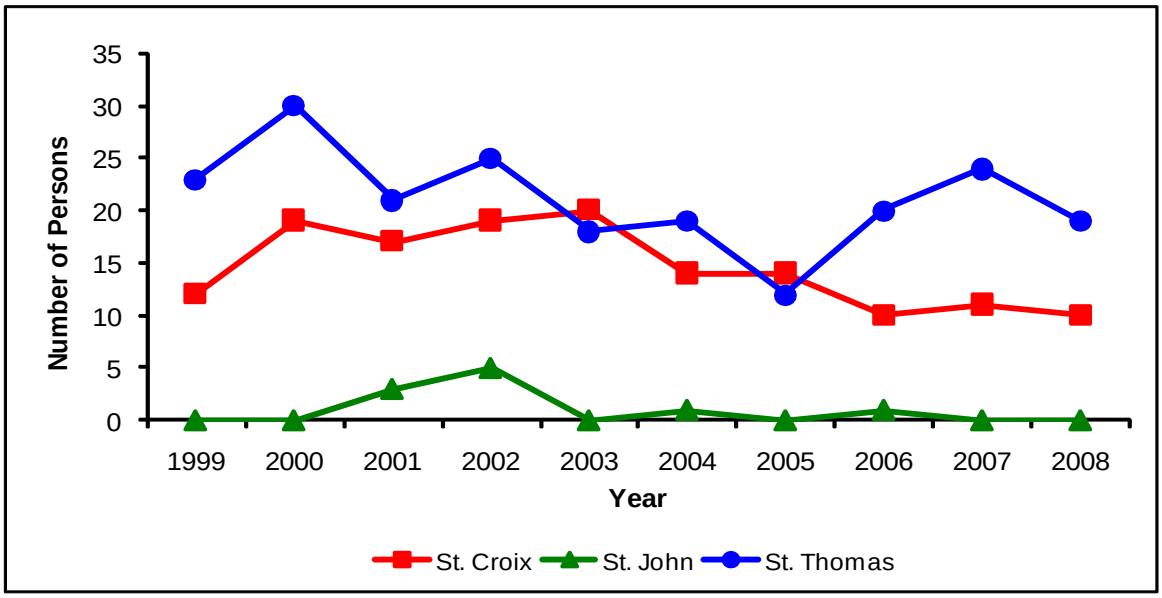


Table 9. Cumulative HIV, AIDS, and HIV/AIDS cases by sex, race/ethnicity, and age at diagnosis, St. Croix, 2008

	HIV*		AIDS**		HIV Disease***	
	Cases	%	Cases	%	Cases	%
Sex						
Male	60	50.0%	154	64.2%	214	59.4%
Female	60	50.0%	86	35.8%	146	40.6%
Total	120	100.0%	240	100.0%	360	100.0%
Race/Ethnicity						
White	5	4.2%	11	4.6%	16	4.4%
Black /African descent	50	41.7%	119	49.6%	169	46.9%
Hispanic/Latino	62	51.7%	108	45.0%	170	47.2%
Other/Unknown	3	2.5%	2	0.8%	5	1.4%
Total	120	100.0%	240	100.0%	360	100.0%
Age at Diagnosis†						
<2	1	0.8%	7	2.9%	8	2.2%
2-12	2	1.7%	2	0.8%	4	1.1%
13-18	1	0.8%	0	0.0%	1	0.3%
19-24	18	15.1%	23	9.6%	41	11.4%
25-44	64	53.8%	145	60.4%	209	58.2%
45-64	30	25.2%	61	25.4%	91	25.3%
65+	3	2.5%	2	0.8%	5	1.4%
Total	119	100.0%	240	100.0%	359	100.0%

*Persons which remained sub-categorized as HIV cases as of December 31, 2008

**Persons sub-categorized as AIDS cases as of December 31, 2008

***The sum of HIV and AIDS cases

†Age at initial diagnosis of HIV disease, regardless of current status (i.e., HIV or AIDS case). Age information was missing for one HIV case.

Cumulatively there have been a total of 360 HIV disease diagnoses whose residence at the time of most recent diagnosis was St. Croix (Table 9). Females represented a greater proportion of persons classified as HIV cases (50%) compared to persons classified as AIDS cases (36%). Blacks/persons of African descent and Hispanics/Latinos represented nearly an equal number of cumulative cases. Hispanics/Latinos represented the largest proportion of cumulative diagnoses which remained classified as HIV cases at the end of 2008 (52%). This differed from the trends observed on St. Thomas and St. John, and was likely due to differences in the composition of the general population (i.e., a greater proportion of the general population on St. Croix was of Hispanic/Latino origin compared to the other islands). The majority of persons were initially diagnosed with HIV disease between 25 to 44 years of age (58%). A greater proportion of persons classified as HIV cases were 19-24 years at the time of initial HIV disease diagnosis (15%) compared to persons classified as AIDS cases (10%).

There have been 208 males diagnosed with HIV disease as an adult/adolescent (>12 years of age) who were residents of St. Croix at the time of most recent diagnosis (Figure 11). Of these males, 29% had no identified risk for how the virus was transmitted. Injection drug users represented the largest number of males with HIV with a known transmission category (49). This differed from the trend observed on the other islands, where men who have sex with men comprised the largest number of HIV disease cases among males. Males acquiring HIV disease through heterosexual contact represented the second largest number of males living with HIV disease with a known transmission category (47). There were 140 females diagnosed with HIV disease as an adult/adolescent who were residents of St. Croix at the time of most recent diagnosis. Of these females, 36% had no identified risk for how the virus was transmitted. Heterosexual contact was the primary transmission category among females with a known transmission category living with HIV disease (66 persons).

Figure 11. Cumulative persons diagnosed with HIV disease by sex and transmission category, St. Croix, 2008

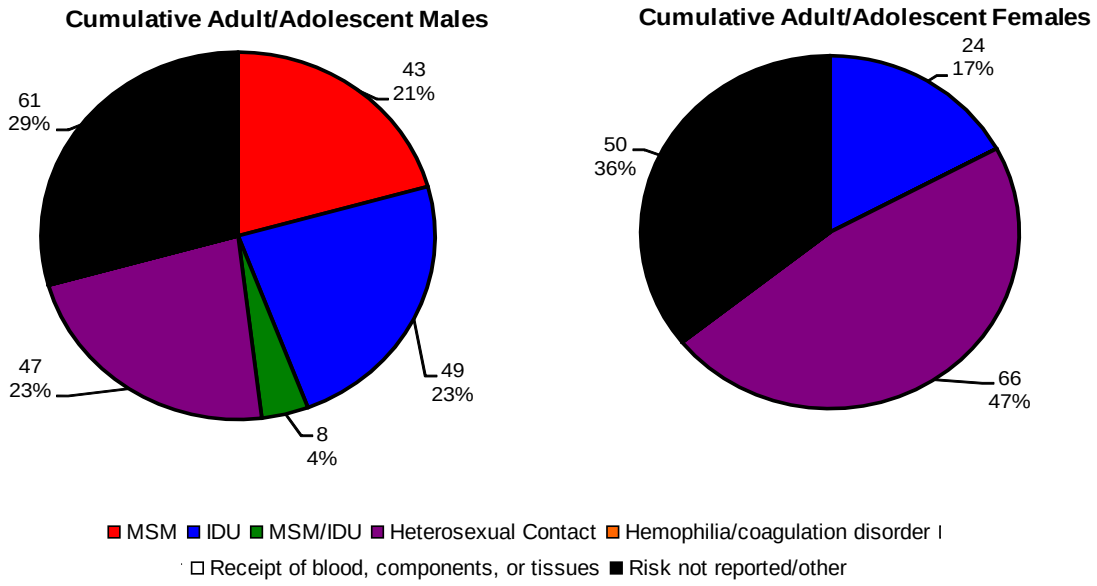


Table 10. Cumulative HIV, AIDS, and HIV/AIDS cases by sex, race/ethnicity, and age at diagnosis, St. John and St. Thomas, 2008

	HIV*		AIDS**		HIV Disease***	
	Cases	%	Cases	%	Cases	%
Sex						
Male	93	57.4%	258	68.6%	351	65.2%
Female	69	42.6%	118	31.4%	187	34.8%
Total	162	100.0%	376	100.0%	538	100.0%
Race/Ethnicity						
White	20	12.3%	40	10.6%	60	11.2%
Black/African descent	117	72.2%	291	77.4%	408	75.8%
Hispanic/Latino	22	13.6%	44	11.7%	66	12.3%
Other/Unknown	3	1.9%	1	0.3%	4	0.7%
Total	162	100.0%	376	100.0%	538	100.0%
Age at Diagnosis†						
<2	0	0.0%	3	0.8%	3	0.6%
2-12	3	1.9%	2	0.5%	5	0.9%
13-18	3	1.9%	3	0.8%	6	1.1%
19-24	13	8.0%	19	5.1%	32	5.9%
25-44	110	67.9%	237	63.0%	347	64.5%
45-64	30	18.5%	100	26.6%	130	24.2%
65+	3	1.9%	12	3.2%	15	2.8%
Total	162	100.0%	376	100.0%	538	100.0%

*Persons which remained sub-categorized as HIV cases as of December 31, 2008

**Persons sub-categorized as AIDS cases as of December 31, 2008

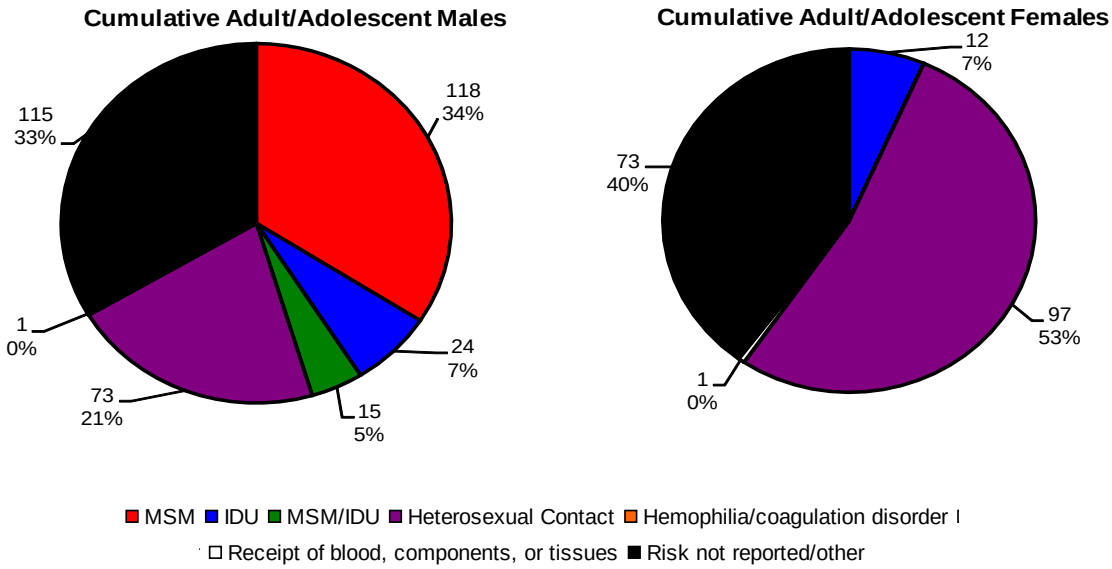
***The sum of HIV and AIDS cases

†Age at initial diagnosis of HIV disease, regardless of current status (i.e., HIV or AIDS case)

Data regarding cumulative HIV/AIDS diagnoses were combined for St. Thomas and St. John, as only 13 cumulative cases have been reported among residents of St. John (Table 10). A total of 525 HIV disease diagnoses have cumulatively been reported among residents of St. Thomas. Females represented a smaller proportion of HIV disease cases on St. Thomas and St. John (35%) compared cases reported among St. Croix residents (41%). Similar to the trends observed on St. Croix, females comprised a greater proportion of persons classified as HIV cases (43%) compared to the proportion classified as AIDS cases (31%). Blacks/persons of African descent represented the majority of persons classified as HIV cases (72%) and those classified as AIDS cases (77%). The majority of persons were initially diagnosed with HIV disease between 25 to 44 years of age (64%). A slightly greater proportion of persons classified as HIV cases were 19-24 years at the time of initial HIV disease diagnosis (8%) compared to persons classified as AIDS cases (5%).

There have been 346 males diagnosed with HIV disease as an adult/adolescent (>12 years of age) who were residents of St. Thomas or St. John at the time of most recent diagnosis (Figure 12). Of these males, 33% had no identified risk for how the virus was transmitted. Men who have sex with men represented the largest number of males with HIV with a known transmission category (118). Males acquiring HIV disease through heterosexual contact represented the second largest number of males living with HIV disease with a known transmission category (73). There were 183 females diagnosed with HIV disease as an adult/adolescent who were residents of St. Thomas or St. John at the time of most recent diagnosis. Of these females, 40% had no identified risk for how the virus was transmitted. Heterosexual contact was the primary transmission category among females with a known transmission category living with HIV disease (97 persons).

Figure 12. Cumulative persons diagnosed with HIV disease by sex and transmission category, St. John and St. Thomas, 2008



SUMMARY FOR QUESTION 2:

- Although the number of persons living with HIV disease in the USVI has continued to increase every year, the number of new HIV disease diagnoses has remained generally stable for the last five years.
- The rate of persons living with HIV disease was greatest among Hispanic/Latinos, with greater than 1% of this population living with HIV disease. On St. Croix, persons of Hispanic/Latino origin represented nearly an equal number of cumulative HIV disease diagnoses reported compared to Blacks/persons of African descent, although Hispanics/Latinos represented only 21% of St. Croix's population.
- USVI residents born in Haiti and the Dominican Republic represented a disproportionate number of HIV diagnoses. Culturally appropriate prevention strategies are needed for these populations.
- Males, blacks/persons of African descent, persons 45-64, and men who have sex with men were associated with a greater risk of progressing to AIDS in less than 12 months following their initial diagnosis. It would be beneficial to increase testing efforts to identify persons earlier in their disease progression among the categories identified.
- The population of persons living with HIV disease continued to age, with the largest number of persons living with the disease currently between 45-64 years of age.
- Among male residents on St. Croix, efforts should be targeted toward injection drug users and persons reporting heterosexual contact as their primary risk. On St. Thomas and St. John efforts among males should be targeted toward men who have sex with men and those reporting heterosexual contact.
- Among female residents on all islands, prevention efforts should be targeted toward females reporting heterosexual contact as their primary risk.
- Among both sexes, additional investigative efforts should be enacted to improve the identification of transmission category information.

Question 3: Who in the US Virgin Islands is at risk of becoming infected with HIV/AIDS?

This question addresses behaviors that place individuals at risk for becoming infected with HIV/AIDS. This question incorporates a variety of data sources to provide added perspective about the populations in the USVI who could be at risk for becoming infected with HIV/AIDS.

Heterosexuals

Data on teen pregnancy rates and STD rates can be viewed as an indicator of risky behavior in the target population. Unprotected sexual intercourse can lead to unintended pregnancy and is also a risk factor for HIV infection. Reviewing teen pregnancy rates provides a glimpse into heterosexual contact among youth in the region. Teen pregnancy data must be interpreted with some caution as the data includes intended pregnancies as well as unintended pregnancies.

According to data collected and analyzed by the CDC National Center for Health Statistics, the birth rate among teenagers 15-19 years of age decreased by 36% from 1991 to 2005 (77.9 to 50.0 per 1,000) in the USVI. There was not a significant difference in the teenage birth rates between 2005 and 2006 in the USVI. In comparison, the birth rate among teenagers 15-19 years of age decreased by 34% from 1991 to 2005 (61.8 to 40.5 per 1,000) in the US overall, excluding data from US dependent areas. The teenage birth rate increased by 3% from 2005 to 2006. Despite the increase in the US teenage birth rates from 2005 to 2006, the birth rate among teenagers 15-19 years of age in 2006 was lower in the US (41.9 per 1,000) compared to the USVI (49.6 per 1,000) (Table 11). The difference in the 2006 birth rates between the USVI and US was primarily due to differences in the birth rates among teenagers 18-19 years of age (114.4 vs. 73.0 per 1,000).

Table 11. Birth rates per 1,000 among teenagers 15-19 years of age, USVI and US*, 2006

	Birth Rate per 1,000 population	
Age Group (in years)	**USVI**	**US***
15-17	20.0	22.0
18-19	114.4	73.0
Total 15-19	**49.6**	**41.9**

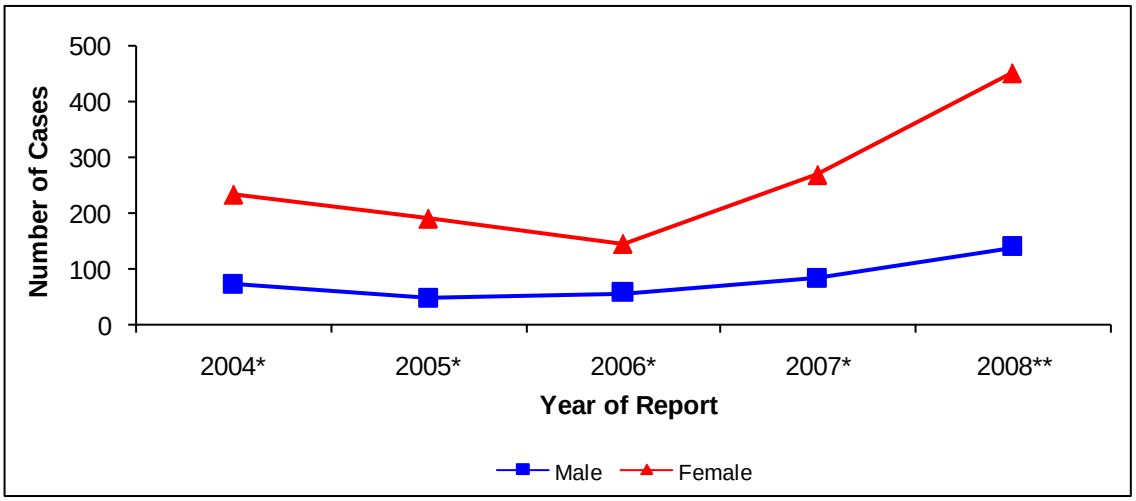
*Excludes data from US dependent areas

Source: The Centers for Disease Control and Prevention, National Vital Statistics Reports. Births: Final Data for 2006, Vol. 57 No. 7, 1/7/2009. http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_07.pdf. Accessed 4/28/09.

Sexually transmitted disease (STD) surveillance includes all patients who are diagnosed with a reportable disease in the USVI. Data are reported to the VIDOH STD Surveillance Section, who subsequently forwards this information to CDC. **STD data may under-represent the true epidemic, as not all cases are reported.** In addition, not all persons infected with an STD display symptoms, and often do not seek testing or treatment. The current STD surveillance system relies on passive collection of data from individuals with sexually transmitted diseases. It is unclear whether this system collects or receives complete information from private physicians.

Overall, the number of reported chlamydia cases in the USVI decreased from 2004 to 2006, and then increased from 2006 to 2008 (Figure 13). The ratio of female to male chlamydia cases was lowest in 2006 at 2.6:1 reported females to males, and highest in 2005 at 4.1:1 reported females to males. The rate of reported chlamydia cases in 2007 was lower in the USVI (320.0 per 100,000) compared to the US and dependent areas overall (368.1 per 100,000).

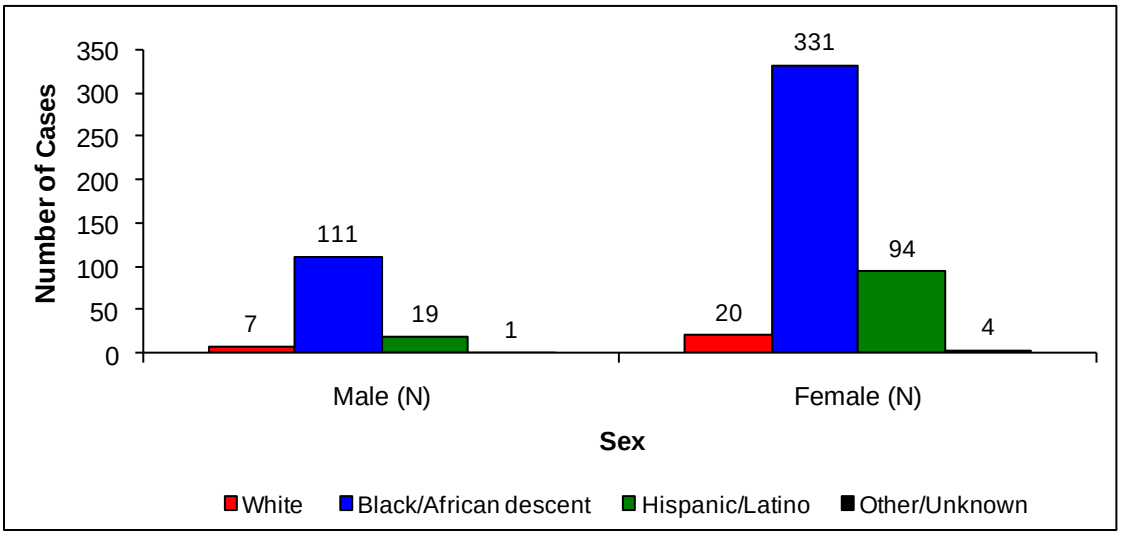
Figure 13. Reported chlamydia cases by sex, USVI, 2004-2008



Sources:
*Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance, 2007*. Atlanta, GA: U.S. Department of Health and Human Ser vices; December 2008.
**VIDOH STD/HIV/TB Program

In 2008, there were 587 chlamydia cases reported in the USVI (Figure 14). Ninety-three percent of cases were reported by public clinics, public hospitals, or other public institutions. The majority of chlamydia cases in 2008 were reported among females (76%). Among both males and females, blacks/persons of African descent represented the largest number of reported cases. Persons of Hispanic/Latino origin represented 21% of reported female cases, but only 14% of reported male cases.

Figure 14. Reported chlamydia cases by sex and race/ethnicity, USVI, 2008



Source: VIDOH STD/HIV/TB Program

Persons 20-29 years of age represented the largest number of reported chlamydia cases among both males and females in 2008 (Table 12). A greater proportion of reported chlamydia cases among females were 15-19 years age (38%) compared to males (17%).

Table 12. Reported chlamydia cases by sex and age at diagnosis, USVI, 2008

Age Group	Sex			
	Male		Female	
	N	%	N	%
Under 10	0	0.0%	0	0.0%
10-14	0	0.0%	4	0.9%
15-19	24	17.4%	170	37.9%
20-29	92	66.7%	246	54.8%
30-39	13	9.4%	25	5.6%
40-44	7	5.1%	3	0.7%
Over 44	2	1.4%	1	0.2%
Unknown	0	0.0%	0	0.0%
Total	**138**	**100.0%**	**449**	**100.0%**

Source: VIDOH STD/HIV/TB Program

Although the rate of reported chlamydia cases among women has remained lower in the USVI compared to the US between 2004 and 2005, the percent of women at selected family planning and prenatal clinics that tested positive for chlamydia was higher in the USVI compared to the US (Table 13). This may reflect more selective screening of women in the USVI.

Table 13. Chlamydia positivity in women 15 to 24 years by testing site, US and USVI, 2007

		USVI		US
Testing Site	**No. Clinics**	**No. Tested**	**% Positive**	**% Positive**
Family Planning	3	1,036	16.8	6.9
STD	2	186	26.3	N/A
Prenatal	4	381	20.7	7.4

Source: Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2007 Supplement, Chlamydia Prevalence Monitoring Project Annual Report 2007*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; January 2009.

Among sites in the USVI participating in the infertility prevention project (IPP), the chlamydia positivity rate was greatest for females 15 to 19 years of age in 2007 (Table 14). In 2007, 24.2% of females between 15 and 19 years of age tested for chlamydia were positive. Among females 15 to 19 years of age, the proportion of females testing positive was greatest among residents of St. John (37%), although the total number of positive tests was greatest on St. Croix (93 positive testes). The proportion testing positive for chlamydia was greatest on St. Thomas among females 20-24 years of age (18%), but the largest number of positive cases were from St. Croix (86 cases).

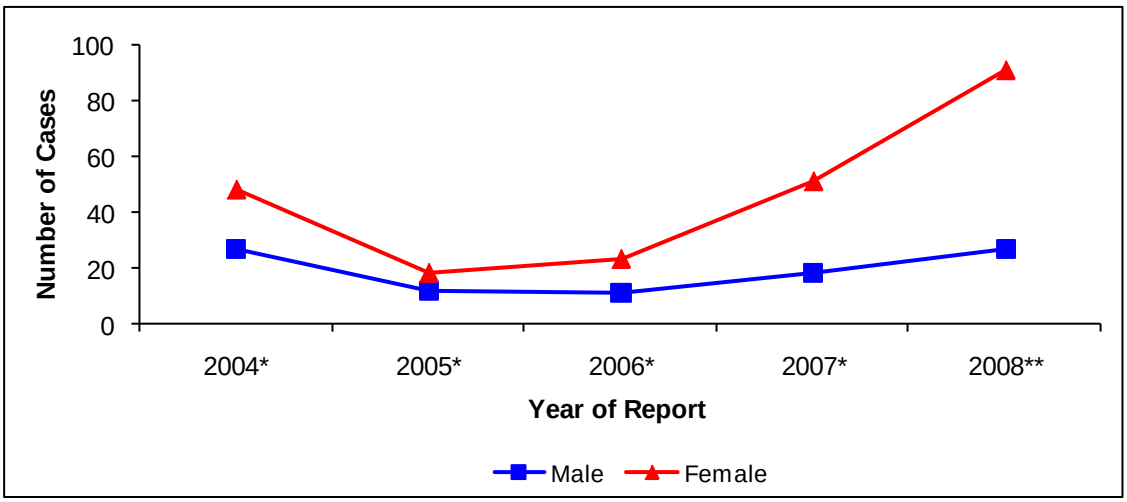
Table 14. Female chlamydia positivity by client's island of residence and selected age group, USVI infertility prevention project (IPP), 2007

Client's Island of Residence	**15-19 years of age**				**20-24 years of age**			
(USVI locations only)	**# Tests**	**# Pos**	**% Pos**	**Rank***	**# Tests**	**# Pos**	**% Pos**	**Rank***
St Croix	416	93	22.4%	1	626	86	13.7%	1
St Thomas	210	55	26.2%	2	377	67	17.8%	2
St John	27	10	37.0%	3	39	5	12.8%	3
Total	**653**	**158**	**24.2%**		**1,042**	**158**	**15.2%**	

*Ranked by largest number of positive test results

The rate of reported gonorrhea cases was lower in the USVI compared to the US and dependent areas overall in 2007 (63.5 vs. 117.4 per 100,000). Overall in the USVI, the number of reported gonorrhea cases decreased from 2004 to 2005, and then increased from 2005 to 2008 (Figure 15). The ratio of female to male gonorrhea cases was lowest in 2005 at 1.5:1 reported females to males, and highest in 2008 at 3.4:1 reported females to males.

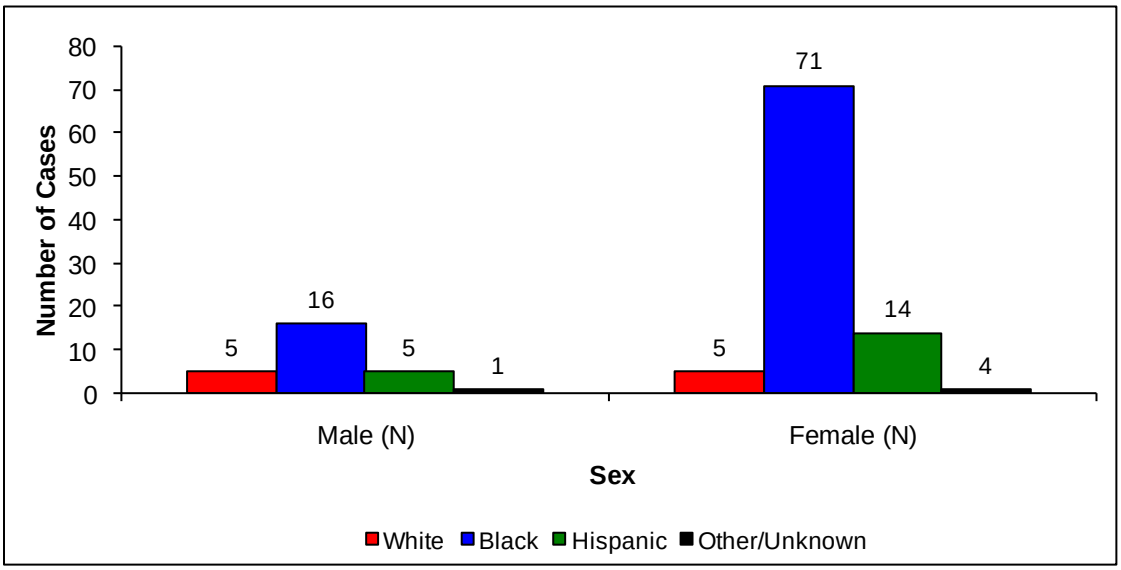
Figure 15. Reported gonorrhea cases by sex, USVI, 2004-2008



Sources:
*Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance, 2007*. Atlanta, GA: U.S. Department of Health and Human Ser vices; December 2008.
**VIDOH STD/HIV/TB Program

In 2008, there were 118 gonorrhea cases reported in the USVI (Figure 16). Ninety-six percent of cases were reported by public clinics, public hospitals, or other public institutions. The majority of gonorrhea cases in 2008 were reported among females (77%). Blacks/persons of African descent represented 78% of reported cases among females, compared to 59% of cases among males. Persons of Hispanic/Latino origin represented 19% of reported male cases, and 15% of reported female cases.

Figure 16. Reported gonorrhea cases by sex and race/ethnicity, USVI, 2008



Source: VIDOH STD/HIV/TB Program

Persons 20-29 years of age represented the largest number of reported gonorrhea cases among both males and females in 2008 (Table 15). A greater proportion of reported gonorrhea cases among females were 15-19 years age (47%) compared to males (22%).

Table 15. Gonorrhea cases by sex and age at diagnosis, USVI, 2008

Age Group	Sex			
	Male		Female	
	N	%	N	%
Under 10	0	0.0%	0	0.0%
10-14	0	0.0%	1	1.1%
15-19	6	22.2%	43	47.3%
20-29	16	59.3%	46	50.5%
30-39	3	11.1%	0	0.0%
40-44	2	7.4%	0	0.0%
Over 44	0	0.0%	1	1.1%
Unknown	0	0.0%	0	0.0%
Total	**27**	**100.0%**	**91**	**100.0%**

Source: VIDOH STD/HIV/TB Program

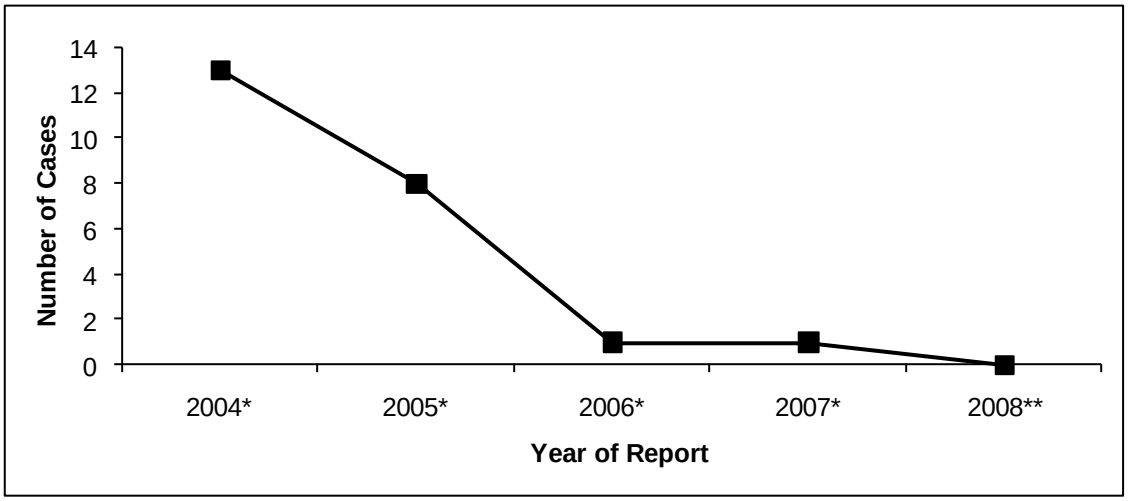
Among sites in the USVI participating in the infertility prevention project (IPP), the overall gonorrhea positivity rate was only 3% compared to the chlamydia positivity rate of 16%. However, similar to trends observed for chlamydia, the gonorrhea positivity was greatest for females 15 to 19 years of age in 2007 (Table 16). In 2007, 4% of females between 15 and 19 years of age tested for gonorrhea were positive. Among females 15 to 19 years of age, the proportion and number of females testing positive were greatest among residents of St. Thomas. The number of positive tests and percent positive for gonorrhea were also greatest for St. Thomas residents among females 20-24 years of age.

Table 16. Female gonorrhea positivity by client's island of residence and selected age group, USVI infertility prevention project (IPP), 2007

Client's Island of Residence	15-19 years of age				20-24 years of age			
(USVI locations only)	# Tests	# Pos	% Pos	Rank	# Tests	# Pos	% Pos	Rank
St Thomas	211	19	9.0%	1	375	19	5.1%	1
St Croix	418	7	1.7%	2	628	13	2.1%	2
St John	27	0	0.0%	3	39	1	2.6%	3
Total	**656**	**26**	**4.0%**		**1,042**	**33**	**3.2%**	

The number of reported early syphilis cases in the USVI declined from 2004 to 2008 (Figure 17). Early syphilis cases include persons reported with primary, secondary, or early latent syphilis. In 2008 there were no cases of reported early syphilis.

Figure 17. Reported early syphilis[a] cases, USVI, 2004-2008



[a] Includes reported primary, secondary, and early latent syphilis cases
Sources:
*Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance, 2007*. Atlanta, GA: U.S. Department of Health and Human Ser vices; December 2008.
**VIDOH STD/HIV/TB Program

HIV Counseling and Testing

The most recent data available from counseling and testing sites were on individuals seeking HIV counseling and testing through December 2008. The HIV counseling and testing system allows individuals to test confidentially. Individuals can seek tests multiple times during the year, and the data system does not un-duplicate the results. Therefore, there is potential for an individual to be counted multiple times through this system. Data from this system indicate risk behaviors of test seekers. It may not be generalizable to the entire USVI population.

The number of HIV tests at counseling and testing sites increased in the USVI overall from 2004 to 2008 (Figure 18). The number of tests conducted among residents of St. Thomas increased nearly five-fold between 2004 and 2008, and by nearly three-fold among residents of St. John. In 2008, there were 3,939 confidential tests. Fifteen of the 3,939 confidential test seekers tested positive (0.4%). The percent of HIV tests conducted at counseling and testing sites in the USVI fluctuated between 2004 and 2008, with the highest percent positivity occurring in 2006 at 1.3% (Figure 19).

It is interesting to note 83% of the confidential test seekers were black/persons of African descent, while only 47% of those testing HIV positive were black/persons of African descent (Table 17). Whites and persons who declined to answer or did not know their race had the highest percent positivity. Hispanics/Latinos represented 53% of those with positive confidential tests, but only represented 22% of the confidential test seekers. Persons 35 to 44 years of age had the highest percent positivity among the age groups (1.0%). Although males comprised only 40% of confidential test seekers, they represented 53% of persons testing positive.

Figure 18. Number of HIV tests at counseling and testing sites by island, USVI, 2004-2008

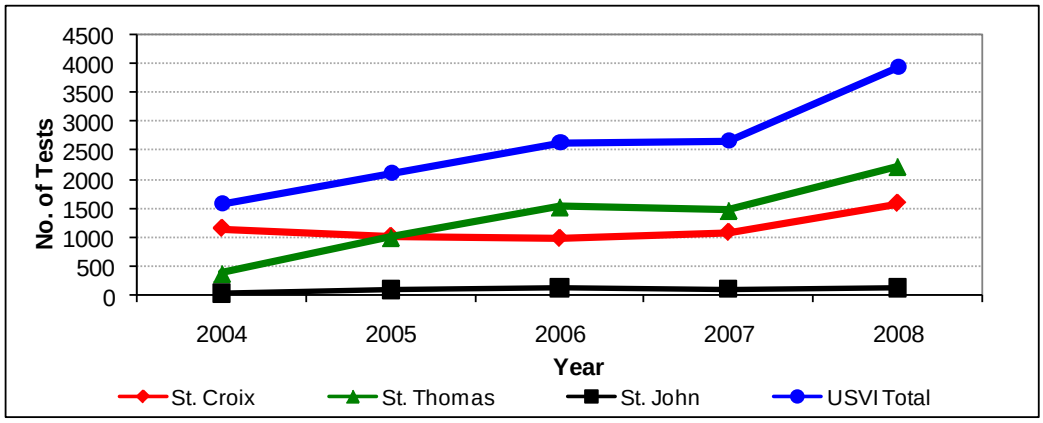


Figure 19. Percent positive HIV tests at counseling and testing sites by island, USVI, 2004-2008

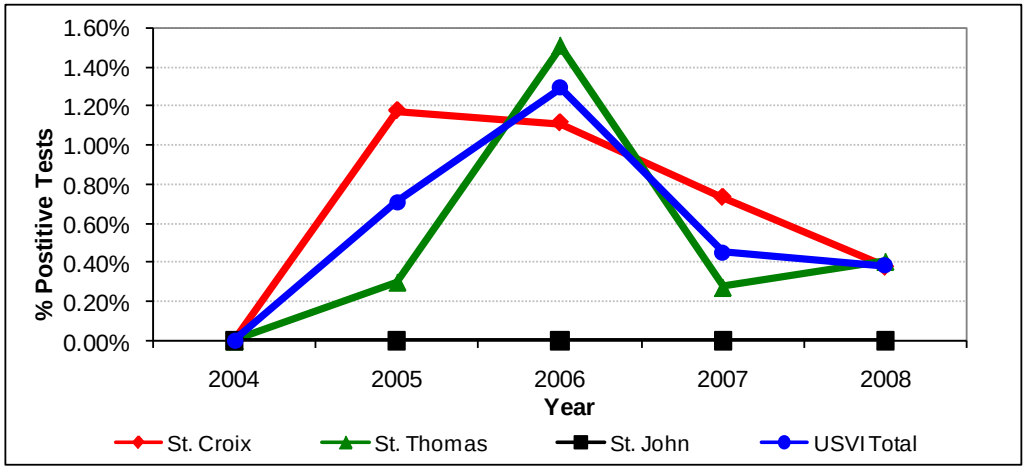


Table 17. HIV tests and positivity among counseling and testing sites, USVI, 2008

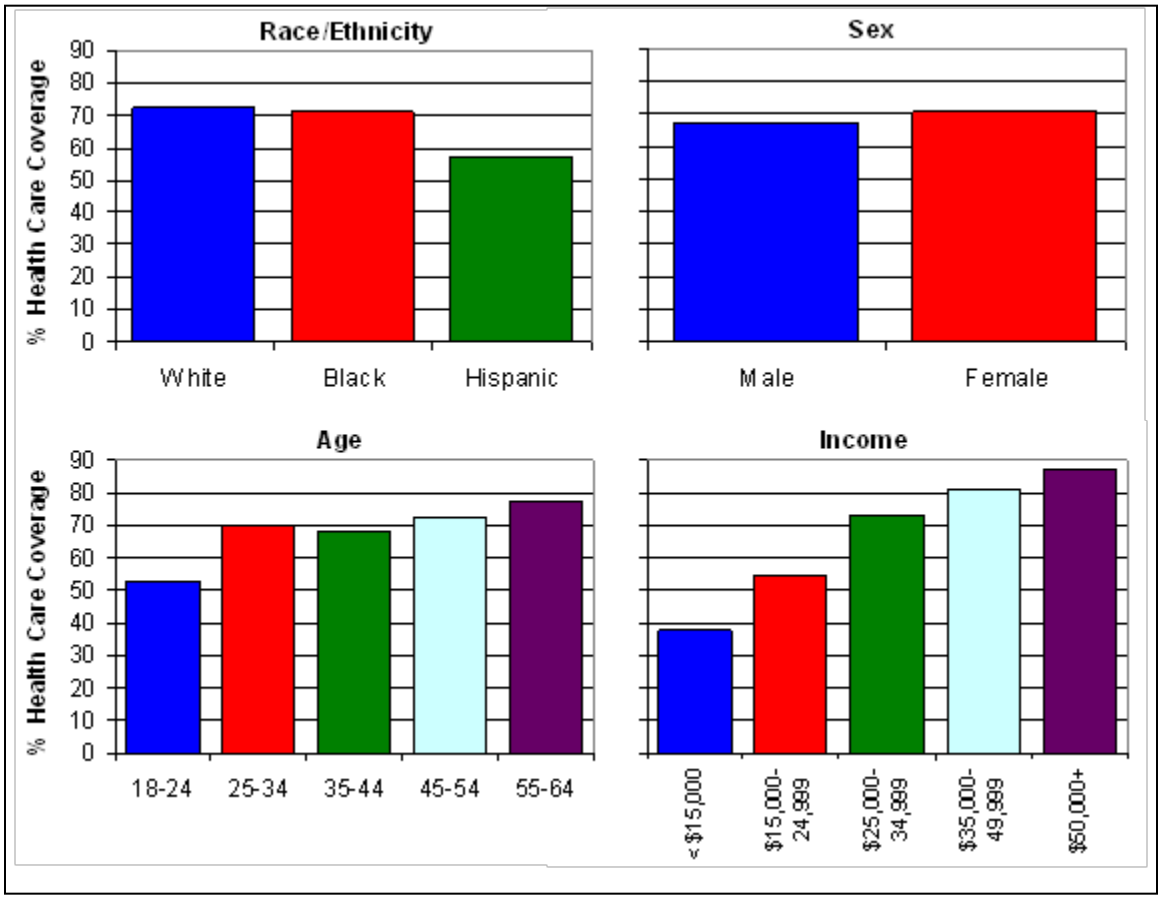
	No. of Tests (%)	No. of Positive Tests (%)	% Positivity
Race			
White	186 (4.7%)	2 (13.3%)	1.1%
Black/African descent	3283 (83.3%)	7 (46.7%)	0.2%
Native Hawaiian	7 (0.2%)	0 (0.0%)	0.0%
Asian	9 (0.2%)	0 (0.0%)	0.0%
American Indian	23 (0.6%)	0 (0.0%)	0.0%
Don't Know	277 (7.0%)	4 (26.7%)	1.4%
Declined	125 (3.2%)	2 (13.3%)	1.6%
Multiple Race	29 (0.7%)	0 (0.0%)	0.0%
Unknown	0 (0.0%)	0 (0.0%)	N/A
Ethnicity			
Hispanic/Latino	868 (22.0%)	8 (53.3%)	0.9%
Non-Hispanic/Latino	2968 (75.3%)	7 (46.7%)	0.2%
Don't Know	60 (1.5%)	0 (0.0%)	0.0%
Declined	39 (1.0%)	0 (0.0%)	0.0%
Unknown	4 (0.1%)	0 (0.0%)	0.0%
Age Group			
<13	0 (0.0%)	0 (0.0%)	N/A
13-18	32 (0.8%)	0 (0.0%)	0.0%
19-24	1069 (27.1%)	4 (26.7%)	0.4%
25-34	927 (23.5%)	2 (13.3%)	0.2%
35-44	575 (14.6%)	6 (40.0%)	1.0%
45+	770 (19.5%)	3 (20.0%)	0.4%
Unknown	566 (14.4%)	0 (0.0%)	0.0%
Sex			
Male	1591 (40.4%)	8 (53.3%)	0.5%
Female	2346 (59.6%)	7 (46.7%)	0.3%
Transgender FTM	2 (0.1%)	0 (0.0%)	0.0%
Unknown	0 (0.0%)	0 (0.0%)	N/A
Total	**3939**	**15**	**0.4%**

Behavioral Risk Factor Surveillance System (BRFSS) data

Inadequate access to health care is a barrier for diagnosing and effectively treating STDs and HIV[1]. Individuals without health care coverage will likely have a more difficult time accessing needed health care services. A significantly lower of percentage of USVI residents have any kind of health care coverage compared to the US and dependent areas overall. According to data from the BRFSS, only 69% of USVI adults 18-64 years of age reported having any kind of health care coverage in 2008, compared to 83% of adults in the US and dependent areas overall. In 2008, there were significant differences in the proportion of adults with any kind of health care coverage in the USVI by race/ethnicity, age, and income level (Figure 20). There was not a significant difference in health care coverage by sex. Health care coverage status may be important when targeting HIV testing efforts and developing plans to ensure persons diagnosed with HIV disease are receiving medical care.

[1] TR Eng and WT Butler, *The hidden epidemic: confronting sexually transmitted diseases* (Washington DC: National Academy Press, 1997), p. 162.

Figure 20. Percentage of adults 18-64 years of age with any kind of health care coverage by race/ethnicity, by sex, by age, and by income, USVI, 2008



Source: Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data.* Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008.

Binge alcohol consumption has been associated with a greater likelihood of engaging in behaviors that increase the risk of becoming infected with HIV and other STDs.[2] Studies have shown that binge alcohol use was associated with a greater likelihood of engaging in unprotected intercourse[3] and has been linked to an increased number of sexual partners among men who have sex with men[4]. Research has also suggested that alcohol consumption can accelerate HIV disease progression[5]. Data from the BRFSS regarding alcohol consumption can provide information about specific populations that may be at increased risk for engaging in unsafe sexual practices, and once infected may be more likely to have accelerated disease progression. Data from the BRFSS indicated that 12% of USVI adults reported binge drinking within 30 days prior to completing the survey. Binge drinking was defined as five or more drinks on one occasion for males, and four or more drinks on a single occasion for females. The percentage of adults reporting binge drinking behavior in 2008 was lower in the USVI compared to the US and dependent areas overall (16%). Among USVI adults, a significantly greater percentage of males

[2] Koblin BA, et al. *Risk factors for HIV infection among men who have sex with men*. AIDS 2006; 20:731-739.
[3] Raj, A et al. *The associations of binge alcohol use with HIV/STI risk and diagnosis among heterosexual African American men.* Drug and Alcohol Dependence. 2009; 101 (1-2): 101-106.
[4] New York City Department of Health and Mental Hygiene. *Alcohol use and risky sex in New York City*. NYC Vital Signs 2008; 7(6): 1-4.
[5] Samet, J et al. *Alcohol consumption and HIV disease progression.* Journal of Acquired Immune Deficiency Syndromes 2007; 46(2): 194-199.

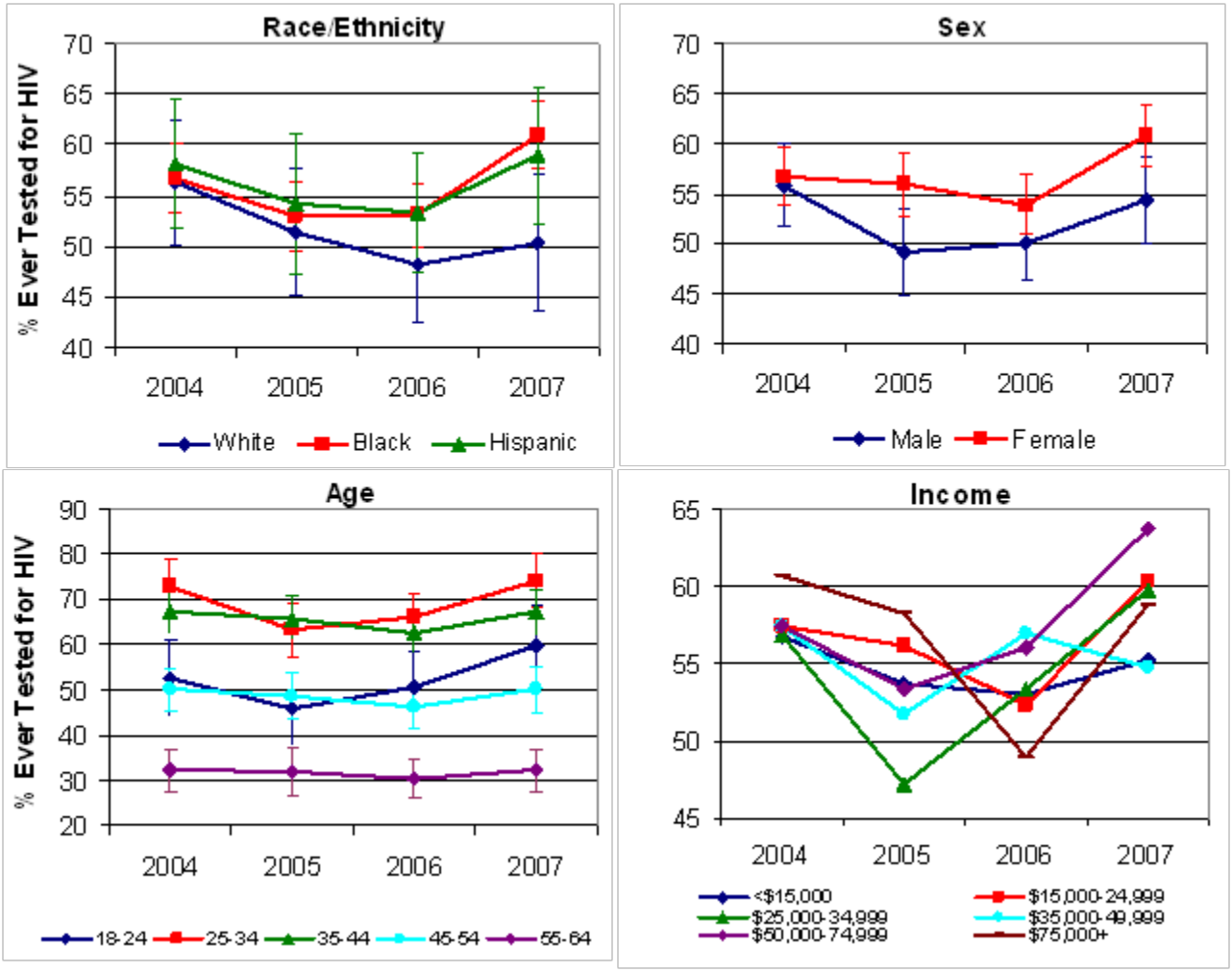
reported binge drinking in the past 30 days (20%) compared to females (6%) in 2008. Whites were more likely to report binge drinking behavior (31%) compared to blacks/persons of African descent (8%), and Hispanics/Latinos (13%). There were not significant differences in the percentage of persons reporting binge drinking behavior based on age or income level. In 2008, 6% of USVI adults were classified as heavy drinkers. Heavy drinkers were defined as persons having more than two drinks per day on average over the 30 prior to completing the survey for males and more than one drink per day for females. The percentage of USVI adults reporting heaving drinking behavior in 2008 was similar to the percentage in the US and dependent areas overall (5%). Similar differences were observed by sex and race/ethnicity among heavy drinkers as seen among persons reporting binge drinking behavior. As income increased, a greater percentage of USVI adults reported heavy drinking behavior.

Data regarding questions related to HIV testing were available through 2007 from the Behavioral Risk Factor Surveillance System (BRFSS) survey. Questions related to HIV were only asked to persons less than 65 years of age. The data presented on the proportion of persons that had ever been tested for HIV include the proportion as well as 95% confidence interval, using error bars, associated with the estimate by race/ethnicity, sex, and age from the survey years between 2004 and 2007. Errors bars were not included for the figure by income because the large number of data series in the chart made it difficult to visualize the error bars. The data from the BRFSS were based on a survey and the measurements obtained were from only a sample of the population. Therefore, the proportions calculated in the survey may not truly reflect the entire population. The confidence interval represents the range in which the proportion for the entire population likely falls. When assessing differences between groups or over time, only proportions where the error bars do not overlap should be considered significant differences.

Data indicated that slightly more than half of the population in the USVI has ever been tested for HIV. There was not a significant difference in the proportion of the USVI population that had ever been tested between 2004 and 2007 (Figure 21). A slightly greater proportion of blacks/persons of African descent had ever been tested for HIV in 2007 compared to 2005 and 2006. The proportion of blacks/persons of African decent that had ever been tested was not different between 2004 and 2007. There were not significant differences over time in the proportion of persons ever tested for HIV among whites or Hispanic/Latinos. In 2007, a significantly greater proportion of blacks/persons of African descent had ever been tested (61%) compared to whites (50%). There were not significant differences in the proportion of the population that had been tested by sex, or by year among males or females. Within each age group, there were not significant changes in the proportion of persons ever tested for HIV between 2004 and 2007. The proportion ever testing for HIV was higher among 25-34 and 35-44 year olds compared to the other age groups in all years between 2004 and 2007. There were not significant differences in the proportion of the population that had been tested by income or by year among each income category. The trends in testing behavior obtained from the BRFSS survey correlate with the populations known to be most affected by HIV disease (i.e., blacks/persons of African descent and individuals 25-44 years of age).

Among persons completing the BRFSS survey who indicated they had ever been tested for HIV, the greatest proportions were last tested for HIV by a private doctor or at a hospital or clinic. In 2007, there was not a significant difference in the proportion of persons who last tested at a private doctor or HMO (40%) compared to hospital or clinic (38%). In 2007, only 8% of those ever tested for HIV reported that their last test was at a counseling and testing site. The majority of persons ever tested did not receive a rapid HIV test at the time of their most recent testing (70%) in 2007. Directing continuing education on new HIV testing and prevention methods to private physicians, hospitals, and clinics may be beneficial for reaching the majority of persons that are being tested for HIV.

Figure 21. Percent of adults 18-64 years of age that have ever been tested for HIV (not including tests as part of a blood donation), USVI, 2004-2007



Source: USVI. *Behavioral Risk Factor Surveillance System Survey Data.* St. Croix, USVI, 2004-2007.

Perinatal Exposure to HIV

Cumulatively through December 2008 there have been 71 children reported with a confirmed or suspected perinatal exposure to HIV. Of the 71 exposures, 20 (28%) were confirmed to be infected with HIV disease, 26 (37%) were seroconverters (i.e., known to **not** be HIV infected), and 25 (35%) of perinatal exposures had an unknown infection status. Blacks/persons of African descent represented the largest number of perinatal exposures (n=51), followed by Hispanics/Latinos (n=19). Among the five perinatal exposures reported in 2008, one child was confirmed to be infected with HIV disease, one was known to be not infected, and three had an unconfirmed infection status at the end of 2008. Perinatal transmission of HIV can be prevented through appropriate treatment of the mother and/or child. It is important physicians know the HIV status of their pregnant clients in order to provide appropriate treatment to prevent HIV transmission.

SUMMARY FOR QUESTION 3:

- The number of reported chlamydia and gonorrhea cases has increased from 2006 to 2008. This may represent increased testing and improved surveillance, but may also indicate a true increase in the number of infections and risky sexual behaviors.
- The largest numbers of reported chlamydia and gonorrhea cases were among individuals 20-29 years of age. This may indicate a greater frequency of unprotected sexual intercourse, and an increased risk of becoming infected with HIV in this age group.

- The low percentage of persons 18-24 years of age with any kind of health insurance indicates access to healthcare is likely more difficult among this age group. It may be beneficial to target testing efforts and plans to ensure persons diagnosed with HIV are receiving medical care to persons 18-24 years of age.
- Binge drinking was greatest among males and whites. Interventions should target these groups to reduce risk behaviors associated with becoming infected with HIV.
- Patterns among the USVI population for ever being tested for HIV correlate with the populations known to be most impacted by HIV disease, blacks/persons of African descent and persons 25-44 years of age.
- Continuing education should be offered to private physicians, hospitals, and clinics on new HIV testing and prevention strategies, as these represent the locations where the majority of persons were last tested for HIV disease among the general USVI population.
- HIV testing among pregnant women should be expanded so appropriate preventative treatment can be provided to eliminate perinatal transmission of HIV.
- More data are needed regarding indicators of risk among men who have sex with men and injection drug users, as they represent a large number of reported HIV cases (see Question 2).

Question 4: What are the patterns of service utilization of HIV-infected persons in the US Virgin Islands?

Data from the Ryan White CARE Act Data Report (CADR) and the AIDS Drug Assistance Program (ADAP) Quarterly Data Report provide the basis for interpretation and analysis included in this section. The most recently available CADR provided data regarding services provided to person infected (HIV-positive) and affected (HIV-negative) using CARE Act funds in 2006. Data regarding the USVI ADAP were available through September 30, 2008. The ADAP Data Report provides information regarding the number of clients served by the ADAP and demographic characteristics of the clients. These data provide a proxy for persons receiving medical and case management services who are impacted by HIV disease. However, the data only represent persons utilizing services funded by the CARE Act program, which may not be representative of all persons receiving HIV services in the USVI.

In 2006, 165 unduplicated clients received services from the CARE Act programs in the USVI, approximately 30% of all persons known to be living with HIV disease in the USVI. Of the 165 clients, 98% (n=161) were known to be HIV-positive, three clients were under the age of two years of age with an unknown HIV status (HIV-indeterminate), and one client was not HIV-positive, but was affected by HIV disease. In 2006, 31 HIV-positive individuals were newly enrolled into the CARE Act programs, and two persons under the age of two years old with an unknown HIV status were also newly enrolled.

Examining the distribution of demographic characteristics of CARE Act clients and the general population living with HIV disease provides information regarding differences in the population that utilize CARE Act services compared to the general population living with HIV. Differences may result because certain groups are more likely to utilize private sources to obtain services, but could also suggest areas where certain population may be under-represented in the utilization of services (Table 18). The distribution by sex and current age were similar between CARE Act clients and the general population. Blacks/persons of African descent represented a greater proportion of CARE Act clients (68%) compared to the proportion they represented of all persons living with HIV disease (60%). In contrast, Hispanic/Latinos represented a smaller proportion of CARE Act clients (23%) compared to the proportion in the general population living with HIV disease (29%). The underrepresentation of Hispanic/Latinos receiving CARE Act services may result from language and cultural barriers that could make it difficult to enroll these individuals in CARE Act services. Additional outreach to persons of Hispanic/Latino origin may be beneficial for improving service utilization among this group. Differences between CARE Act clients and the general population living with HIV disease by transmission category could not be interpreted due the large proportion of individuals with no reported risk among the general population (33%). The proportion with no reported risk may be greater for the general population because transmission category classification in this group was based on CDC standards, where in order for an individual to be classified under the heterosexual transmission category persons must have reported heterosexual risk with a person known to be infected with HIV, or with a person who has risk behaviors (i.e., injection drug use, received clotting factors, etc.) associated with HIV infection. A less restrictive definition regarding transmission via heterosexual contact was utilized for CARE Act data reporting. A greater proportion of the general population living with HIV disease were classified as AIDS at the end of 2006 (58%) compared to CARE Act clients (44%). This suggests that persons in the later stages of disease progression, who are more likely to need medical care, were less likely to access services through CARE Act funded programs. Additional outreach efforts to should target those in the later stages of disease progression to ensure they are receiving appropriate treatment.

Table 18. Descriptive characteristics of HIV-positive/indeterminate Ryan White CARE Act clients and all persons living with HIV disease, USVI, 2006

Characteristic	CARE Act Clients, % (n=164)	Living with HIV disease, USVI % (n=519)
Sex		
Male	59	58
Female	41	42
Age		
< 13 year	2	1
13-24 years	4	3
25-44 years	48	47
45-64 years	42	44
> 64 years	4	5
Unknown	0	<1
Race/Ethnicity		
White*	9	10
Black/African descent*	68	60
Hispanic/Latino	23	29
Unknown	0	1
Transmission Category		
Men who have sex with men	21	17
Injection drug use	6	12
Men who have sex with men and inject drugs	<1	2
Heterosexual contact	63	34
Hemophilia/coagulation disorder	<1	0
Receipt of blood, components, or tissue	<1	<1
Perinatal Exposure	1	2
Risk not reported	8	33
Diagnostic Status**		
HIV, not AIDS	54	42
AIDS	44	58
Unknown	2	0

***Does not include persons of Hispanic/Latino ethnicity.
**Only includes those known to be HIV-positive.

Of the 160 unduplicated HIV positive clients with known insurance information, nearly 50% reported having no insurance, 11% were on Medicare, 16% utilized Medicaid, 19% reported private insurance, and 4% reported other types of insurance. There were 30 clients that participated in the health insurance program, which utilizes CARE Act funds to assist the client with maintaining his/her health insurance coverage by paying premiums, co-payments, and deductibles. Of those with known living arrangement, 94% reported being permanently housed, 4% reported non-permanent housing, 1% resided in an institution, and 1% reported other living arrangements.

There were four sites that provided medical care for persons infected with HIV in 2006. There were two sites on St. Croix that received Care Act funding. There was one site on St. Thomas that received Care Act funding, and a second site on St. Thomas operated without CARE Act funding. The 164 HIV positive/indeterminate clients receiving services through the CARE Act programs in 2006 reported 892 ambulatory/outpatient medical care visits, approximately 5 visits per patient. There were 108 HIV positive/indeterminate clients that participated in case management services in 2006, with a total of 839 visits.

At the end of the second quarter in 2008 (September 30), there were a total of 138 clients enrolled in ADAP, with 101 clients receiving at least one drug through ADAP during the second quarter. There were two clients that were newly enrolled in ADAP during the second quarter of 2008. The majority of clients enrolled and served by ADAP in the second quarter of 2008 were male (Table 19). A slightly greater proportion of ADAP clients were male compared to the general population living with HIV disease in 2008. The distribution of ADAP clients by current age was similar to the distribution of the general population living with HIV disease. The large proportion of ADAP clients with unknown race/ethnicity information makes it difficult to interpret trends for this characteristic.

Table 19. Descriptive characteristics of persons enrolled in ADAP clients and all persons living with HIV disease, USVI, 2008

Characteristic	Total Enrolled Clients, % (n=138)	Total Served* Clients, % (n=101)	Living with HIV disease, USVI % (n=564)
Sex			
Male	54	55	59
Female	46	45	41
Age			
< 13 year	1	2	1
13-24 years	2	2	2
25-44 years	43	47	44
45-64 years	31	29	48
> 64 years	5	6	5
Unknown	18	14	<1
Race/Ethnicity			
White**	4	5	9
Black/African descent**	35	48	60
Hispanic/Latino	21	29	30
Unknown	39	18	1

*****Clients who received at least one drug during the second quarter of 2008.
******Does not include persons of Hispanic/Latino ethnicity.

SUMMARY FOR QUESTION 4:

- Clients between the ages of 25 and 44 years old represented the greatest proportion of CARE Act clients, followed closely by those 44-64 years old. This was similar to the distribution seen the in general population living with HIV disease.
- Persons of Hispanic/Latino origin represented a smaller proportion of individuals receiving services through CARE Act funds compared to the general population living with HIV disease. Additional culturally appropriate outreach efforts should target this group to ensure they have the opportunity to access medical and case management services, if needed.
- Case management services were used by 66% of the clients in 2006.
- The importance of CARE Act services was magnified due to current poverty levels and lack of medical insurance in the USVI.
- Persons utilizing ADAP were similar to the general population living with HIV disease in terms of sex and age.

Question 5: What are the number and characteristics of persons who know they are HIV-positive but who are not receiving HIV primary medical care?

The Health Resources and Services Administration's (HRSA) Ryan White HIV Program requires an analysis of individuals living with HIV who are not receiving HIV primary medical care. HRSA allows jurisdictions to decide upon the local definition of 'in care'. In the USVI, it was decided that 'in care' would indicate a patient who had a CD4 count or viral load test within the last twelve months. Patients living with HIV, but from whom the HIV/AIDS surveillance office did not have data on a CD4 or viral load laboratory result within the last twelve months were classified as 'not in care'. The most current data were available for persons living with HIV disease as of December 2007 and their associated laboratory results from January to December 2007.

The reader should understand that laboratory reporting to the HIV surveillance office may not be complete for persons that seek care outside of the USVI. It is also important to note that the data only included persons diagnosed with HIV disease in the USVI who were still presumed to be living, regardless of their current residence. The analysis does not account for the current residence of those living with the disease as there was no mechanism in place to track patients leaving the territory. As a result, the actual number of patients not in care in the USVI could be smaller or larger, depending on migration patterns.

As of December 2007, there were 556 living HIV/AIDS cases in the US Virgin Islands. Of the living cases, 259 (47%) were classified as HIV cases and 297 (53%) were classified as AIDS cases. Overall, 57% of persons living with HIV disease were not in care in 2007 (Table 20). Among persons classified as HIV cases, 68% were not in care, compared to 48% of persons classified as AIDS cases. The results suggest additional efforts are needed to ensure that people living with HIV disease in the USVI are receiving primary medical care.

Table 20. Primary medical care needs among persons living with HIV disease, USVI, 2007

		In Care		Not In Care	
Diagnostic Status	**No. Living**	**No.**	%	**No.**	%
HIV (non-AIDS) case	259	83	32%	176	68%
AIDS case	297	154	52%	143	48%
Total-HIV Disease	556	237	43%	319	57%

Source: VIDOH STD/HIV/TB Program

Additional work is needed to ensure that complete laboratory data are received by the HIV surveillance office and entered in eHARS. Future analysis should compare the demographic characteristics between persons in care and persons not in care to assess disparities in access and usage of primary medical care.

SUMMARY FOR QUESTION 5:

- The proportion of persons living with HIV disease in the USVI without evidence of primary medical care in 2007 was high (57%).
- The proportion of persons not in care was greater for individuals classified as HIV cases (68%) compare to those classified as AIDS cases (48%).
- The data regarding persons not in care should be interpreted with some as there is no mechanism in place to track persons currently living with HIV disease in the USVI.

APPENDIX A
United States Virgin Islands Epidemiologic Profile Feedback

The purpose of this form is to provide the writers of HIV/AIDS epidemiologic profiles feedback from their end-users regarding the ease of use and applicability of the profile to prevention and care planning activities.

Please complete this feedback form and send it to the Virgin Islands Department of Health HIV/AIDS Surveillance Office, Old Municipal Hospital Complex, Building 1, St. Thomas, USVI 00802

1. Was the epidemiologic profile easy to read?

☐ Yes ☐ No ☐ Somewhat

2. How were the findings of the epidemiological profile communicated to you?

☐ Print Copy Only
☐ Profile Writers or other health department staff presented epidemiologic profile
☐ Other _____

3. Were the findings of the epidemiologic profile clear to you?

☐ Yes ☐ No ☐ Somewhat

If not, explain why.

_____

_____

4. Was the epidemiologic profile useful to your planning process?

☐ Yes ☐ No ☐ Somewhat

If not, explain why.

_____

5. Describe how you used the epidemiologic profile in your planning activities?

_____

_____

6. How can next year's profile be improved?

_____

_____

7. What specific questions could be included in the next profile?

_____

APPENDIX B
HIV/AIDS Related Web sites

Listed below is a sampling of HIV/AIDS related web sites that might be useful to the reader when searching for additional information.

Centers for Disease Control and Prevention/ Division of HIV/AIDS Prevention
http://www.cdc.gov/hiv/
Provides links to CDC guidelines and recommendations, national statistics, fact sheets, information on HIV testing and HIV/AIDS surveillance reports

HIV/AIDS Bureau, Health Resources and Services Administration
www.hab.hrsa.gov
Includes a description of the Ryan White HIV/AIDS program, policy updates, tools for grantees and data on specific Ryan White programs

Joint United Nations Programme on HIV/AIDS
www.unaids.org
Provides information about the international program dealing with HIV/AIDS prevention and care

Kaiser Family Foundation
www.kff.org
Offers fact sheets on HIV/AIDS issues, includes state health facts online – which provides data on HIV/AIDS prevalence, program funding for AIDS Drug Assistance Program and HIV Prevention activities by state, and includes individual state profiles

National Alliance of State and Territorial AIDS Directors
www.nastad.org
Updates on prevention, treatment and public policy issues, overview of the global AIDS program, and links to other state health departments

National Minority AIDS Council
www.nmac.org
Links to information on public policy, publications, treatment information, technical assistance, resources, and conferences

USAID
http://www.usaid.gov/our_work/global_health/aids/
Provides information on programs implemented by the USAID Office, profiles of HIV/AIDS in various counties, and technical documents

US Census Bureau
www.census.gov
Offers quick facts on the US Population, including demographic information, language spoken at home, income levels, etc.