

**Epidemiologic Profile of  
HIV and AIDS -  
Midlands Public Health Region  
2020**



Division of  
Surveillance, Assessment, and Evaluation  
Bureau of  
Communicable Disease Prevention and Control  
South Carolina Department of  
Health and Environmental Control

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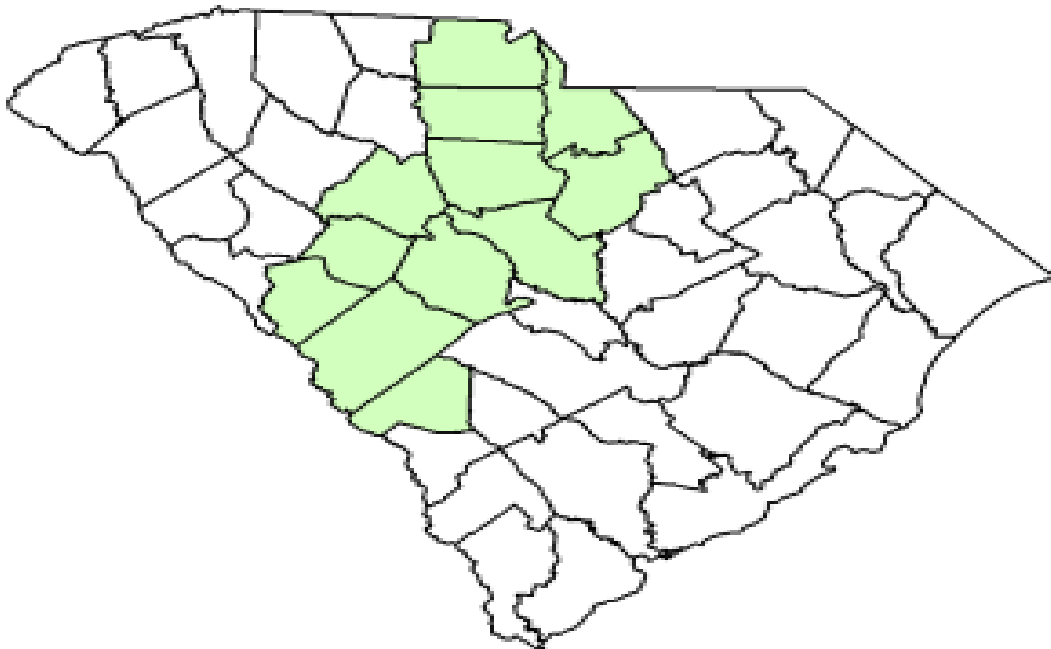
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## **Executive Summary**

This report provides the public health data for calendar year 2019. Data in this report presents the trends and characteristics related to Human Immunodeficiency Virus (HIV), as well as other sexually transmitted infections (STI), and the impact on the residents of the Midlands PHR. Types of data points discussed include: incidence (the number of new cases of HIV diagnosed in 2019), prevalence (the number of people living with HIV/AIDS and the people newly diagnosed), and rates (a measure of risk to allow for comparison of groups). Additionally, continuum of care is displayed in this report as: received any care (measured as those who received a CD4 or viral load test result in 2019), retained in care (those who had at least two CD4 or viral load test results at least three months apart in 2019), and virally suppressed (those who had a viral load of less than or equal to 200 copies per milliliter at their most recent test in 2019).

Since the HIV/AIDS epidemic began almost 40 years ago, more than ten thousand persons have died in South Carolina due to HIV-related causes. The use of Highly active Antiretroviral Therapy (HAART) since 1995 has shifted HIV/AIDS from a terminal diagnosis to a chronic condition, such as diabetes or hypertension, and thousands are currently living with HIV/AIDS in South Carolina. Currently, there is a decline in the number of deaths among people living with HIV (PLWHA); however, the number of PLWHA continues to increase due to individuals living longer and newly identified cases.

South Carolina is divided into four Public Health Regions. The Midlands region, located in the center of the state, consists of the following counties: Aiken, Barnwell, Chester, Edgefield, Fairfield, Kershaw, Lancaster, Lexington, Newberry, Richland, Saluda, York.



Recent data for the Midlands Public Health Region (PHR) in 2019 illustrates the disparity that continues to exist between the African American community and other race/ethnicities. African American men are more likely to be diagnosed and live with HIV in the Midlands than any other race/ethnicity and sex at birth combination in the region. Seventy-four percent of newly diagnosed cases of HIV are African Americans and 83% of new cases are men, in the Midlands PHR. Seventy-two percent of PLWHA are African American and 73% of PLWHA are men.

New cases of HIV primarily occur between the age of 20-49 (81%). Thirty percent of new cases of HIV occur in the Midlands PHR. Richland County has the greatest number of new cases (216,46%) as well as the highest rate in the region (26 per 100,000).

In 2019, 88% of PLWHA were above 30 years of age in the Midlands PHR. Thirty-three percent of the state's PLWHA are in the Midlands PHR; and Richland County has the greatest number (3,569, 52%) of PLWHA. Further, Richland County has the highest prevalence rate in the Midlands (858.4.0 per 100,000).

For PLWHA to remain healthy and to reduce the risk of transmitting HIV to others, it is important that they receive HIV medical care soon after diagnosis and remain in care to achieve viral suppression. On average, 91% of people newly diagnosed with HIV are successfully linked to care within three months or less, in the Midlands PHR. However, retention in care has been less successful, with only 51% of PLWHA remaining in care as of 2019. For PLWHA in the Midlands PHR, just 58% have achieved viral suppression.

Other Sexually Transmitted Infections (STIs) are also of concern in the Midlands PHR. In 2019, more than 11,000 cases of Chlamydia, 4,478 cases of Gonorrhea, and over 460 cases of Syphilis were reported in the Midlands PHR. Among all these sexually Transmitted Infections (STIs) including HIV, the African American community is most impacted, with rates exceeding five times that of other race/ethnicities for some STI's.

The methodology for how these statistics were generated can be found in Appendix A.

## **Ending the HIV Epidemic (EHE) National Plan and the Four Pillars**

To end the HIV epidemic, the U.S. Department of Health and Human Services (HHS) has proposed a plan to reduce new HIV infections in the United States. The Ending the HIV Epidemic: A Plan for America (EHE) initiative will implement high-impact HIV prevention, care, treatment, and outbreak response strategies in 48 counties, the District of Columbia, San Juan, Puerto Rico, and 7 states with a substantial rural HIV burden, the state of South Carolina included. The goal of the initiative is to reduce new HIV infections by 75% in 5 years, and by 90% in 10 years.

Efforts will focus on four pillars to obtain the intended reductions by 2030:

- DIAGNOSE all individuals with HIV as early as possible after infection;
- TREAT HIV infection rapidly after diagnosis and effectively in all people who have HIV, to help them get and stay virally suppressed;
- PREVENT HIV infections using proven prevention interventions, including most notably PrEP; and
- RESPOND rapidly to potential HIV outbreaks to get prevention and treatment services to people who need them.

### **Midlands Public Health Region Overview**

Twenty-nine percent (n=1,492,553) of South Carolina residents live in the Midlands PHR. As of December 31, 2019, there were 6,822 people living with HIV in the Midlands PHR, giving the region the highest number and proportion (33%) of PLWHA in South Carolina. The Midlands PHR has the second highest rate of PLWHA per 100,000 population (457.1). Thirty percent of people newly diagnosed with HIV in 2018-2019 live in the Midlands PHR.

The Midlands PHR has slightly more females than males and Caucasians are just over two times that of African Americans in the Midlands PHR. Further, Caucasians vastly outnumber the Hispanic population in the Midlands PHR. Further, demographic information can be found at the following website: <https://www.census.gov/quickfacts/fact/table/SC/HEA775219>.



**EHE Pillar 1: Diagnose All People with HIV as Early as Possible After Infection**

**Newly Diagnosed Cases of HIV by Sex at birth**

In the Midlands Public Health Region (PHR), 52% of residents are women, and 48% are men. Men in the Midlands PHR are disproportionately affected by HIV with 83% of new diagnoses in 2018-2019. Figure 2 displays the number of newly diagnosed cases of HIV by sex at birth in the Midlands PHR.

Figure 1: Newly Diagnosed Cases of HIV by Sex at birth, Midlands PHR (2019)

Sex at birth	Midlands PHR Total Population, 2019		Midlands PHR Total Newly Reported HIV Diagnosis, 2018-2019	
	Count	%	Count	%
Men	723,117	48%	388	83%
Women	769,436	52%	81	27%
Total	1,492,553	100%	469	100%

**Newly Diagnosed Cases of HIV by Race/Ethnicity**

African Americans in the Midlands PHR are disproportionately impacted by HIV. African Americans comprise approximately 30% of the Midlands PHR’s population, yet 74% of newly diagnosed cases were African American (Figure 2).

Figure 2: Newly Diagnosed Cases of HIV by Race/Ethnicity, Midlands PHR (2019)

Race/Ethnicity	Midlands PHR Total Population, 2019		Midlands PHR Total Reported HIV Diagnosis, 2018-2019	
	Count	%	Count	%
Caucasian	906,085	61%	85	20%
AA	444,287	30%	314	74%
Hispanic	66,510	4%	14	3%
Other	75,671	5%	14	3%
Total <sup>1</sup>	1,492,553	100%	427 <sup>1</sup>	100%

<sup>1</sup> A small portion of newly diagnosed cases did not report race.

### Newly Diagnosed Cases of HIV by Age

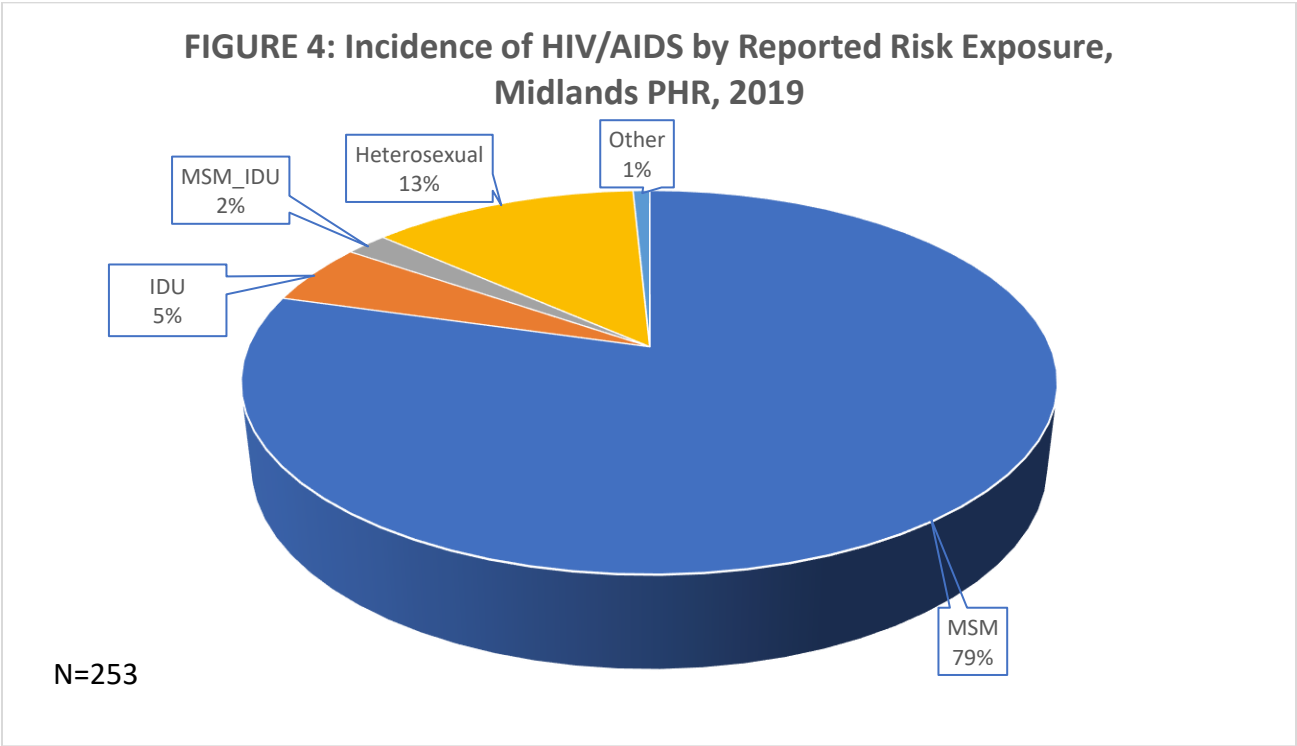
For newly diagnosed cases, there is a disproportionate impact by age between the ages of 20 and 49. This age group makes up 81% of newly diagnosed cases; with 46% in the 20 to 29 age group alone (Figure 3).

Figure 3: Newly Diagnosed Cases of HIV by Age, Midlands PHR (2019)

Years of Age	Count	%
<19	29	6%
20-29	214	46%
30-49	163	35%
50+	63	13%
Total	469	100%

### Newly Diagnosed Cases of HIV by Risk Exposure

Figure 4 shows the risk exposure for new cases of HIV in the Midlands PHR. Forty-six percent of new cases of HIV in the Midlands PHR have an unreported risk exposure (n=216). Of all cases in the Midlands with a reported risk (n=253), men who have sex with men (MSM) represents the highest proportion (79%) followed by heterosexual contact (13%). Injection drug use and MSM\_IDU exposures are less likely to be risks for transmission.



## Newly Diagnosed Cases of HIV by County

Richland County had the highest number of newly diagnosed cases in 2018-2019 (216). Richland County has the highest rate of new infections with 26.0 per 100,000 (Figure 5). Of 12 Midlands Counties, five counties are above the average incidence rate (15.1 per 100,000): Edgefield, Fairfield, Kershaw, Newberry, and Richland (Figure 5).

Figure 5: Newly Diagnosed Cases of HIV by County, Midlands PHR (2019)

County	Count	%	Rate (per 100,000)
Aiken	45	10%	13.3
Barnwell	5	1%	12.0
Chester	8	2%	12.5
Edgefield	9	2%	16.6
Fairfield	8	2%	17.9
Kershaw	14	3%	21.2
Lancaster	16	3%	8.3
Lexington	66	14%	11.1
Newberry	15	3%	19.5
Richland	216	46%	26.0
Saluda	5	1%	12.2
York	62	13%	11.1
Total	469	100%	N/A
Average	39	N/A	15.1

Counties with less than 5 new cases of HIV do not have their counts displayed due to a CDC small cell suppression rule, of not reporting counts <5.

## **EHE Pillar 2: Treat the Infection Rapidly and Effectively to Achieve Sustained Viral Suppression**

### **Persons Living with Diagnosed HIV Infection of All Stages by Sex at birth**

Men in the Midlands PHR are disproportionately affected by HIV with 73% of PLWHA in 2019 being men (Figure 6).

Figure 6: People Living with HIV by Sex at birth, Midlands PHR (2019)

Sex at birth	Midlands PHR Total Population, 2019		Midlands PHR Total Reported Living With HIV, 2019	
	Count	%	Count	%
Men	723,117	48%	4,960	73%
Women	769,436	52%	1,862	27%
Total	1,492,553	100%	6,822	100%

### **Persons Living with Diagnosed HIV Infection of All Stages by Race/Ethnicity**

African Americans in the Midlands PHR are disproportionately impacted by HIV. African Americans comprise approximately 30% of the Midlands PHR's population, yet 72% PLWHA were African American (Figure 7). The African American population has over three times the number of people living with HIV than Caucasian men and women and over 16 times the number of Hispanic men and women.

Figure 7: People Living with HIV by Race, Midlands PHR (2019)

Race/Ethnicity	Midlands PHR Total Population, 2019		Midlands PHR Total Reported HIV Diagnosis, 2019	
	Count	%	Count	%
Caucasian	906,085	61%	1,448	21%
AA	444,287	30%	4,861	72%
Hispanic	66,510	4%	291	4%
Other	75,671	5%	148	3%
Total <sup>1</sup>	1,492,553	100%	6,758	100%

A small portion of newly diagnosed cases did not report race.

### Persons Living with Diagnosed HIV Infection of All Stages by Age

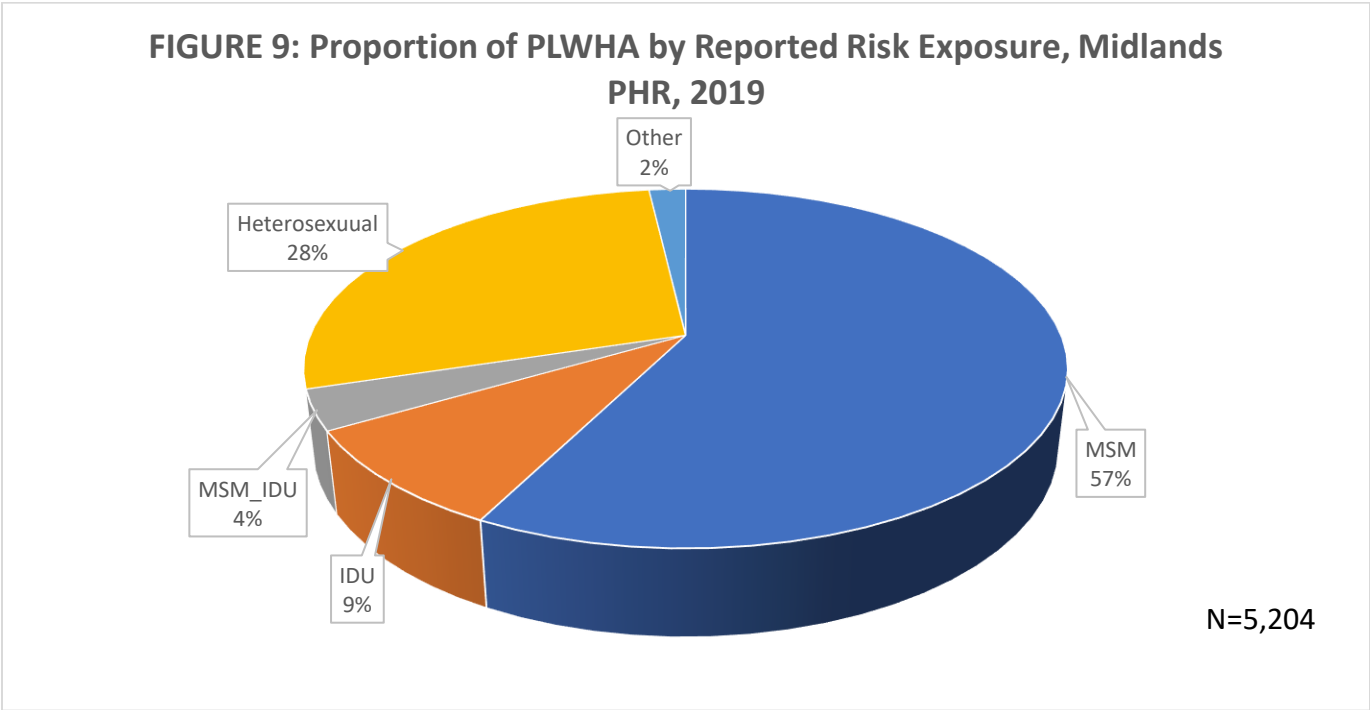
In 2019, half (50%) of PLWHA in the Midlands PHR were 50 years of age or older (Figure 8). Forty-nine percent were between the ages of 20 and 49. Individuals above the age of 30 made up the largest proportion of PLWHA in the Midlands PHR (88%).

Figure 8: People Living with HIV by Age, Midlands PHR (2019)

Years of Age	Count	%
<19	66	1%
20-29	772	11%
30-49	2,608	38%
50+	3,396	50%
Total	6,822	100%

### Persons Living with Diagnosed HIV Infection of All Stages by Risk Exposure

Figure 9 shows the risk of exposure for PLWHA in the Midlands PHR. Twenty-four percent of PLWHA in the Midlands Public Health Region have an unreported mode of exposure (n= 1,618). Of cases with a reported risk, the category of men who have sex with men (MSM) represents the highest proportion (57%) of individuals living with HIV. Heterosexual contact is the 2<sup>nd</sup> highest prevalent group of PLWHA (28%). Injection drug use (IDU), MSM & IDU, and other risk of transmission are much less likely than the more prominent modes of transmission in the Midlands PHR (15%).



## Persons Living with Diagnosed HIV Infection of All Stages by County

Of the 6,822 PLWHA in the Midlands PHR, Richland County has the highest count (3,569) and proportion (52%) among counties, followed by Lexington County with 880 PLWHA (13%). Richland County has the highest rate of PLWHA (858.4 per 100,000), followed by Barnwell County (603.9 per 100,000). The average prevalence rate in the Midlands Counties is 409.9 cases per 100,000. Of the 12 counties, four are above the average prevalence rate of the Midlands PHR: Barnwell, Edgefield, Fairfield, and Richland (Figure 10).

Figure 10: People Living with HIV by County, Midlands PHR (2019)

County	Count	%	Rate
Aiken	499	7%	292.1
Barnwell	126	2%	603.9
Chester	109	2%	338.0
Edgefield	160	2%	587.0
Fairfield	110	2%	492.3
Kershaw	219	3%	329.1
Lancaster	367	5%	374.4
Lexington	880	13%	294.6
Newberry	131	2%	340.8
Richland	3,569	52%	858.4
Saluda	39	1%	190.5
York	613	9%	218.1
Total	6,822	100%	N/A
Average	569	N/A	409.9

## **Treatment & Retention in Care for Persons Living with HIV of All Stages**

Figure 11 shows the counts and percentages by county for persons living with HIV/AIDS related to care status: 1) received care; 2) retained in care; and 3) viral suppression achieved. 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.

### **Received Care**

Individuals who received care are those who received a CD4 or viral load test result in 2019. Figure 11 displays the received care status by county in the Midlands PHR. Of the 12 Midlands Counties, three (Edgefield, Fairfield, and Saluda) had less than 60% of PLWHA receive care. Of which Edgefield and Fairfield (47%) had the lowest percentage receiving care. York County had the third-highest number of PLWHA, but only 63% received care in this county. The remaining nine counties had over 60% of PLWHA to receive care in 2019, with seven of those nine having over 70% receiving care. The county with the largest number of diagnosed PLWHA is Richland with a count of 3,602. Of these PLWHA, 73% received care in 2019. In the Midlands PHR, 66% on average received care in 2019.

### **Retention in Care**

Individuals who had at least two CD4 or viral load test results at least three months apart during 2019 were identified as retained in care. Figure 11 also displays the retention in care statistics for all counties in the Midlands PHR. Of the 12 counties, almost one of every two (51%) PLWHA were retained in care in 2019. Five counties in the Midlands PHR had less than 50% of PLWHA retained in care (Aiken, Edgefield, Fairfield, Saluda, and York). The highest retention in care county was Chester with 63%. The four counties with the highest number of PLWHA (Richland, Lexington, York, and Aiken, in descending order) had 57% or less PLWHA retained in care in 2019.

### **Viral Suppression**

Individuals who had a viral load of less than or equal to 200 copies per milliliter at their most recent test in 2019 were considered to be virally suppressed. To obtain viral suppression means the virus is at an undetectable level and risk of transmission is greatly reduced. Figure 11 displays the percentage of PLWHA that achieved viral suppression in 2019 for all counties in the Midlands PHR. For most counties (10 of 12) viral suppression is achieved at 50% or higher in PLWHA. Edgefield and Fairfield are the only counties in the Midlands PHR to not achieve greater than 50% viral suppression in PLWHA in their county. These counties also had low retention in care percentages which could attribute to the low viral suppression percentages. In the Midlands PHR, on average, 58% of PLWHA achieved viral suppression in 2019.

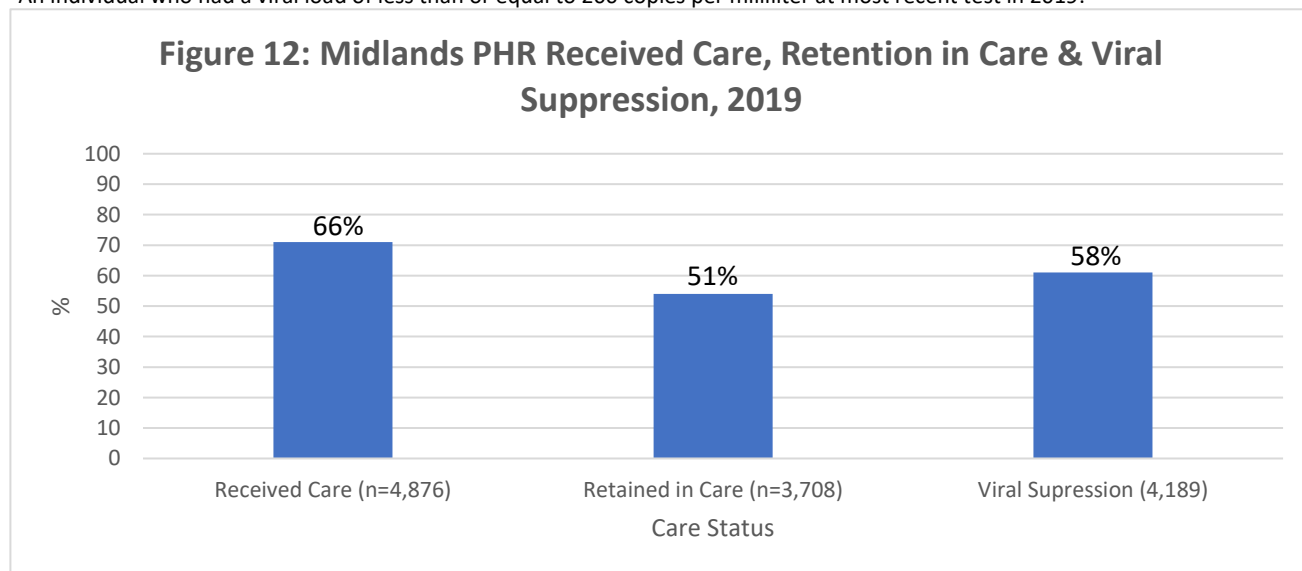
Figure 11: Midlands PHR Received Care, Retention in Care & Viral Suppression (2019)

County	Total Diagnosed PLWHA	Received Care <sup>1</sup>	Retention in Care <sup>2</sup>	Viral Suppression Achieved <sup>3</sup>
Aiken	501	62%	43%	50%
Barnwell	125	75%	62%	64%
Chester	108	73%	63%	69%
Edgefield	163	47%	32%	39%
Fairfield	111	47%	32%	39%
Kershaw	221	76%	58%	65%
Lancaster	368	76%	58%	65%
Lexington	884	75%	57%	68%
Newberry	131	73%	58%	61%
Richland	3,602	73%	56%	62%
Saluda	40	55%	43%	53%
York	613	63%	49%	56%
Total	6,867	N/A	N/A	N/A
Average	572	66%	51%	58%

<sup>1</sup>An individual with greater than or equal to 1 CD4 or viral load test within 3 months after HIV diagnosis in 2019.

<sup>2</sup>An Individual with at least 1 CD4 or viral load test result during 2019.

<sup>3</sup>An individual who had a viral load of less than or equal to 200 copies per milliliter at most recent test in 2019.





## Linkage to Care for New Diagnoses of HIV

The linkage to care for new diagnoses of HIV is critical to reducing the advancement of the disease. As a public health measure, it will serve as a vital role in reducing the risk of the virus being transmitted to others. Persons confirmed as newly diagnosed are advised to enter care and begin treatment immediately to slow the progression of this disease. In the Midlands PHR, linkage to care efforts has improved over the years, with various programs and outlets for linkage to care.

Figure 13 displays the percentage of new diagnoses that in 2019 and the amount of time to get newly diagnosed persons into care. On average in the Midlands PHR, 73% of persons newly diagnosed are linked to care within one-month and 91% are linked to care within three months. Linkage to care is a methodology developed by CDC, it defines linked to care if at least one viral load test is completed since the initial diagnosis.

Figure 13: Midlands PHR, HIV Incidence Linkage to Care Within 1 and 3 Months (2019)

County	Number of new HIV Diagnoses	Linked within 1 Month (%)	Linked within 3 Months (%)
Aiken	27	78%	93%
Barnwell	<5	N/A	N/A
Chester	6	67%	83%
Edgefield	6	67%	83%
Fairfield	6	67%	83%
Kershaw	9	67%	89%
Lancaster	17	67%	89%
Lexington	29	69%	97%
Newberry	10	80%	100%
Richland	94	79%	96%
Saluda	<5	N/A	N/A
York	32	84%	94%
Total	236	N/A	N/A
Average	23.6	73%	91%

Counties with less than 5 new cases of HIV do not have their counts displayed due to a CDC small cell suppression rule, of not reporting counts <5.

## **EHE Pillar 3: Prevent New HIV Transmissions by Using Proven Interventions**

### **PrEP Eligible estimates for SC**

Pillar 3 includes proven interventions such as pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs, where allowable by law). Pre-exposure prophylaxis (PrEP) is a pill taken daily by people who do not have HIV but who are at very high risk for getting HIV. It is highly effective in preventing HIV when taken daily. Based on the most recently available data, CDC estimated in 2018 that there were approximately 10,249 persons in South Carolina who had indications for PrEP. Of the 10,000+ persons, only 1,198 (11.7%) were prescribed PrEP medication.<sup>1</sup>

## **EHE Pillar 4: Respond Quickly to Potential HIV Outbreaks**

### **SC HIV Cluster Outbreak Detection and Response Summary**

Responding quickly to potential HIV outbreaks will get needed prevention and treatment services to people who need them. HIV cluster detection and response (CDR) is an approach that uses data routinely reported to health departments to identify networks of rapid HIV transmission. This information can then be used to identify gaps in prevention and care services that contribute to rapid transmission and ensure that services reach the populations that need them the most.

A cluster or outbreak indicates **gaps in our prevention and care services** that need to be addressed to remove barriers to services and stop transmission. To close this gap, health departments can work to:

-- Understand barriers to care and prevention	-- Provide needed services in targeted areas
-- Develop approaches to overcome barriers	-- Increase testing and outreach in those areas

## Other Sexually Transmitted Infections

Although this report has primarily focused on the HIV epidemic in South Carolina, other sexually transmitted infections (STIs) still impact South Carolina at a high level. STIs such as Chlamydia, Gonorrhea, and Syphilis have large incidence rates in South Carolina, impacting the health of many communities. The following data represents incidence rates of the Chlamydia, Gonorrhea, and Syphilis in the Midlands PHR. The need to continue to improve prevention efforts and raise attention to these STIs is still necessary to improve sexual health in South Carolina.

### **Chlamydia**

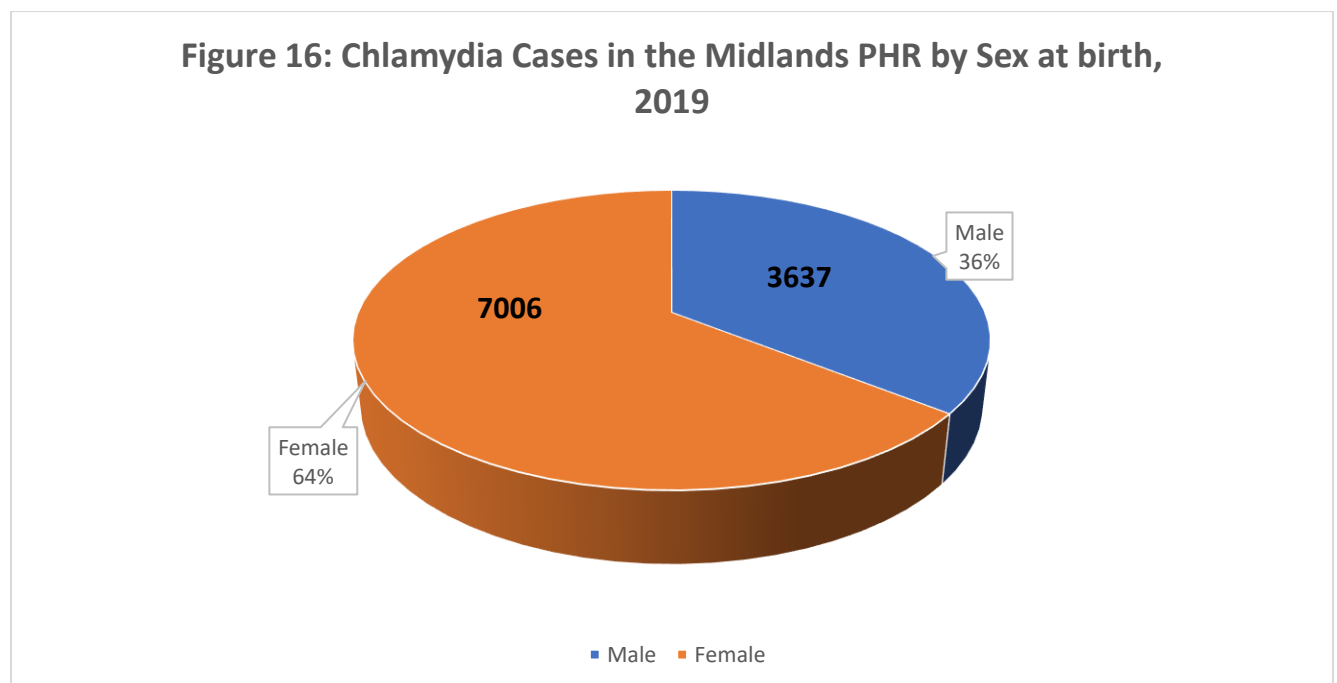
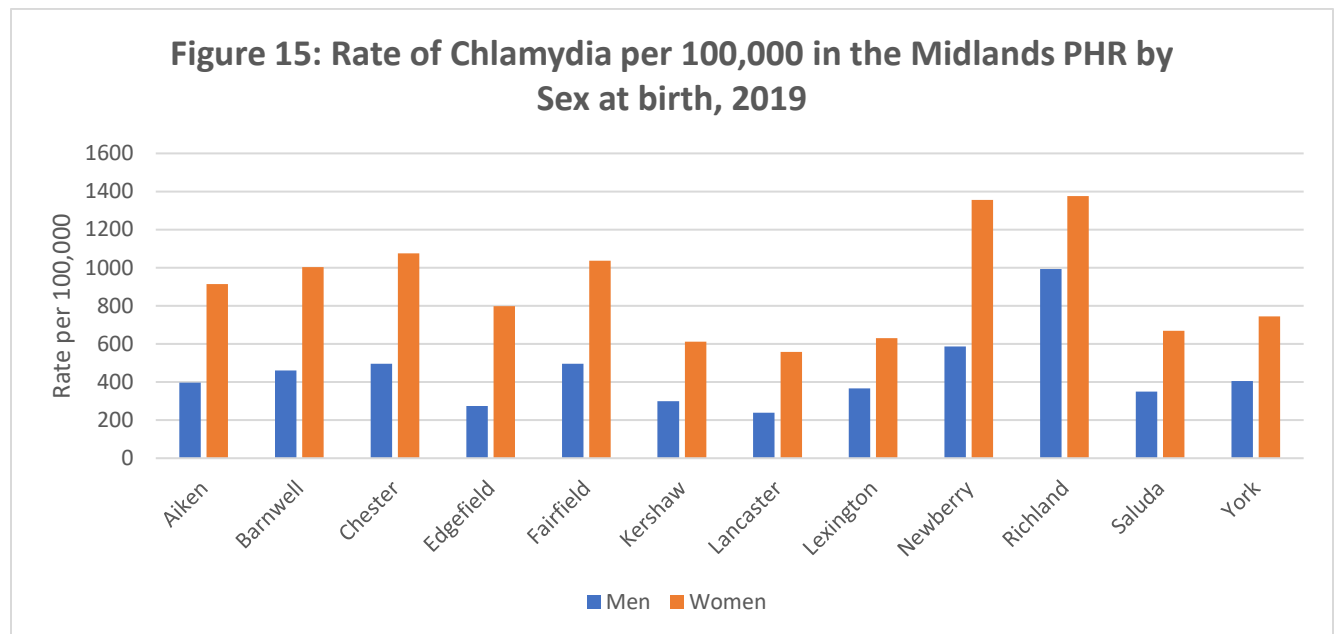
Figure 14 displays the total cases of Chlamydia by county as well as the rate per 100,000 based on that county's population. Among the counties in the Midlands PHR, Richland County has the largest number of cases (4,980). Further, Richland County has the greatest rate among all counties (1197.8 per 100,000) with Newberry County having the second-highest rate (986.0 per 100,000), but with a much smaller total case count (379). Four counties exceed 1,000 documented cases of Chlamydia in 2019 in the Midlands PHR (Aiken, Lexington, Richland, and York).

Figure 14: Midlands PHR New Cases of Chlamydia by County (2019)

County	Count	Rate per 100,000
Aiken	1,135	664.3
Barnwell	155	742.8
Chester	257	797.1
Edgefield	141	517.2
Fairfield	174	778.6
Kershaw	309	464.3
Lancaster	397	405.0
Lexington	1,501	502.5
Newberry	379	986.0
Richland	4,980	1197.8
Saluda	105	512.8
York	1,639	583.3
Total	11,172	N/A
Average	931	679.3

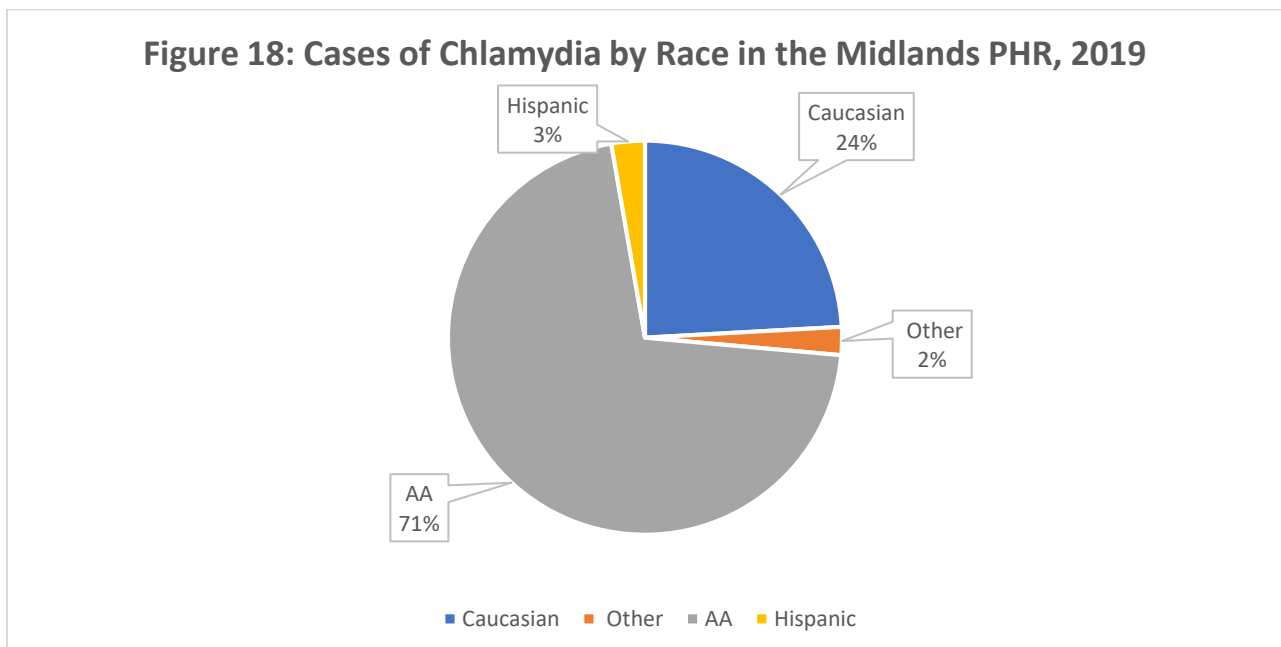
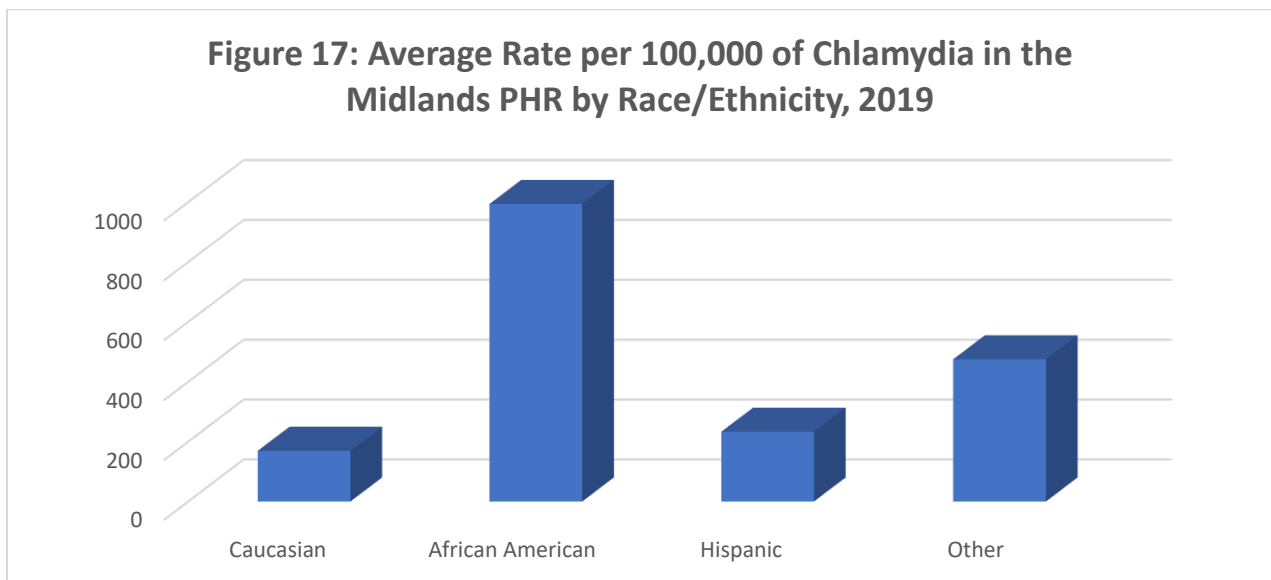
## Chlamydia by Sex at birth

Figure 15 displays data on the rate of Chlamydia by county and by sex at birth. Within the Midlands PHR there is an apparent disparity of cases based on sex at birth. Women in all 12 counties in the Midlands PHR have a higher rate than men. Further, the women's rate is above 600 per 100,000 in all counties except for Lancaster. In Figure 16, a pie chart shows throughout the Midlands PHR that more cases are occurring among women (64%) than among men. Women have almost two times as many cases of Chlamydia diagnoses compared with the diagnoses among men.



## Chlamydia by Race/Ethnicity

Figure 17 shows the average rate per 100,000 cases of Chlamydia by race/ethnicity in the Midlands PHR. The graph below details a large disparity relative to race/ethnicity. African Americans have almost six times the rate of Chlamydia cases than any other race/ethnicity in the Midlands. Caucasians have the lowest rate among all four documented race/ethnicities. Hispanic are slightly higher than Caucasians but still much lower than African Americans. Figure 18 displays the total number of diagnosed cases of Chlamydia in the Midlands PHR. As shown in the bar graph African Americans have a greater number of cases of Chlamydia than any other race/ethnicity. African Americans account for 71% of the total number of cases diagnosed in the Midlands PHR.



## Gonorrhea

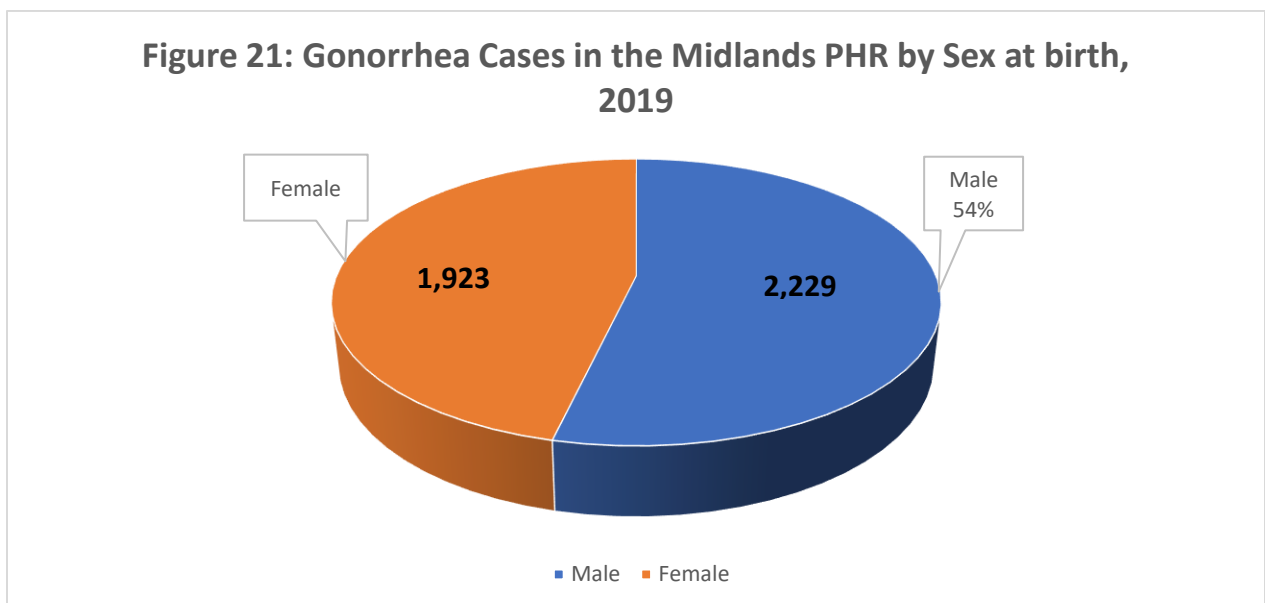
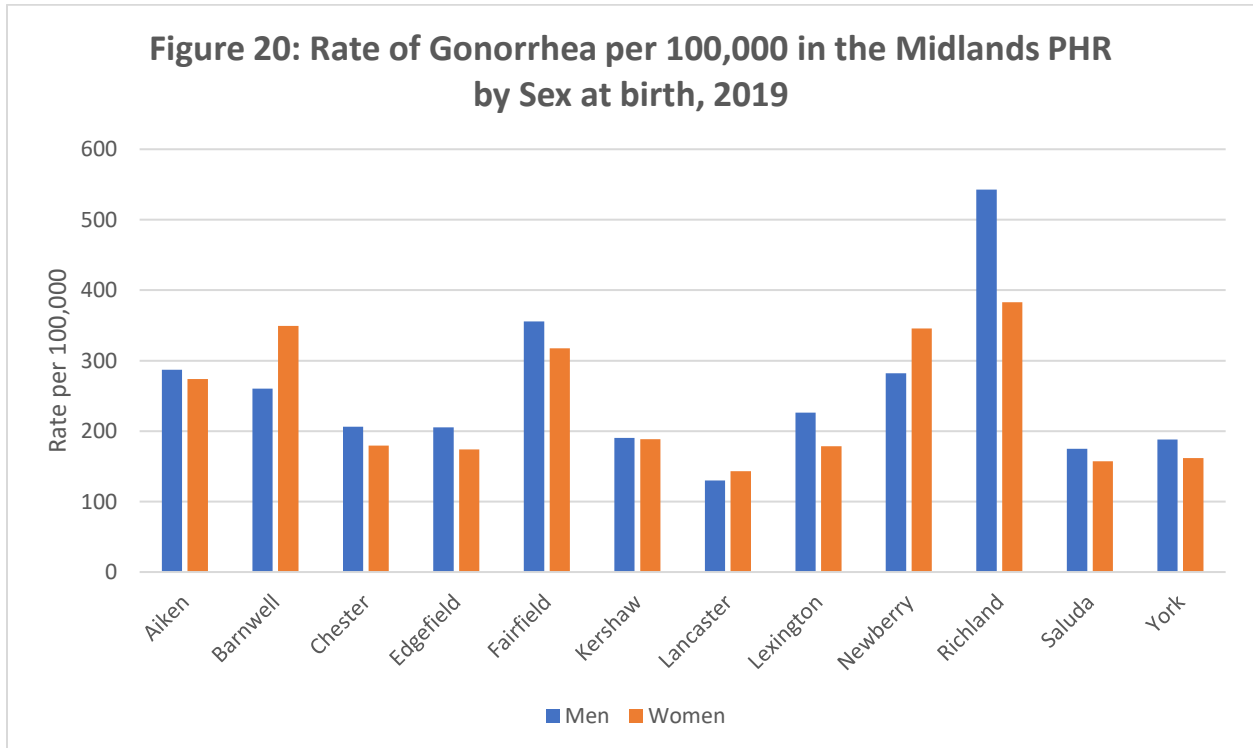
Figure 19 displays the total cases of Gonorrhea by county as well as the rate per 100,000 based on that county's population. Among the counties in the Midlands PHR, Richland County has the largest number of cases (1,922). Further, Richland has the greatest rate among all counties (462.3 per 100,000) with Newberry County having the second-highest rate (314.8 per 100,000), but with a much smaller total case count (121 cases). Four counties exceed 400 documented cases of Gonorrhea in 2019 in the Midlands PHR (Aiken, Lexington, Richland, and York).

Figure 19: Midlands PHR New Cases of Gonorrhea by County (2019)

County	Count	Rate per 100,000
Aiken	480	280.9
Barnwell	64	306.7
Chester	62	192.3
Edgefield	52	190.7
Fairfield	75	335.6
Kershaw	127	190.9
Lancaster	134	136.7
Lexington	604	202.2
Newberry	121	314.8
Richland	1,922	462.3
Saluda	347	166.1
York	490	174.4
Total	4,478	N/A
Average	373	246.1

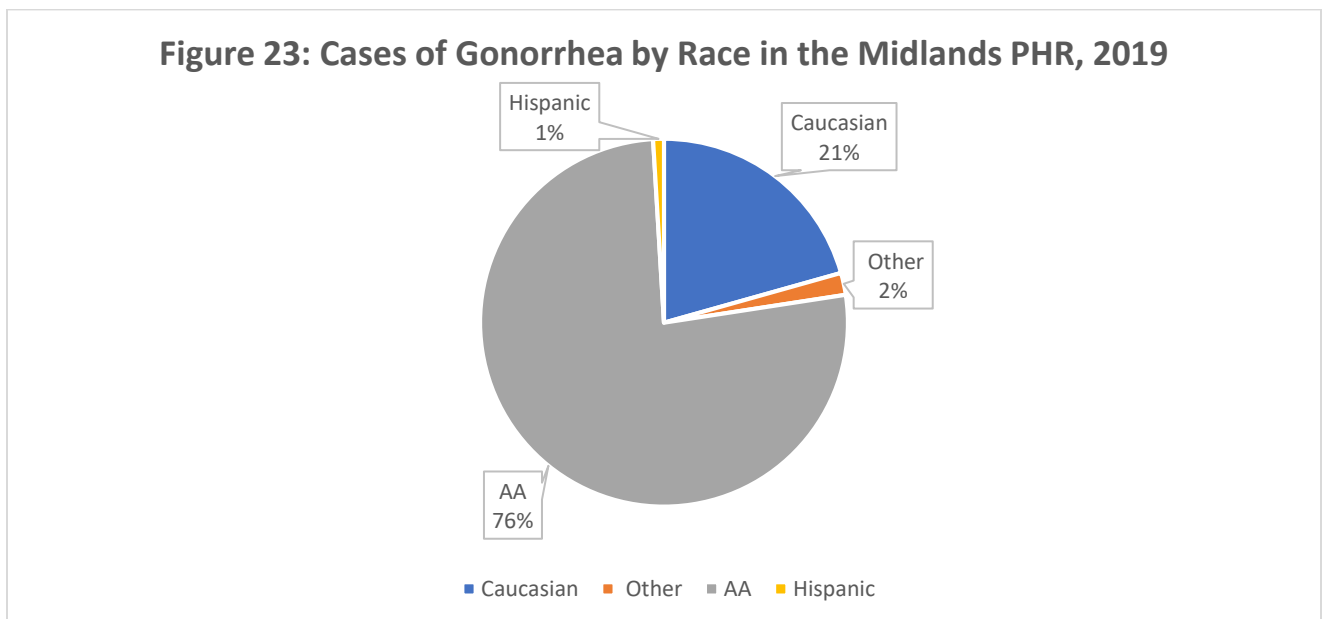
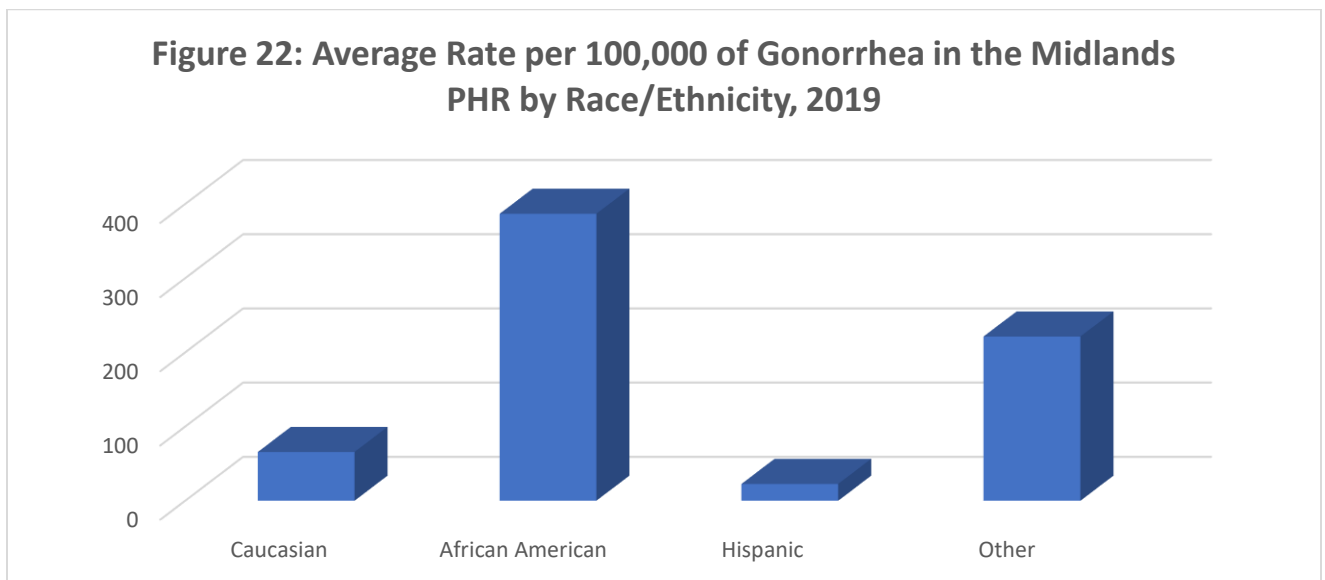
## Gonorrhea by Sex at birth

Figure 20 displays data on the rate of Gonorrhea by county and by sex at birth. Within the Midlands PHR the rates between both sexes at birth are approximately equal. Men in nine of the 12 counties in the Midlands PHR have a higher rate than women. In Figure 21, a pie chart shows more cases are occurring among men (54%) than among women. However, the raw count is much closer to equal and does not reflect a significant sex at birth disparity as Chlamydia previously displayed.



## Gonorrhea by Race/Ethnicity

Figure 22 shows the average rate per 100,000 cases of Gonorrhea by race/ethnicity in the Midlands PHR. The graph below details a large disparity relative to race/ethnicity. African Americans have almost six times the rate of Gonorrhea cases compared to Caucasians in the Midlands PHR. Hispanics have the lowest rate of all race/ethnicity. Caucasians and Other races are higher than Hispanics, but still much lower than African Americans. Figure 23 displays the total number of diagnosed cases of Gonorrhea in the Midlands PHR. As shown in the bar graph African Americans have a greater number of cases of Gonorrhea than any other race/ethnicity. African Americans account for 76% of the total number of cases diagnosed in the Midlands PHR.





## Syphilis

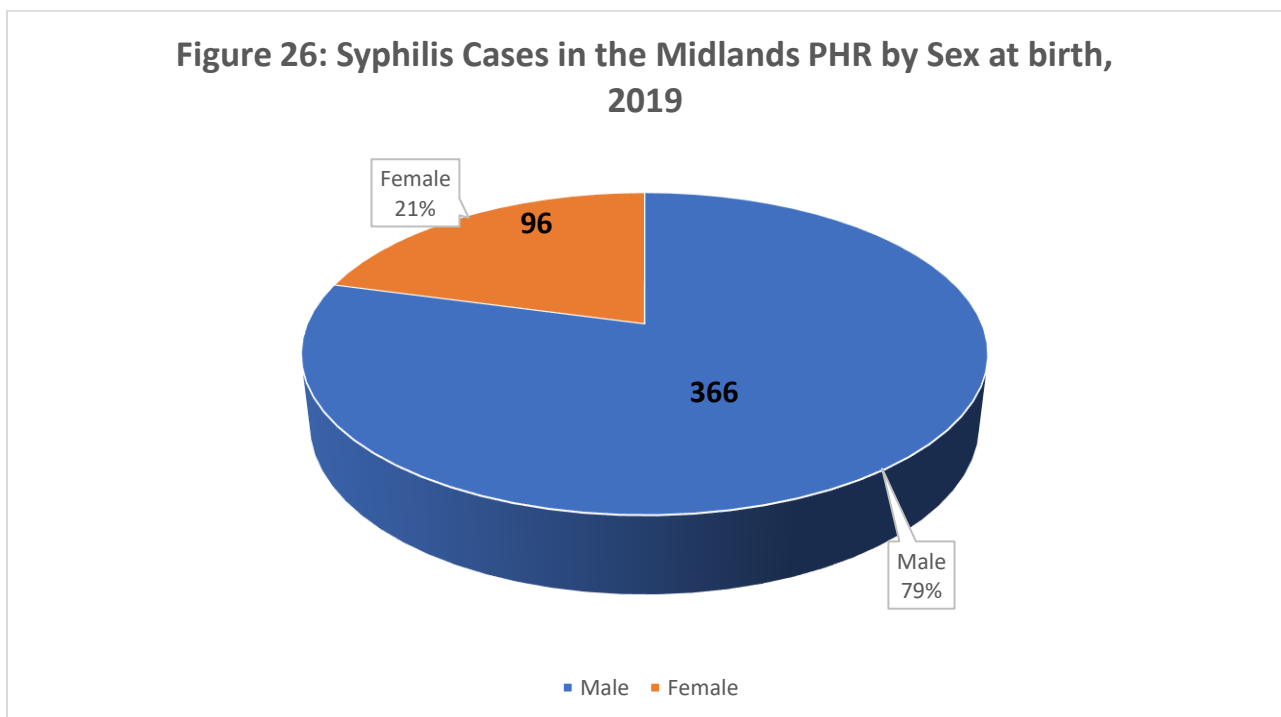
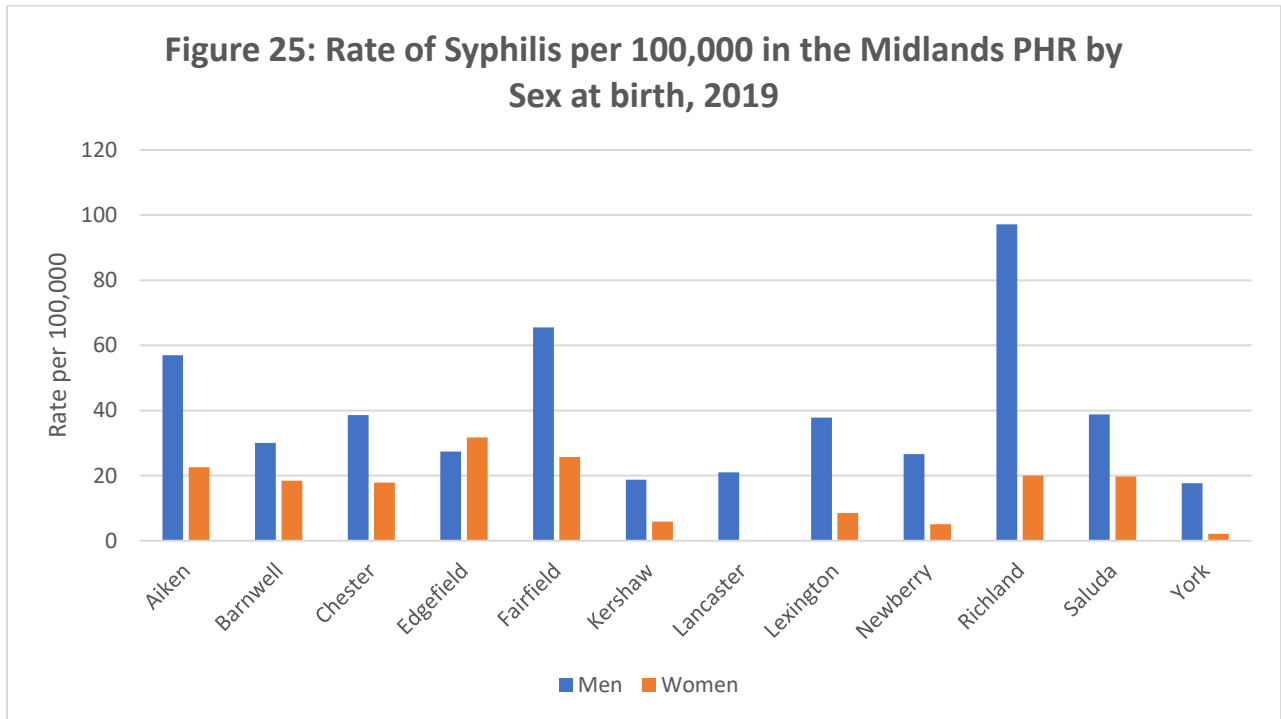
Figure 24 displays the total cases of Syphilis by county as well as the rate per 100,000 based on that county's population. Among the counties in the Midlands PHR, Richland has the largest number of cases (238). Further, Richland has the greatest rate among all counties (57.2 per 100,000) with Fairfield having the second-highest rate (44.8 per 100,000), but with a much smaller total case count of only eight cases.

Figure 24: Midlands PHR New Cases of Syphilis by County (2019)

County	Count	Rate per 100,000
Aiken	68	39.8
Barnwell	5	24.0
Chester	9	27.9
Edgefield	8	29.4
Fairfield	10	44.8
Kershaw	8	12.0
Lancaster	10	10.2
Lexington	69	23.1
Newberry	6	15.6
Richland	238	57.2
Saluda	6	29.3
York	28	10.0
Total	465	N/A
Average	39	26.9

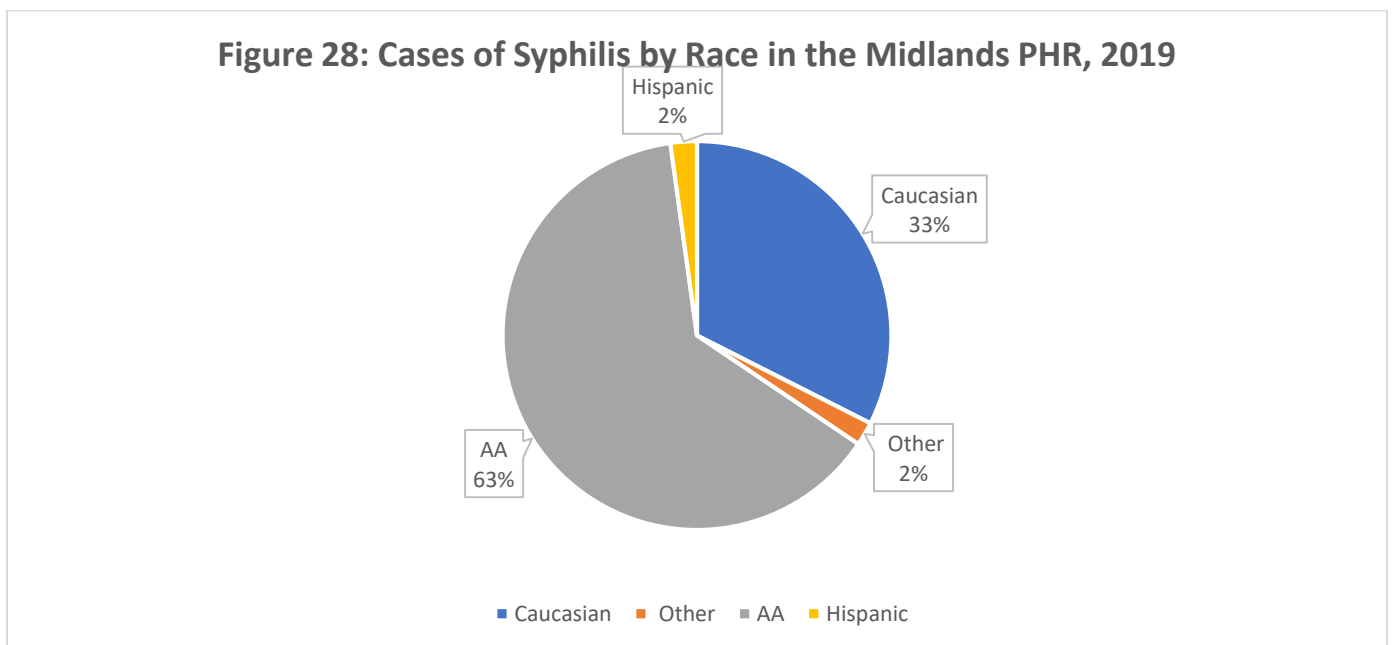
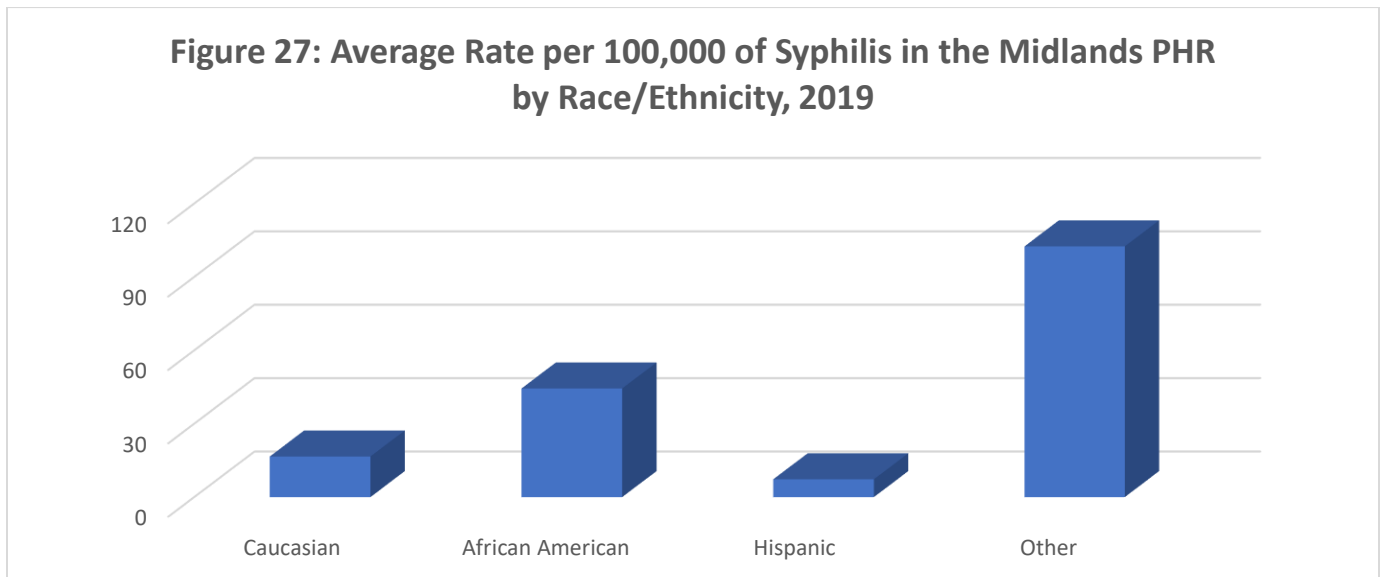
## Syphilis by Sex at birth

Figure 25 displays data on the rate of Syphilis by county and by sex at birth. Within the Midlands PHR the rates for men are higher in 11 of the 12 counties with reported cases. In Figure 26, a pie chart displays throughout the Midlands PHR that more cases are occurring among men (79%) than among women.



## Syphilis by Race/Ethnicity

Figure 27 shows the average rate per 100,000 cases of Syphilis by race/ethnicity in the Midlands PHR. The graph below details a large disparity relative to race/ethnicity. African Americans have more than two times the rate of Syphilis cases compared to Caucasians and over six times the cases of Syphilis compared to Hispanics in the Midlands PHR. Hispanics have the lowest rate of Syphilis in the Midlands PHR. Figure 28 displays the total number of diagnosed cases of Syphilis in the Midlands PHR. As shown in the bar graph African Americans have a greater number of cases of Syphilis than any other race/ethnicity. African Americans account for 63% of the total number of cases diagnosed in the Midlands PHR.



## References

1. Norma S. Harris, Anna Satcher Johnson, Ya-Lin A. Huang, Dayle Kern, Paul Fulton, Dawn K. Smith, Linda A. Valleroy, H. Irene Hall (2019). Vital Signs: Status of Human Immunodeficiency Virus Testing, Viral Suppression, and HIV Preexposure Prophylaxis — United States, 2013–2018 CDC Morbidity and Mortality Weekly Report, Early Release Vol.68

## Appendix A

### Methodology

The following describes the methodology used to obtain the statistics contained in Figures 1 through 8. Percentages are calculated by taking the number of individuals in a group diagnosed with a new case of HIV and is divided by the total of all groups. For example, in Figure 1, 79% is obtained by  $176 / 224 = 0.79 \times 100 = 79\%$ . Rates are calculated per 100,000 people. An incidence is calculated such as:  $(\text{Total New cases of HIV} / \text{Total population}) \times 100,000$ . The rate indicated in the total row is the average rate by county. This however is not the rate for the Region as a whole. This rate is for counties to compare themselves to the rest of the region. 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”.



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