

**South Carolina Epidemiologic Profile of  
HIV, AIDS, and Sexually Transmitted  
Infections  
2020**



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Bureau of Disease Control  
South Carolina Department of Health and  
Environmental Control

# Epidemiologic Profile

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## Definitions

**AIDS** – Acquired Immunodeficiency Syndrome, the end stage of HIV infection characterized by life-threatening or severely disabling disease.

**HIV** – Human Immunodeficiency Virus, the cause of HIV infection.

**HIV/AIDS** – Includes those people with HIV infection, as well as those who have progressed to AIDS. Unless noted, most HIV data in this profile includes people diagnosed with AIDS.

**HIV Only** – Includes only people with HIV infection who did not develop AIDS within 365 days of report of positive HIV test.

**Health Professional Shortage Area (HPSA)** – A Department of Health and Human Services (HHS) designation system to identify areas facing a critical shortage of primary medical, dental, or mental health care professionals.

**Incidence** – The number of new HIV/AIDS cases newly diagnosed and reported each year. Incidence cases may be combined in two- or three-year periods.

**Incidence Rate** – Number of new cases occurring during a period of time, divided by the annual average population, multiplied by 100,000. It is a measure of the frequency with which an event occurs in a population over a period of time. It is also a measure of risk of getting the disease.

**Natural Breaks (Jenks)** – Is a data classification method designed to determine the best arrangement of values into different classes. This is done by seeking to minimize each class's average deviation from the class mean, while maximizing each class's deviation from the means of the other groups (used primarily in maps).

**Other Risks** – In relation to Risk Exposures, the term "Other" or "Other Risks" is used to describe a group of risks which include such categories as: hemophilia, blood transfusion, and perinatally acquired infection. **PLWHA** – People Living With HIV/AIDS – See Prevalence below.

**Prevalence** – The number or proportion of people estimated to be living with *Diagnosed and Reported* HIV/AIDS at the end of a particular period of time (e.g. year).

**NOTICE:** *Beginning with the 2016 Epidemiologic Profile (2015 data), Prevalence numbers are based on Last Known Residence. This is a change from previous years Prevalence numbers, which were based on Residence at Time of Diagnosis. This change makes comparisons with Epidemiologic Profiles prior to 2016 inaccurate and should not be done.*

**Prevalence Rate** – Total number of living HIV/AIDS cases (both old and new cases) during the year of report, divided by the annual average population multiplied by 100,000. It is the



## Epidemiologic Profile

proportion of people in a population who have a particular disease or attribute at a specified point in time (or specified period of time).

### Rates are used to:

- measure the frequency of disease (in this case, HIV/AIDS) or other outcomes of interest,
- describe the distribution of disease occurrence in human populations,
- allow comparison of the risk of disease or burden of disease across populations,
- characterize the risk of disease for a population, and
- identify determinants of disease.

### They may also be used to help:

- prioritize prevention programs among competing causes,
- identify target groups for intervention,
- acquire funding for resources, and
- compare events across geopolitical boundaries.

Note: All rates are per 100,000 population, unless otherwise stated.

## Executive Summary

This 2020 South Carolina Epidemiologic Profile highlights current Human Immunodeficiency Virus (HIV) and Sexually Transmitted Infection and STI data in the state showing geographic distinction, risk behaviors and how the ongoing epidemics of HIV and STIs affect different population groups. The information provided is intended to assist decision makers and stakeholders throughout the state to plan and develop a comprehensive, statewide HIV Prevention and Care Plan. The goal of the plan is a responsive, effective, and efficient continuum of services for persons living with HIV/AIDS and those at risk for HIV infection, and prevention and control of STIs.

Health care providers and laboratories are required by law to report certain sexually transmitted infections (e.g. HIV, syphilis, chlamydia, gonorrhea and chancroid) to DHEC. The data sets are used to illustrate the South Carolina populations diagnosed with HIV/AIDS and STIs to characterize the nature of risk-taking behaviors. The data presented is compiled from multiple sources because no one epidemiologic data set will provide a complete picture of HIV/AIDS and STIs in a community or the state.

There are differences among certain populations in the number and rate of new and prevalent infections, as this profile will indicate. The HIV epidemic in South Carolina is predominantly driven by sexual exposure, primarily among men who have sex with men and heterosexuals at risk. Additionally, African Americans are disproportionately affected by HIV/AIDS, gonorrhea, chlamydia, and syphilis and are over-represented among all risk populations.

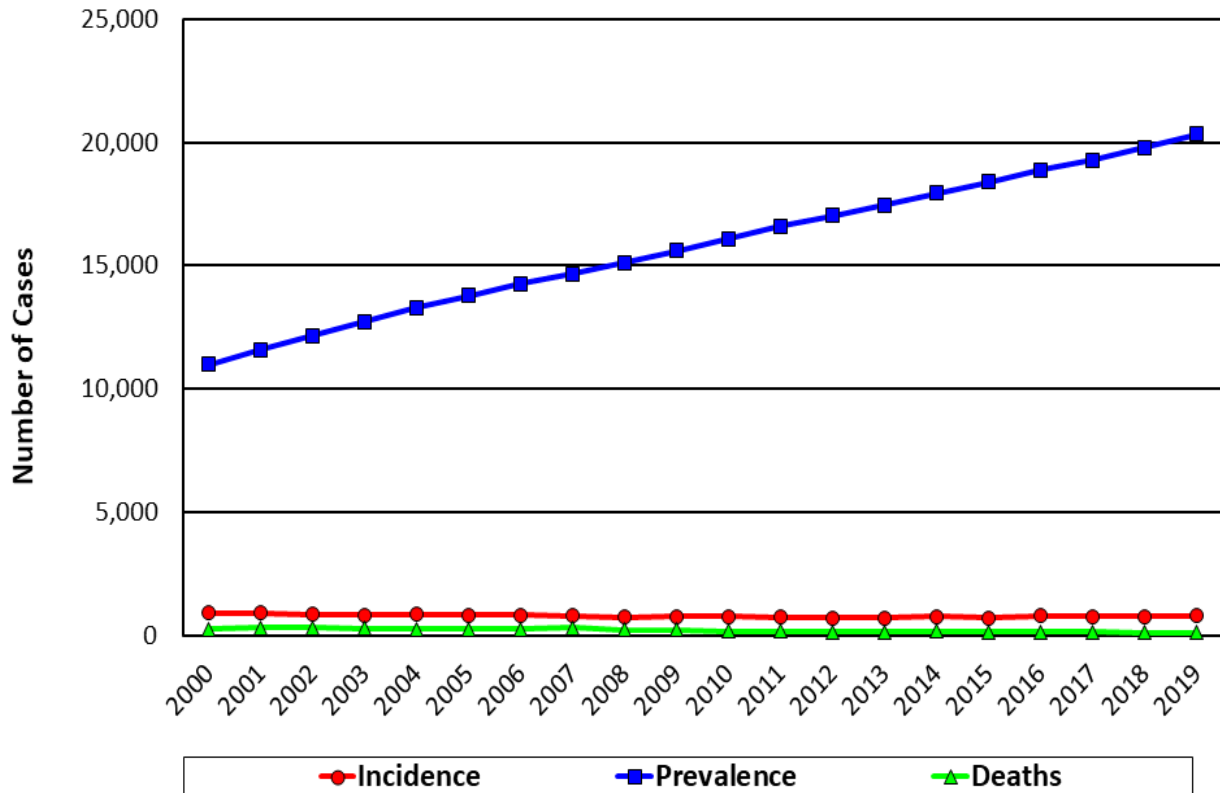
Information in this profile highlights the sociodemographic characteristics of South Carolinians pointing out the high levels of poverty and uninsured population as well as low education attainment. A more in-depth look into the patterns of service of utilization for persons living with HIV (PLWH) includes Ryan White Part B Services, the AIDS Drug Assistance Program (ADAP), and the HIV Continuum of Care. Of PLWH utilizing RW Part B services, medical case management services were the most widely used.

This profile also points the way to Ending the Epidemics in SC and provides information to the S.C. HIV Planning Council (HPC) on the number and characteristics of people becoming HIV infected. The HPC has a primary responsibility to review the Epidemiologic Profile and ensure that HIV prevention services and resources are directed by DHEC to the populations and geographic areas with the greatest disease burden. Ending the Epidemics in SC will be accomplished by providers and communities working together to reduce the number of South Carolinians with new HIV infections and increase the number of PLWH in SC who are consistently engaged in treatment and who have a suppressed viral load.

## Overview of HIV/AIDS in South Carolina

Figure 1.01: Total Incidence<sup>1</sup>, deaths, and Prevalence<sup>2</sup> of HIV/AIDS cases in South Carolina since 2000.

**Figure 1.01: South Carolina HIV/AIDS incidence, prevalence, and deaths**



Note: number of cases diagnosed in S.C. only; excludes out of state cases returning to S.C.

<sup>1</sup>Incidence: The number of new HIV/AIDS cases newly diagnosed and reported each year.

<sup>2</sup>Prevalence: The number or proportion of people estimated to be living with Diagnosed and Reported HIV/AIDS at the end of a particular period (e.g. year).

The epidemic in South Carolina is predominantly driven by sexual exposure, primarily among men who have sex with men and heterosexuals at risk. However, the CDC reports Heroin use is on the increase across the US among men and women, most age groups, and all income levels. Therefore, the number of cases reporting Injecting Drug Use as a risk for HIV should be closely monitored.

African Americans are disproportionately affected by HIV/AIDS and are over-represented among all risk populations.

## Overview of Epidemiologic Profile

The Epidemiologic Profile provides information to the S.C. HIV Planning Council (HPC) on the number and characteristics of people becoming HIV infected. The HPC has a primary responsibility to review the Epidemiologic Profile and ensure that HIV prevention services and resources are directed by DHEC to the populations and geographic areas with the greatest disease burden.

This Epidemiologic Profile includes a list of definitions and describes the data sources used, the limitations of each data type, and presents data to answer the following questions:

**What are the socio-demographic characteristics of the population?**

**What is the impact of HIV/AIDS on the population?**

**Who is at risk for becoming infected with HIV?**

**What is the geographic distribution of HIV infection?**

**What are the patterns of service utilization of people living with HIV/AIDS?**

**What are the characteristics of people who know they are HIV-positive but who are not in HIV primary care?**

These questions are explored through analyses of data related to people currently living with HIV/AIDS (prevalence) and newly diagnosed (incidence) HIV/AIDS; a description of seroprevalence data from HIV counseling and testing sites and other studies; a summary of other risk behavior profiles and community-based HIV risk assessment information; and a discussion of related sociodemographic, health and risk behavior indicators.

## Types and Quality of Data

Because no one epidemiologic data set will provide a complete picture of HIV/AIDS and STIs in a community, or the state, we have assembled data from several categories and sources. Data from a variety of categories provide a more accurate picture of past, present, and future infection trends. Not all data have equal value, data sources must be considered in the context of their objectives, strengths, and limitations; who the target populations are; how the data were collected; and the validity of the data.

As described above, several data sets are used to illustrate the South Carolina populations diagnosed with HIV/AIDS and STIs to characterize the nature of risk-taking behaviors. All the data sets have limitations or similar types of bias introduced, in that most are reported by third parties, largely providers, who must seek information from the affected individual as to illness, transmission mode, and demographic characteristics. Individual's reports are limited both by the willingness of providers to ask about these factors and that of clients to report on personal behaviors these data are also limited in their ability to broadly characterize populations. For instance, STI (sexually transmitted infection) or HIV/AIDS case report data can only characterize people with STI or HIV who seek treatment or data on estimated condom use among women cannot characterize all women but only those who agree to participate in selected behavioral surveys. Individuals who seek treatment for STI (and who are offered HIV testing) may be very different from those individuals who do not. However, each of the data sets referred to in this profile provide information to describe the relative risk and impact of the diseases on the people of South Carolina.

The following summarizes data sources, and limitations, used by the data workgroup to complete the South Carolina Epidemiologic Profile of HIV/AIDS and STIs.

### **DHEC, Enhanced HIV/AIDS Reporting Surveillance System (eHARS)**

All health care providers, hospitals, and laboratories in South Carolina are required to report people diagnosed with confirmed HIV infection and/or AIDS. Each year approximately one-third of new cases are reported from county health departments, one-third from hospitals, one-fifth from physicians, and the remainder from state/federal facilities (including prisons) and laboratories, DHEC's surveillance system, eHARS, serves various functions: 1) monitoring the incidence and demographic profile of HIV/AIDS; 2) describing the modes of transmission among people with HIV/AIDS; 3) guiding the development and implementation of public health intervention and prevention programs; and 4) assisting in evaluating the efficacy of public health interventions. It is the principal source of knowledge regarding trends in the number and characteristics of HIV-infected people. It includes people in all age, gender, race/ethnic, and mode-of-HIV-exposure groups; and it provides a historical perspective in trends dating to the earliest recognition of the AIDS epidemic.

This profile primarily presents data on the total infection/disease spectrum: HIV infection including AIDS (not AIDS alone). Because of the long and variable period from HIV infection to the development of AIDS, trends in AIDS cases data do not represent recent HIV infections or all HIV-infected people. AIDS surveillance data do not represent people whose HIV infection is

not recognized or diagnosed. AIDS cases have declined nationwide; however, because AIDS surveillance trends are affected by the incidence of HIV infection, as well as the effect of treatment on the progression of HIV disease, future AIDS trends cannot be predicted.

Because trends in new diagnoses of HIV infection are affected when in the course of disease, a person seeks or is offered HIV testing, such trends do not reflect the total incidence of HIV infection in the population. In addition, because not all persons with HIV in the population have been diagnosed, these data do not represent total HIV prevalence in the population. Interpretation of these data is complicated by several factors, ranging from a person having both HIV then AIDS diagnoses in the same year, varying time between reporting HIV and AIDS cases, and numerous reasons why the number of new HIV diagnoses changed (increased, decreased, or stable).

Some data is provided on HIV infection-only (people reported with HIV infection who do not have an AIDS diagnosis within 365 days of being diagnosed with HIV). This data, while highly dependent on people seeking or receiving HIV testing early in their infection stages, provide an opportunity to compare people presumably infected more recently with those infected as long as ten or so years ago (AIDS diagnosis).

Risk categories are assigned like the methods described above in HIV Counseling and Testing. There are some slight differences in the type of categories between HIV/AIDS surveillance reports and HIV Counseling and Testing reports. In South Carolina, about 34 percent of adult/adolescent HIV infection/AIDS cases reported in 2016 did not have risk categories reported. These cases are defined as "No Identified Risk"- (NIR). The proportion of NIR cases has been increasing nationally as well. The primary reason for incomplete risk information is that reports from laboratories do not include risk and an increasing proportion of cases result from heterosexual transmission but are not able to be defined in CDC's definition of heterosexual transmission. For example, people who report having multiple heterosexual partners or who have sex for money/drugs, but the status of their partners is not known, are not classified as "heterosexual", they are "No Identified Risk".

### **DHEC, South Carolina Infectious Disease and Outbreak Reporting Network (SCION)**

Health care providers and laboratories are required by law to report certain sexually transmitted diseases (including syphilis, chlamydia, gonorrhea, chancroid, hepatitis) to DHEC. In 2019 South Carolina has adopted a new data system SCION and some deviation from previous years could exist as the state adapts to the new system and adjusts their program practices accordingly.

SCION is the agency's integrated data system for all reportable diseases, except HIV/AIDS. It is a role-based data system that allows the agency to maintain all reportable condition data in one location while limiting the users to accessing data based on their role within the agency. The integrated system allows for the monitoring of Gonorrhea, syphilis and chlamydia data trends based on geographics, race, ethnicity, sex, gender, and risk. The data are utilized by program areas to: 1) Identify high-risk groups and geographic areas where unsafe sexual behaviors occur; 2) guide the development of public health intervention and prevention programs; and 3) assist in evaluating the efficacy of public health intervention.

## **DHEC Clinics' HIV Counseling and Testing Program Data**

Counseling and testing data, while highly informative about people who seek counseling and testing, does not tell us anything about people who do not seek testing or choose not to test. All states provide HIV counseling and testing services and maintain data to quantify HIV counseling and testing services delivered in publicly funded sites and to determine the characteristics of people receiving those services. These data are used by prevention programs to plan and target services for high-risk individuals. The type of data collected in South Carolina includes the counseling and testing site type, number of clients tested and number positive for each risk group, number tested, number positive by type of test site, and number tested and number positive by race/ethnicity gender, and age group. Clients receive confidential counseling and testing in each of the 46 county health department clinics.

The counseling and testing data system is standardized and has been in place for several years. Data in this Epi-Profile reflect number of individual clients tested during a specific period of time. People who received multiple tests during the report period are only counted once. It includes people tested in family clinics, maternity clinics, TB, STI clinics and people voluntarily requesting services or referred through partner counseling services. Approximately one third of the total of newly diagnosed and reported people with HIV infection each year is from DHEC counseling and testing sites. People tested in other settings, such as physician offices, hospitals, state facilities, etc. are not included in the DHEC counseling and testing database.

To determine a client's level of risk, each person is assigned a risk status: men who have sex with men (MSM), injection drug use (IDU), or heterosexual contact with a person at risk for or infected with HIV. Since most clients acknowledge multiple risks, risk status is determined by using the CDC's hierarchy of risk. This process assigns the client's "highest" risk. The highest possible risk in the hierarchy is sex with a person with HIV/AIDS, while the least significant risk is "no acknowledged risk". A person is only represented in their highest risk category regardless of how many risks the client acknowledges.

The CDC's hierarchy of risk includes a category for the combined risks of MSM and IDU; in previous HIV/AIDS Epidemiologic Profiles, the combined risks of MSM and IDU have been grouped and reported within the single category of 'Injection Drug Use'. This report leaves the combined risks of MSM and IDU as a stand-alone category. This CDC risk hierarchy can limit interpretability of data; it also does not reflect associated risks such as other non-injecting substance use, i.e. crack-cocaine.

Counseling and testing data in South Carolina and nationally is distinct from blinded, HIV seroprevalence surveys which generate an estimate of HIV seroprevalence that is unbiased by client self-selection. The DHEC counseling and testing system only includes clients who seek out counseling and testing services or agree to be tested after consultation with a counselor at a clinic site. However, for those clinic sites in which clients can obtain services other than counseling and testing for HIV, and in which all or nearly all clients actually receive HIV testing, (for example, maternity and STI clinics), data for those sites approximates the reliability of the blinded surveys.

## **Ryan White HIV/AIDS Program Services Report**

The Ryan White HIV/AIDS Program Services Report (RSR) is an annual report that captures information regarding the services provided by all Ryan White funded entities. The RSR is divided into sections including service provider information; client information; service information; and medical information. Providers report on all clients who received services eligible for Ryan White Parts A, B, C or D funding, regardless of the actual funding source used to pay for those services. The South Carolina Ryan White Part B contractors complete the RSR and submit the data directly to Health Resources and Services Administration (HRSA).

## **South Carolina Community Assessment Network (SCAN)**

The SCAN provides basic reference data for a variety of users. The primary use of SCAN is to enumerate and characterize mortality attributed to HIV infection. The data were also used to compare trends in HIV infection mortality with other leading causes of death and to characterize the impact of HIV infection on mortality. Data on causes of death are based on information recorded by hospitals, physicians, coroners, midwives, and funeral directors. Recorded information may be inaccurate or incomplete due to underreporting of certain causes of deaths, the number of HIV-related deaths and the conditions may be underestimated. SCAN is also used to enumerate and characterize birth attributes. Vital statistics data are not as timely as AIDS case reports due in part to processing time.

## **U.S. Department of Health and Human Services (DHHS): National Survey on Drug Use and Health (NSDUH)**

The National Survey on Drug Use and Health is an annual nationwide survey involving interviews with approximately 70,000 randomly selected individuals aged 12 and older. The Substance Abuse and Mental Health Services Administration (SAMHSA), which funds NSDUH, is an agency of the U.S. Public Health Service in the U.S. Department of Health and Human Services (DHHS). Supervision of the project comes from SAMHSA's Center for Behavioral Health Statistics and Quality (CBHSQ).

Data from the NSDUH provide national and state-level estimates on the use of tobacco products, alcohol, illicit drugs (including non-medical use of prescription drugs) and mental health in the United States. To assess and monitor the nature of drug and alcohol use and the consequences of abuse, NSDUH strives to:

- provide accurate data on the level and patterns of alcohol, tobacco, and illegal substance use and abuse;
- track trends in the use of alcohol, tobacco, and various types of drugs;
- assess the consequences of substance use and abuse; and
- identify those groups at high risk for substance use and abuse.

A scientific random sample of households is selected across the United States, and a professional RTI interviewer makes a personal visit to each selected household. After answering a few general questions during the in-person visit by the interviewer, one or two residents of the household may be asked to participate in the survey by completing an interview. Since the survey is based on a random sample, each selected person represents more than 4,500 United States residents.



Participants complete the interview in the privacy of their own home. A professional RTI interviewer personally visits each selected person to administer the interview using a laptop computer. Individuals answer most of the interview questions in private and enter their responses directly into the computer so even the interviewer does not know the answer entered. For some items, the interviewer reads the question aloud and enters the participant's response into the computer.

Each interview data file – identified only by a code number – is electronically transmitted to RTI on the same day the interview is conducted. Combined with all other participants' answers, the data are then coded, totaled, and turned into statistics for analysis. As a quality control measure, participants may receive a telephone call or letter from RTI to verify the interviewer completed the interview with them in a professional manner.

### **Behavioral Risk Factor Surveillance System (BRFSS)**

Behavior Risk Factor Surveillance System is the world's largest random telephone survey of non-institutionalized population aged 18 or older that is used to track health risks in the United States. In 1981, the Centers for Disease Control and Prevention (CDC), in collaboration with selected states, initiated a telephone based behavioral risk factor surveillance system to monitor health risk behaviors. South Carolina began administering BRFSS in 1984. Several core questions address knowledge, attitudes, beliefs, and behaviors regarding sexually transmitted diseases, particularly AIDS.

### **Youth Risk Behavior Surveillance System (YRBSS)**

The Youth Risk Behavior Surveillance System (YRBSS) was developed cooperatively by the Centers for Disease Control and Prevention (CDC), several federal agencies, and state departments of education to measure the extent to which adolescents engage in health risk and health enhancing behaviors. The system consists of national, state, and local school-based surveys. In South Carolina, the YRBS consists of questionnaires administered to middle school (6th-8th grade) and high school (9th-12th grade) students in the public-school system. A two-stage sampling process is used to provide a state-wide sample at each level. In the first stage, regular public schools with any of the target grades are sampled with probability proportional to the school enrollment. In the second stage, intact classes are sampled randomly and all students in these classes are eligible to participate. The overall response rate is calculated as the percentage of sampled schools that participate multiplied by the percentage of sampled students that complete useable surveys. If this overall response rate is 60% or greater, the resulting data are weighted to be representative of the entire state.

There are 367 private K-12 schools in South Carolina; however, none of them are included in the survey. Also, while schools are randomly selected for participation some may choose not to participate. The survey includes questions about injury and violence, tobacco use, alcohol and other drug use, sexual risk behaviors, physical activity, and nutrition behaviors (the specific questions can vary from year to year). The survey is part of a national effort to monitor priority health risk behaviors that contribute to the leading causes of death, disability, and social problems among youth and adults in the United States.

This survey is conducted by S.C. Healthy Schools at the Department of Education and relies heavily on surveillance methods and self-reports; so, it depends on how well respondents understand the questions and how well they can accurately and honestly answer the question. However, the questionnaire has demonstrated good test-retest validity and the data are edited, checked and weighted. These data are representative of only public middle school students (grades 6-8) or public high school students (grades 9-12) in South Carolina.

## Sociodemographic Characteristics of the Population

The HIV epidemic in the United States, and in South Carolina, is a composite of multiple, unevenly distributed epidemics in different regions and among different populations. These populations may comprise people who practice similar high-risk behavior, such as injecting drugs or having unprotected sex with an infected person.

The social, economic, and cultural context of HIV and STIs must be considered when funding, designing, implementing, and evaluating prevention programs for diverse populations. This section provides background information on South Carolina’s populations, which is essential for assessing potential HIV and STI impact.

### The State

South Carolina lies on the southeastern seaboard of the United States. The state is bounded on the north by North Carolina, on the southeast by the Atlantic Ocean, and on the southwest by Georgia. It ranks 40th among the 50 states in size and has a geographic area of 30,061 square miles. South Carolina has a diverse geography that stretches from the Blue Ridge Mountains in the northwest corner to the beaches along the Atlantic coast. Manufacturing is the state’s leading industry, followed by tourism and forestry. The total number of South Carolinians is 5,148,714 (2019 estimate).

### Demographics

**Sex:** Of the 5,148,714 people living in South Carolina, 2,655,575 (52%) are female and 2,493,139 (48%) are male (Figure 1.02). There are only slight differences within each sex by age group. Males age 19 and under comprised 24 percent of the male population and those age 60 and over comprised 25 percent. Females age 19 and under comprised 23 percent of the female population and those age 60 and over comprised 26 percent. As a percentage of the total population, females age 60 and over were 14 percent and males age 60 and over were 11 percent.

Figure 1.02: Selected Demographics  
South Carolina

		South Carolina
Population		5,148,714
Median Age		39.9
Sex	Male	48.3%
	Female	51.7%
Distribution of Population by age		
	<19	24%
	20-29	13%
	30-39	13%
	40-49	12%
	50-59	13%
	60+	25%

Sources: U.S. Census Bureau and SC Vital Statistics 2020

**Age:** persons age 19 and under made up 24 percent of South Carolina’s total population while people age 60 and over made up 25 percent. The age groups 20-29, 30-39, 40-49, and 50-59 comprised 13 percent, 13 percent, 12 percent, and 13 percent of the population, respectively. (Figure 1.02).

**Race:** Although race and ethnicity are not risk factors for HIV transmission, they are markers for complex underlying social, economic, and cultural factors that affect personal behavior and

health. Race is often reported classified into six categories: *American Indian/Alaskan native, Asian, Black/African American, Native Hawaiian/Other Pacific Islander, White, and Multiple races*. Ethnicity is often included with these six categories. However, in S.C. the combined categories of American Indian/Alaskan native, Asian, Native Hawaiian/Other Pacific Islander, and multiple races comprise less than two percent of the total population so are grouped into a category of "Other".

Caucasians comprise the largest proportion of South Carolina's population, 65 percent; Black/African Americans comprise 27 percent; Hispanic origin comprise six percent; and Other comprise two percent.

### **Socioeconomic status**

Socioeconomic status is a term used to describe the economic and sociological combined measure of a person's income, educational attainment, financial security, and perceptions of social status and social class. Socioeconomic status can include quality of life attributes as well as the opportunities available to people. Low socioeconomic status is often associated with increased disease morbidity and premature mortality.

### **Education & Poverty Level**

South Carolina continues to rank low in percent of people over 25 years of age who have bachelor's degrees or higher. In South Carolina, it is estimated that 12 percent of the population has less than a high school education. Educational attainment is strongly correlated with poverty, and despite the economic strides made in recent years, South Carolina remains among states with the highest percentage of people who live below the poverty level.

### **Employment**

Education also impacts an individual's employment opportunities. South Carolina's unemployment rate is typically, slightly higher than the US unemployment rate. Unemployment status is correlated to limited access to health care services, resulting in increased risk for disease.

### **Access to Care**

In South Carolina, it is estimated that ten percent of the population do not have health insurance. In addition, all, or part of 45 (out of 46) counties are designated as Health Professional Shortage Areas (HPSA).

### **Housing**

The S.C. Council on Homelessness estimates there are, on average, 5,000 homeless adults and children in South Carolina. The issue of homelessness is particularly important for individuals living with chronic infections (such as HIV) because homelessness has been associated with reduced access to care, engagement in harmful behaviors, lower survival rate and poor adherence to treatment.

**Summary**

South Carolina, as many southern states, ranks high for poverty, low educational attainment and uninsured population compared to other US states. These factors can affect one's ability to access prevention and health care services and adhere to regimens for treatment and care of diseases that may lead to more severe consequences.

## Impact of HIV/AIDS on the Population

In the United States, HIV/AIDS remains a significant cause of illness, disability, and death, despite declines in new AIDS cases and deaths. Current surveillance activities provide population-based HIV/AIDS data for tracking trends in the epidemic, targeting and allocating resources for prevention and treatment services, and planning and conducting program evaluation activities.

DHEC uses the Epi Profile for planning of annual federal grant deliverables, monitoring of performance and compliance, and planning/development of new initiatives. For example, the Epi Profile is instrumental in the identification of priority populations for increasing uptake for HIV preexposure prophylaxis (PrEP).

The epidemiologic profile is utilized for prevention and care planning by community providers. The profile is also utilized by local community organizations, local health departments, legislators and media. The epi profile is used as a framework for grant writing, policy decision-making, state health plans and public information. Data are also used for program planning and evaluation efforts. The state's epi profile is used extensively to determine priority/target populations, identify unmet needs, describe risk behaviors, and evaluate prevention efforts.

In South Carolina, AIDS cases have been reported since 1981, and confirmed cases of HIV infection have been reportable since February 1986. During the calendar year of 2017 according to the CDC HIV/AIDS Surveillance Report, South Carolina ranked 11th among states, the District of Columbia, and U.S. dependent areas with an AIDS case rate of 8.6 per 100,000 population. The epidemic is continuing to grow with an average of 66 cases of HIV infection reported each month during 2019. The incidence rate in South Carolina for 2019 is 15.5 per 100,000 population. As of December 31, 2019, there are an estimated 20,334 South Carolina residents living with diagnosed HIV infection (including AIDS).

This section summarizes the overall toll of the epidemic in South Carolina based on total reported HIV/AIDS cases and deaths.

### Gender

Figure 2.01 shows the impact of HIV on the men and women in South Carolina. Men are disproportionately affected by HIV/AIDS. Men make up 48 percent of South Carolina's total population but comprise 72 percent of PLWHA (prevalence). Individuals diagnosed with HIV/AIDS during the two-year period 2018-2019 gives an estimate of more recent infections or potentially emerging populations.

**Figure 2.01: S.C. Disproportionate HIV Impact by Sex**

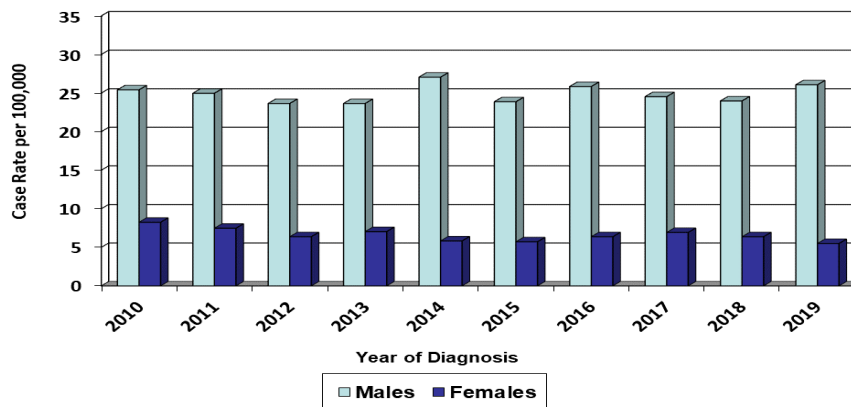
SEX	S.C. Total Population, 2019 est.		Total Estimated Living With HIV/AIDS, 2019		Total HIV/AIDS Diagnosis, 2018-2019	
	No.	%	No.	%	No.	%
Male	2,493,139	48%	14,599	72%	1,241	80%
Female	2,655,575	51%	5,735	28%	315	20%
Total	5,148,714		20,334		1,556	

Figure 2.02 shows the rate per 100,000 population for males and females diagnosed with HIV/AIDS from 2010 to 2019, as well as how the case rate fluctuates from year-to-year for both men and women.

Women have seen the sharpest decline in the rate of newly diagnosed HIV/AIDS during the last ten years, with the rate decreasing by 33 percent from 2010 (8.2) to 2019 (5.5), and while the rate may fluctuate from year to year, on average, women have had a four percent, per year, decrease in the rate for new cases.

Men, however, have not seen the same decline in the rate of new cases as women have, with the rate increasing by three percent from 2010 (25.4) to 2019 (26.1). For males, the rate has more pronounced fluctuations; however, despite these fluctuations, the average change over the last ten years has been less than one percent, per year.

**Figure 2.02: S.C. HIV/AIDS Case Rate per 100,000 Males and Females, 2010-2019**



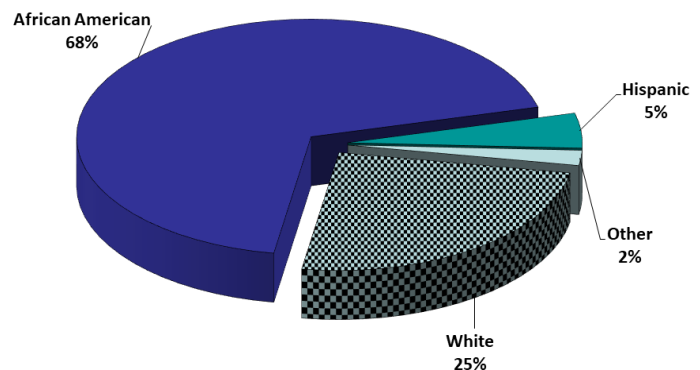
## Race/Ethnicity

African Americans are disproportionately impacted by HIV/AIDS in South Carolina. African Americans comprise 27 percent of the state’s total population, yet 68 percent of the total people living with HIV are African American. Five percent of total cases are Hispanics, who comprise six percent of the state’s population (Figure 2.03).

African American men, who comprise only 13 percent of the state’s population, make up the largest proportion of both PLWHA in 2019 and new diagnosis in 2018-2019 (46 percent and 51 percent respectively).

African American women, who similarly, comprise only 14 percent of the population, make up 22 percent of PLWHA in 2019 and 14 percent of new diagnosis in 2018-2019. Whites, who comprise the largest proportion of the population in South Carolina (31 percent males; 33 percent females), make up 25 percent of PLWHA in 2019 (20 percent males; five percent females) and 25 percent of new diagnosis in 2018-2019 (20 percent males; five percent females), (Figure 2.04).

**Figure 2.03: Proportion of Persons Living with HIV/AIDS by Race/Ethnicity, 2019**



**Figure 2.04: Disproportionate HIV Impact by Race/Ethnicity/Gender, S.C.**

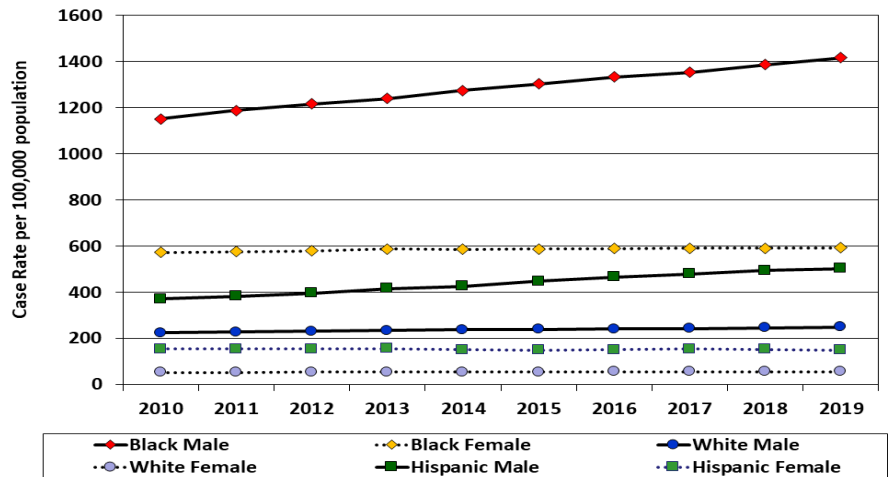
Race/Ethnicity & Gender	SC Total Population		Total Persons Living With HIV/AIDS, 2019		Total HIV/AIDS Diagnosis, 2018-2019	
	No.	%	No.	%	No.	%
Black Males	652,231	13%	9,236	46%	732	51%
Black Females	744,682	14%	4,412	22%	203	14%
White Males	1,620,369	31%	4,038	20%	283	20%
White Females	1,701,347	33%	957	5%	65	5%
Hispanic Males	162,061	3%	814	4%	88	6%
Hispanic Females	145,057	3%	216	1%	10	1%



Each year the number of people living with HIV/AIDS continues to grow. Case rates per 100,000 by race and gender show the disparate burden of HIV among African Americans.

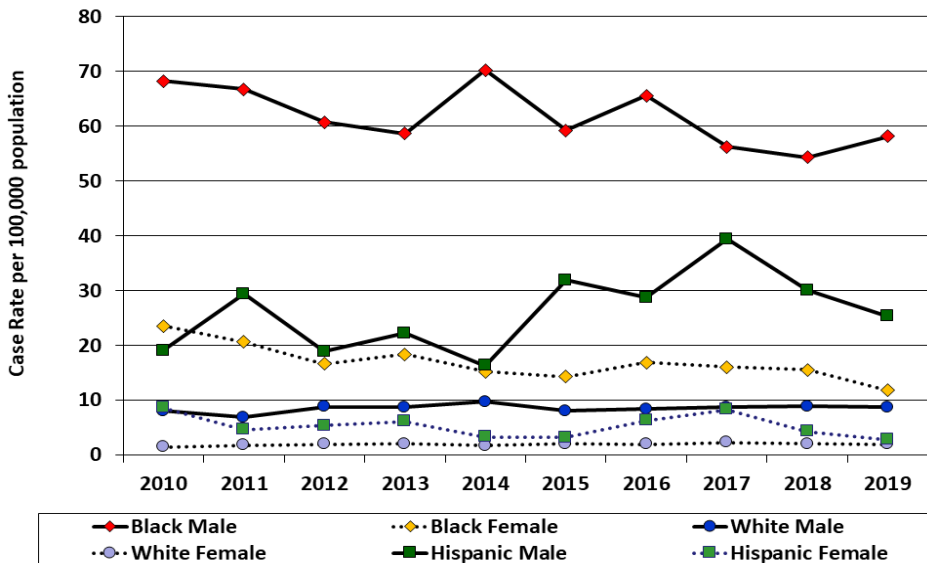
As Figure 2.05 shows, the rate per 100,000 population in 2019 is six times higher for black males than for white males, and eleven times higher for black females compared to white females.

**Figure 2.05: S.C. HIV/AIDS prevalence rates by race/gender, 2010-2019**



In South Carolina, the trend in the number and rate of people newly diagnosed with HIV/AIDS each year has been declining, with a seven percent decrease in the rate per 100,000 population between 2010 (16.6) and 2019 (15.5).

**Figure 2.06: S.C. HIV/AIDS Incidence Rates by Race/Gender, 2010-2019**



However, during this ten-year time period, there have been high and low fluctuations from one year to the next: the 2019 rate is four percent higher than the rate in 2018 (15.0). There are also important differences in the rates among race/gender populations (Figure 2.06).

While women in general have seen a decline in the rate of newly diagnosed HIV/AIDS, African American women specifically have seen a 50 percent decrease between 2010 (23.5) and 2019 (11.8) and on average, had a six (6.5) percent, per year, decrease in the rate for new cases. While white women have seen an increase over the same time period: 31 percent increase from 2010 (1.4) to 2019 (1.9), white women averaged a four (4.1) percent, per year, increase in the rate for new cases.

Men have not seen the same decline in the rate of newly diagnosed HIV/AIDS as women. African American men had a fifteen percent decrease in the rate between 2010 (68.2) and 2019 (58.1) and have averaged one percent (1.2), per year, decrease in the rate for new cases. The rate for

white men increased eight percent over the same time period (8.0 to 8.7) and have also averaged one and one-half percent (1.6), per year, increase in the rate for new cases.

### Age

When analyzing HIV/AIDS data by age, the differences between the two measures (incidence and prevalence) become pronounced.

With incidence, 68 percent of new cases diagnosed in 2018-2019 are under the age of 40, and with 2019 prevalence, 71 percent are over the age of 40. For incidence, people age 20-29 comprise the largest proportion, 41 percent of newly diagnosed cases (20-24 19 percent and 25-29 22 percent), and people 30-39 comprise 22 percent. People under the age of 20 comprise just over six percent of new diagnoses.

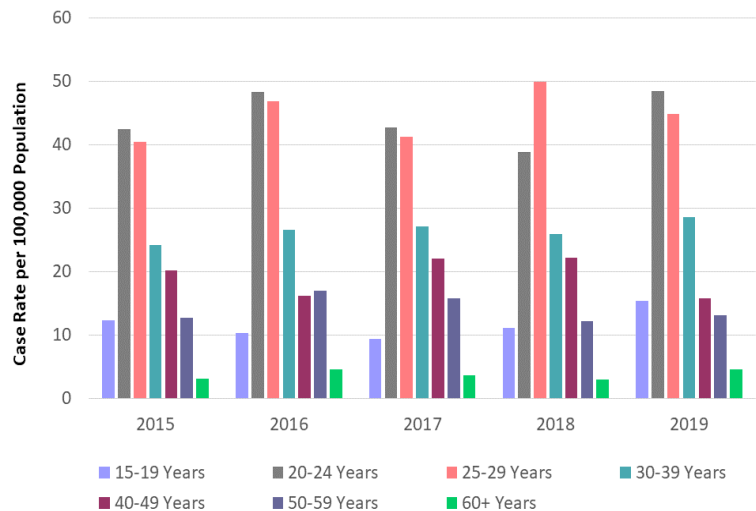
For prevalence, 20 percent are age 40-49, 30 percent are age 50-59, and 17 percent are age 60+. (Figure 2.07).

**Figure 2.07: Disproportionate S.C. HIV Impact by Age**

Age Range	SC Population		Total Persons Living with HIV/AIDS, 2019		Total HIV/ AIDS Diagnosis, 2018-2019	
	No.	%	No.	%	No.	%
<15 Years	923,180	18%	98	0.5%	1	0.1%
15-19 Years	324,659	6%	85	0.4%	86	6%
20-24 Years	330,743	6%	570	3%	289	19%
25-29 Years	353,271	7%	1,571	8%	335	22%
30-39 Years	649,573	13%	3,646	18%	350	22%
40-49 Years	618,709	12%	4,116	20%	233	15%
50-59 Years	672,388	13%	6,175	30%	170	11%
60+ Years	1,276,191	25%	4,073	20%	92	6%

Figure 2.08 shows the HIV/AIDS incidence rates by age groups. From 2015 to 2019, the average change in rate for 15-19 age group increased by four percent and for the 20-24 age group rate decreased by less than one percent, while 25-40 age groups increased. The 25-29 age group averaged less than 1 (0.4) percent increase, the 30-39 age group (5.9 percent) increase, while the 40-49 age group (5.9 percent) increase, while the 40-49 age group and the 50-59 age group decreased (1.8 and 1.8 percent respectively), while the 60+ age group experienced the largest increases (12.7 percent).

**Figure 2.08: S.C. HIV/AIDS Incidence Case Rate by Age, 2015-2019**



## Risk Exposure

Of the cases with an identified risk factor, men who have sex with men was the highest reported risk factor in 2019 for PLWHA (56 percent). Heterosexual contact accounted for 30 percent of reported risk factors. Nine percent reported a risk of injecting drug use (IDU).

Four percent reported the combined risks of MSM and IDU (Figure 2.09). The risk category 'Other' includes blood transfusion, hemophilia, and perinatal transmission; all of which account for a very small proportion of PLWHA (2 percent). Of the total estimated number of PLWHA in 2019 (22 percent had no risk identified).

**Figure 2.09: Proportion of Persons Living with HIV/AIDS by Risk Exposure, 2019**  
N=15,844

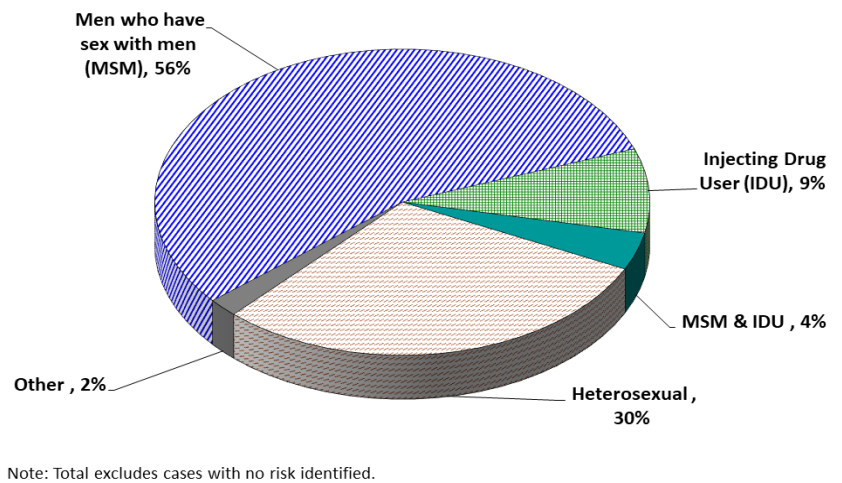
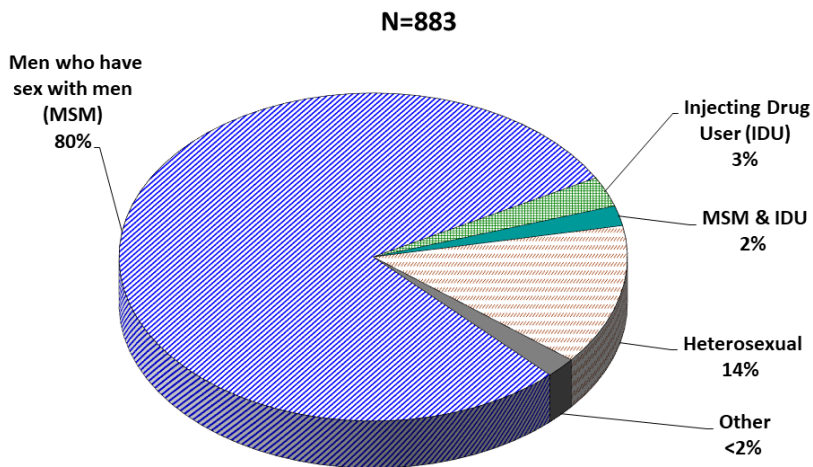


Figure 2.10 shows reported risk for people newly diagnosed with HIV/AIDS during 2018-2019. The proportion of new cases with a reported risk of MSM was 80 percent and with a reported risk of heterosexual contact was 14 percent; IDUs made up three percent and the combined risk of MSM and IDU two percent. 43 percent of new cases have no risk identified. Over time, the proportion of cases with no risk identified each year decreases as risks are determined through follow-up surveillance activities.

**Figure 2.10: Proportion of HIV/AIDS Cases Diagnosed 2018-2019 by Risk Exposure**



**Figure 2.11: New S.C. HIV/AIDS Cases (2018-2019)  
Race/Ethnicity and Gender: Proportion of No Risk Identified  
Compared to Proportion of Reported Cases**

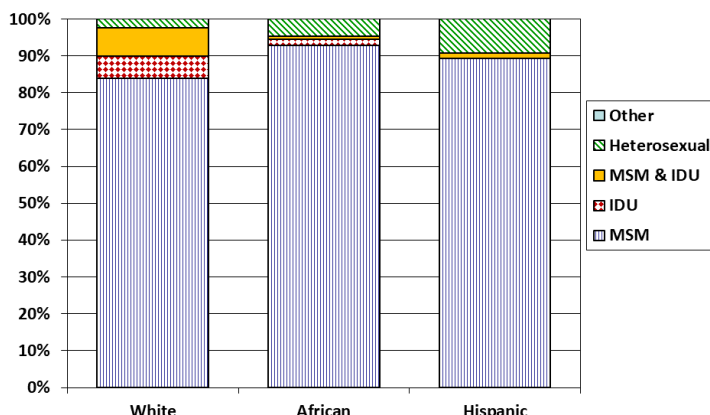
Race/Gender (Adult/Adolescent Cases)	New HIV/AIDS Cases 2018-2019	
	% with No Risk Identified (N=542)	% Cases Reported (N=1,381)
Black Male	49%	53%
Black Female	25%	15%
White Male	12%	20%
White Female	8%	5%
Hispanic Male	4%	6%
Hispanic Female	1%	1%

The race/gender profile of newly diagnosed cases in 2018-2019 with no risk reported is reflective of the total proportion of HIV/AIDS cases by race/gender (Figure 2.11).

*Note: Primary reasons for risk exposure information not reported were explained in the South Carolina HIV/AIDS Surveillance System section of the introduction.*

Of reported risks for newly diagnosed cases in 2018-2019: among African American men, most cases were attributed to MSM contact (90 percent), heterosexual risk (four percent), and IDU (three percent). For white men, most cases were attributed to MSM contact (84 percent), IDU (six percent), the combined risk of MSM and IDU (eight percent), and heterosexual risk (two percent). Of Hispanic men with reported risk factors, most cases were attributed to MSM contact (91 percent), heterosexual risk (nine percent), both IDU and the combined risk of MSM and IDU (less than one percent) (Figure 2.12). Thirty-seven percent of men diagnosed in 2018-2019 had no indicated risk.

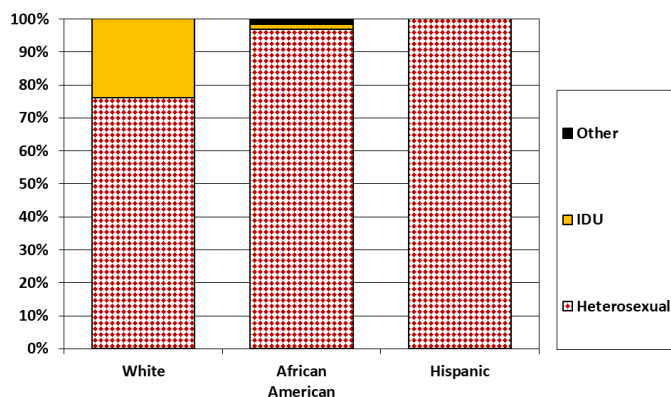
**Figure 2.12: Proportion of Male HIV/AIDS Cases by Exposure Category, Diagnosed 2018-2019**



Excludes persons with no risk reported.

Among women diagnosed during 2018-2019 Heterosexual contact is the most often reported risk (92 percent). Ninety-seven percent of African American women reported Heterosexual contact as their risk, while 100 percent of Hispanic women and 76 percent of white women reported a risk of Heterosexual contact.

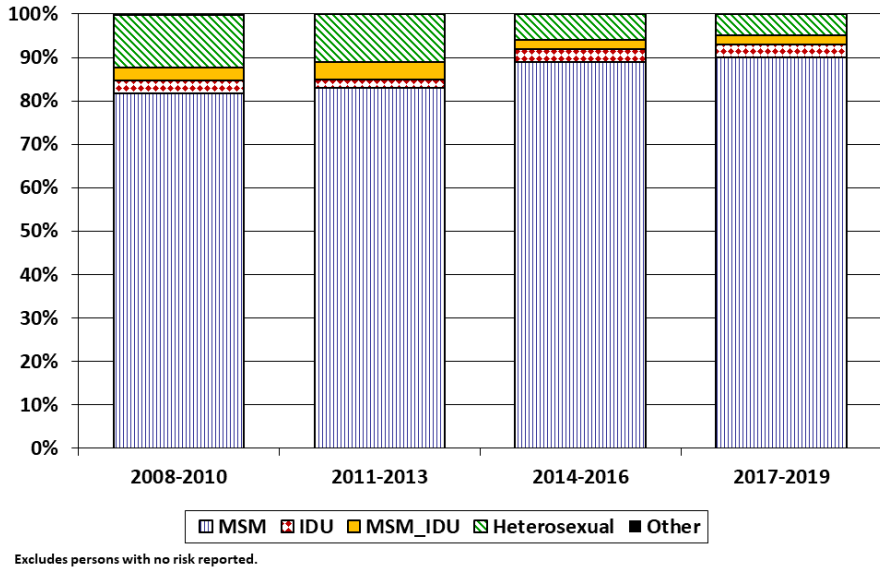
**Figure 2.13: Proportion of Female HIV/AIDS Cases by Exposure Category, Diagnosed 2018-2019**



Excludes persons with no risk reported.

White women report Injecting Drug Use more often (24 percent) than Hispanic women (zero percent), and African American women (two percent), (Figure 2.13). Sixty-nine percent of women diagnosed in 2018-2019 had no indicated risk.

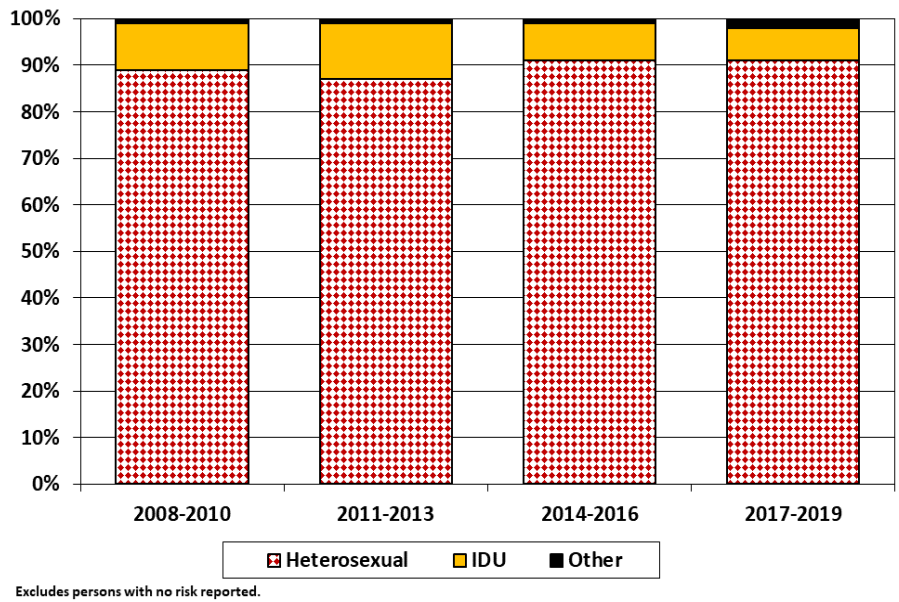
**Figure 2.14: Proportional Distribution of Male HIV/AIDS Cases by Exposure Category, Diagnosed 2008-2019**



Figures 2.14 and 2.15 show the proportion of total HIV/AIDS cases diagnosed during four periods from 2008 to 2019 by sex and risk exposure category for males and females in South Carolina. Heterosexual Contact has decreased 56 percent from 2008/2010 to 2017/2019 as a reported risk for men, while the reported risk of MSM has increased 10 percent over the same time period.

The proportion of reported risks for women is consistent across all the time periods. Heterosexual contact is consistent at 88-91 percent, IDU at 7-12 percent, and Other at 1-2 percent.

**Figure 2.15: Proportional Distribution of Female HIV/AIDS Cases by Exposure Category, Diagnosed 2008-2019**

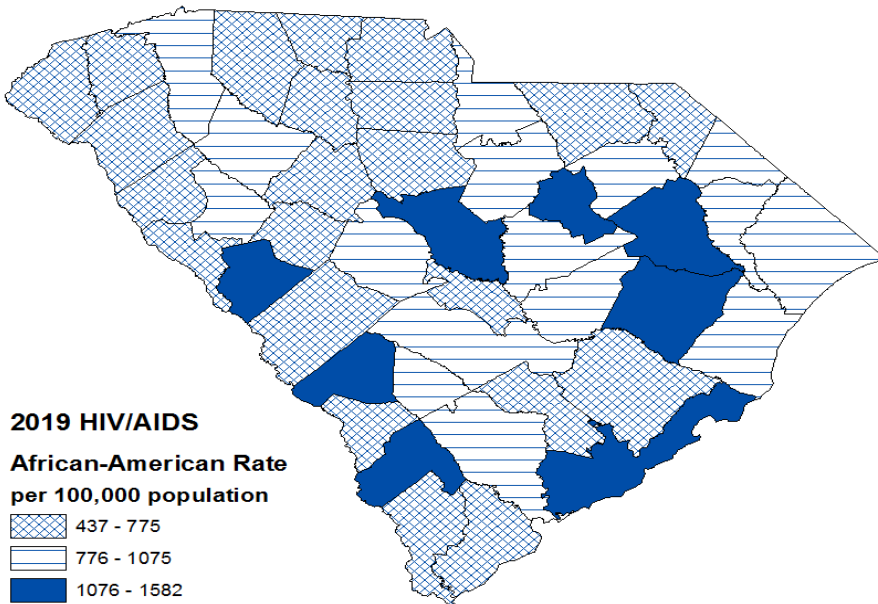




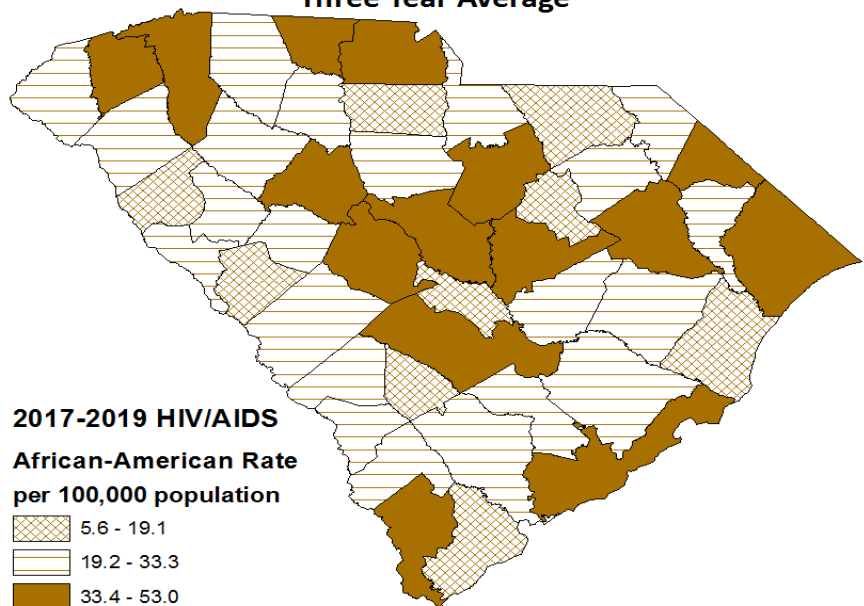
## Residence

People living with HIV/AIDS are widespread throughout the state. Figure 2.16 shows the 2019 prevalence rate and Figure 2.17 shows the three-year average (2017-2019) incidence rate for African Americans. Thirty-three percent of South Carolina counties have a prevalence rate greater than the state prevalence rate for African Americans (977.0). Thirty-three percent of South Carolina counties have a three-year average (2017-2019) incidence rate for African American greater than the state three-year average incidence rate for African Americans (38.7).

**Figure 2.16: S.C. HIV/AIDS Prevalence Rate**

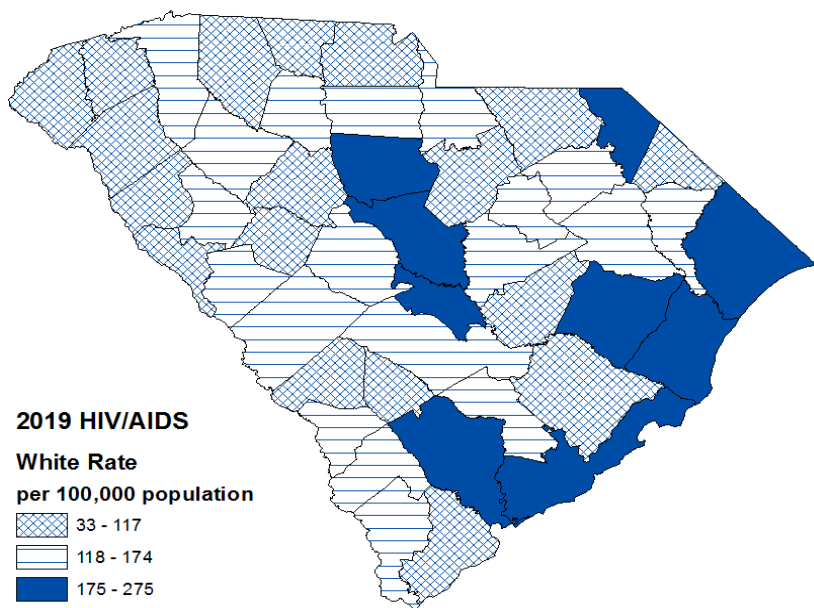


**Figure 2.17: S.C. HIV/AIDS Incidence Rate: Three Year Average**

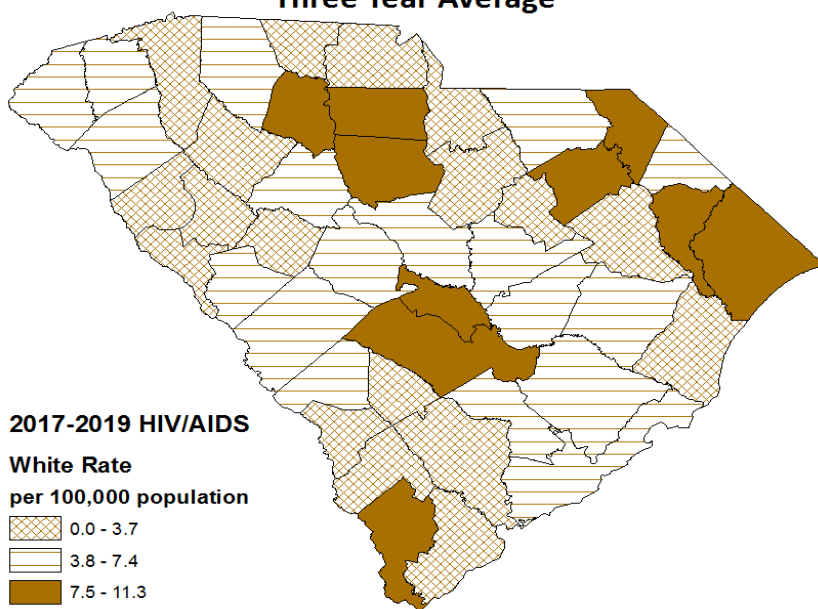


While the HIV/AIDS rate for whites in South Carolina is significantly lower than for African Americans, the distribution throughout the state is not dissimilar. Figure 2.18 shows the 2019 prevalence rate and Figure 2.19 shows the three-year average (2017-2019) incidence rate for whites. Thirty-five percent of South Carolina counties have a prevalence rate greater than the state prevalence rate for whites (150.4). Nine percent of South Carolina counties have a three-year average (2017-2019) incidence rate for whites greater than the state three-year average incidence rate (5.3).

**Figure 2.18: S.C. HIV/AIDS Prevalence Rates**



**Figure 2.19: S.C. HIV/AIDS Incidence Rate:  
Three Year Average**



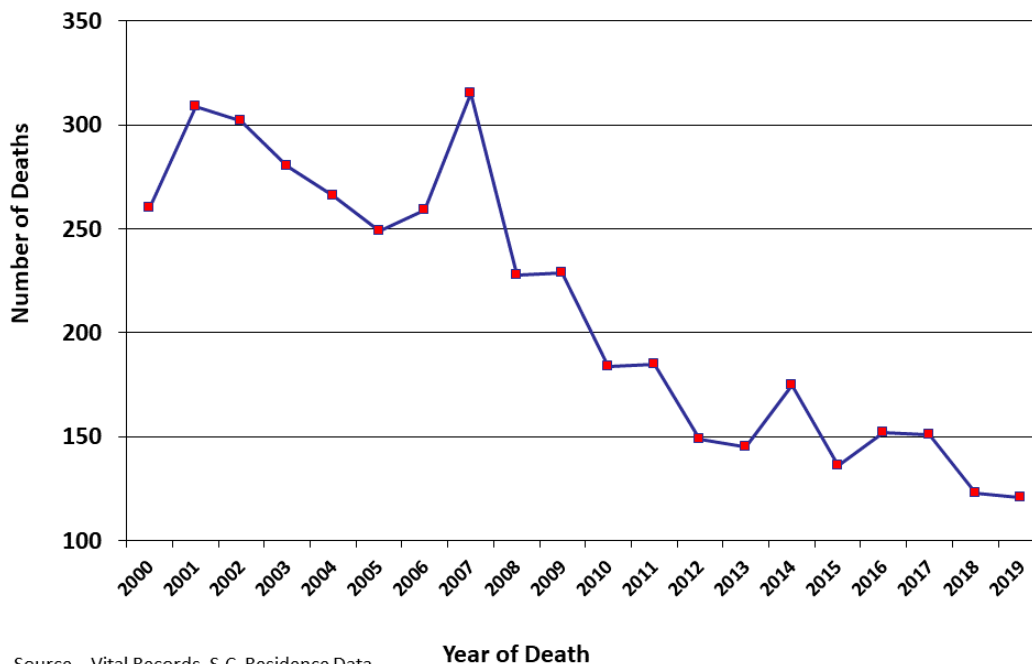
## Mortality

*Note: 2019 was the last year of data available when this report was published.* With the advent of combination therapies and the use of prophylaxis, people with HIV are living longer and delaying the progression of AIDS, which is the advanced stage of the disease. These medications have also led to the decrease in AIDS-related deaths.

Large declines in AIDS mortality nationally essentially occurred during 1996-1997. Officials at the Centers for Disease Control and Prevention (CDC) cautiously attributed the sudden drops in deaths to new antiretrovirals, protease inhibitors, combination therapies, and increased prophylaxis for opportunistic illnesses. However, the initially reported decreases were tempered by reports of demographic differentials that suggested only certain groups were benefiting from these new therapies.

The largest decline in deaths in South Carolina was in 1997, with AIDS related deaths dropping to 317 from 532 the previous year (not on graph). Since 1997, the number of AIDS deaths per year has continued to decline; however, there are fluctuations in the number of AIDS deaths from year to year. Reasons for this may include delay in diagnosis of HIV infection until severe symptoms arise, difficulty in adherence to prescribed medical treatments, and development of viral resistance to therapy (Figure 2.20).

**Figure 2.20: Deaths Due to AIDS (HIV) in South Carolina, 2000-2019**



Source – Vital Records, S.C. Residence Data.



In addition to representing 46 percent of PLWHA (2019), African American males accounted for the majority of people who died from AIDS (50 percent) in 2019. African American females accounted for 25 percent of AIDS related deaths followed by white males (17 percent). By age group, the majority of deaths occurred among people age 45 and older (76 percent) (Figure 2.21).

**Figure 2.21: Characteristics of Persons who Died of AIDS, 2019**

	Number	Percent
<b>Race/Sex</b>		
Black Male	60	50%
Black Female	30	25%
White Male	21	17%
White Female	9	7%
Hispanic/Other Male	2	1%
Hispanic/Other Female	0	0%
<b>Age Group</b>		
<19	0	0%
20-24	0	0%
25-34	18	7%
35-44	40	17%
45-54	50	21%
55-64	76	31%
65+	58	24%

Source – Vital Records, S.C. Residence Data.

## HIV Risk Factors

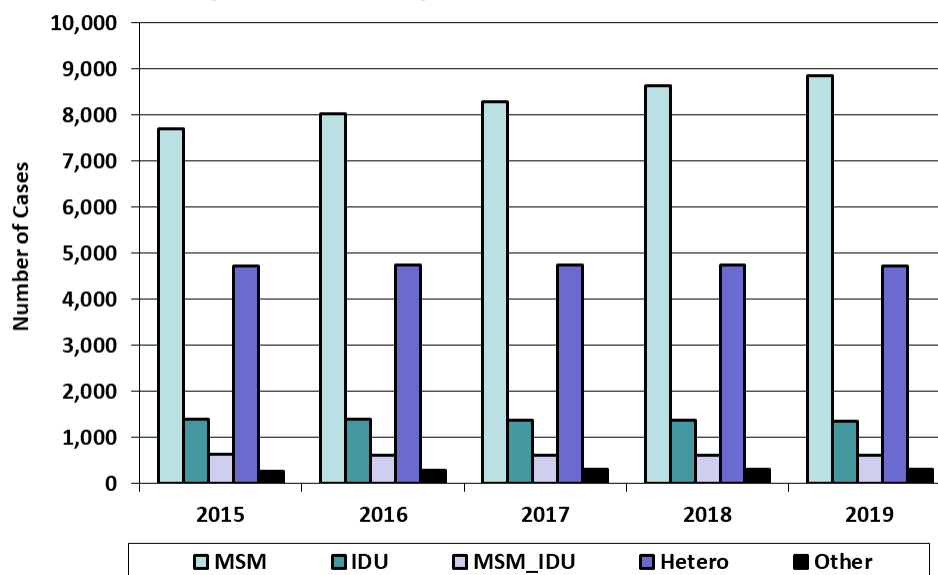
HIV can be transmitted when an individual comes in contact with an infected person’s blood, breast milk, or sexual fluids. The people most likely to become infected with HIV are those who engage in high-risk behaviors which place them at greater risk. Transmission happens most often during sexual or drug-using activity, and the frequency of the high-risk behavior combined with HIV prevalence in sexual or drug-using networks determines a person’s risk for becoming infected. In order to accurately target STI/HIV prevention and treatment activities, it is important for community planning groups (and program providers) to have information on the number and characteristics of people who become newly infected with HIV and people whose behaviors or other exposures put them at various levels of risk for STI and HIV infection. This section summarizes HIV infection among population groups at high risk for HIV infection and provides sexually transmitted disease and behavioral risk data.

### Characteristics of HIV/AIDS in People at Highest Risk

Analysis of characteristics of people with HIV/AIDS helps identify people at greatest risk for becoming infected. Risk for infection can be determined by assessing the frequency of high-risk behavior (e.g., unprotected sex, needle-sharing) in combination with the estimated prevalence of HIV/AIDS and incidence of HIV/AIDS.

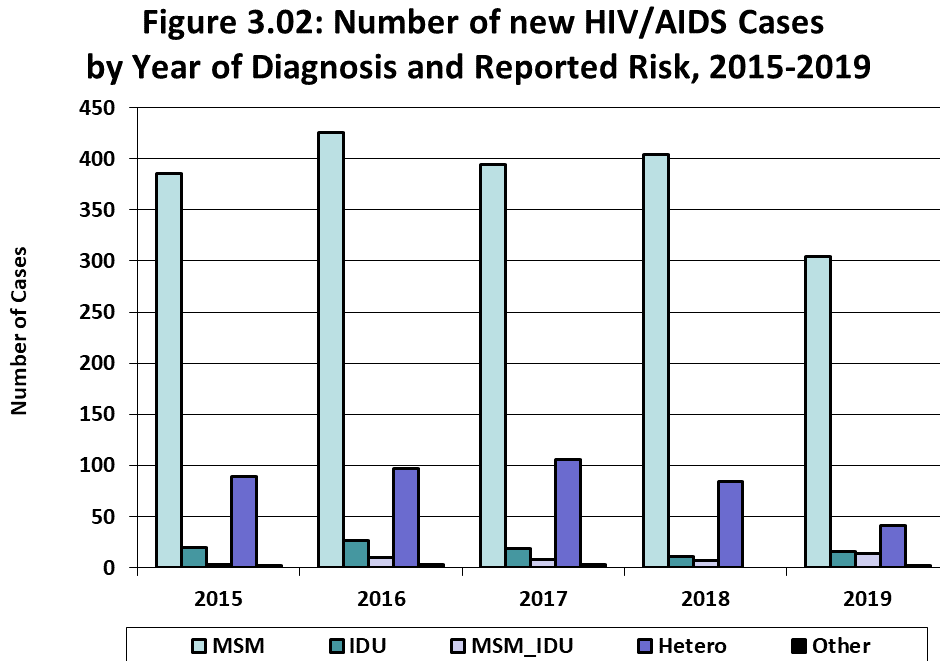
Figure 3.01 shows the number of people in South Carolina living with HIV/AIDS at the end of each year by reported risk. MSM comprise the greatest number of people living with HIV, followed by heterosexuals. IDU, MSM and IDU, and other risks comprise fewer numbers.

**Figure 3.01: Number of People Living with HIV/AIDS by Year and Reported Risk, 2010-2019**



Excludes persons with no risk reported.

Figure 3.02 is a graph of the number of each reported risk for newly diagnosed cases, by year. Similar to the prevalence graph above, MSM is the most often reported risk among newly diagnosed cases; followed by heterosexual contact, IDU, combined MSM and IDU, and other risks.



Excludes persons with no risk reported.

Based on data in this profile, the following primary populations have been identified as being at the highest risk of HIV/AIDS: men who have sex with men (MSM), high-risk heterosexuals, injecting drug users (IDUs), and men who have sex with men and injecting drug use. Women will be described in the heterosexual and injecting drug user section, and teenagers/young adults will be described within each population category.

## Characteristics of Men who have Sex with Men

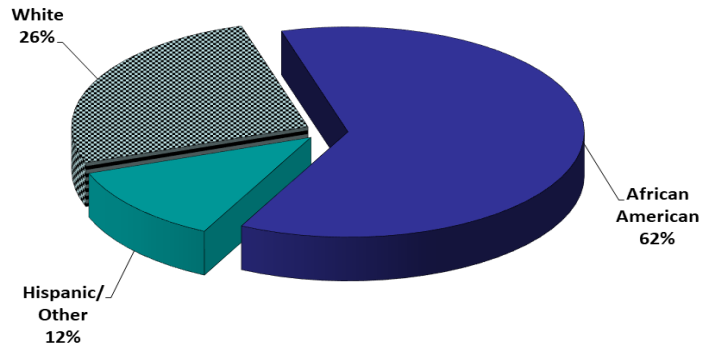
### Prevalence of Men Who Have Sex with Men Behavior

According to the U.S. Census Bureau, there are an estimated 1,449,021 males in South Carolina between the ages of 15-60, which is the age range when people are most sexually active. Review of literature and other state profiles indicates that the estimated percentage of men who have sex with men (MSM) ranges from 1.7 percent to 12.9 percent. This would mean the number of MSM in South Carolina could be estimated to between 24,633 and 186,924.

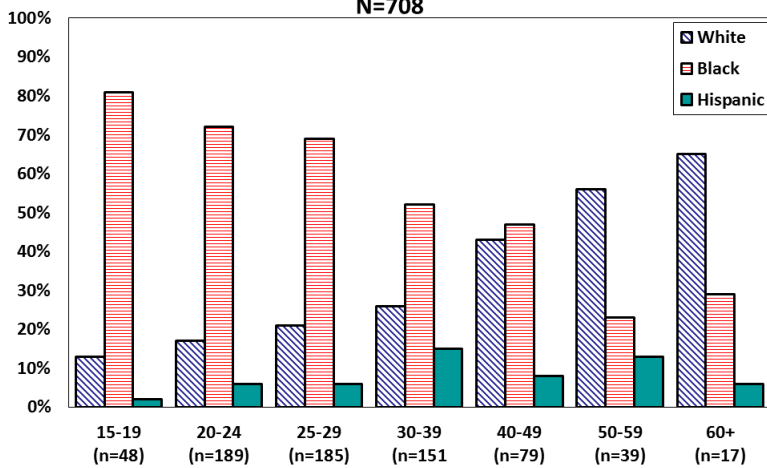
Of PLWHA in South Carolina with a reported risk, the largest proportion is men who have sex with men (56 percent). MSM also accounted for the highest proportion (80 percent) of recently diagnosed cases.

The majority of MSM cases diagnosed during 2018-2019 were African American (62 percent). White men accounted for 26 percent of the new cases and 12 percent were Hispanic or other races. (Figure 3.03)

**Figure 3.03: Proportion of Men Diagnosed with HIV/AIDS in 2018-2019 who Reported a Risk of MSM by Race/Ethnicity (N=696)**



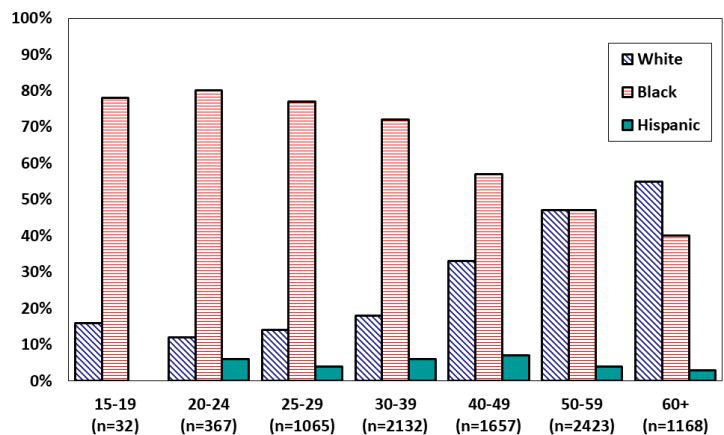
**Figure 3.04: Percent of MSM HIV/AIDS Cases Diagnosed 2018-2019 by Age Group & Race/Ethnicity (N=708)**



Total N includes race/ethnicity not included in graph.

The majority of MSM diagnosed during 2018-2019, were 20-29 years of age (53 percent); 21 percent were 30-39 years of age, 11 percent were 40-49 years of age, and eight percent were 50+ years of age. For men recently diagnosed, African Americans accounted for the highest proportion for each age group below the age of 50, and whites accounted the highest proportion over the age of 50 (Figure 3.04).

**Figure 3.05: Percent of MSM Living with HIV/AIDS by Age/Race, 2019 (N=8,844)**



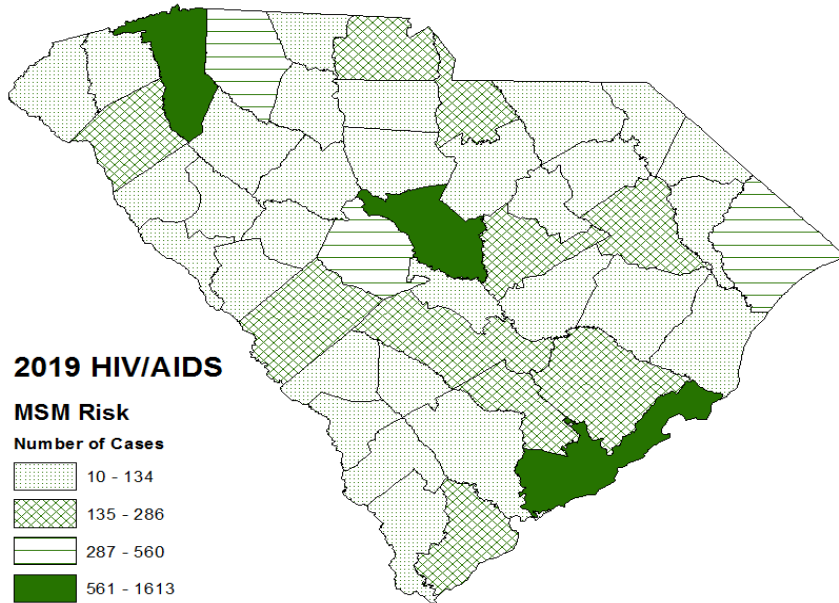
Total N includes "Other" race/ethnicity not included in graph.

Of men who have sex with men living with HIV/AIDS in 2019, 59 percent were African American, 33 percent were white, and five percent were Hispanic. The majority of MSM living with HIV/AIDS, were over the age of 40 (59 percent), with the highest percentage in the 50-59 age group (27 percent). 24 percent were 30-39 years of age, and 17 percent are below the age of 30.

African Americans accounted for the highest proportion for each age group below the age of 50 and whites the highest proportion over the age of 50 (Figure 3.05).

Richland County has the greatest number of MSM living with HIV/AIDS in 2019 (1,613), with Charleston (1,028) and Greenville (895) having the next highest numbers. Most South Carolina counties had fewer than 135 MSM living with HIV/AIDS (Figure 3.06).

**Figure 3.06: S.C. HIV/AIDS MSM Prevalence**



**Summary**

Among men who have sex with men, African American men account for over half the proportion of both living with HIV/AIDS (59 percent) and newly diagnosed HIV/AIDS cases (61 percent). And of men who have sex with men, ages twenty to forty, African American men comprised 75 percent of cases living with HIV/AIDS and 65 percent of newly diagnosed HIV/AIDS.

**Characteristics of High-Risk Heterosexuals**

**Prevalence of High-Risk Heterosexual Behavior**

It is difficult to assess the number of people in South Carolina who engage in heterosexual contact that puts them at high risk for becoming infected with HIV and other STIs. While there are some differences in the population of people with HIV/AIDS and the population of those with a non-HIV STI, most experts acknowledge that a diagnosis of an STI would suggest the individual is engaging in unsafe sexual practices.

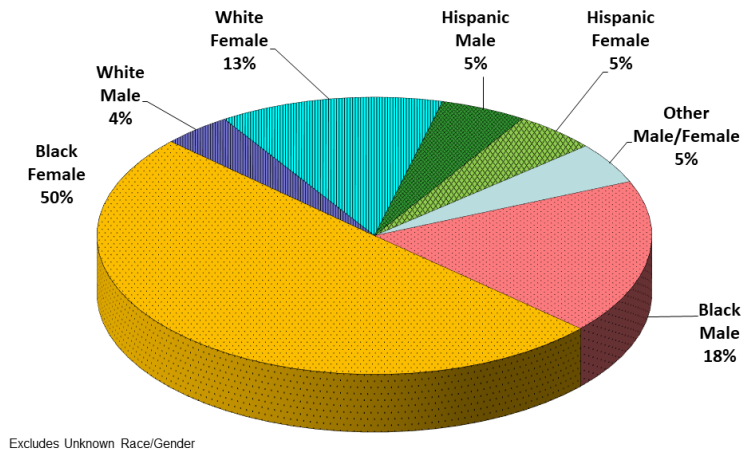
During 2019, 36,258 cases of chlamydia, 14,317 cases of gonorrhea and 521 cases of infectious syphilis were reported in South Carolina. More data on STIs, as well as other behavioral indicators such as teenage pregnancy and condom use, is described later.

In order for a case of HIV or AIDS to be considered as heterosexual transmission, it must be reported that the individual had heterosexual contact with a person who has documented HIV infection or AIDS, or had heterosexual contact with a person who is in a high risk group for HIV (MSM or IDU).

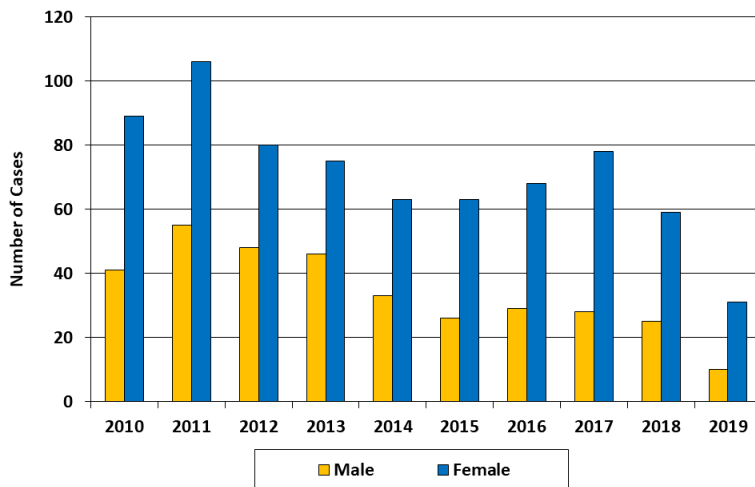
People with reported high-risk heterosexual contact comprise 30 percent of the total PLWHA at the end of 2019. Of PLWHA who reported a risk of heterosexual contact, over half were African American women (54 percent), 26 percent were African American men, 10 percent were white women, and three percent were white men.

Fifteen percent of people diagnosed during 2018-2019 reported high-risk heterosexual contact. Figure 3.07 shows that African American men and women comprise a disproportionate 68 percent of recently diagnosed heterosexual HIV/AIDS cases. African American women account for 50 percent of recent cases and 18 percent are African American men. White women account for 13 percent while white men account for four percent. Hispanic men and women together account for ten percent of recent cases with a reported risk of heterosexual contact (five percent men and five percent women).

**Figure 3.07: Proportion of Heterosexual HIV/AIDS Cases by Race/Ethnicity, Diagnosed 2018-2019 (N=118)**



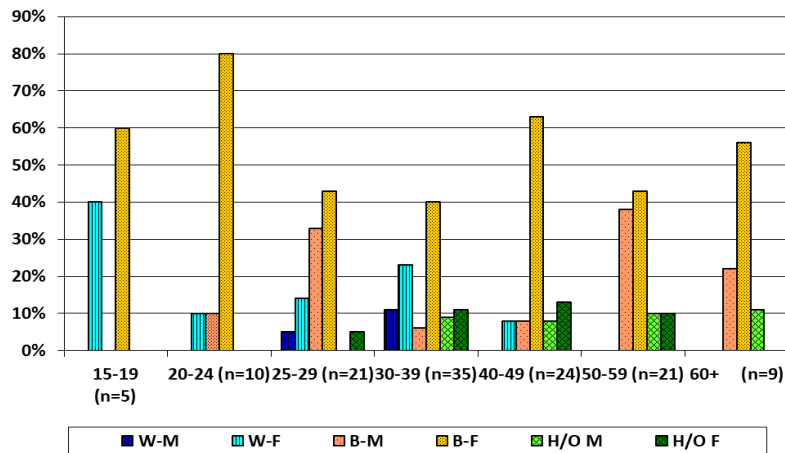
**Figure 3.08: S.C. HIV/AIDS Cases Attributed to Heterosexual Transmission, by Sex and Year of Diagnosis**



On average, the number of heterosexual cases diagnosed each year has decreased 54 percent per year from 2015 to 2019. Figure 3.08 shows the number of heterosexually acquired HIV cases in men and women in South Carolina from 2010 to 2019. During most of this period, the proportion of female cases averaged 46 percent higher than males.

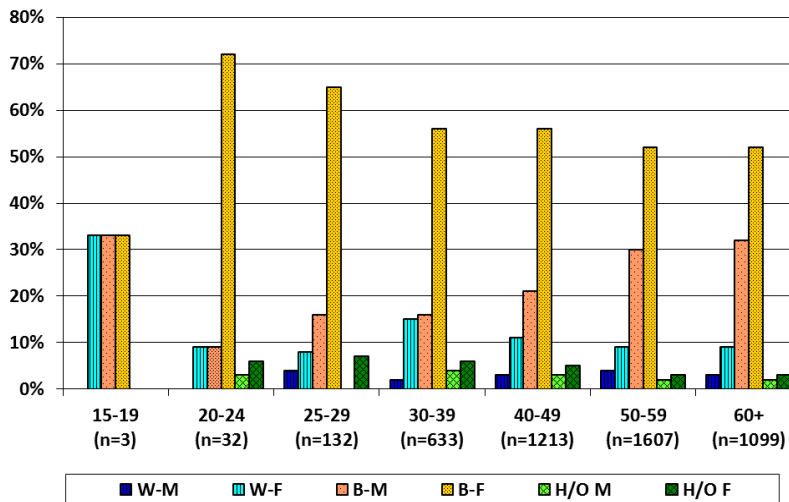
The proportion of high-risk heterosexuals diagnosed in 2018-2019 was evenly distributed across the 20-59 age groups: 20-29 (25 percent), 30-39 (28 percent), 40-49 (19 percent), and 50-59 (17 percent). African American women and men comprised the greatest proportion of cases in each age group (Figure 3.09).

**Figure 3.09: Percent Heterosexual S.C. HIV/AIDS Cases Diagnosed 2018-2019 by Age/Race/Sex**



Of PLWHA in 2019 who reported a risk of heterosexual contact, 83 percent were age 40 and over; 40-49 (26 percent), 50-59 (34 percent), and 60+ (23 percent). African American women comprised the greatest proportion (54 percent), followed by African American men (26 percent). White men and women account for 13 percent and Hispanic/Other men and women account for seven percent of PLWHA who reported a risk of heterosexual contact (Figure 3.10).

**Figure 3.10: Percent of Heterosexuals Living with HIV/AIDS by Age Group and Race/Ethnicity/Gender, 2019**





**Figure 3.11: S.C. HIV/AIDS Prevalence**

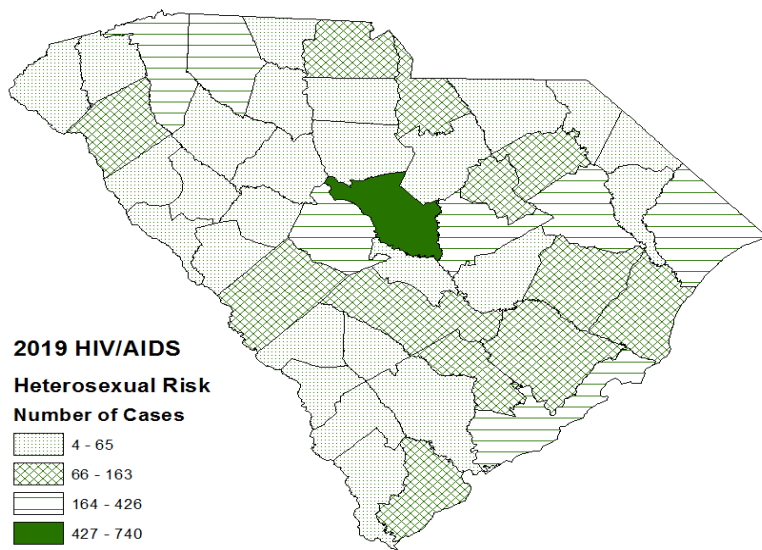
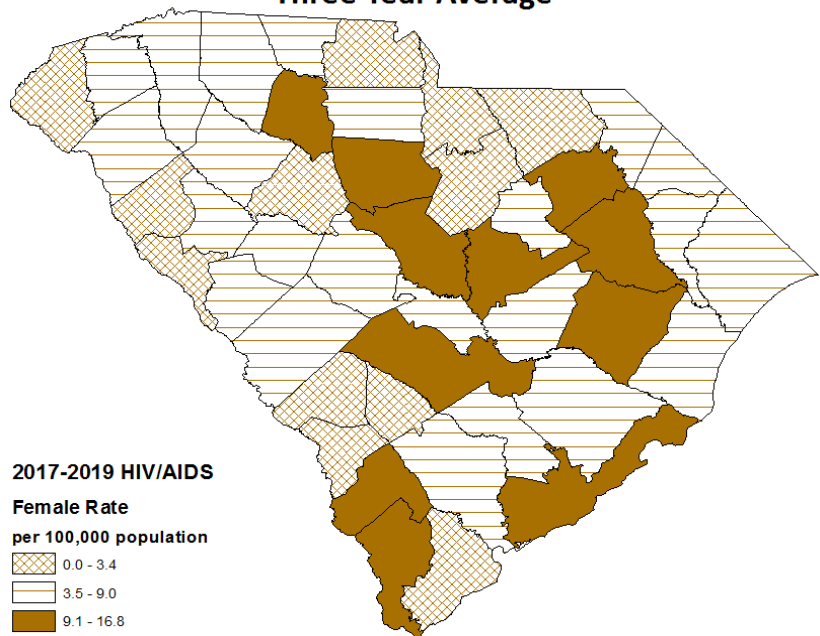


Figure 3.11 shows the counties with the highest prevalence of PLWHA due to heterosexual transmission. Richland county has the highest number of reported cases (740), followed closely by Charleston, Greenville, Florence, Horry, Sumter, and Spartanburg. Eighty-nine percent of South Carolina counties each have less than 169 PLWHA who reported a risk of heterosexual contact.

Figure 3.12 shows the 2017-2019 case rate among women; an indicator for more recent heterosexual risk. Fairfield, Williamsburg, and Hampton counties have the highest case rates in the state (16.8, 14.3, and 13.9 per 100,000 population respectively). Seventy-four percent of counties have case rates below 9.0 (the state rate is 6.3).

**Figure 3.12: S.C. HIV/AIDS Incidence Rate:  
Three Year Average**



**Summary**

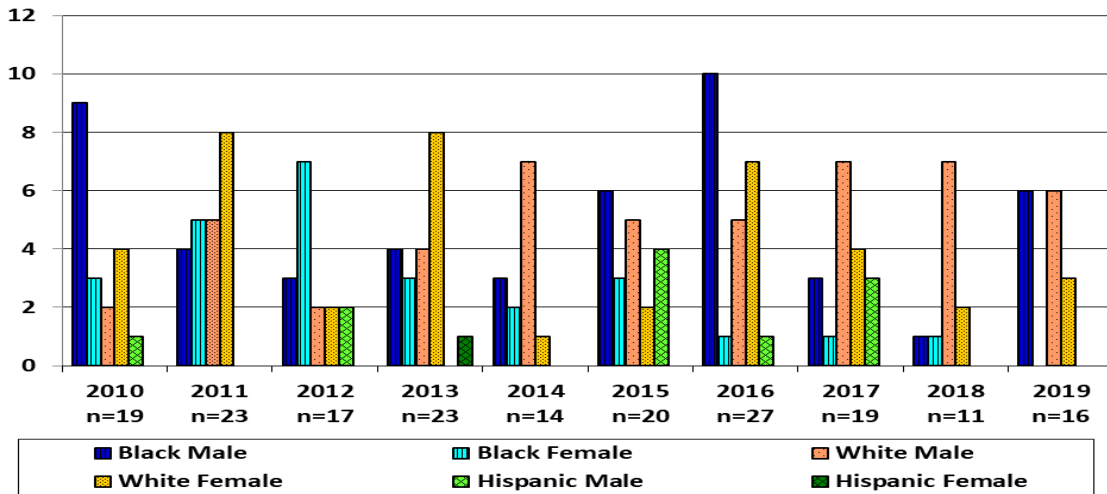
Among heterosexually exposed cases, African American women account for half of newly diagnosed HIV/AIDS cases (50 percent) and African American men account for 18 percent. Of people living with HIV/AIDS with a reported risk of heterosexual contact, African American women account for 54 percent and African American men account for 26 percent. Of people with a reported risk of heterosexual contact, African American men and women age 20-59 account for six out of every ten PLWHA and six out of every ten people diagnosed in 2018-2019.



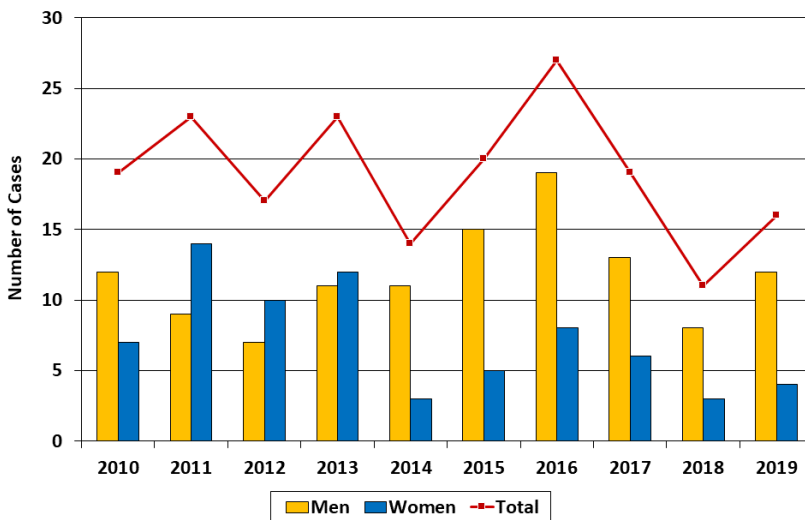
### Characteristics of Injecting Drug Users (IDU)

Injecting drug users account for nine percent of reported risks for people living with HIV/AIDS in 2019 and three percent of people recently diagnosed with HIV/AIDS during 2018-2019. (Figure 3.13)

**Figure 3.13: Number of New HIV/AIDS Cases due to Injecting Drug Use by Gender, Race and Year of Diagnosis**



**Figure 3.14: Number of HIV/AIDS Cases Due to Injecting Drug use by Gender and Year of Diagnosis**



Over the past ten years, the number of new HIV/AIDS diagnosis with a reported risk of injecting drug use had been declining; however, the number of IDU reported risk increased in both 2015 and 2016. Considering the national opioid crisis, it is important to monitor this risk category closely. Men account for the largest proportion of those reporting injecting-drug-use as their risk. (Figure 3.14)

Figure 3.15 shows race and gender proportions of recently diagnosed (2018-2019) IDU cases. Men account for 74 percent: African American men 26 percent, white men 48 percent, and Hispanic/other four percent. African American women accounted for four percent and white women 19 percent.

Figure 3.15: Proportion of Injecting Drug Users Diagnosed with HIV/AIDS 2018-2019 by Race/Sex

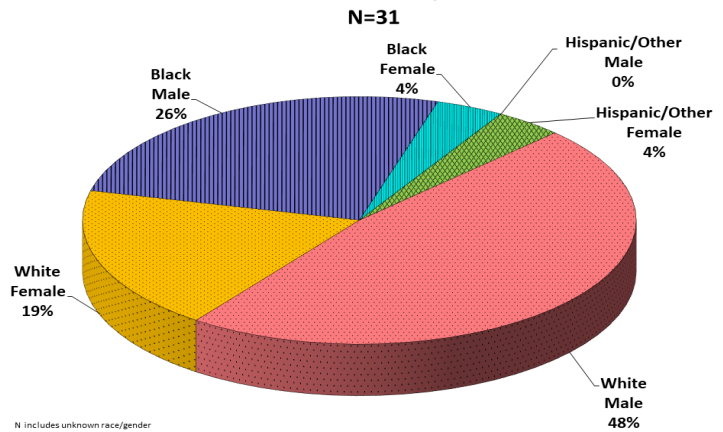


Figure 3.16: Percent of Injecting Drug Users Diagnosed with HIV/AIDS 2018-2019 by Age Group, Race, and Gender

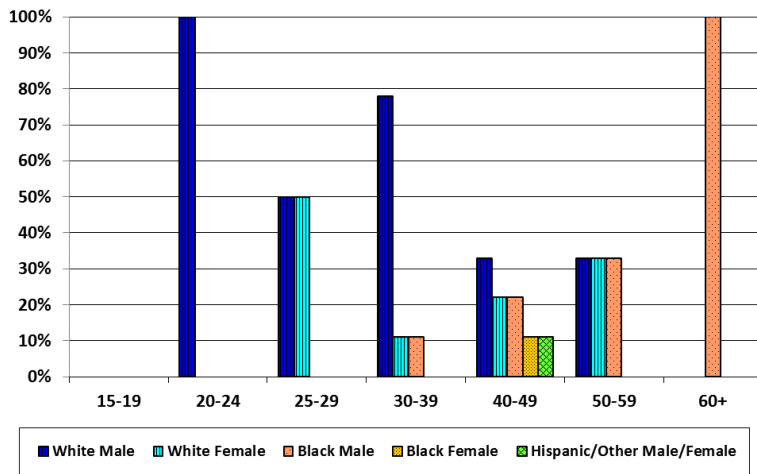


Figure 3.16 shows that 55 percent of IDU cases diagnosed in 2018-2019 are over the age of 40: 40-49 33 percent, 50-59 11 percent, and 60+ 11 percent. Of those reporting IDU as their risk, 11 percent were age 20-29, and 33 percent were age 30-39.

Of PLWHA with IDU as an identified risk factor, most (92 percent) are 40 years of age and older. African Americans account for the greatest proportion of cases over the age of 40, with African American men accounting for 44 percent and African American women accounting for 28 percent.

Within the 20-39 age groups, both white men and women account for the greatest proportion (33 percent) and white men (33 percent), followed by African American men 15 percent and African American women 12 percent. (Figure 3.17).

Figure 3.17: Percent of IDU Persons Living with HIV/AIDS by Race/Sex and Age Group, 2019 (N=1,356)

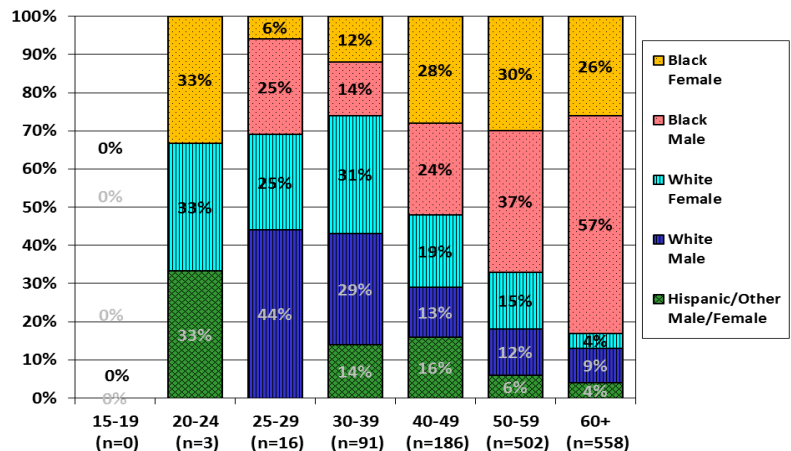
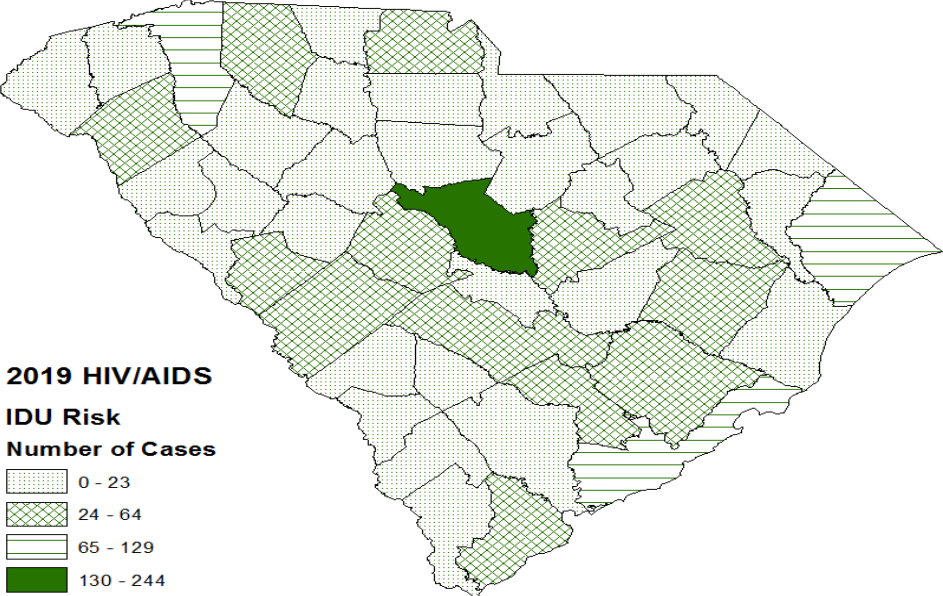


Figure 3.18 shows Richland County has the highest number of PLWHA with IDU as an identified risk factor. As with other risks, the more urban counties have the greatest numbers.

**Figure 3.18: S.C. HIV/AIDS Prevalence of IDU Risk**



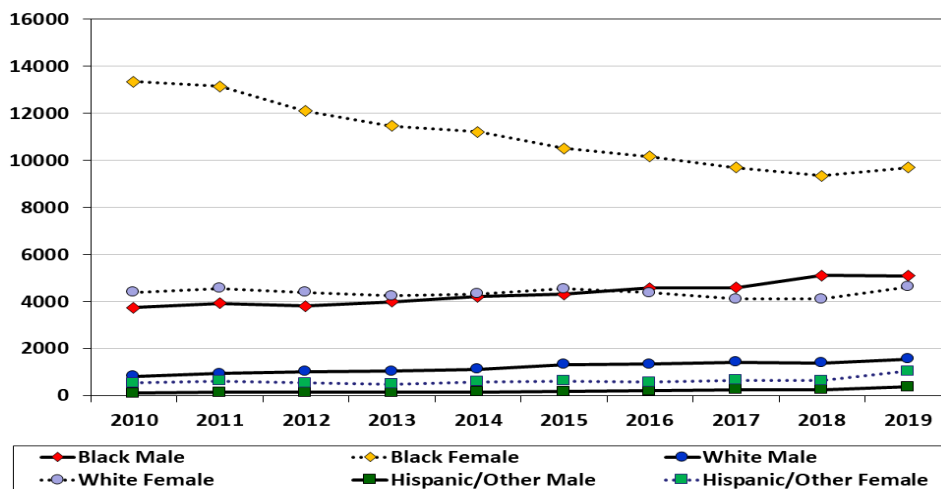
**Sexually Transmitted Infections (STIs)**

STIs are primary risk factors for HIV infection and a marker of high risk, unprotected sexual behavior. Many STIs cause lesions or other skin conditions that facilitate HIV infection. Trends in STI infection among different populations (e.g. adolescents, women, men who have sex with men) may reflect changing patterns in HIV infection that have not yet become evident in the HIV/AIDS caseload of a particular area.

## Chlamydia

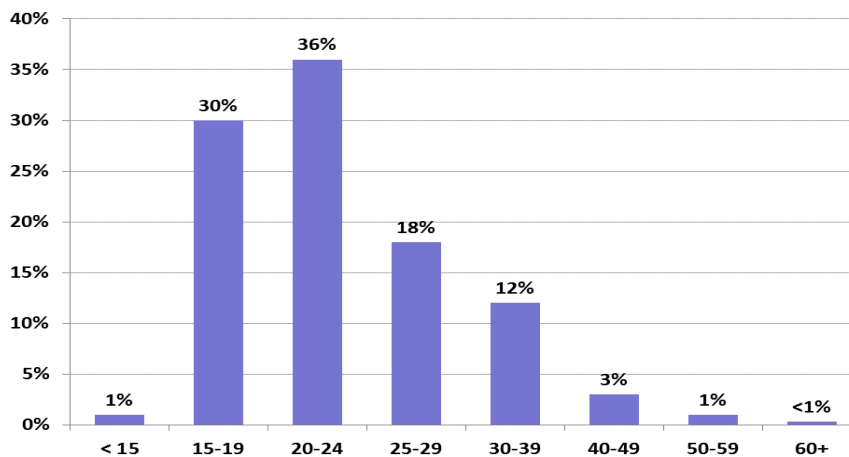
Over the past decade, reported cases of chlamydia have averaged about 29,656 per year. Some of this high number may be attributed to initiating routine screening for all young women attending family planning and STI clinics in health departments statewide. In 2019, there were 36,258 cases of chlamydia diagnosed in South Carolina. Among those cases with a reported race, 43 percent were African American women and 21 percent were white women. African American men comprised 23 percent of chlamydia cases, and white men accounted for seven percent (Figure 3.19). Thirty-eight percent of chlamydia cases have 'Unknown' race and/or gender; this is largely attributed to the fact that these conditions are primarily reported by labs, which frequently do not collect data for race.

**Figure 3.19: South Carolina Count of Reported Chlamydia Cases by Year of Diagnosis, 2010-2019**



Of cases diagnosed in 2019, 85 percent were adolescents and adults under the age of 30. 15-19, 30 percent; 20-24, 36 percent; and 25-29, 18 percent. Persons age 30 and over accounted for 16 percent of chlamydia cases. Figure 3.20

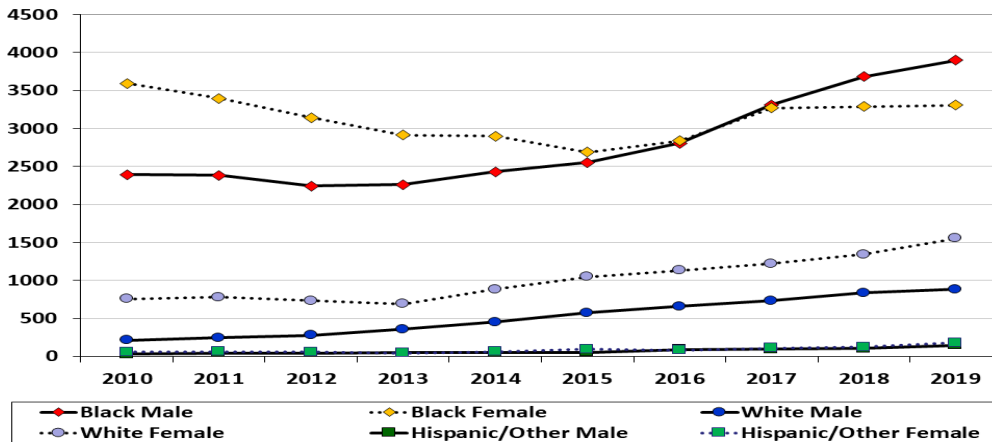
**Figure 3.20: Proportion of 2019 Chlamydia Cases by Age Group**



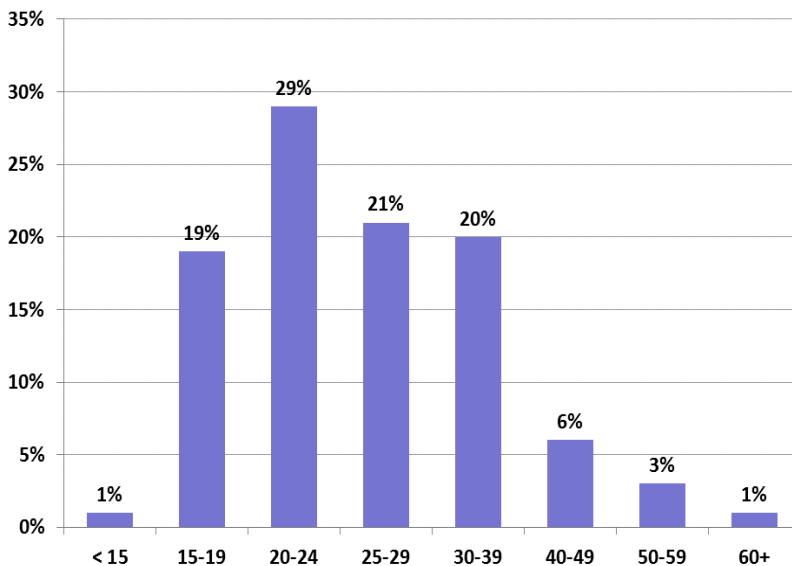
## Gonorrhea

In 2019, 14,317 gonorrhea cases were diagnosed in South Carolina. Of cases with a reported race, African American men and women account for 72 percent of reported cases; African American women 33 percent and African American men 39 percent. As with chlamydia, 30 percent of reported gonorrhea cases have an 'Unknown' race and/or gender. Figure 3.21 shows trends among reported race/gender by year.

**Figure 3.21: South Carolina Count of Reported Gonorrhea Cases by Year of Diagnosis, 2010-2019**



**Figure 3.22: Proportion of 2019 Gonorrhea Cases by Age Group**



70 percent of Gonorrhea cases diagnosed in 2019 were between the ages of 15 and 29. Nineteen percent of cases were age 15-19, twenty-nine percent were age 20-24, and 21 percent were age 25-29. Persons age 30 and over accounted for 30 percent (Figure 3.22).

## Syphilis

The surveillance case definition for syphilis has changed over time. In January 2018, a revised case definition for syphilis was adopted, including changing the stage previously termed “early latent syphilis” to “syphilis, early non-primary non-secondary”. This change in terminology more accurately reflects this stage of infection, as neurologic symptoms, including ocular syphilis, can occur at this stage. Additionally, the stages of “late latent syphilis” and “late syphilis with clinical manifestations” were removed and “syphilis, unknown duration or late” was added. More information on syphilis morbidity reporting and the current case definition can be found in Appendix C of Centers for Disease Control and Prevention (CDC), [Sexually Transmitted Disease Surveillance 2018 report](#).

## Total Syphilis

**Figure 3.23: South Carolina Count of Reported Total Syphilis Cases by Year of Diagnosis, 2010-2019**

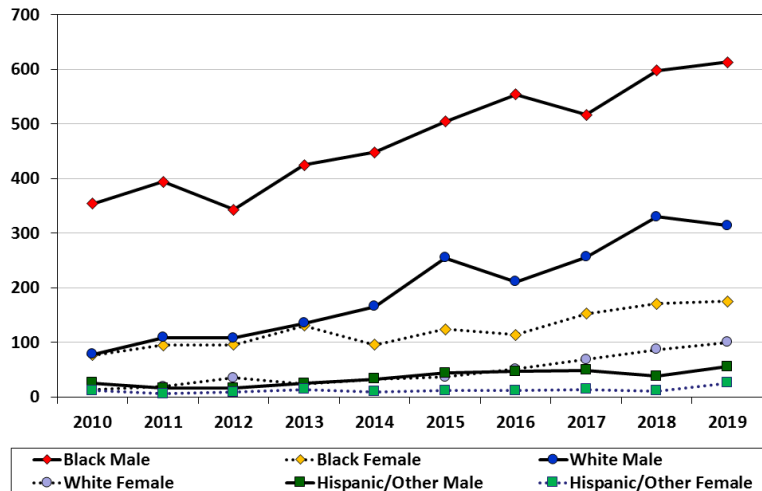
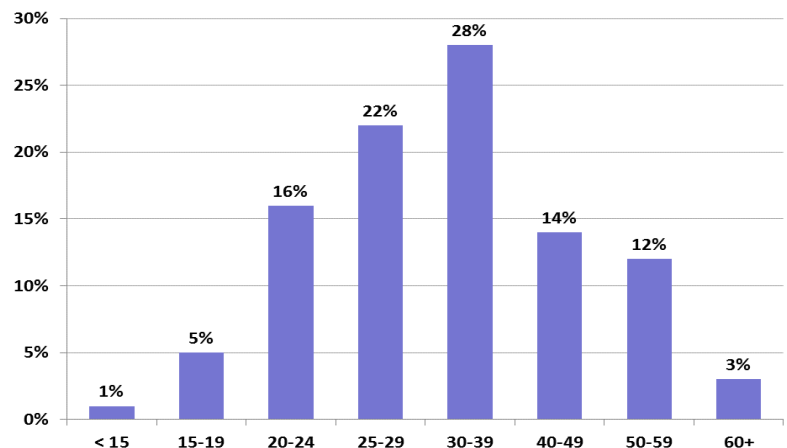


Figure 3.23 shows men continue to represent the majority of cases (76 percent): African American men specifically, are most impacted, accounting for 46 percent of total cases, white men accounting for 24 percent, and Hispanic/other men four percent. Women account for 24 percent of the total syphilis cases: African American women comprised 13 percent, white women eight percent, and Hispanic/other women two percent. Four percent of total syphilis cases have ‘unknown’ race.

Forty- four percent of total syphilis cases diagnosed in 2019 were under the age of 30. Five percent age 15-19, 16 percent were age 20-24, 22 percent were age 25-29 and 28 percent were age 30-39. Fifty-six percent of total cases were over the age of 30; 28 percent 30-39, 14 percent 40-49, and 15 percent age 50+ (Figure 3.24).

**Figure 3.24: Proportion of 2019 Total Syphilis Cases by Age Group**



### Primary and Secondary Syphilis

The number of infectious (primary and secondary) syphilis diagnosed each year in South Carolina has dramatically increased over the past ten years. In 2019, 521 cases of primary and secondary syphilis were diagnosed; this is a 254 percent increase from 2010 (147 cases). On average, the number of primary and secondary syphilis cases diagnosed each year has increased 17 percent per year over the last decade.

**Figure 3.23a: South Carolina Count of Reported Primary and Secondary Syphilis Cases by Year of Diagnosis, 2010-2019**

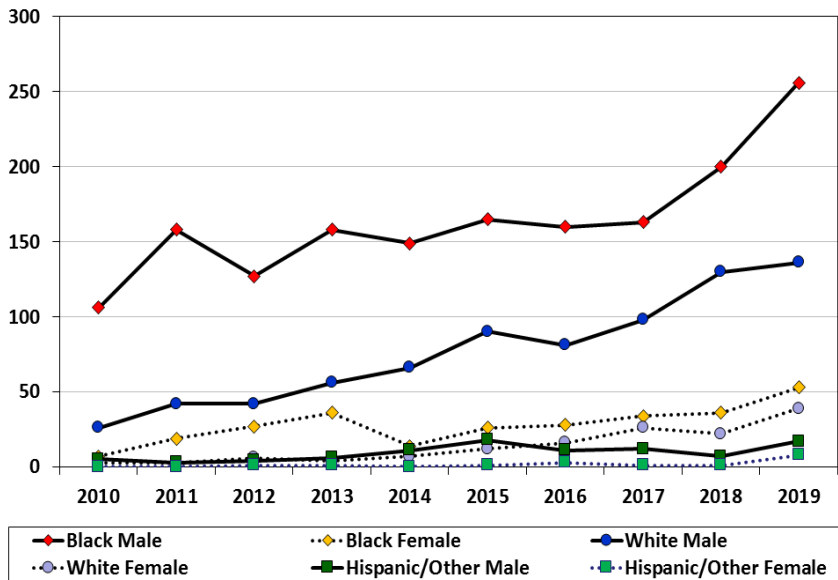
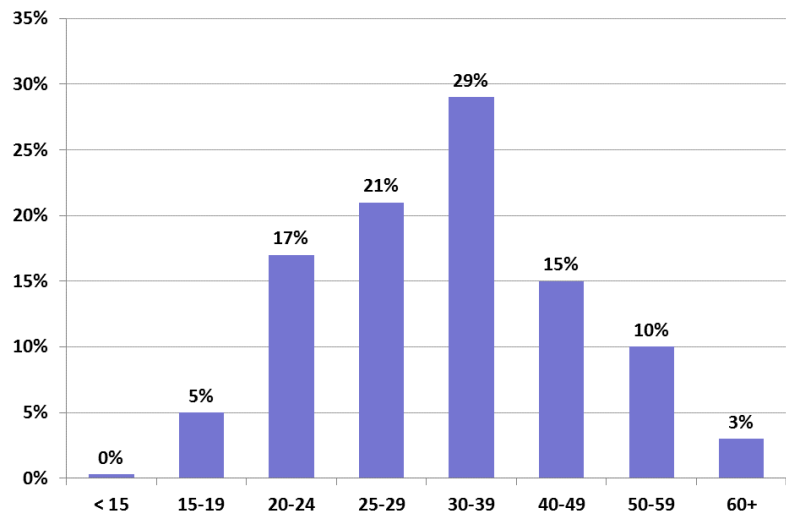


Figure 3.23a shows men continue to represent the majority of cases (79 percent): African American men specifically, are most impacted, accounting for 49 percent of total cases, white men accounting for 26 percent, and Hispanic/other men three percent. Women account for 19 percent of the total primary and secondary syphilis cases: African American women comprised 10 percent, white women seven percent, and Hispanic/other women less than two percent. Two percent of primary and secondary syphilis cases have 'unknown' race.

Forty- three percent of primary and secondary syphilis cases diagnosed in 2019 were under the age of 30. Five percent age 15-19, Seventeen percent were age 20-24, and 21 percent were age 25-29. Fifty-seven percent were over the age of 30; 29 percent 30-39, 15 percent 40-49, and 13 percent age 50+ (Figure 3.24a).

**Figure 3.24a: Proportion of 2019 Primary and Secondary Syphilis Cases by Age Group**



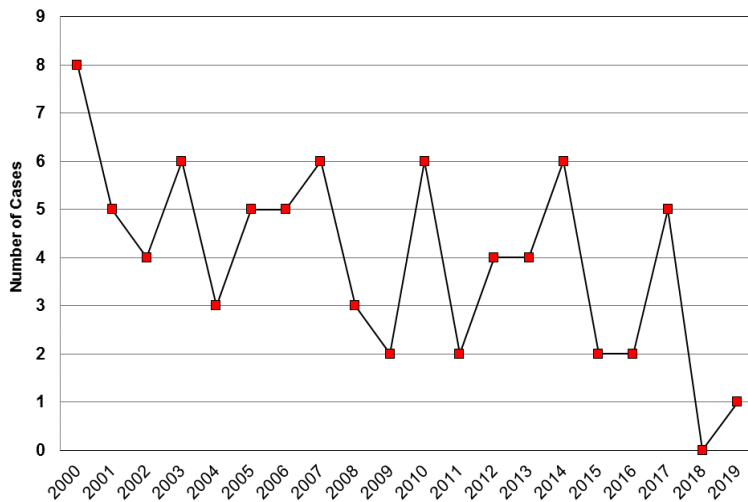


## Special Populations

### Infants and Children: (Children under 13 years of age)

Cumulatively, through December 2017, there have been 291 cases of HIV infection diagnosed among children less than 13 years of age; this represents one percent of the total reported AIDS and HIV infection cases.

**Figure 3.25: Number of Children <13 years Old Diagnosed with HIV/AIDS in South Carolina, 2000-2019**

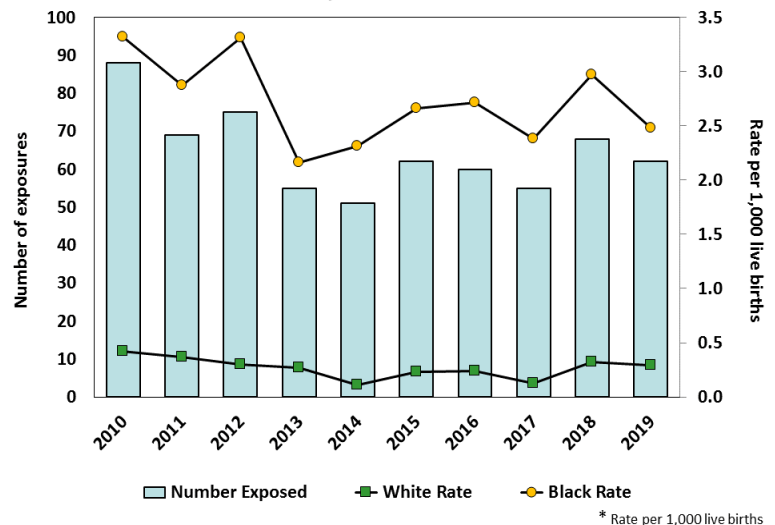


Most infants and children infected with HIV acquired it perinatally from their mother. There has been significant progress over the past twenty years in reducing the number of infants with perinatal acquired HIV infection (see Perinatally HIV exposed births below). When reporting small numbers of cases, trend graphs, such as the one in Figure 3.25, tend to display a lot of fluctuation over the given time period. The highest number of cases reported was 21 in 1993 (not on graph); the lowest number is zero case (2018). There was one case reported in 2019.

### Perinatally HIV exposed births

The number of perinatally HIV exposed births averages around 65 per year, while perinatally acquired HIV cases average one per year. This translates into 1.4 percent of perinatally HIV exposed births testing positive for HIV. Figure 3.26 shows the number of perinatally HIV exposed births (values on left) and the rate by race of mother (values on right). In 2019, the exposure rate for African American women is 9 times higher compared to white women.

**Figure 3.26: Perinatally HIV Exposed Births by Year of Birth and Rate\* by Race and Year of Birth**



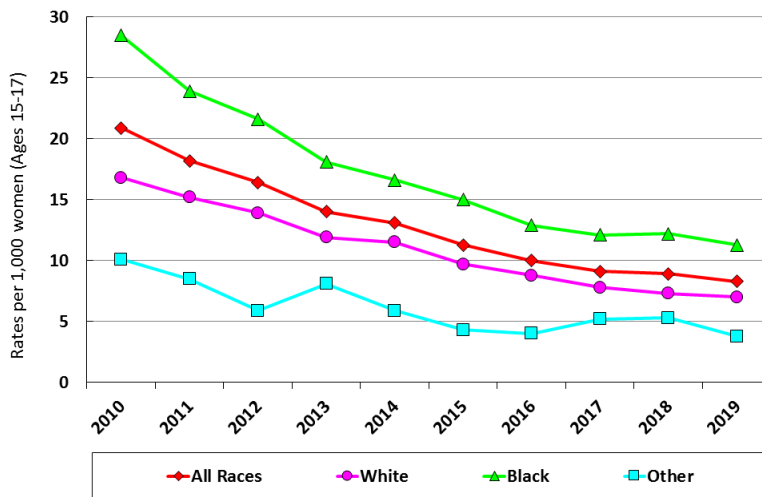


## Teenage Pregnancy

Pregnancy birth and abortion rates, like STI rates, are indications of the extent of unprotected sexual activity in a population.

African American girls between the ages of 10 and 14 have continued to have higher rates of live births than their white counterparts. However, the rate has decreased from 1.1 in 2010 to 0.4 per 1,000 live births in 2019.

**Figure 3.27: South Carolina Teens Age 15 - 17 Live Birth Rate**

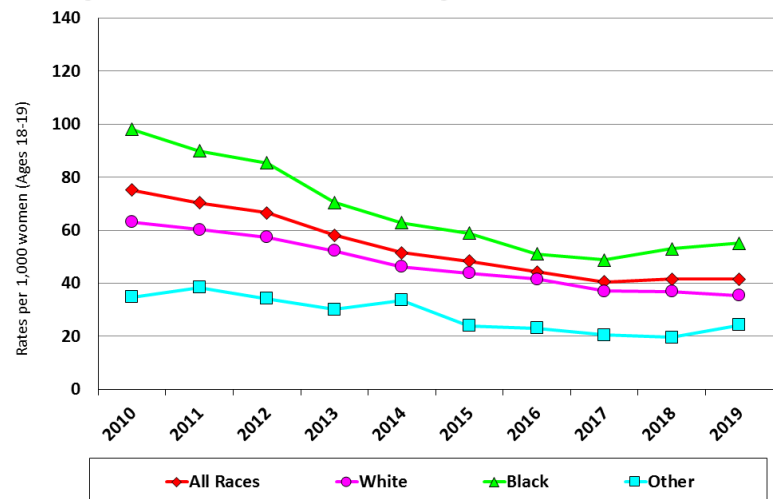


Source – SCDHEC, Vital Records, SC Residence Data

Teenage live births among 15-17-year-old South Carolinians have decreased from a rate of 20.9 per 1,000 live births in 2010 to 8.3 in 2019: a 60 percent decline (Figure 3.27). Similar data are also seen when viewing teen birth rates by racial/ethnic subgroups. The rate for white 15-17-year-old teens was 16.8 in 2010 and 7.0 in 2019, representing a 58 percent decline. The rate for African American 15-17-year-old teens declined 60 percent from 28.5 per 1,000 live births in 2010 to 11.3 in 2019.

Figure 3.28 shows the teen birth rates (per 1,000 live births) for 18 and 19-year-old. As with the 15-17 age group, African American teenage girls continue to have higher live birth rate than other races. All races have seen an overall decrease in the live birth rates from 2010 (75.1 per 1,000 live births) to 2019 (41.5 per 1,000 live births).

**Figure 3.28: South Carolina Teens Age 18 – 19 Live Birth Rates**



Source – SCDHEC, Vital Records, SC Residence Data

## **People Receiving HIV Counseling and Testing at County Health Departments**

Data from local HIV counseling and testing sites (county health departments) generally reflect similar trends as HIV/AIDS surveillance data in terms of who is most likely to be HIV infected, risk category, and county of residence. As stated in the Introduction, the data reflects only those people tested voluntarily in local health departments. This data reflects the number of individuals tested, not the number of tests. In 2019, African Americans comprised 64 percent of the total people tested, and 74 percent of the total positive. Men accounted for 33 percent of people tested and 83 percent of total positive. People 20-39 years of age represented the highest proportion tested (76 percent) and the highest proportion total positive people (69 percent). People over the age of 40 comprised 16 percent of the total people tested, and 27 percent of the total positive.

Public Health Regions (PHR) that accounted for the greatest proportion of people tested who were positive include those with the same urban counties of highest prevalence:

Lowcountry PHR (includes Charleston County) – 19 percent of total positives;

Midlands PHR (includes Richland County) - 36 percent of total positives tested;

Pee Dee PHR (includes Sumter and Florence counties) – 19 percent of total positives;

Upstate PHR (includes Greenville and Spartanburg Counties) – 21 percent of total positives;

## **Behavioral Risk Data**

### **Behavioral Risk Factor Surveillance System (BRFSS)**

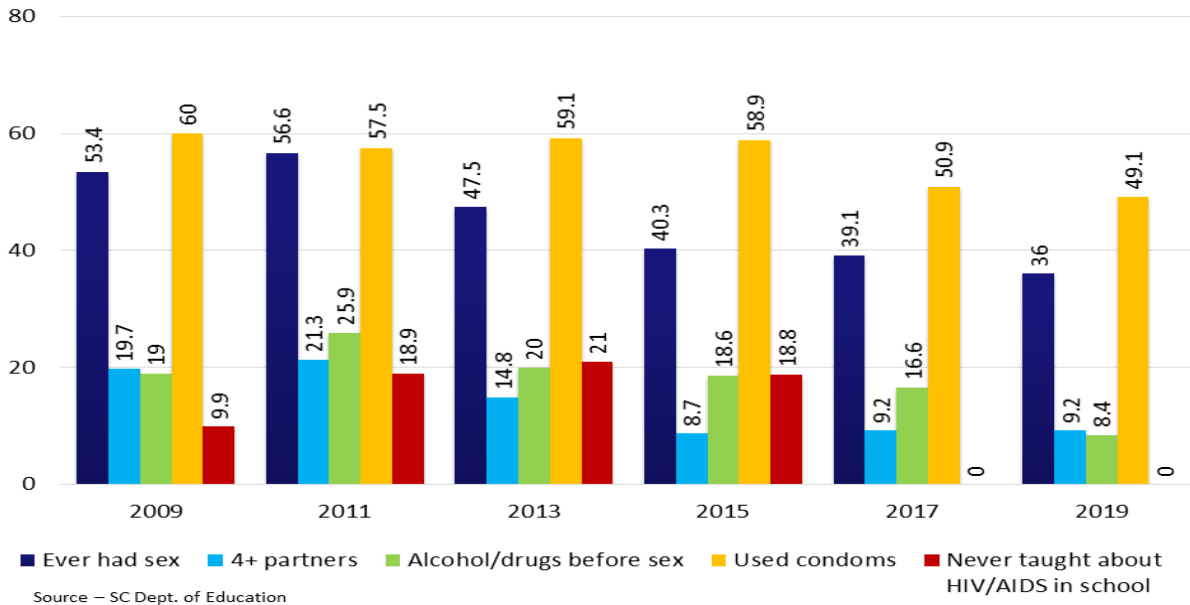
Behavior Risk Factor Surveillance System is the world's largest random telephone survey of non-institutionalized population aged 18 or older that is used to track health risks in the United States. Several core questions address knowledge, attitudes, beliefs, and behaviors regarding sexually transmitted diseases, particularly AIDS.

The HIV/AIDS questions for the 2019 BRFSS survey focused on respondents HIV/AIDS testing history. Results show that when asked about ever being tested for HIV themselves, 42 percent of respondents indicated ever being tested. African Americans were more likely (63%) to have been tested than Caucasians (34%). Men are only slightly less likely to have been tested than women (40% versus 44%).

### **Youth Risk Surveillance Survey (YRBSS)**

The YRBSS has been conducted in SC high schools every other year since 1991 and in middle schools since 2005. Figure 3.29 shows the proportion of high school students who have been sexually active, report having had four or more lifetime partners, and report using a condom at last sexual intercourse (had intercourse in past 3 months). Number of partners and condom use are important because of the increased risk of exposure to HIV.

**Figure 3.29: Proportion of High School Students Indicating Sexual Risks, 2009-2019**



### Individual with Substance Use Disorder

Drug use is known to be a major factor in the spread of HIV infection. The Centers for Disease Control (CDC) specifically includes Injection Drug Use (IDU) as a transmission category for the classification of cases that summarizes a person’s possible HIV risk factor. IDU is considered a high risk because shared equipment (primarily used needles, but also other equipment) can retain HIV, which is drawn up into a syringe and then injected along with the drug by the next user of the syringe. Sharing equipment for using drugs can also be a means for transmitting hepatitis B, hepatitis C, and other serious diseases.

Additionally, non-injecting drug use, including methamphetamine or alcohol, is linked with unsafe sexual activity, which increases the risk of becoming infected with HIV or another sexually transmitted disease. Often, substance users have multiple sexual partners and do not protect themselves during sexual activity. Also, substance users may have an increased risk of carrying sexually transmitted diseases; this can increase the risk of becoming infected with HIV, or of transmitting HIV infection.

According to the South Carolina Department of Alcohol and Other Drug Abuse Services (DAODAS), Six percent of discharged episodes in federal fiscal year 2016 reported active or historical injection use. Additionally, 43 percent of the discharged episodes reported using an illicit drug other than marijuana (17 percent Opiates, 16 percent Cocaine, and 11 percent Amphetamines).

## Patterns of Service Utilization of HIV-infected People

### Ryan White Part B

In 1990, Congress enacted the Ryan White CARE Act to provide funding for states, territories and Eligible Metropolitan Areas to offer medical care and support services for people living with HIV disease who lack health insurance and financial resources for their care. Congress reauthorized the Ryan White CARE Act in 1996 and 2000 to support Titles I through IV, Special Projects of National Significance (SPNS), the HIV/AIDS Education Training Centers and the Dental Reimbursement Program, all of which are part of the CARE Act. The legislation was reauthorized again in 2006 when it became the Ryan White HIV/AIDS Treatment Modernization Act and finally in 2009 with the Ryan White HIV/AIDS Treatment Extension Act.

Ryan White Part B funding is used to assist States and Territories in developing and/or enhancing access to a comprehensive continuum of high quality, community-based care for low-income individuals and families living with HIV.

**Figure 4.01: Characteristics of Ryan White Part B Clients Compared to S.C. Persons Living with HIV/AIDS in 2019**

	Ryan White Part B Clients, N=11,643	Persons Living with HIV/AIDS, N=20,154
<b>Race/Ethnicity</b>		
White, not-Hispanic	22%	25%
Black, not-Hispanic	72%	68%
Hispanic	4%	5%
Other	2%	2%
<b>Sex</b>		
Male	69%	72%
Female	31%	28%
Transgender	<1%	---
<b>Age Group</b>		
< 24	5%	---
25-44	38%	---
45+	57%	---

During 2019, 11,643 clients received services through the Ryan White Part B funds. Figure 4.01 presents the distribution of Part B clients by race/ethnicity, sex and age as well as for PLWHA in South Carolina through December 2019. Clients served through Part B are representative of the population affected with HIV/AIDS in all categories.

HRSA has directed that states should

allocate funds for essential core services including:

- 1) Primary Medical Care consistent with Public Health Service (PHS) Treatment Guidelines;
- 2) HIV Related Medications;
- 3) Mental Health Treatment;
- 4) Substance Abuse Treatment;
- 5) Oral Health; and
- 6) Medical Case Management.

Figure 4.02 shows a breakdown of Ryan White Part B clients who received six of the core services through funding and the average number of visits per clients. Among the 11,643 clients who received services, the majority of clients obtained medical case management services (n=9,555) followed by medical care, Medication Assistance (utilization of HIV related medications is described in the ADAP section), mental health services, dental care and substance abuse services.

**Figure 4.02: South Carolina Ryan White Part B Service Utilization by Service Type, 2019**

	No. of clients receiving service	No. of visits per category	Avg. no. of visits per client
Medical Care	9414	35308	4
Oral/Dental Care	1537	3376	2
Mental Health	2486	5523	2
Substance Abuse	1502	2039	1
Medical Case Management	9555	118802	12

Of those services utilized most by clients (visits/clients), medical case management services were among the highest (12 visits per clients), followed by medical care (four visits per client), mental health services (two visits per client), dental care (two visits per client), and substance abuse (one visit per client).

Additional services obtained by clients in 2019 included health education/risk reduction, case management (non-medical), housing services, medical transportation, food bank/home delivered meals, referral for health care and supportive services, and psychological support services.

## **AIDS Drug Assistance Program (ADAP)**

The South Carolina AIDS Drug Assistance Program (S.C. ADAP) operates under the Ryan White HIV/AIDS Treatment Modernization Act to provide access to medications that treat HIV disease and to prevent the serious deterioration of health arising from HIV disease in eligible individuals. The S.C. ADAP provides medication assistance via the following service tiers: 1) Direct Dispensing to provide medications via mail-order through a contracted pharmacy; 2) Insurance Assistance to reimburse costs for private insurance premiums, copayments, and deductibles; and 3) Medicare Assistance to provide support for Medicare Part D copayment and deductible costs. S.C. ADAP enrollment and services are centrally managed by the S.C. Department of Health and Environmental Control.

Currently there are 111 drugs on the approved S.C. ADAP Formulary including 51 HIV antiretroviral drugs. In the past, once an antiretroviral medication received FDA approval, it was automatically added to the S.C. ADAP formulary. With the new development of extremely expensive therapies, such drugs are added as appropriate, after a thorough medical and fiscal review and in compliance with ADAP performance measures. Fuzeon, Selzentry, and Vitekta currently require prior authorization for approval. As of April 1, 2014, prior authorization is not required for abacavir-containing medications or ribavirin. There are no restrictions or caps on the number of antiretroviral medications per client.

Eligibility for S.C. ADAP includes verified HIV-positive status, South Carolina residency, and an income criteria requirement measured according to the Federal Poverty Guidelines (FPL). Eligibility for the ADAP direct dispensing service tier and for the ADAP insurance assistance service tier is 550 percent of FPL. Eligibility for the Medicare Assistance service tier is also 550 percent of FPL and applies for individuals who do not qualify for the Medicare Part D Full Low-income Subsidy (FLIS). Expenditures are carefully monitored, and projections are reviewed monthly.

Figure 4.03 lists the characteristics of clients enrolled in ADAP during 2019. Clients served through ADAP have a similar distribution to that of PLWHA in South Carolina. The majority of the clients are non-Hispanic African American (69 percent), male (75 percent) and female (25 percent); age 45 and over (52 percent).

**Figure 4.03: Characteristics of ADAP Clients Compared to S.C. Persons Living with HIV/AIDS in 2019**

	ADAP Clients, N=5,565	Persons Living with HIV/AIDS, N=20,166
<b>Race/Ethnicity</b>		
White, not-Hispanic	22%	25%
Black, not-Hispanic	69%	68%
Hispanic	7%	5%
<b>Sex</b>		
Male	75%	78%
Female	24%	28%
Transgender	1%	N/A
<b>Age Group</b>		
< 13	<1%	--
13-24	4%	--
25-44	45%	--
45-64	45%	--
65+	5%	--

**Figure 4.04: 2019 ADAP Patient Profile Compared to Persons Living with HIV/AIDS**

	S.C. HIV/AIDS Prevalence N=20,334	Direct Dispensing N=3,036	Insurance Program N=2,669	Medicare Part D Assistance N=327
<b>Race/Ethnicity</b>				
White, not-Hispanic	25%	17%	25%	50%
Black, not-Hispanic	67%	72%	70%	46%
Hispanic	5%	10%	3%	2%
<b>Sex</b>				
Male	72%	77%	72%	77%
Female	28%	22%	26%	23%

Figure 4.04 shows a similar list of characteristics by Service Type. Men comprise the largest proportion across all three service types. ADAP's Direct Dispensing served the largest number of clients and has a similar distribution to that of PLWHA in South Carolina. African Americans also comprise the largest proportion within the Insurance Program and Whites comprised the largest proportion within Medicare Part D Assistance.

clients who received each of three types of services that support access to medications and the average number of services per client. The majority of SC ADAP enrollees received prescriptions, via mail order for uninsured clients and at retail pharmacies with insurance copayment/deductible assistance from SC ADAP. The SC ADAP paid health insurance premiums for enrollees with access to private insurance and supported out-of-pocket costs for enrollees with Medicare Part D coverage.

**Figure 4.05 shows a breakdown of SC ADAP**

**Figure 4.05: South Carolina ADAP Service Type, 2019**

	Number of clients receiving service	Number of visits per category	Average number of Services per client
Prescription Refills: (Direct Dispensing & Insurance Copayments/Deductibles)	5109	68509	13
Premiums: Health Insurance Premiums (including Pre-existing Condition Plans)	1423	14151	10
Medicare Copayments/Deductibles*	327	6183	19

\*Insurance Copayments and Deductibles are associated with specific prescriptions and are reported as Refills/Medications.

## HIV Continuum of Care

### Methodology

The HIV Continuum of Care is a metrics developed by the Center for Disease Control and Prevention (CDC) as a way to monitor and report on the objectives outlined in the National HIV/AIDS Strategy for the United States, specifically: linked to care, received any care, retained in care, and viral suppression. Although the CDC developed the Continuum of Care metrics, each state has the discretion to modify the variables used in the metrics to meet a specific need. For the South Carolina Epidemiologic Profile, the following methodology was used.

- All persons with reported diagnoses of HIV infection (regardless of stage of disease) through year-end of the analysis year, who were alive at year-end
- All ages
- Last known state of residence is South Carolina
- CD4 and viral load tests (used as a surrogate for evidence of HIV care)
- 'Linked to care' is defined as "persons with a CD4 or viral load test within 3 months after HIV diagnosis, among persons newly diagnosed with HIV infection in the analysis year"
- 'Received Any Care' is defined as "persons with  $\geq 1$  CD4 or viral load test result during the analysis year"
- 'Retention in Continuous Care' is defined as "persons who had  $\geq 2$  CD4 or viral load test results at least 3 months apart during the analysis year"
- Per CDC guidelines 'Viral Suppression' is defined as "persons who had a Viral Load  $\leq 200$  copies/mL at most recent test during the analysis year"

***NOTE: Because the HIV Continuum of Care in this Epidemiologic Profile uses a different methodology from the CDC methodology, this Continuum of Care should not be used for comparison with national or other states' Continuum of Care.***

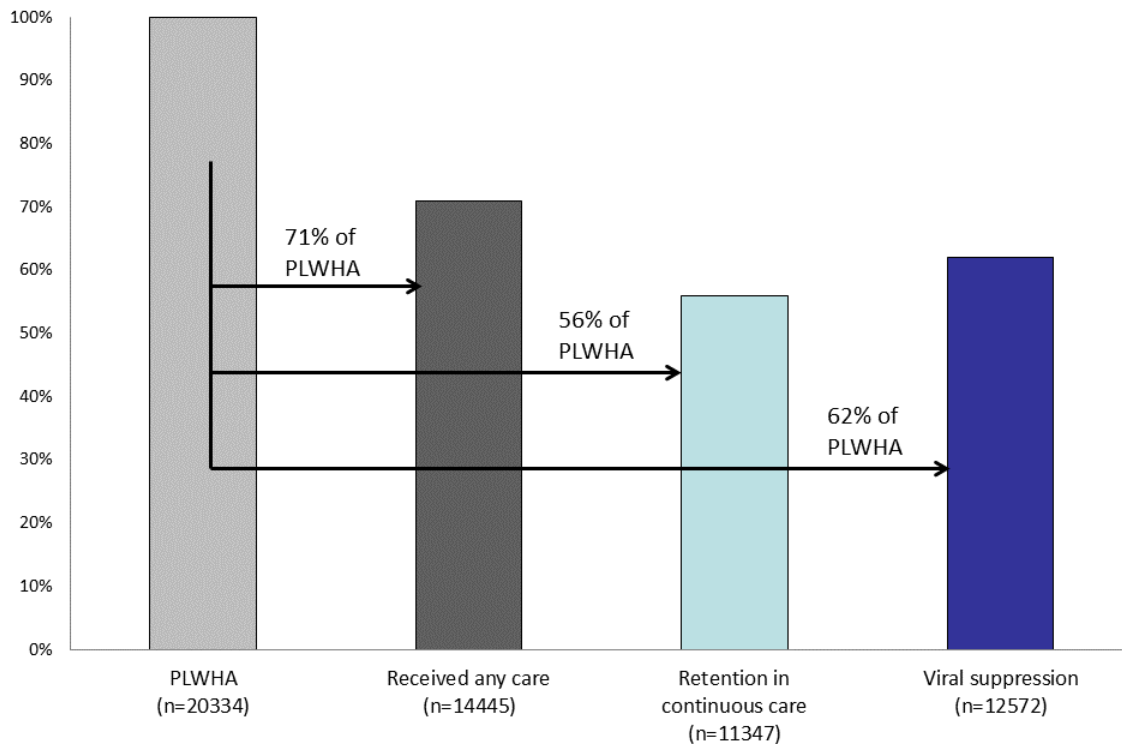


## HIV Continuum of Care – Diagnosed Prevalence

The National HIV/AIDS Strategy objectives of received any care, retained in care, and viral suppression in this epidemiologic profile use Diagnosed Prevalence (all people living with diagnosed HIV/AIDS). The objective Linked to Care uses incidence data (only people newly diagnosed with HIV/AIDS in 2019) and is discussed later.

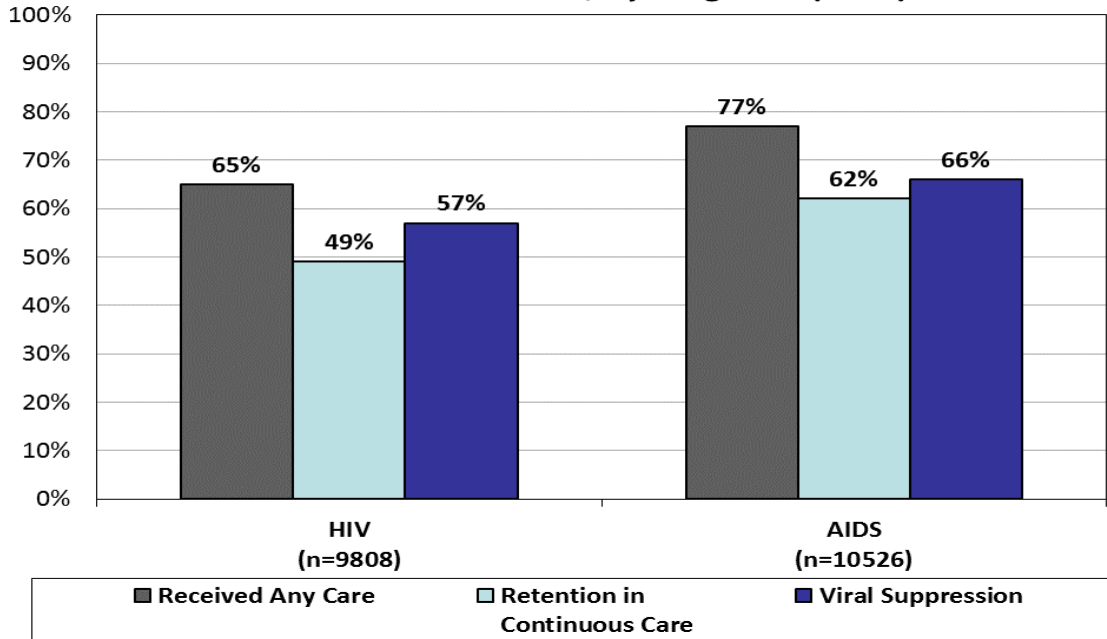
Figure 5.01 shows the number and percentage of PLWHA engaged in each step of the HIV continuum of care. Of the 20,334 PLWHA, 71 percent had at least one CD4 or viral load test during 2019; 56 percent of PLWHA had two or more CD4 or viral load tests at least three months apart during 2019; and 62 percent of PLWHA had a Viral Load  $\leq 200$  copies/mL at most recent test during 2019.

**Figure 5.01 Number and Percentage of Persons Engaged in Each Step of the HIV Continuum of Care, 2019**

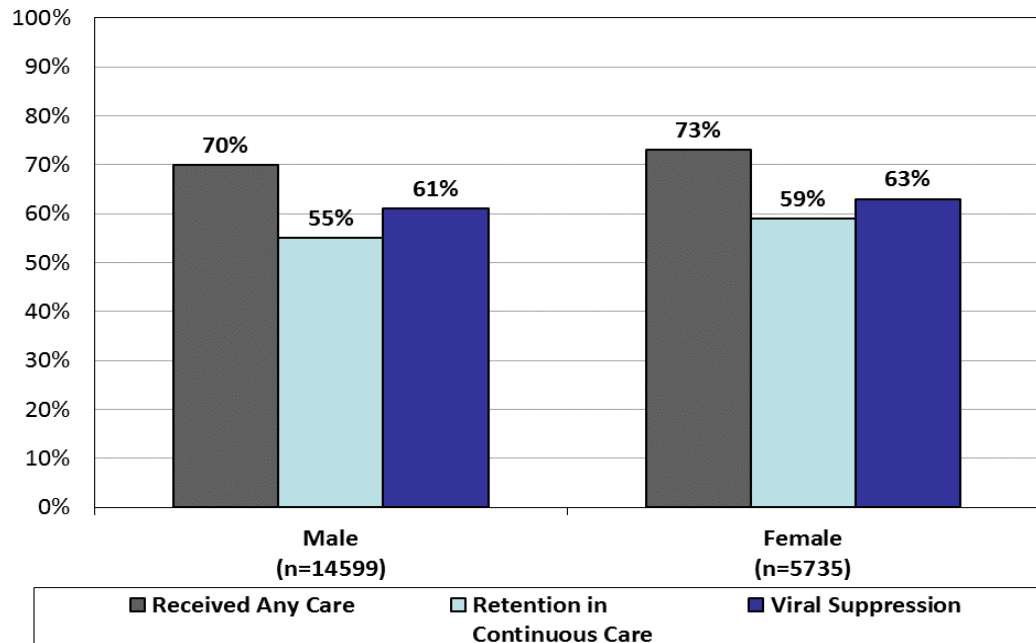


The following figures show the HIV continuum of care stratified by stage of HIV diagnosis, gender, race/ethnicity, age group, and transmission category (risk).

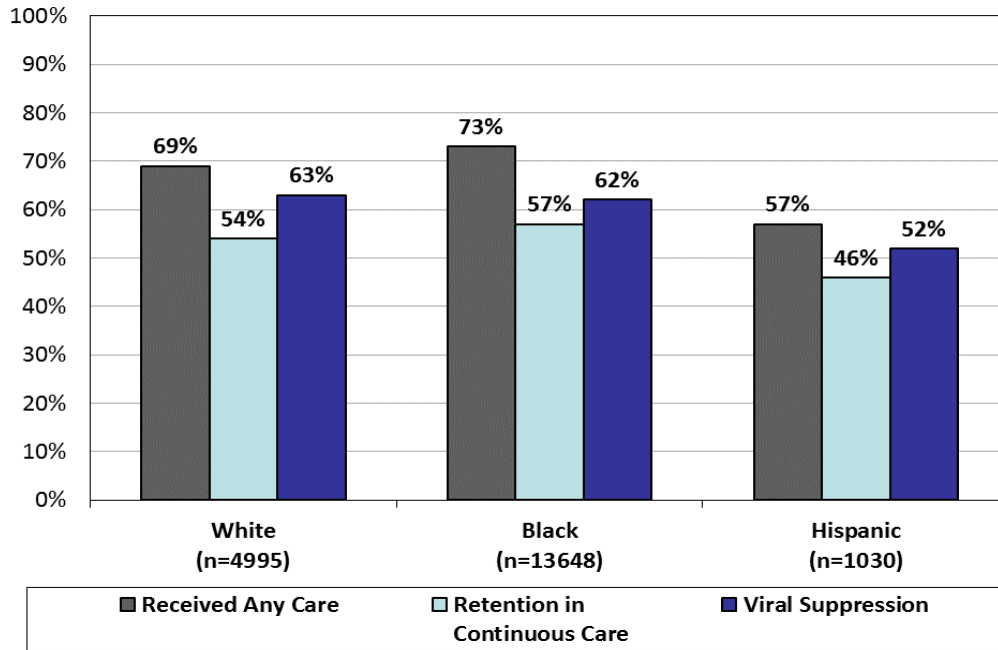
**Figure 5.02: Percentage of PLWHA Engaged in Each Step of the HIV Continuum of Care, by Diagnosis (2019)**



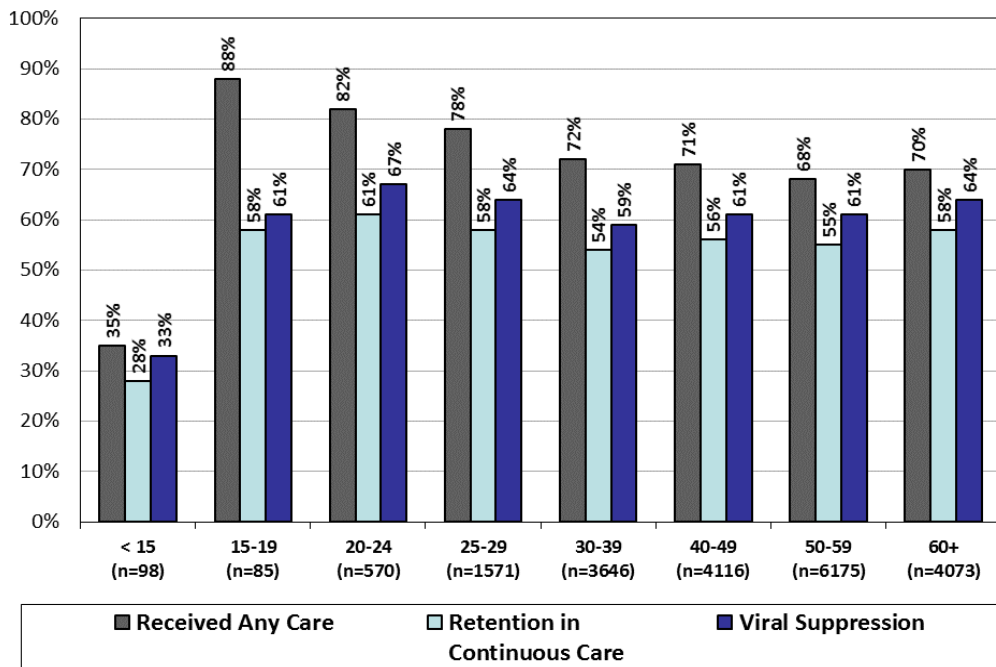
**Figure 5.03: Percentage of PLWHA Engaged in Each Step of the HIV Continuum of Care, by Gender (2019)**



**Figure 5.04: Percentage of PLWHA Engaged in Each Step of the HIV Continuum of Care, by Race/Ethnicity (2019)**



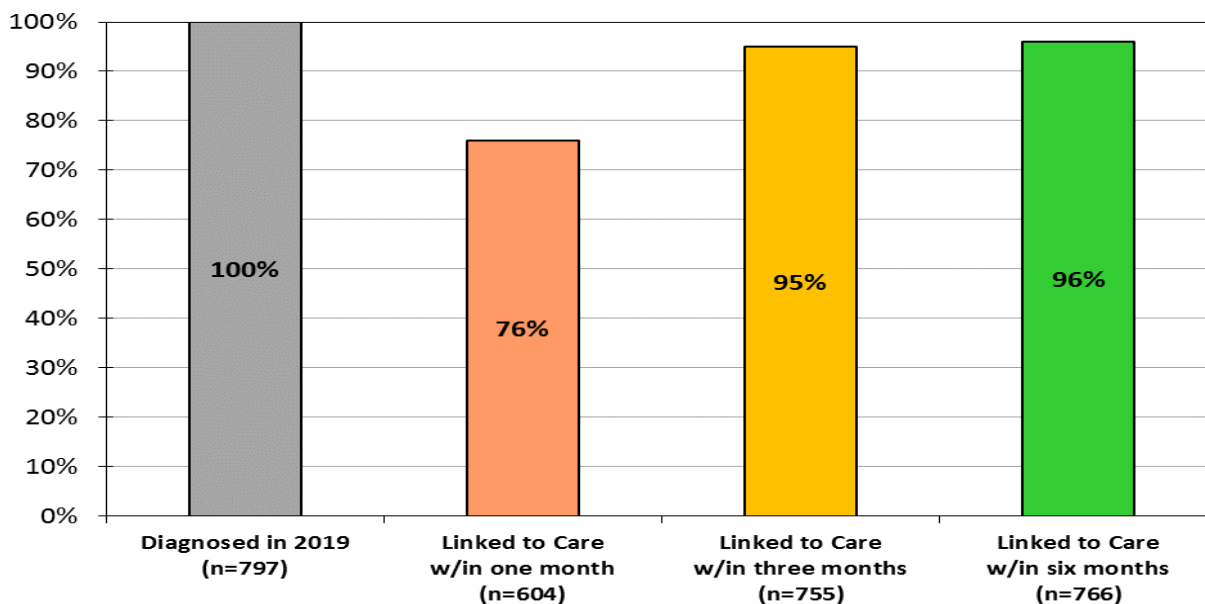
**Figure 5.05: Percentage of PLWHA Engaged in Each Step of the HIV Continuum of Care, by Age Group (2019)**



## HIV Continuum of Care – Linked to Care

To optimize HIV outcomes, prompt linkage to HIV medical care is necessary, ideally ensuring that persons enter HIV medical care very soon after initial HIV diagnosis. A person is considered linked to HIV medical care if there is at least one CD4 or viral load test result within three months of the initial diagnosis. Figure 5.07 shows the percentage of people diagnosed in 2019 who were linked to care within 3, 6, and 12 months of diagnosis.

**Figure 5.07: Percentage of Persons Linked to Care within 3, 6, and 12 Months After HIV Diagnosis Among Total Number of Persons Diagnosed with HIV infection in 2019**

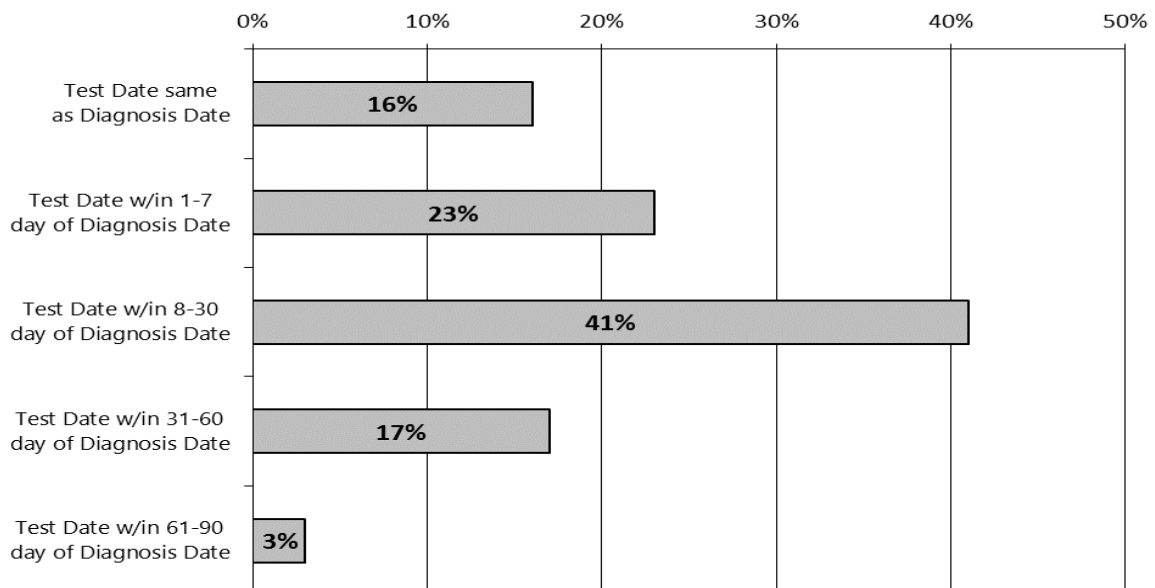


In July 2015, the new National HIV/AIDS Strategy 2020 changed the 'linked to care' objective from linkage within 90 days to linkage within 30 days. This change generated much discussion because, within the first 30 days, there is no accurate way to distinguish between a lab test done as part of the diagnosis confirmation process and a lab test done at a follow-up medical visit.

Figure 5.08 shows a break-down of the timing between the date of diagnosis and the lab test used to determine if the person was linked to care within 90 days.

Of the 755 people linked to care within 90 days of diagnosis, 16 percent had a lab date the same as the date of diagnosis; 23 percent had a lab date between one and seven days of diagnosis; 41 percent had a lab date between eight and 30 days of diagnosis; 17 percent had a lab date between 31 and 60 days of diagnosis; and three percent had a lab date between 61 and 90 days of diagnosis.

**Figure 5.08: Of Persons Linked to Care within 3 Months of Diagnosis:  
Timing of Test Date Relative to Diagnosis Date.**





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