

Arkansas HIV/STI Integrated Epidemiologic Profile 2015

**Infectious Disease Branch
Center for Health Protection
Arkansas Department of Health**



Arkansas Department of Health
Keeping Your Hometown Healthy

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EXECUTIVE SUMMARY

At the end of 2015, there were 5,622 persons living with HIV Disease (PLWHA) in the State of Arkansas. Of these, 2,491 (44.3%) were Stage 3 (AIDS) cases and 3,131 (55.7%) were HIV cases. This is an 80.1% increase in the number of persons living with HIV Disease since 2000.

During 2015, a total of 329 newly diagnosed HIV Disease cases were reported to the HIV Surveillance Program, for an incidence rate of 11.0 per 100,000 persons in Arkansas. The distribution of newly diagnosed cases between HIV and Stage 3 (AIDS) has been stable since 2009. Of the 329 newly diagnosed cases, 125 (38.0%) were Stage 3 (AIDS) cases and 204 (62.0%) were HIV cases.

HIV Disease is disproportionately distributed across Arkansas's population. Non-Hispanic blacks were more likely to be newly diagnosed than any other racial/ethnic group. Blacks accounted for 52.6% of all new HIV Disease diagnoses in 2015 in Arkansas. The rate of newly diagnosed HIV Disease among blacks in 2015 was 37 per 100,000, about 7 times that among whites and about 4 times that among Hispanics. Male-to-male sexual contact (MSM) was the most common known mode of transmission, followed by high-risk heterosexual transmission. These patterns are congruent with national statistics. The most impacted age groups in 2015 were 25-to-34-year-olds, with 99 newly diagnosed cases, and 15-to-24-year-olds, with 80 newly diagnosed cases. The number of new diagnoses among youth aged 15–24 has been stable since 2011 in Arkansas. This is consistent with a stable national percentage of cases among youth. CDC recently reported that approximately 4% of the one million persons living with HIV Disease are between the ages of 15 and 24.

Highlights of regional trends were as follows:

- Forty-nine percent of all newly diagnosed HIV Disease cases from 2011 to 2015 resided in the Central Public Health Region. This region also had the highest rate (294.3 per 100,000) of infections and the highest regional percentage (43.4%) of persons living with HIV Disease at the end of 2015.
- The Northwest Public Health Region had the second greatest regional percentage of newly diagnosed HIV Disease cases among Hispanics (38.1%) and whites (33.6%) between 2011 and 2015, after the Central Region (39%) and (46.6%), respectively. This region had the second largest regional percentage of newly diagnosed cases having a risk factor of MSM (17.8%) between 2011 and 2015, after the Central Region (53.2%).
- The Southeast Public Health Region had the second greatest regional percentage of newly diagnosed HIV Disease cases among blacks (17.1%) between 2011 and 2015, after the Central Region (52.3%).
- The Southeast Public Health Region had the second highest rate of Persons living with HIV Disease at the end of 2015 (286.5 per 100,000).
- The Southwest Public Health Region had the second greatest regional percentage of newly diagnosed HIV Disease cases among youth aged 15 to 24 (13.0%), after the Central Region (55.8%) between 2011 and 2015.

A total of 2,917 Arkansans have died with HIV Disease since HIV/AIDS reporting began in Arkansas in 1983. Today Arkansans are living longer with the disease as treatment improvements continue.

INTRODUCTION

Introduction

This epidemiologic profile provides detailed information about the current HIV Disease epidemic in the State of Arkansas. Data from the HIV Surveillance Program and multiple other sources were reviewed to create this document that addresses the following key questions:

What are the socio-demographic characteristics of the general population in Arkansas?

What is the scope of the HIV/AIDS epidemic in Arkansas?

What are the indicators of risk for HIV/AIDS infection in Arkansas?

What are the patterns of utilization of HIV services for persons in Arkansas?

What are the number and characteristics of person who know they are HIV positive but who are not receiving primary medical care?

Each of the questions represents a section of the report, which includes relevant data and interpretation.

Data Sources

Data were compiled from a variety of sources to provide the most complete picture of the epidemic in Arkansas. When interpreting the data, keep in mind that each of the data sources has strengths and limitations. A brief description of each data source is provided below.

Arkansas Department of Health

Core HIV Disease Surveillance

The Arkansas Department of Health (ADH) began conducting HIV/AIDS surveillance in 1983. On July 1, 1999, the Arkansas statutes requiring confidential name-based HIV reporting were instituted. All HIV and Stage 3 (AIDS) cases diagnosed or treated in the State of Arkansas are reportable to the Arkansas Department of Health's HIV/AIDS Surveillance Program. Standardized case report forms are used to collect demographics, vital status, laboratory and clinical results, as well as risk factor information on all cases. All surveillance data are entered into the HIV/AIDS Reporting System (eHARS), the standardized database developed by CDC.

Limitations: HIV Surveillance data can provide only a minimum of estimates of the number of persons known to be infected with the condition. HIV Disease surveillance is totally reliant on positive laboratory test results and the fulfillment of disease reporting requirements by providers and laboratories.

Ryan White Part B Program

The Ryan White Part B Program in the State of Arkansas has been assisting Arkansans living with HIV and Stage 3 (AIDS) via a variety of resources since 1991, after the enactment of the Federal Comprehensive AIDS Resources Emergency (CARE) Act in 1990. The Ryan White CARE Act (RWCA) ensures quality and availability of care for medically underserved individuals and families affected by HIV Disease. The Ryan White Part B Program in Arkansas maintains a database within the Infectious Disease Branch at ADH. Data collected include client demographics, diagnostic status, financial eligibility and vital status information.

Limitations: Data are collected only from clients who know their HIV status and who are eligible for Ryan White services.

AIDS Drug Assistance Program (ADAP)

The ADAP is a state administered program located within the Arkansas Department of Health's Infectious Disease Branch that provides medications free of charge to persons living with HIV Disease who meet program eligibility requirements.

Limitations: The data is not generalizable to all HIV infected persons in Arkansas because data is only collected on persons who know their HIV status. Clients in ADAP are eligible to receive care / treatment services through the Ryan White Part B Program or are financially eligible to receive ADAP services because of partial medication coverage through public or private insurance.

Sexually Transmitted Infectious Disease (STI) Surveillance

The Arkansas Department of Health STI Program conducts statewide surveillance of chlamydia, gonorrhea and syphilis infections. Services provided include partner counseling, referral services and treatment. Data are collected in the PRISM (Patient Reporting Investigation Surveillance Manager System). These data can serve as a surrogate marker for unsafe sexual practices and demonstrate the prevalence of changes in specific behaviors.

Limitations: The data is dependent upon compliance with reporting laws and is limited to positive test results. In the case of some STDs, the patient may be asymptomatic.

Health Statistics Data

The Vital Records Branch collects information on all births and deaths that occur in the State of Arkansas. A Cause of Death query was performed on the publicly available Arkansas Center for Health Statistics Query System, at <http://www.healthy.arkansas.gov/programsServices/healthStatistics>. The yearly numbers and rates of HIV-associated deaths occurring in Arkansas were determined for 1990 to 2015, using ICD-10 diagnosis codes for HIV (B20–B24).

Limitations: Deaths resulting from HIV or with HIV as an underlying cause may be underreported on death certificates. Death records are less timely than Stage 3 (AIDS) case reports. Notably, in 1999 a new cause-of-death tabulation was developed in the form of ICD-10 (International Classification of Diseases) codes. Before 1999, the ICD-9 classification was used. There are differences in mortality rates between the two codes. In this document, no adjustments have been made in mortality rates with respect to ICD-9 and ICD-10 codes.

Behavioral Risk Factor Surveillance System

The Arkansas Department of Health compiles and analyzes statewide survey data from the CDC-sponsored Behavioral Risk Factor Surveillance System (BRFSS), which asks respondents over the telephone about behavioral health risk factors. BRFSS data are representative of the general, non-institutionalized population of an area. A question on whether the respondent has ever had an HIV test (not including those done because of blood donation) has been asked annually as part of the Standard Core Questions. We present results from 2004 to 2010 for Arkansas.

Limitations: BRFSS data are self reported and thus, the information may be subject to recall bias. As a telephone survey, the sample is limited to households with a telephone. In 2011, the methodology of the BRFSS changed substantially to include cell phone numbers and college students living in dormitories. Therefore, results from 2011 and later years are not comparable to those from earlier years.

Hospitalizations (Hospital Discharge Data)

All non-federal hospitals report procedure charges to the Arkansas Department of Health. Data come from existing hospital administrative records and include demographics, diagnoses, procedures performed, and charges. The data are accessible at the Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project (HCUP), <http://hcupnet.ahrq.gov/>

Limitations: ADH does not collect this data from hospital emergency departments, hospital outpatient clinics, physicians' offices, free-standing outpatient surgery centers, or hospices. Notably, ADH does not collect data from out-of-state hospitals that likely treat a number of Arkansas residents living near the state borders.

Pregnancy Risk Assessment Monitoring System (PRAMS)

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a joint research project between the Health Statistics Branch of the Arkansas Department of Health and the U.S. Centers for Disease Control and Prevention (CDC). The PRAMS survey was started by the CDC in 1987 to provide states information they needed to reduce the number and percentage of babies that are low birth weight and to prevent infant mortality. The PRAMS survey collects information from new mothers about their experiences and behaviors before, during, and after their pregnancy that might affect the health of their baby.

Limitations: PRAMS data are self-reported and subject to social desirability bias and recall bias, which could lead to inaccurate estimates.

Population Data

U.S. Census Bureau, National Center for Health Statistics

Bridged-Race Postcensal Population Estimates, Vintage 2015

To provide population estimates by single-race categories, the National Center for Health Statistics provides "bridged-race" estimates starting with the 2000 Census. These estimates combine the Census's 31 categories (5 single-race and 26 multiple-race) into 4 single-race categories: White, Black, American Indian or Alaska Native, and Asian/Pacific Islander. Hispanic ethnicity is shown separately, exclusive of the racial categories.

Limitations: Because persons reporting multiracial backgrounds in the Census are statistically assigned a dominant race in the bridged-race dataset, subpopulation totals by race are statistical estimates, not actual counts.

Sociodemographic Data

U.S. Census Bureau, American Community Survey

2011–2015 Five-year Estimates

The American Community Survey (ACS) covers a broad range of topics about social, economic, demographic, and housing characteristics of the U.S. population. It is a continuous, ongoing survey with results updated yearly. ACS results for poverty, educational attainment, and insurance by race/ethnicity were obtained for Arkansas. ACS results are presented for five single races: White, Black, Asian, American Indian or Alaska Native, and Asian/Pacific Islander. Persons of Hispanic or Latino ethnicity can belong to any racial category.

Limitations: Because the 2011–2015 5-Year Estimates include people sampled over a broad time range, it is inappropriate to interpret the results as coming from any one year or time point within this period. These results are not comparable to single-year or 3-year estimates from the ACS or other sources. The totals shown in tables derived from the ACS are the number of people surveyed, not the total population.

Direct and Indirect Measures of Risk Behavior

Arkansas Department of Human Services, Division of Behavioral Health Services

Alcohol/Drug Management Information System (ADMIS) Substance Table, April 2017

The Arkansas Department of Human Services provided data on the number of intramuscular and intravenous drug users treated in 2015, stratified by sex, race, and age. Primary drug types used by clients were condensed into the most common types listed.

Limitations: These data come from state-funded inpatient treatment facilities. The treated inpatients are a subset of all injecting drug users (IDU) that does not include clients being treated as outpatients, clients not receiving treatment, and clients receiving non-state funded care.

Centers for Disease Control and Prevention, Youth Risk Behavior Survey (YRBS)

The Youth Risk Behavior Survey is a national survey of students in secondary schools that is conducted biennially in odd numbered years. It asks students about their behavior in six categories of health risk behaviors.

Limitations: Because the YRBS relies on self-reported information, reporting of sensitive behavioral information may not be accurate; under- or over-reporting may occur. Answers are subject to recall bias. The results are representative of young people who are enrolled in high school, and cannot be generalized to all young people in an area.

Technical Notes

In 2014, CDC and CSTE revised and combined the case definition for Human Immunodeficiency Virus (HIV) infection into a single case definition for persons of all ages (i.e., adults and adolescents aged \geq 13 years and children aged $<$ 13 years). The case definition is the criterion that is used to determine whether a report of a particular disease is counted as an official case of that particular condition. The revisions were made primarily to address changes in laboratory diagnostic technology. Laboratory criteria for defining a confirmed case now accommodate new multi-test algorithms, including criteria for differentiating between HIV-1 and HIV-2 infection and for recognizing early HIV infection. (MMWR April 11, 2014).

This document utilizes both the 2008 and 2014 case definitions. Data from 2013 and prior are classified based upon the 2008 case definition and all data for 2014 and later were classified based upon the revised 2014 case definition. The most important change to note is the staging; which is as follows: Stage 0, 1, 2, 3. Stages 0 thru 2 are HIV and Stage 3 is AIDS. HIV disease is the all-inclusive category of HIV and AIDS (Stages 0-3) regardless of disease progression. For more details on these changes, please visit: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6303a1.htm>.

CORE EPIDEMIOLOGIC QUESTIONS

Question 1

What are the socio-demographic characteristics of the general population in Arkansas?

SUMMARY

Population: In 2015, the estimated total population for the State of Arkansas was 2,978,204. This represents 11.4% increase from the 2000 Census report of 2,673,400. According to 2015 estimates, the population of Arkansas' 75 counties ranged from 5,229 in Calhoun County to 392,664 in Pulaski County.

With a total land area of 53,179 square miles, the population density of Arkansas was 56 persons per square mile in 2010. County-level population density ranged from 8.5 persons/square mile in Calhoun County to 504 persons/square mile in Pulaski County. Fifty-six percent of the state population lives in urban areas, compared to 44% in rural areas.

Public Health Regional Structure: The State of Arkansas is geographically divided into five Public Health Regions: Northwest, Northeast, Central, Southwest, and Southeast. They range in size from 7 counties (Central) to 19 counties (Northwest and Northeast) and in population in 2015 from 257,273 (Southeast) to 828,789 (Central). Each region includes at least one metropolitan area, as defined by the Census: Fayetteville-Bentonville and Fort Smith in Northwest, Memphis and Jonesboro in Northeast, Little Rock in Central, Pine Bluff in Southeast, and Texarkana and Hot Springs in Southwest.

Demographic Composition: From 2000 to 2010, Arkansas became more diverse as the total population increased. Hispanics, Asians, and Pacific Islanders increased as a percentage of the total population. In 2015, the racial and ethnic composition of the state was estimated to be 74.2% white non-Hispanic, 15.9% black non-Hispanic, 7.2% Hispanic, 1.9% Asian/Pacific Islander, and 0.8% American Indian.

Age and Sex: Along with the rest of the nation, Arkansas' population is getting older. In 2010 the median age was 37.4 years, compared to 36.0 years in 2000. In 2015, this pattern remained relatively stable. Males and females are about equally represented in Arkansas—at 49.1% and 50.9% of the population, respectively.

Poverty, Income, and Education: The median household income of Arkansans in 2011–2015 was \$41,371. In the same years, 19.3% of Arkansans were living below poverty level, compared to 15.5% of Americans. Of Arkansans aged 25 or more, 84.8% had received a high school diploma (not including a GED) and 21.1% held a Bachelor's degree or higher by 2011–2015.

Insurance Status: In 2015, Arkansas was ranked 22th in the country in the percentage of uninsured. Among those aged 18 to 64, 13.1% of Americans was uninsured, compared to 13.6% of Arkansans. Arkansans belonging to minority racial and ethnic groups were more likely to be uninsured in 2011–2015.

DEMOGRAPHICS

From 2000 to 2015, Arkansas became more diverse as the total population increased.¹ Hispanics, Asians, and Pacific Islanders increased as a percentage of the total population. People of Hispanic or Latino ethnicity increased from 3.2% to 7.2% of the population, more than doubling in number. Asian/Pacific Islanders increased from 0.82% to 1.9%, more than doubling in number. In the same period, the percentage of whites decreased from 80.0% to 74.2% and the percentage of blacks remained similar, from 15.7% to 15.9%. In 2015, minorities continued to increase their share of the general population (Figure 1, Table 1).

Figure 1.

Distribution of the Population of Arkansas by Race/ethnicity, 2015

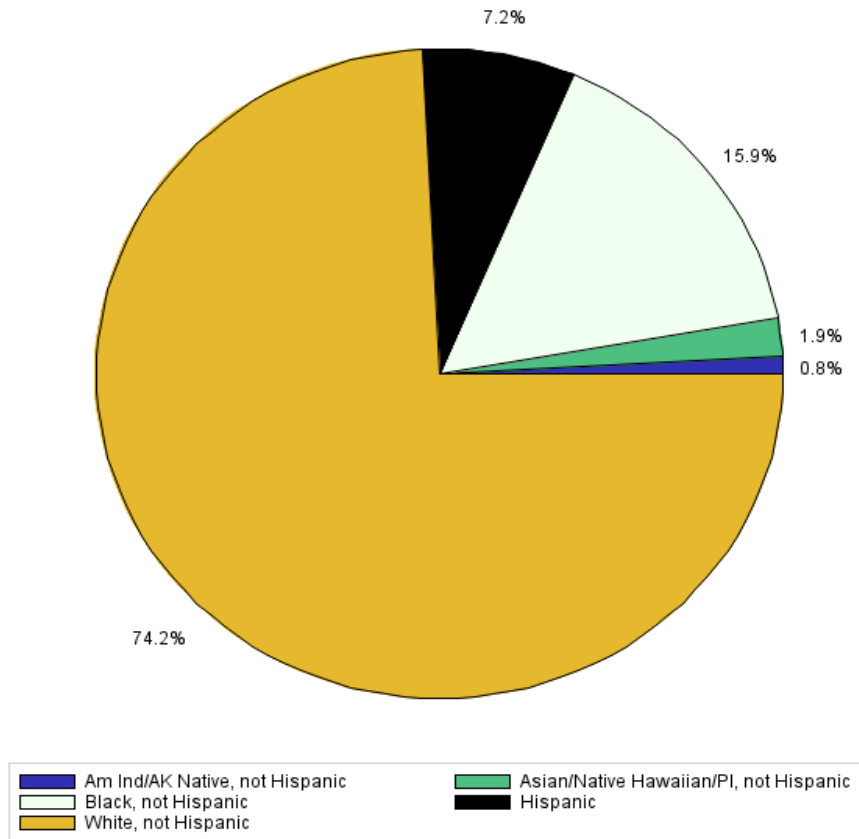


Table 1. Percentage distribution of the population by race/ethnicity for each sex, Arkansas 2015

Race/ethnicity	Male (n = 1,462,856)	Female (n = 1,515,348)	Total
White, non-Hispanic	74.1%	74.2%	74.2%
Black, non-Hispanic	15.5%	16.4%	15.9%
Hispanic	7.7%	6.7%	7.2%
Asian/Native Hawaiian/PI, non-Hispanic	1.9%	1.9%	1.9%
Am Ind/AK Native, non-Hispanic	0.8%	0.8%	0.8%

Source: National Center for Health Statistics, Vintage 2015 Bridged-Race Postcensal Population Estimates

The racial makeup of Arkansas follows a geographic pattern. Blacks contribute a higher proportion of the population along the Mississippi River Delta and southern parts of the state and are less well represented in the north and northwest.² The Public Health Regions reflect this pattern as well, with the Southeast having the highest percentage of blacks (42.9%) and the Northwest the lowest (3.1%).

Hispanics are most concentrated in the Northwest Region, where they make up 12.1% of the population. Asians and Pacific Islanders are also found in greatest numbers in the Northwest (3.3%), largely because of immigration from the Marshall Islands.

Along with the rest of the nation, Arkansas' population is getting older. In 2010 the median age was 37.4 years, compared to 36.0 years in 2000.¹ The younger age groups, from 15 to 44 years of age, have decreased their representation over time, while the older age groups, ages 45 and up, increased as a proportion of the total population. In 2015, this pattern remained relatively stable (Table 2). Males and females are about equally represented in Arkansas, at 49.1% and 50.9% of the population, respectively.

Table 2. Distribution of the general population by age group and sex, Arkansas 2015

Age group (yrs.)	Males (n = 1,453,181)	Females (n = 1,505,584)	Total (n = 2,958,765)
<13	17.7%	16.3%	17.0%
13-14	2.7%	2.5%	2.6%
15-24	14.1%	13.1%	13.6%
25-34	13.3%	12.8%	13.1%
35-44	12.4%	12.1%	12.3%
45-54	12.9%	12.8%	12.8%
55-64	12.3%	12.8%	12.6%
65+	14.5%	17.5%	16.0%

Source: National Center for Health Statistics, Vintage 2015 Bridged-Race Postcensal Population Estimates

SOCIOECONOMIC STATUS

Poverty

Between 2011 and 2015, 19.3% of Arkansans were living below poverty level, compared to 15.5% of Americans. Urban areas of the state had higher percentages of poverty reported compared to rural areas (21.4% vs. 16.5%, respectively). The Southeast Region led the state with 26.6% of residents living in poverty, compared to 14.8% in the Central Region (Table 3). In the counties most affected by the HIV epidemic, 3 of the 5 have poverty levels greater than 24% were in the Southeast Region (Jefferson, Phillips, St. Francis); the other 2 counties was Mississippi with 26.8% poverty level and Crittenden County with 24.1% in the Northeast Region.

Table3. Percentage of the population under the poverty level statewide, in Public Health Regions, and in selected counties, Arkansas 2011–2015

Area*	Percent under poverty level	Margin of error (+/-)
Arkansas	19.3%	0.3%
Arkansas -- Urban	21.4	0.4%
Arkansas -- Rural	16.5	0.4%
Central	14.8%	0.5%
Garland	20.9%	1.8%
Pulaski	17.6%	0.7%
Faulkner	15.5%	1.1%
Northwest	19.8%	0.5%
Washington	20.1%	1.3%
Sebastian	23.2%	1.5%
Benton	12.2%	0.9%
Northeast	21.9%	0.7%
Craighead	20.2%	1.7%
Crittenden	24.1%	2.1%
Mississippi	26.8%	2.9%
White	19.0%	1.5%
Southwest	21.8%	0.8%
Miller	20.3%	2.3%
Union	20.4%	2.4%
Southeast	26.6%	0.9%
Jefferson	25.5%	1.9%
Phillips	34.4%	3.4%
St. Francis	24.8%	3.2%

*Statewide, Public Health Regions, and selected counties are shown. These counties were ranked in the top 15 for HIV prevalence in 2015. Source: Census Bureau. American Community Survey 2011–2015 Five-year Estimates, Table GCT1701-Geography-Arkansas: PERCENT OF PEOPLE BELOW POVERTY LEVEL IN THE PAST 12 MONTHS.

Educational attainment

In Arkansans aged 25 or older, 84.8% had received a high school diploma (not including a GED) and 21.1% held a Bachelor’s degree or higher by 2011–2015.³ Slightly more urban than rural residents had a high school diploma (85.6% vs 83.7%), and substantially more urban residents had a college degree (25.6% vs. 15.7%).

Insurance status

As of 2015, Arkansas was ranked 29th in the country in the percentage of uninsured. While 13.1% of Americans aged 18 to 64 were uninsured, 13.6% of Arkansans in the same age group did not have public or private health care coverage. Compared to 20.6% of working age Americans, 24.9% of working age Arkansans were uninsured.

Many counties in the Northwest region had higher uninsured levels in 2015 than the statewide average, especially Carroll County and Yell County (19%).⁴ Many counties in the Southwest also had higher levels of uninsured, especially Sevier County (21%). Except for Garland County, Central region counties had less uninsured than the state average.

Arkansans belonging to minority racial and ethnic groups were more likely to be uninsured in 2015. At 37.5%, a higher percentage of the Hispanic population in Arkansas was uninsured than the black (13.7%) or white (12.8%) population (Table 4). The least populated minority groups, American Indian or Alaska Native also had noticeably higher uninsured levels (22.9%, respectively). Although the percentage of uninsured AI/AN is greater than that for whites or blacks, these estimates are less precise than those for larger populations.

Table 4. Adults aged 18–64 without health insurance in Arkansas by race/ethnicity, 2015

Race/ethnicity	Adults aged 18 to 64	Number of uninsured	Uninsured (%)	Margin of error (%)
White	1,367,109	175,064	12.81%	5.89%
Black or African American	283,189	38,736	13.68%	0.98%
Hispanic or Latino*	117,109	43,910	37.49%	2.22%
Asian	29,424	3,457	11.75%	2.43%
American Indian or Alaska Native (AI/AN)	11,584	2,650	22.88%	5.71%

*Respondents who identified as being of Hispanic, Latino, or Spanish origin. People in this category could be of any race.
 Source: American Community Survey 2015 1-year Estimates, Tables B27001A, B27001B, B27001D, B27001E, B27001I, C27001C: Health Insurance Coverage Status by Age (race/ethnicity). Accessed at www.census.gov/acs/www/data_documentation/summary_file/

Question 2

What is the scope of the HIV Disease epidemic in Arkansas?

In 1983, ADH began monitoring the disease known as Acquired Immunodeficiency Syndrome (Stage 3 (AIDS)). This surveillance was further enhanced on July 1, 1999, with the addition of legislation instituting confidential name based reporting of Human Immunodeficiency Virus (HIV) infection.

As the epidemic continues to change and the number of people living with the disease continues to grow, it is becoming more challenging to plan for HIV prevention and care in Arkansas. Due to limited resources, it is imperative that efforts are focused on identifying those populations most affected and most at risk for HIV infection.

This section provides detailed information about demographic and risk characteristics of HIV infected persons and trends in the statewide epidemic. It describes cases diagnosed through 2015 and reported through October 2016. The regional epidemiological profiles included at the end of this section, provides a more detailed description of the epidemic in each public health region. Unless otherwise noted, all data comes from Arkansas eHARS (enhanced HIV/AIDS Reporting System).

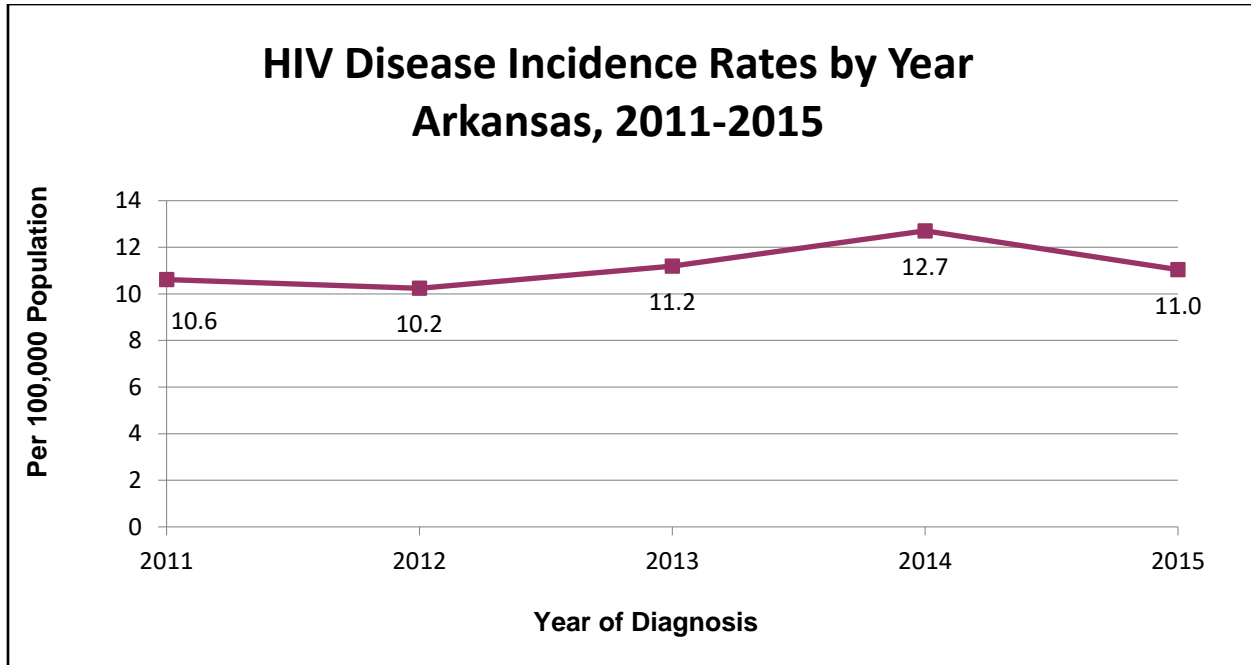
HIGHLIGHTS

- During 2015, among all newly diagnosed HIV Disease cases (all HIV/AIDS cases), 125 (38%) were Stage 3 (AIDS) cases and 204 (62%) were HIV (stages 0, 1 or 2) cases.
- At the end of 2015, 5,622 persons were presumed to be living with HIV Disease in Arkansas. Of those, 44.3% (2,327 persons) had a Stage 3 (AIDS) diagnosis.
- The number of deaths due to Stage 3 (AIDS) continues to decline with continued advancements in antiretroviral drugs and treatment regimens. From 2011 to 2015, there was an average of 78 deaths per year.
- The HIV Disease infection rate for blacks (37 per 100,000) continues to rise and is disproportionately high compared to other racial and ethnic groups in the state; in 2015 the infection rate for blacks was approximately seven times higher than that for whites (5.5 per 100,000) and about four times that for Hispanics (10 per 100,000).
- In 2015, over 52% of the newly diagnosed HIV Disease cases were black non-Hispanic.
- Black men (55.7 per 100,000) and Hispanic men (13.3 per 100,000) had the highest rate of infection compared to any other racial or ethnic groups in Arkansas.

OVERALL HIV Disease TRENDS

In 2015, there were a total of 329 newly diagnosed cases of HIV Disease in the State of Arkansas. This number reflects those persons whose HIV infection (including Stage 3 (AIDS)) was first diagnosed in 2015 and was reported to the Arkansas Department of Health. From 2011 to 2015, the rate of newly diagnosed HIV Disease cases increased from 10.6 per 100,000 in 2011 to 11.0 per 100,000 in 2015 (Figure 2).

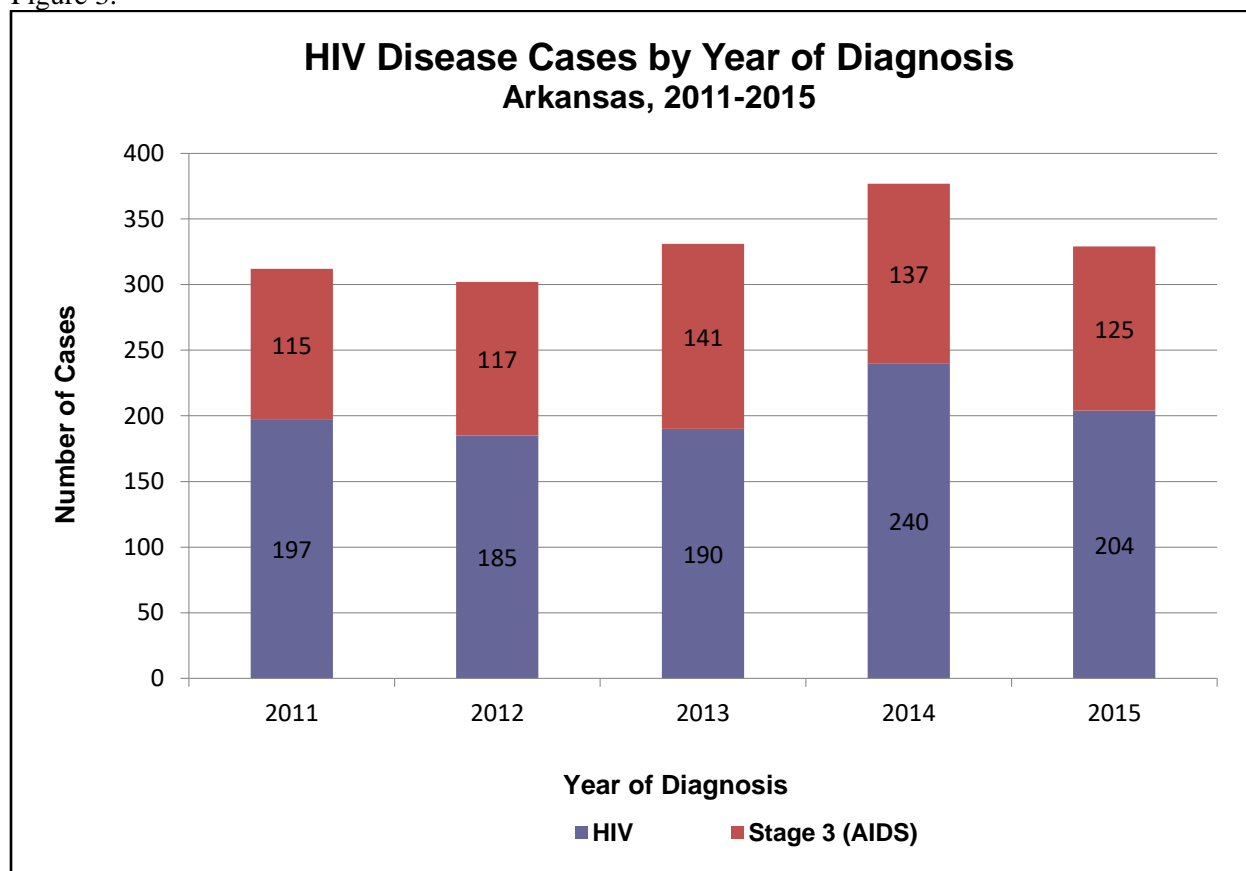
Figure 2.



In 2015, 125 Stage 3 (AIDS) cases and 204 HIV cases were newly diagnosed and reported in the State of Arkansas. This is a 3.6% increase in HIV cases and a 8.7% increase in Stage 3 (AIDS) cases, compared to those newly diagnosed and reported in 2011 (Figure 3). Since 2011, an average of 330 new cases of HIV Disease have been diagnosed and reported annually to the surveillance program.

The number of newly diagnosed cases of HIV Disease in Arkansas has been on an upward trend from 2012 (Figure 3) to 2014. In 2015, there was a 12.7% decrease in the number of newly diagnosed HIV Disease cases relative to 2014.

Figure 3.

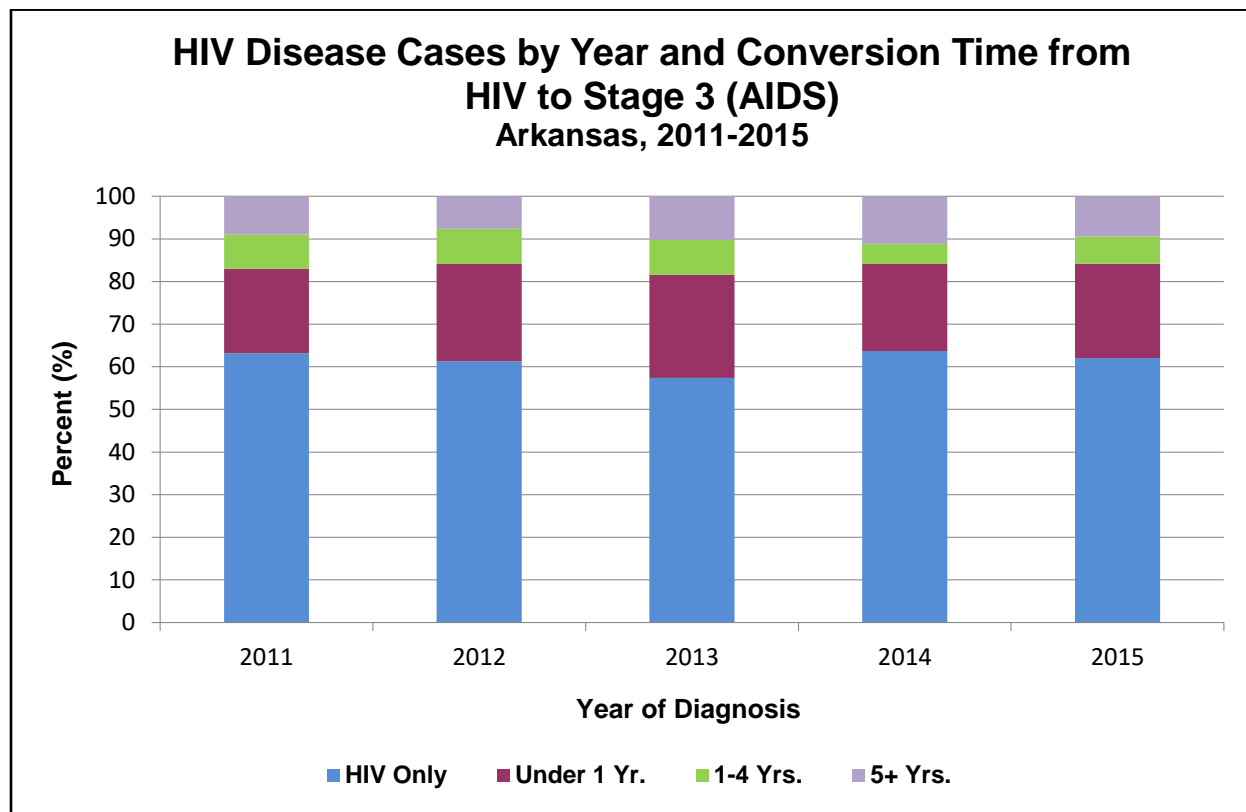


As shown in the figure above (Figure 3), since 2011 more cases are entering the system with an HIV diagnosis compared to previous years. This could be an indication of earlier testing or increased awareness for HIV screening growing across the state.

It is possible to have cases diagnosed simultaneously as Stage 3 (AIDS) and HIV, due to delays in testing. If a person is diagnosed with Stage 3 (AIDS) and HIV in the same year, they are counted as a Stage 3 (AIDS) case to prevent “double-counting.” Once diagnosed a Stage 3 (AIDS), a person does not re-enter the HIV “pool,” even if they no longer meet the case definition of Stage 3 (AIDS). For example, a person who is HIV positive in 2007 and subsequently develops *Pneumocystis pneumonia* (PCP), a Stage 3 (AIDS)-defining condition, in 2012, becomes a Stage 3 (AIDS) case in 2012. However, if the condition is resolved, the person is not reclassified as an HIV case.

Among the newly diagnosed cases of HIV infection in 2015, 61 (18.5%) were simultaneously diagnosed with both HIV and Stage 3 (AIDS) at the time of initial diagnosis. The proportion of cases reported as converting from HIV to Stage 3 (AIDS) within one year has remained relatively stable over the past 5 years (Figure 4 A). On average, Arkansas had approximately 63 cases annually over the past 5 years that entered the system with a simultaneous diagnosis of HIV and Stage 3 (AIDS). The time between the conversion from HIV to Stage 3 (AIDS) is usually a good indicator of time of infection. Usually there is about a 10-year period between initial HIV infection and progression to Stage 3 (AIDS). In light of this, caution should be taken when assessing the age at diagnosis of Stage 3 (AIDS) cases, because cases having a simultaneous diagnosis of HIV and Stage 3 (AIDS) had more than likely been positive for a number of years and unaware of their status. In Arkansas from 2011-2015 approximately 53-59 percent of new Stage 3 (AIDS) cases were diagnosed as Stage 3 (AIDS) at initial testing or within one year of being tested (Figure 4B).

Figure 4A.



According to the CDC, approximately one third of all diagnoses still occur late (where the diagnosis of Stage 3 (AIDS) occurs concurrently or within a year of HIV diagnosis)⁵. In Arkansas, approximately 20–30% of HIV Disease cases were diagnosed at an already immunocompromised state, as shown by progression to Stage 3 (AIDS) within a year (Figure 5). Cases entering HIV medical care at such a late stage tend to have poor treatment outcomes and survival rates.

Figure 4 B.

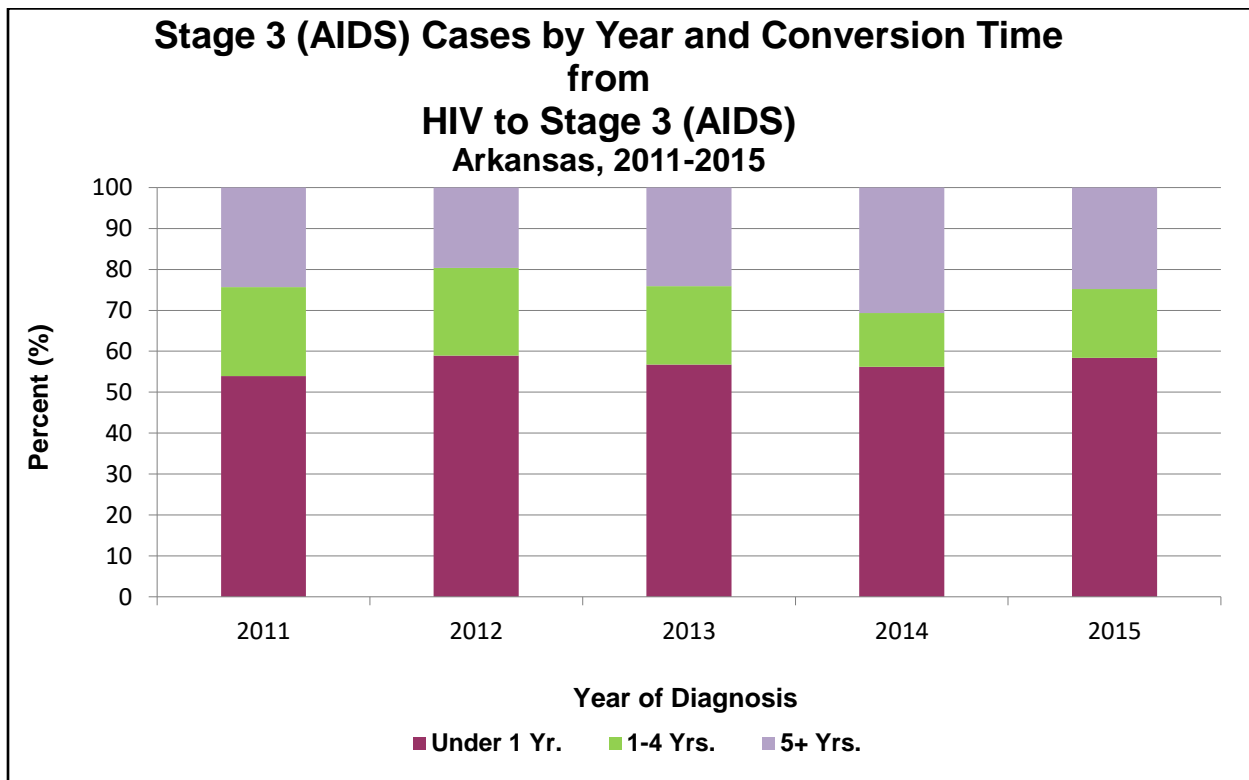
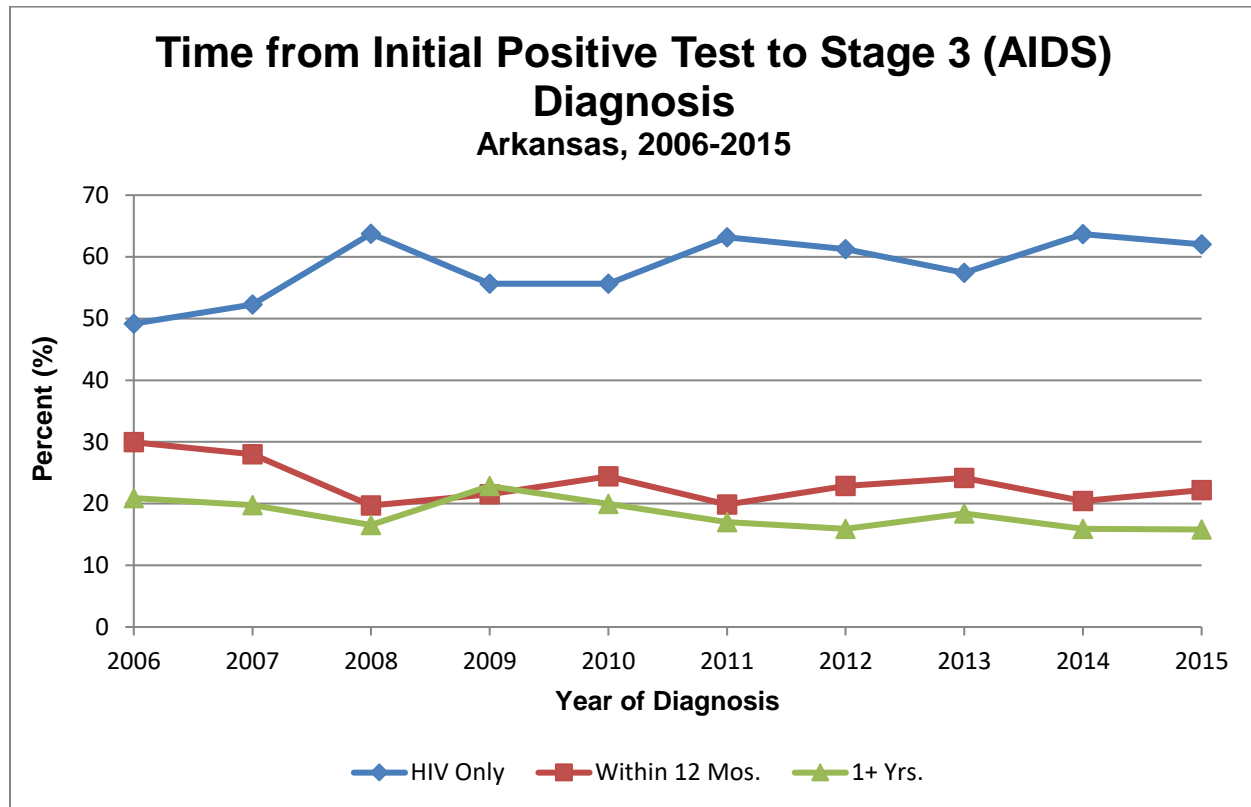
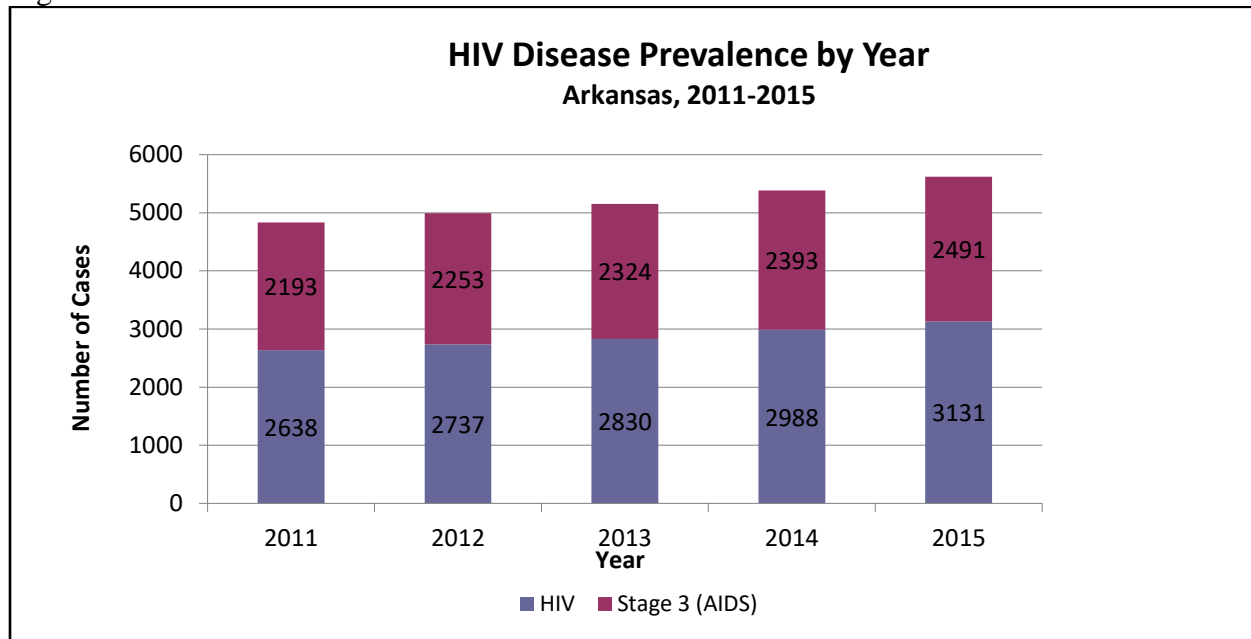


Figure 5.



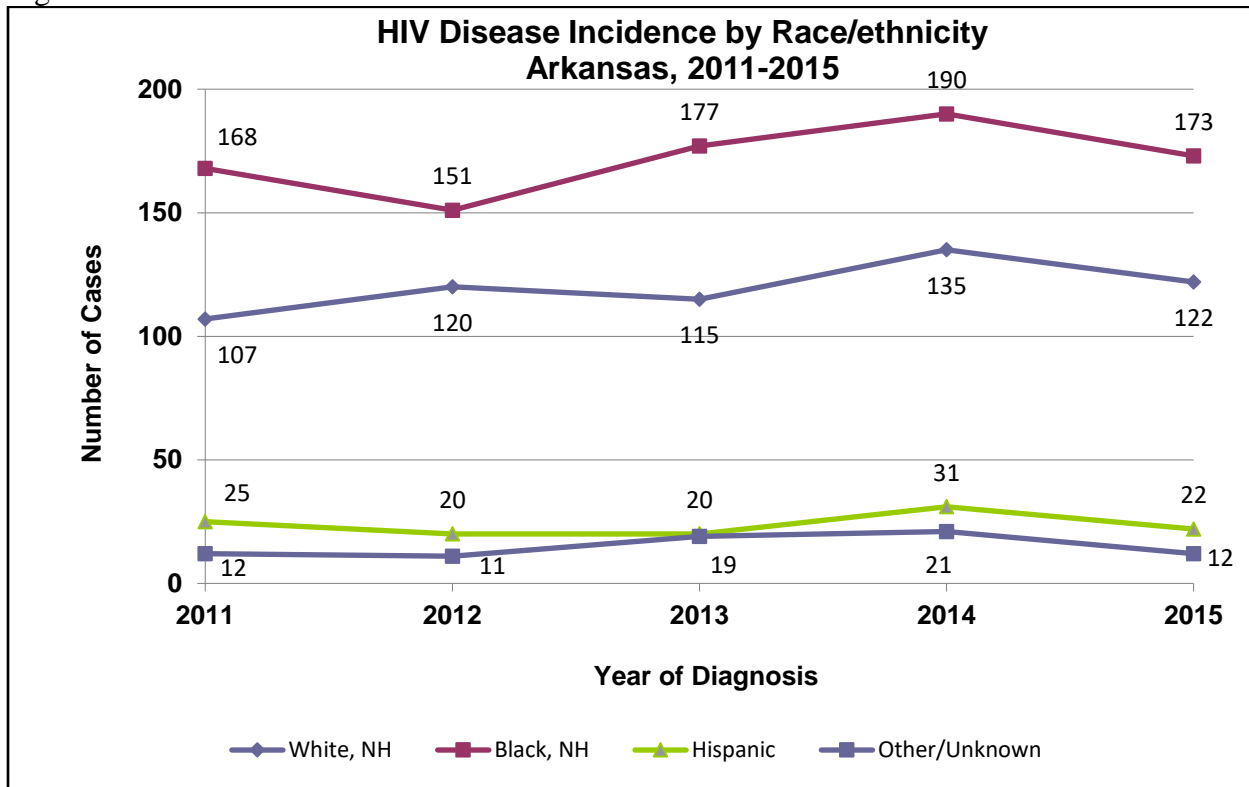
As of December 31, 2015, there were a total of 5,622 persons living with HIV Disease in the State of Arkansas reported to the Surveillance Program. This estimated prevalence is an approximation of the known number of persons actually living with HIV Disease at a particular period of time. This number does not include persons who are infected but have not been tested for the virus, or persons who have been tested but not reported to the Surveillance Program. The estimated number of prevalent cases in Arkansas has consistently increased from 2011 to 2015 (Figure 6).

Figure 6.



Assessing the true prevalence of persons living with HIV Disease in Arkansas is a difficult task. Our jurisdiction has a large number of transient cases. There are a number of HIV Disease cases residing in Arkansas that were diagnosed in other jurisdictions (*not* included in our totals), as well as a large number of cases initially diagnosed in Arkansas that have moved to other locations (that *are* included in our totals). Interstate migration is a common occurrence nationally. In Arkansas, we see this effect with the State of Texas in the Texarkana metropolitan area, and with the State of Tennessee in the West Memphis/Memphis metropolitan area. There is also no more than a three-hour drive to the border of any of the six neighboring states. There were approximately 2,491 persons living with Stage 3 (AIDS) in Arkansas at the end of 2015, compared to 1,283 at the end of 2000 (not shown). The number of persons living with HIV (stages 0, 1 or 2) has also increased, from 1,838 in 2000 to 3,131 at the end of 2015.

Figure 7.



Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

In Arkansas, minority populations continue to be disproportionately affected by HIV Disease. Although only 25.8% of the state’s population is composed of racial/ethnic minorities, these groups represented 63% of the newly diagnosed HIV Disease cases in 2015 and 53.3% of persons living with HIV Disease. The percentage of HIV Disease cases diagnosed among minorities in Arkansas has steadily increased since 2000 by 10.4% (not shown).

The greatest number of newly diagnosed cases of HIV Disease in 2015 was among non-Hispanic blacks (173) (Figure 7). The racial/ethnic group having the next highest number of newly diagnosed cases in 2015 was non-Hispanic whites (122), followed by Hispanics (22). Since 2011, the percentage of newly diagnosed cases in non-Hispanic blacks has decreased from 53.9% to 52.6%.

In 2015, the disease burden was greatest among blacks. Non-Hispanic blacks comprised 52.6% of the 329 newly diagnosed cases in 2015, while only representing 15.9% of Arkansas’ population. Blacks have the highest rate of HIV Disease infection (36.5 per 100,000) (Table 5) about seven times that in whites (5.5 per 100,000) and about four times that in Hispanics (10.3 per 100,000). Hispanics currently comprise 7.2% of the state’s population; the burden of disease for this racial/ethnic group is also disproportionate to their demographic makeup in the state.

Of the newly diagnosed HIV Disease cases in Arkansas in 2015, 78.1% were male and 21.9% were female. Young adults between the ages of 15 and 24 made up 24.3% of the newly diagnosed cases in 2015; this is comparable to the 18.9% living with HIV Disease in the state. About 47.1% of newly diagnosed HIV Disease cases were between the ages of 25 and 44.

The Central and Northwest Regions continue to be the most affected regions in the state, by numbers and percentages of newly diagnosed HIV Disease cases and persons living with HIV Disease. These regions contain large metropolitan areas. On the other hand, the Southeast Region has the second-highest *rates* of newly diagnosed HIV Disease (14 per 100,000) and persons living with HIV Disease (286.5 per 100,000). The Central Region continues to have the highest rates of newly diagnosed HIV Disease cases (18.9 per 100,000) and persons living with HIV Disease (294.3 per 100,000) (Table 5).

Table 5. Characteristics of Persons Infected with HIV Disease, Arkansas, 2015

	HIV Disease Incidence*			HIV Disease Prevalence**		
	N	%	Rate+	N	%	Rate+
Gender						
Male	257	78.1%	17.6	4328	77.0%	295.9
Female	72	21.9%	4.8	1294	23.0%	85.4
Race/ethnicity						
White, non-Hispanic	122	37.1%	5.5	2616	46.5%	118.4
Black, non-Hispanic	173	52.6%	36.5	2471	44.0%	521.5
Hispanic	22	6.7%	10.3	318	5.7%	148.6
Other, non-Hispanic	12	3.6%	14.7	205	3.6%	252.0
Unknown	0	0.0%	-	12	0.2%	-
Age Group						
<13	1	0.3%	0.2	42	0.7%	8.3
13-14	0	0.0%	0.0	9	0.2%	11.5
15-24	80	24.3%	19.8	1064	18.9%	263.2
25-34	99	30.1%	25.5	1911	34.0%	491.3
35-44	56	17.0%	15.3	1606	28.6%	439.1
45-54	62	18.8%	16.2	749	13.3%	195.9
55-64	21	6.4%	5.6	193	3.4%	51.5
65+	10	3.0%	2.1	47	0.8%	9.9
Unknown	0	0.0%	-	1	0.0%	-
Public Health Region						
Central	157	47.7%	18.9	2439	42.5%	294.3
Northeast	33	10.0%	6.0	732	13.7%	132.4
Northwest	68	20.7%	6.7	1151	20.4%	113.1
Southeast	36	10.9%	14.0	737	13.5%	286.5
Southwest	35	10.6%	10.9	563	9.9%	174.8
Unknown	0	0.0%	-	0.0%	0.0%	-
Total	329	100.0%	11.0	5622	100.0%	188.8

* HIV Disease Incidence is defined as the number of new HIV (stages 0, 1 or 2) and new Stage 3 (AIDS) cases diagnosed during the period specified.

** HIV Disease Prevalence is defined as the number of persons living with HIV (stages 0, 1 or 2) or Stage 3 (AIDS) during the period specified.

+ Rates are per 100,000 population.

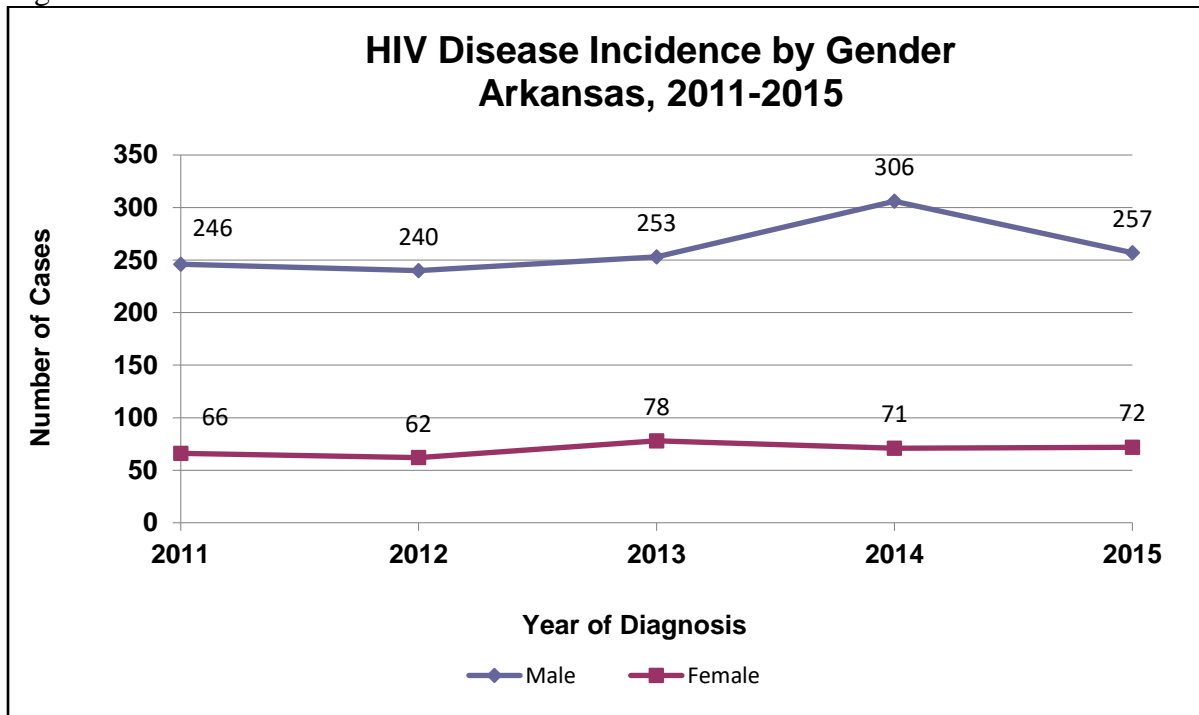
- No available denominator for these categories.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

HIV Disease, BY SEX AND RACE/ETHNICITY

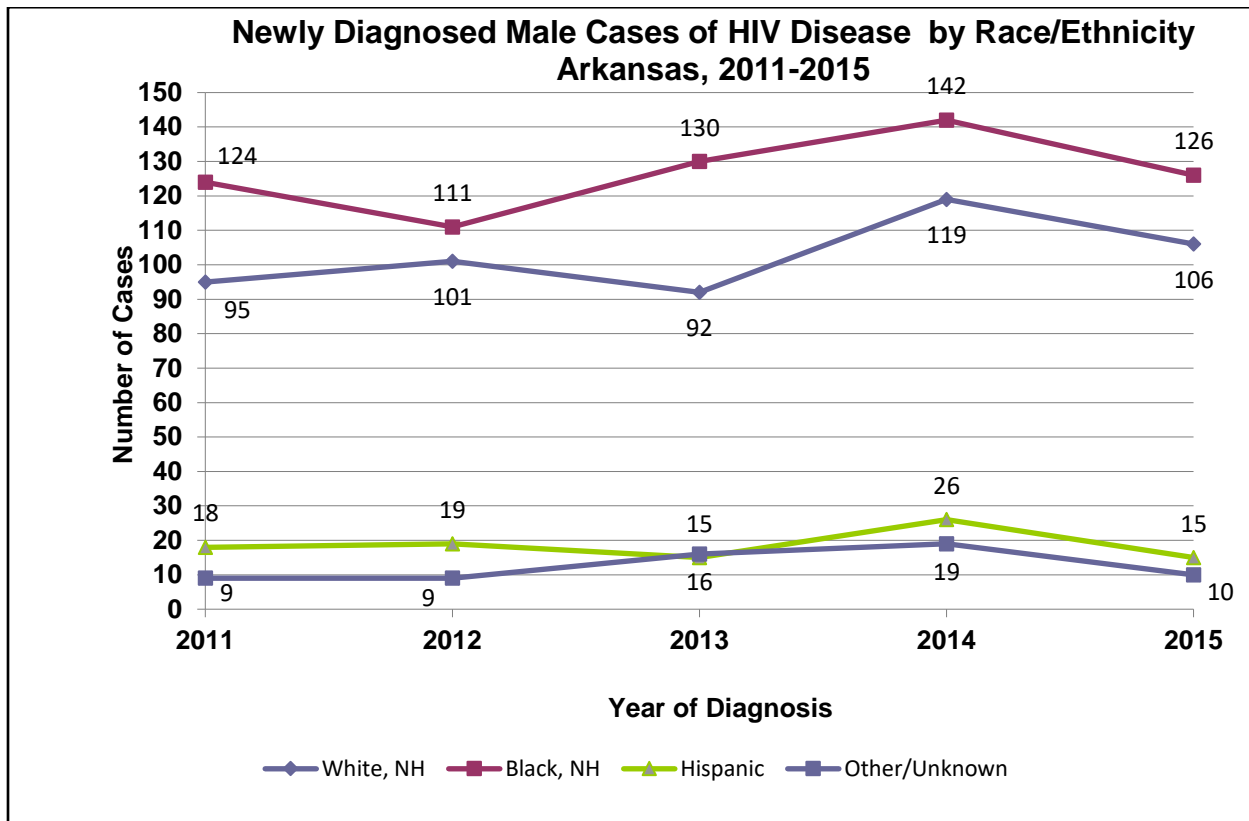
In 2015, there were 5,622 people in Arkansas living with HIV Disease. As of December 31st of the same year, there were 329 newly diagnosed cases of HIV Disease. Of those newly diagnosed, 257 were male and 72 were female (Table 5). The burden of infection has traditionally been within the male population in Arkansas, as it is nationally. New HIV Disease cases among males in Arkansas have increased slightly over the past 5 years, with an average of 260 males being diagnosed annually. The number of female cases has been relatively stable from 2011 to 2015, with an average of 70 females per year being diagnosed with HIV Disease (Figure 8).

Figure 8.



78.1% of newly diagnosed cases in 2015 were male. Of these cases, 41.3% were white, 49% black, 5.8% Hispanic, and the remaining 4% were Asian/Pacific Islander, American Indian/Alaska Native, multi-race, or unknown. The greatest numbers of newly diagnosed male cases were black, followed by white and Hispanic (Figure 9). Relative to their population, black males have been consistently disproportionately impacted by HIV. The rate of new infection among black males (55.7 per 100,000) was 5.7 times higher than that of white males (9.8 per 100,000) and 4.2 times that of Hispanic males (13.3 per 100,000). Since 2011, the number of cases among black males and white males has varied over the years. There was a slight increase in the number of newly diagnosed black male cases (1.6%) from 2011 (124 cases) to 2015 (126 cases), but the rate of new infection among black males has slightly decreased from (56.3 per 100,000) in 2011 to (55.7 per 100,000) in 2015.

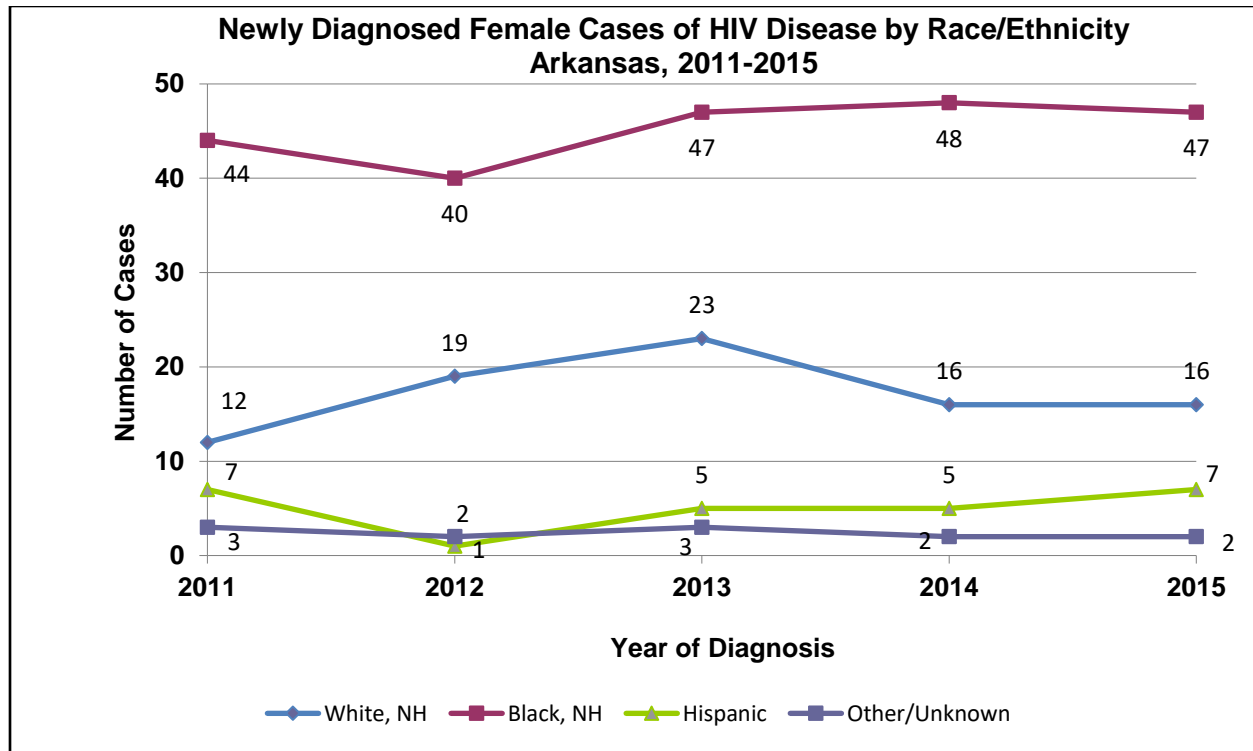
Figure 9



Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Since 2011, the number of cases among black females and white females has varied over the years (Figure 10). The numbers of cases among Hispanic women and the Other/Unknown category have remained relatively stable. Of the 72 newly diagnosed females in 2015, 22.2% were white, 65.3% were black, and 9.7% were Hispanic. The greatest burden of new infection among females in 2015 was in non-Hispanic blacks, at 19 per 100,000, compared to 6.9 per 100,000 among Hispanic females and 1.4 per 100,000 among non-Hispanic whites. This is consistent with current national trends.

Figure 10.



Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

The HIV Disease epidemic in Arkansas disproportionately affects both males and females in the black community. Arkansas statistics show congruence with the national data in this regard. Although blacks make up only 15.9% of the population in Arkansas, they have the highest rate of infection (36.5 per 100,000) compared to any other racial or ethnic group (Table 6). In 2015, blacks accounted for 52.6% of the newly diagnosed HIV Disease cases in Arkansas with a rate of 36.5 per 100,000. Black women comprised 14.3% of all newly diagnosed cases of HIV Disease in 2015 with a rate of 19 per 100,000 compared to white women comprising 4.9% with a rate of 1.4 per 100,000, and Hispanic women comprising only 2.1% of all new cases (Table 6) with rate of 6.9 per 100,000.

Table 6. HIV Disease Incidence* by Race/ethnicity and Gender, Arkansas, 2015

Race/ethnicity	Males		Females		Total		
	N	%**	N	%**	N	%**	Rate+
White, non-Hispanic	106	32.2%	16	4.9%	122	37.1%	5.5
Black, non-Hispanic	126	38.3%	47	14.3%	173	52.6%	36.5
Hispanic	15	4.6%	7	2.1%	22	6.7%	10.3
Other, non-Hispanic	10	3.0%	2	0.6%	12	3.7%	14.7
Total	257	78.1%	72	21.9%	329	100.0%	11.0

* HIV Disease Incidence is defined as the number of new HIV (stage 0, 1, 2) and new Stage 3 (AIDS) cases diagnosed during the period specified.

** Calculated as a percentage of all newly diagnosed HIV Disease in 2015.

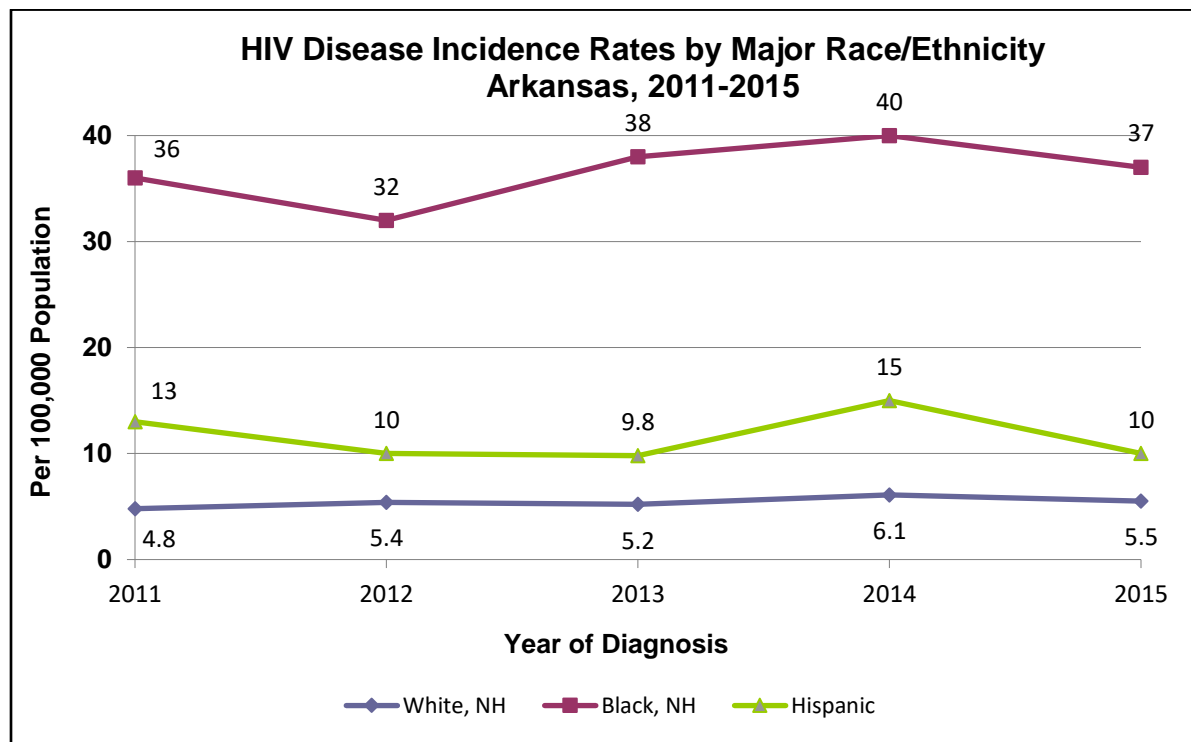
+ Rates are per 100,000 population.

Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

From 2011 to 2015, the rate of infection among blacks in Arkansas has varied over the years (Figure 11). In 2015, the rate in non-Hispanic blacks was 37 per 100,000 compared to 36 per 100,000 in 2011. This is approximately 7 times greater than the rate among non-Hispanic whites (5.5 per 100,000) and 4 times greater than the rate among Hispanics (10 per 100,000) during the same year (Figure 11, Table 5).

Figure 11.



HIV DISEASE, BY AGE GROUP

In 2015, youth between the ages of 15 and 24 accounted for about one fourth (24.3%) of the 329 newly diagnosed HIV Disease cases in Arkansas (Table 7). This is comparable to the national statistic of 22.1% of all new HIV infections occurring between the ages of 15 and 24.⁶ In 2015, males age 15-to-24 comprised 25.3% of newly diagnosed HIV Disease cases in Arkansas, compared to 26.4% in 2011. In Arkansas persons between the ages of 25-44 accounted for about half (47.1%) of the newly diagnosed HIV Disease cases (Table 7); in particular males between the ages of 25-44 made up 49.0% of newly diagnosed HIV Disease cases in Arkansas, compared to 50.8% in 2011. The majority of newly diagnosed cases among women (45.8%) in Arkansas occurred in the 15-to-34 age range, and 20.8% in women between the ages of 15 and 24. Persons over the age of 55 made up 9.4% of newly diagnosed HIV Disease cases in Arkansas in 2015.

Table 7. HIV Disease Incidence* by Age Group and Gender, Arkansas, 2015

Age Group	Male		Female		Total	
	N	%	N	%	N	%
<13	0	0.0%	1	1.4%	1	0.3%
13-14	0	0.0%	0	0.0%	0	0.0%
15-24	65	25.3%	15	20.8%	80	24.3%
25-34	81	31.5%	18	25.0%	99	30.1%
35-44	45	17.5%	11	15.3%	56	17.0%
45-54	41	16.0%	21	29.1%	62	18.8%
55-64	16	6.2%	5	6.9%	21	6.4%
65+	9	3.5%	1	1.4%	10	3.0%
Total	257	100.0%	72	100.0%	329	100.0%

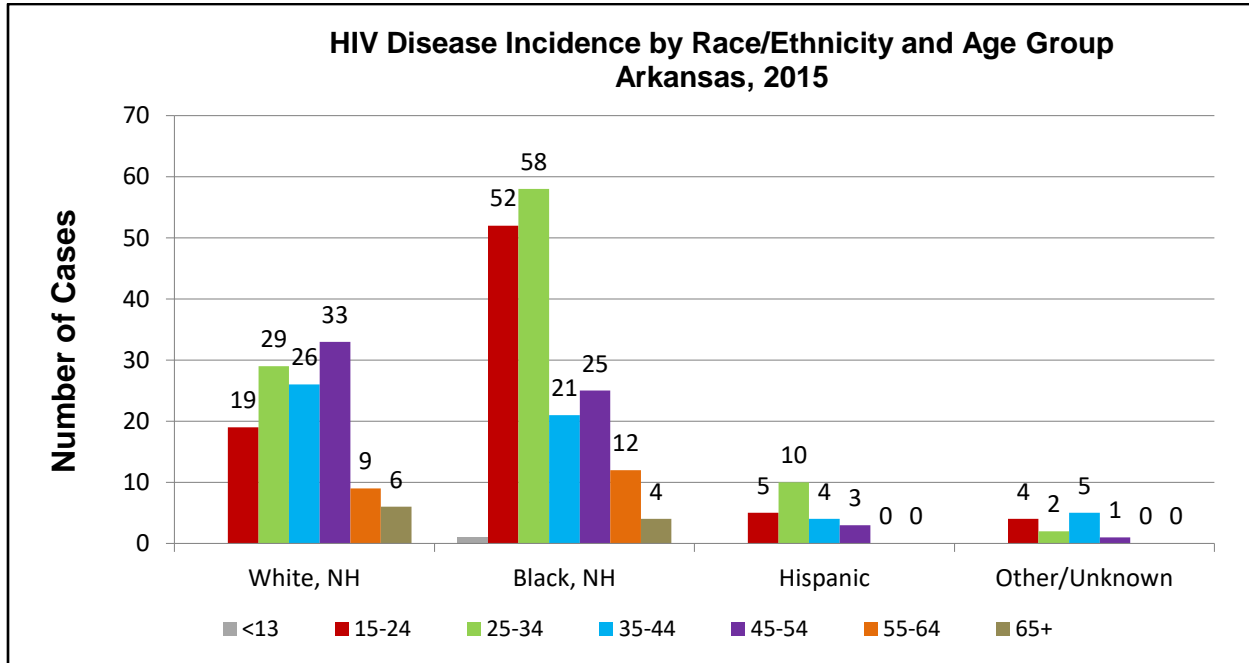
* HIV Disease Incidence is defined as the number of new HIV (stages 0, 1 or 2) and new Stage 3 (AIDS) cases diagnosed during the period specified.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

HIV DISEASE, BY RACE/ETHNICITY AND AGE GROUP

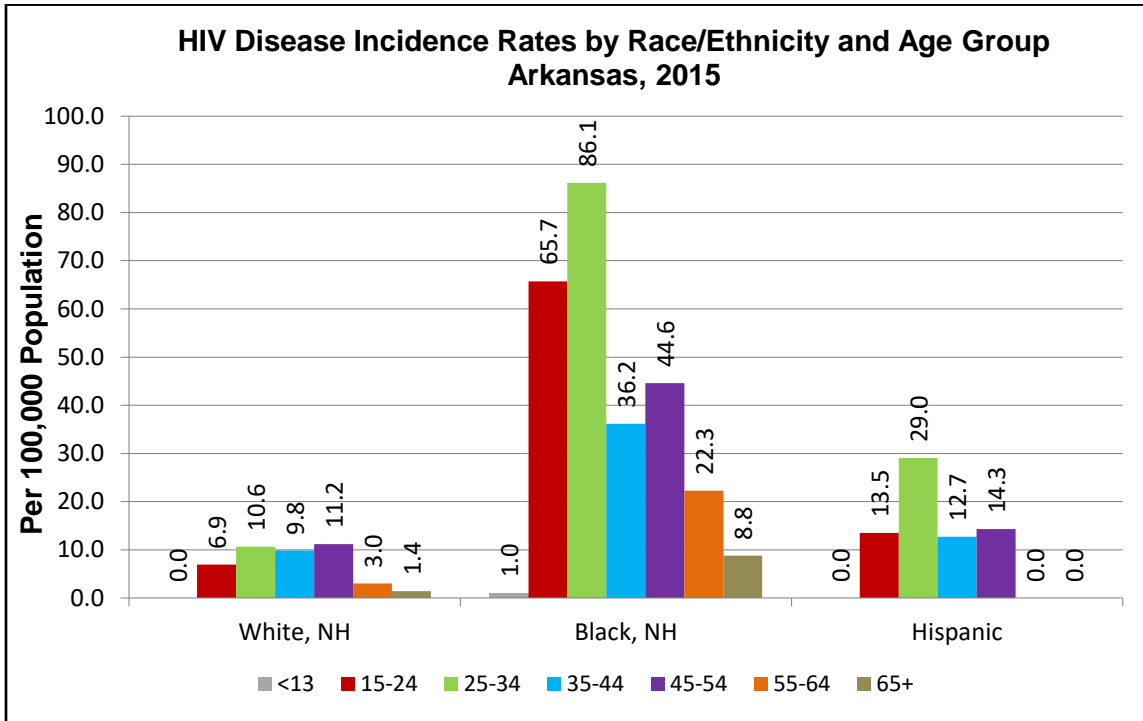
Blacks between the ages of 25-34 accounted for the greatest number of newly diagnosed HIV Disease cases in 2015, compared to all other combined age, race, and ethnicity groups (Figure 12). This age group also had the highest rate of new HIV Disease diagnoses, (86.1 per 100,000) followed by black 15-24 year olds (65.7 per 100,000) (Figure 13). Nationally, blacks between ages of 25-34 accounted for the highest rate (95 per 100,000) of new HIV Disease diagnosis. The next most impacted age and race/ethnicity groups in Arkansas were 15-24 year-old blacks and whites respectively.

Figure 12.



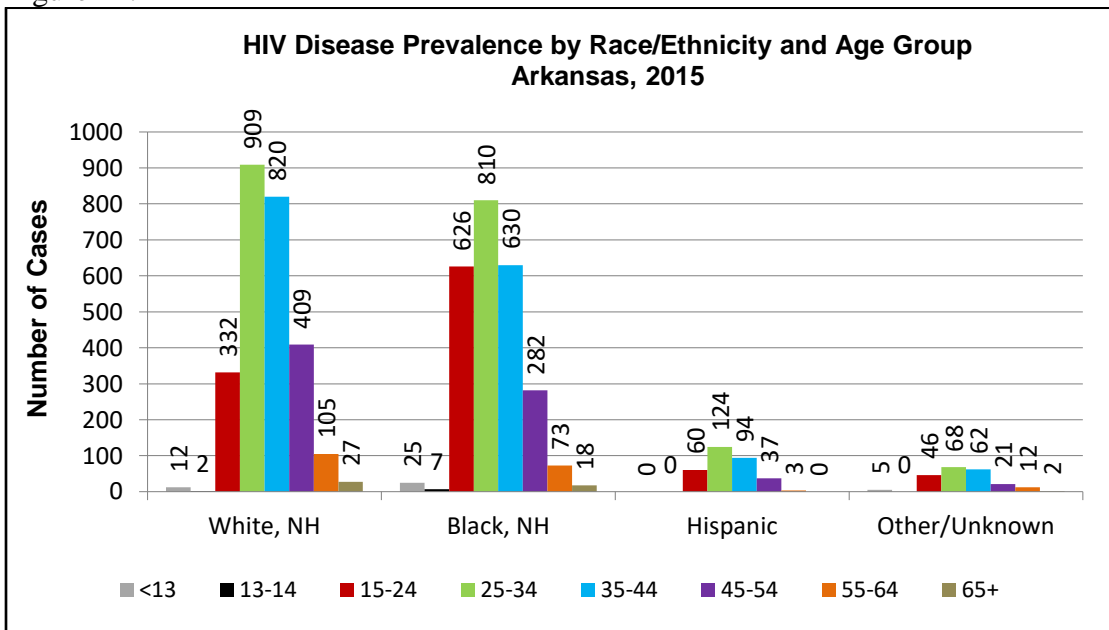
Although the number of newly diagnosed cases among blacks and whites was similar within some age groups, the *rate* of new diagnoses shows vast disparities between age, race, and ethnicity groups when taking population size into account. For example, while the number of cases among 25-to-34 year olds was 58 in blacks and 29 in whites, the incidence rate in this age group was 86.1 per 100,000 for blacks, versus 10.6 per 100,000 in whites (Figure 13). The rates of new diagnoses show that blacks experience a disproportionately large burden of HIV Disease in all age groups, when compared to whites (Figure 13). Hispanics also share a disproportionate burden of new diagnoses when compared to whites, especially in the 25-34 age group.

Figure 13.



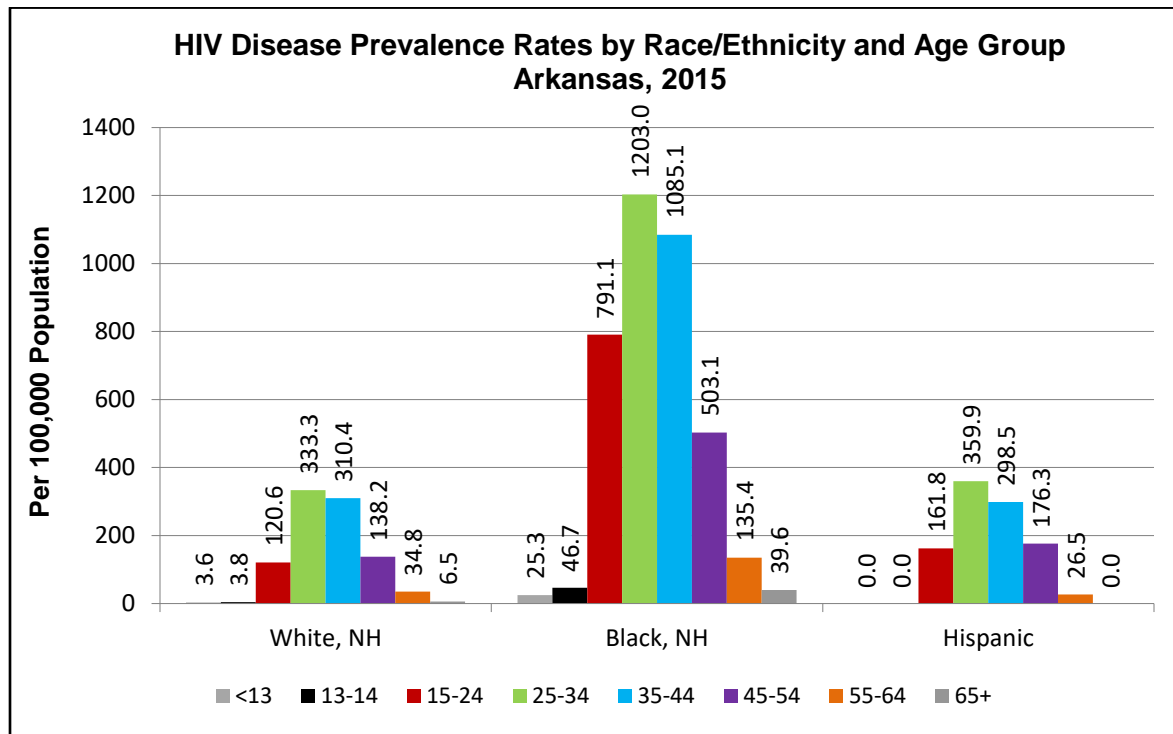
Comparing the estimated prevalence at the end of 2015 among age and racial/ethnic groups shows similar patterns to those in the newly diagnosed cases. Across race/ethnicity groups, whites had the most people living with HIV Disease in the 25-to-34, 35-to-44, and 45-to-54 age groups (Figure 14).

Figure 14.



However, the prevalence rates for whites in the same age groups (333.3, 310.4, and 138.2 per 100,000 respectively) were considerably lower than the prevalence rates for blacks in the same age groups (1,203.0; 1,085.1; and 503.1 per 100,000; respectively) (Figure 15).

Figure 15.

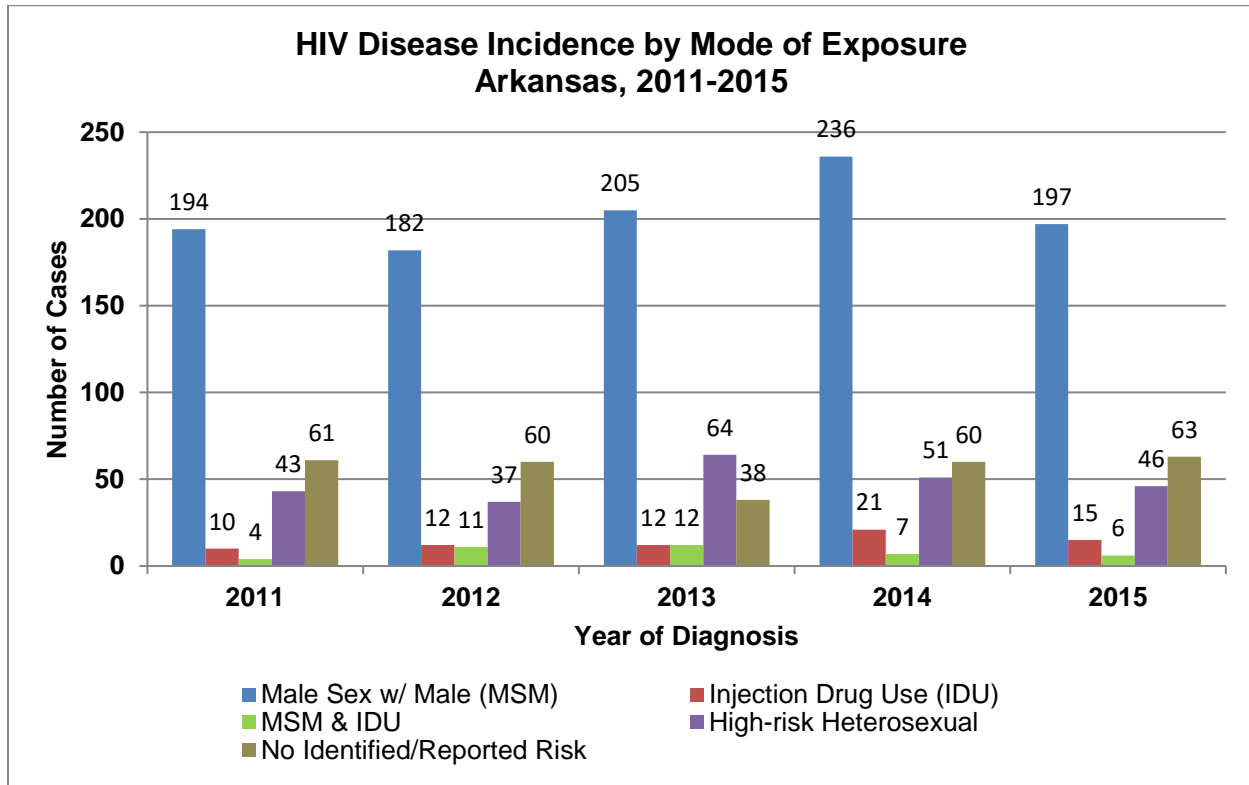


HIV DISEASE, BY MODE OF EXPOSURE

The mode of exposure looks at behaviors that put people at risk for becoming infected with HIV Disease. There is a hierarchy of behaviors that place people at greater risk of infection. Below, the top four categories of reported risks are shown, alongside cases with “no identified risk” (NIR) (Figure 16). Male-to-male sexual contact (MSM) continues to be the predominant known exposure category for newly diagnosed cases of HIV Disease in Arkansas. This trend is consistent with national findings.

The number of newly diagnosed cases noting MSM as the primary risk factor varied over the last five years, from 194 in 2011 (62.2% of all cases) to 236 in 2014 (62.6% of all cases) to 197 in 2015 (59.9% of all cases). The second most commonly noted mode of exposure was high-risk heterosexual contact—sexual contact with a partner known to be HIV-infected or at high risk for acquiring HIV. The numbers also varied over the last five years, from 43 (13.8%) in 2011 to 64 (19.3%) in 2013 to 46 (14.0%) in 2015. In 2015, another 4.6% of cases noted injection drug use (IDU), and 1.8% indicated both MSM and IDU as their primary risk factor.

Figure 16.

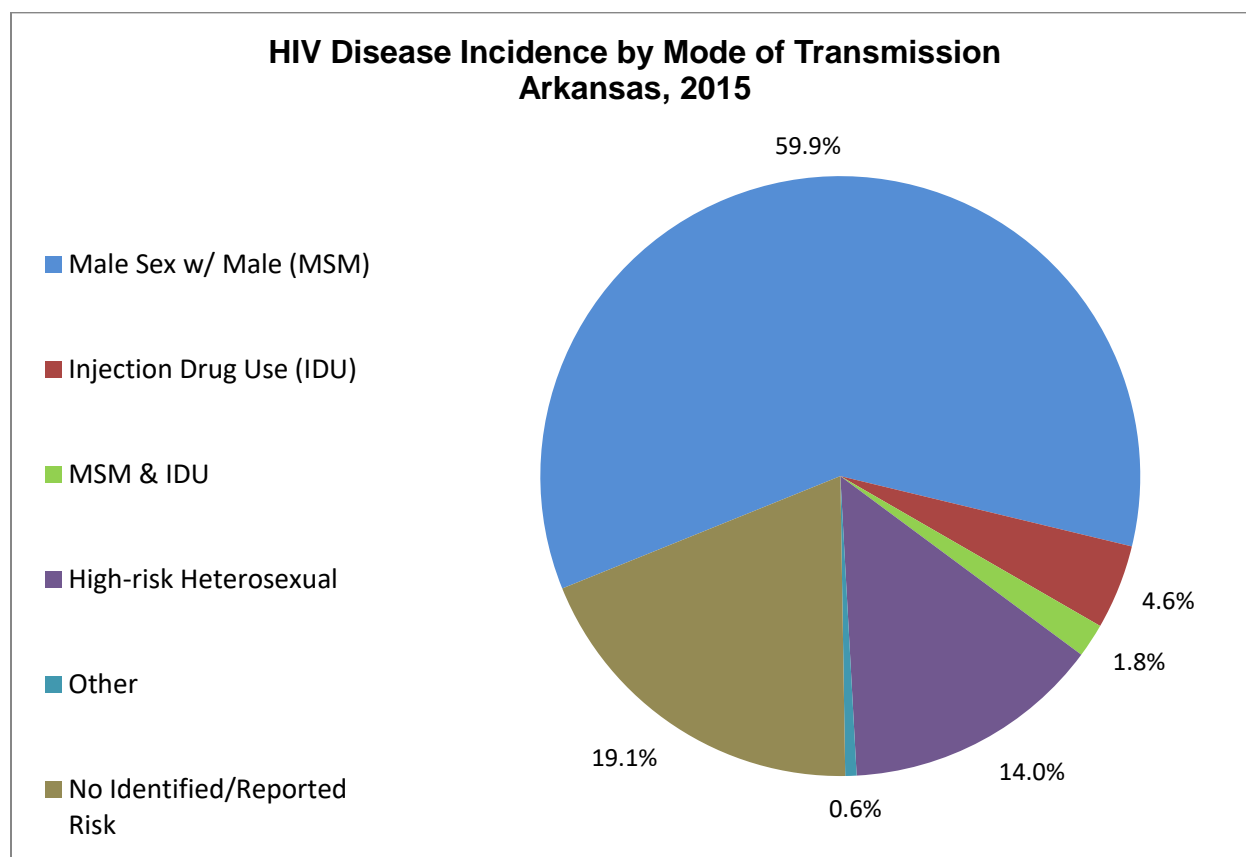


In 2015, 19.1% of newly diagnosed HIV Disease cases had no identified risk factors (Figure 16), a slight decrease from 19.6% of cases in 2011 but an increase from 11.5% of cases in 2013. Obtaining risk factor information has become increasingly difficult over the years. This denotes an increased need for provider education on the importance of discussing risk factors with patients at the time of diagnosis.

According to the Centers for Disease Control and Prevention (CDC) guidelines, risk factors correspond to the one-year period “before the first positive HIV test or Stage 3 (AIDS) diagnosis.” The CDC considers risk factor ascertainment a high priority in the collection of surveillance data. Identification of risk factors enables the HIV Prevention Program and community planning bodies to identify target groups and focus their programs and messages accordingly.

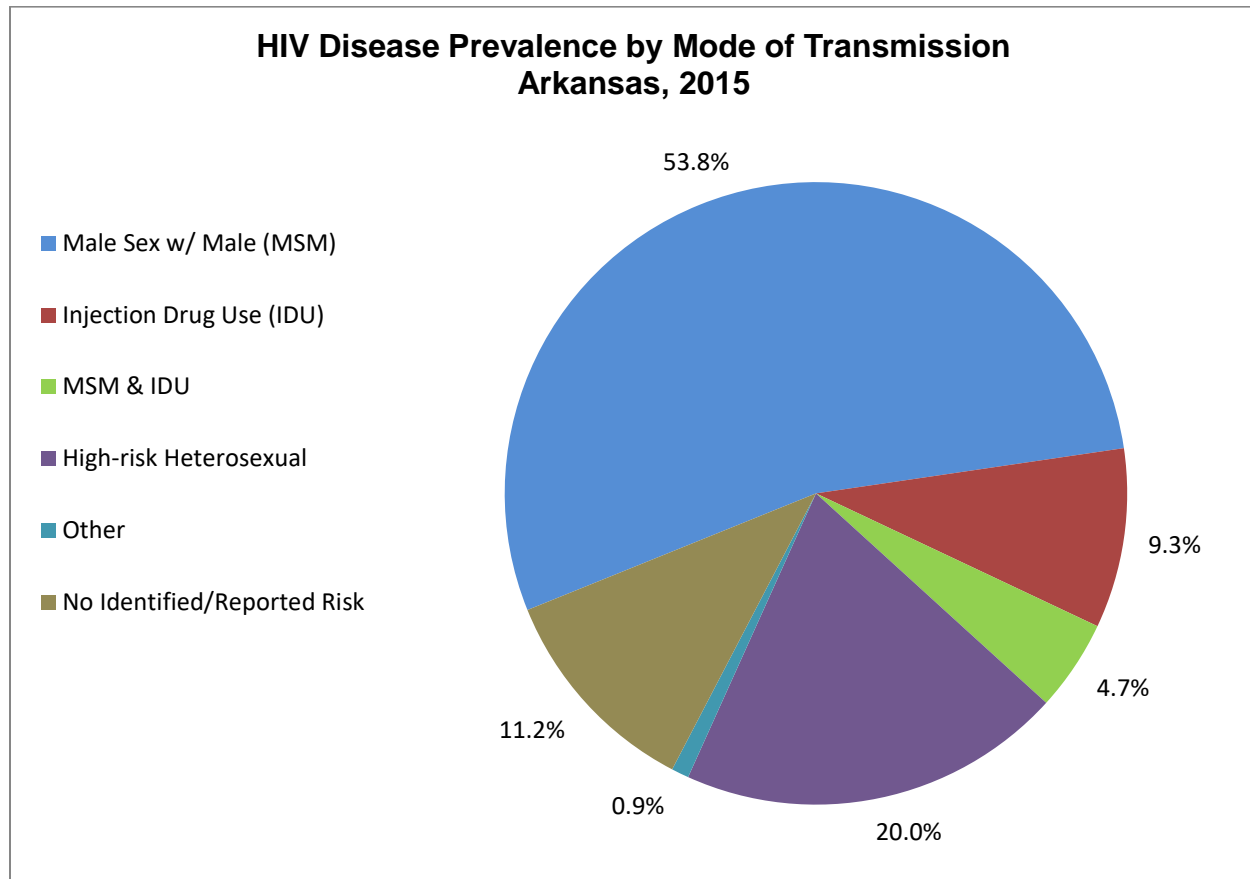
Arkansas has a small percentage of cases attributing risk to intravenous drug use (IDU). This finding is consistent with data collected since the institution of HIV and Stage 3 (AIDS) case reporting in Arkansas. This is comparable to national statistics, which note that HIV transmission via IDU has decreased substantially since 1993.

Figure 17.



Persons living with HIV Disease in 2015 had a higher percentage of identified risks, 88.8% (Fig. 18), when compared to newly diagnosed cases in 2015 with identified risk factors, and 80.9% (Fig. 17). In general, the percentage of cases attributed to each known risk factor was greater in 2015 prevalent cases than in newly diagnosed cases. However, 59.9% of newly diagnosed cases in 2015 noted MSM (Figure 17), compared to 53.8% of prevalent cases in 2015 (Figure 18). This may indicate that persons diagnosed in recent years are more willing to disclose a risk status of MSM.

Figure 18.



Regional comparisons of exposure categories provide a basis for targeted prevention intervention development in various areas across the state. These data provide several key planning variables such as geographic location and raw case numbers, which provide insight into the type and amount of prevention and interventional resources needed in a particular area. Regionally, male-to-male sexual contact continues to be the predominant mode of exposure among persons living with HIV Disease in Arkansas. The Central and Northwest Regions had the greatest percentages of cases noting MSM as a risk factor. The Southeast Region had the largest proportion of cases noting injection drug use (IDU) as a risk factor in the state, followed by the Northwest and Southwest Regions. The Northeast Region had the greatest percentage of cases noting high-risk heterosexual contact as their primary risk factor, followed by the Southwest Region (Table 8).

Table 8. HIV Disease Prevalence by Exposure Category and Public Health Region, Arkansas, 2015

Exposure Category	Central	Northeast	Northwest	Southeast	Southwest	Total
Male Sex w/ Male (MSM)	1460	338	645	327	254	3024
Injection Drug Use (IDU)	166	70	132	98	59	525
MSM & IDU	98	29	80	30	29	266
High-risk Heterosexual	397	206	186	188	147	1124
Other	21	5	12	7	6	51
No Identified Risk	297	84	96	87	68	632
Total	2439	732	1151	737	563	5622

** HIV Disease Prevalence is defined as the number of persons living with HIV (stage 0, 1, 2) or Stage 3 (AIDS) during the period specified.

Note: Other exposure category includes Transfusion/Hemophiliac and Perinatal Exposure.
Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

Table 8. HIV Disease Prevalence by Exposure Category and Public Health Region, Arkansas, 2015

Exposure Category	Central (% in region)	Northeast (% in region)	Northwest (% in region)	Southeast (% in region)	Southwest (% in region)	Total Cases
Male Sex w/ Male (MSM)	59.9%	46.2%	56.0%	44.4%	45.1%	3024
Injection Drug Use (IDU)	6.8%	9.6%	11.5%	13.3%	10.5%	525
MSM & IDU	4.0%	4.0%	7.0%	4.1%	5.2%	266
High-risk Heterosexual	16.3%	28.1%	16.2%	25.5%	26.1%	1124
Other	0.9%	0.7%	1.0%	0.9%	1.1%	51
No Identified Risk	12.2%	11.5%	8.3%	11.8%	12.1%	632
Total Cases	2439	732	1151	737	563	5622

** HIV Disease Prevalence is defined as the number of persons living with HIV (stage 0, 1, 2) or Stage 3 (AIDS) during the period specified.

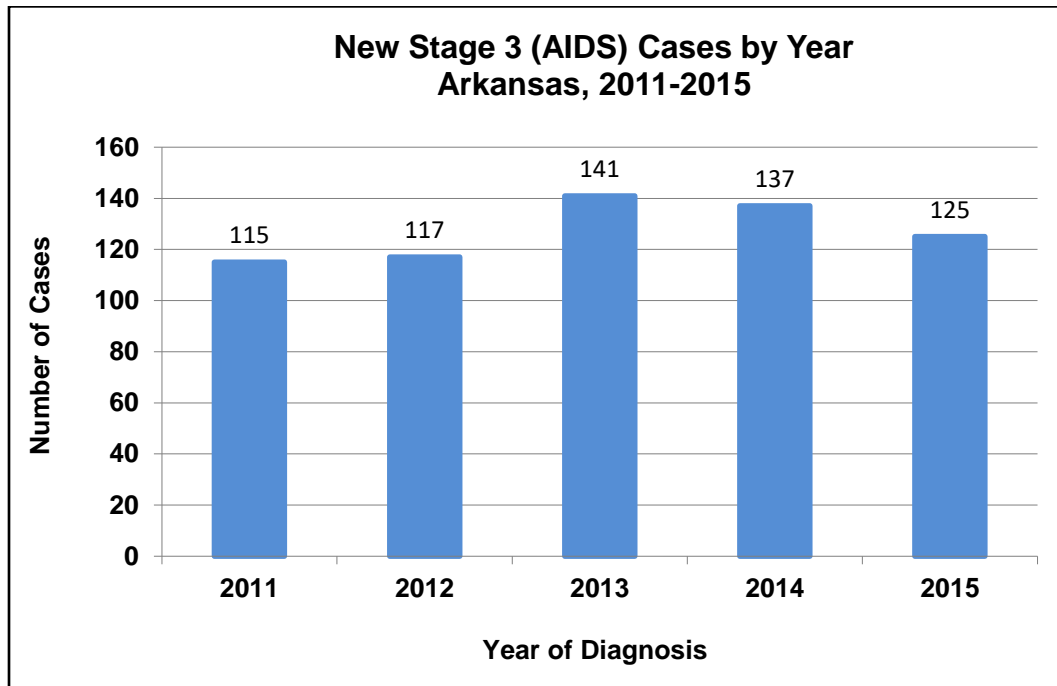
Note: Other exposure category includes Transfusion/Hemophiliac and Perinatal Exposure.
Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

Stage 3 (AIDS) TRENDS AND HIV DISEASE MORTALITY

Stage 3 (AIDS) Trends

Since 2011, there has not been a consistent trend in the number of newly diagnosed cases of Stage 3 (AIDS) in Arkansas (Figure 19). The number of newly diagnosed Stage 3 (AIDS) cases increased from 115 in 2011 to 141 in 2013, then decreased to 137 in 2014 and 125 in 2015 (Figure 19).

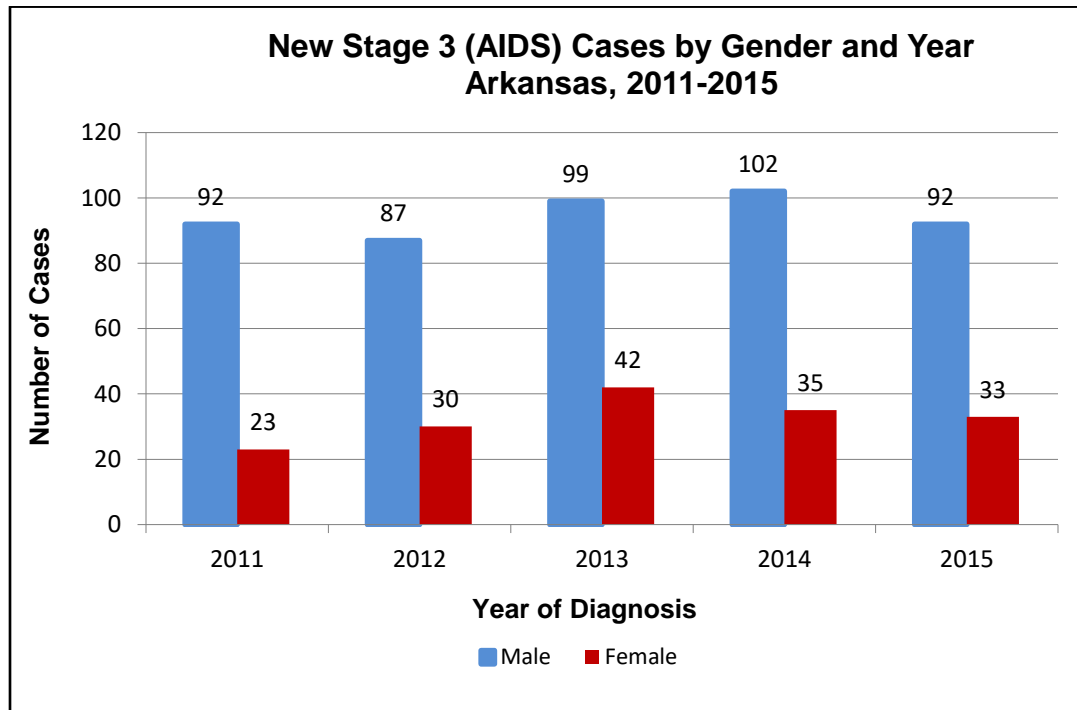
Figure 19.



Males continue to be the gender most impacted by Stage 3 (AIDS) in Arkansas, as well as nationally. There has not been a consistent trend in the number of newly diagnosed cases of Stage 3 (AIDS) in males and females in the last 5 years. In 2015, there were 92 newly diagnosed Stage 3 (AIDS) cases among males in Arkansas, and 33 cases among females (Figure 20).

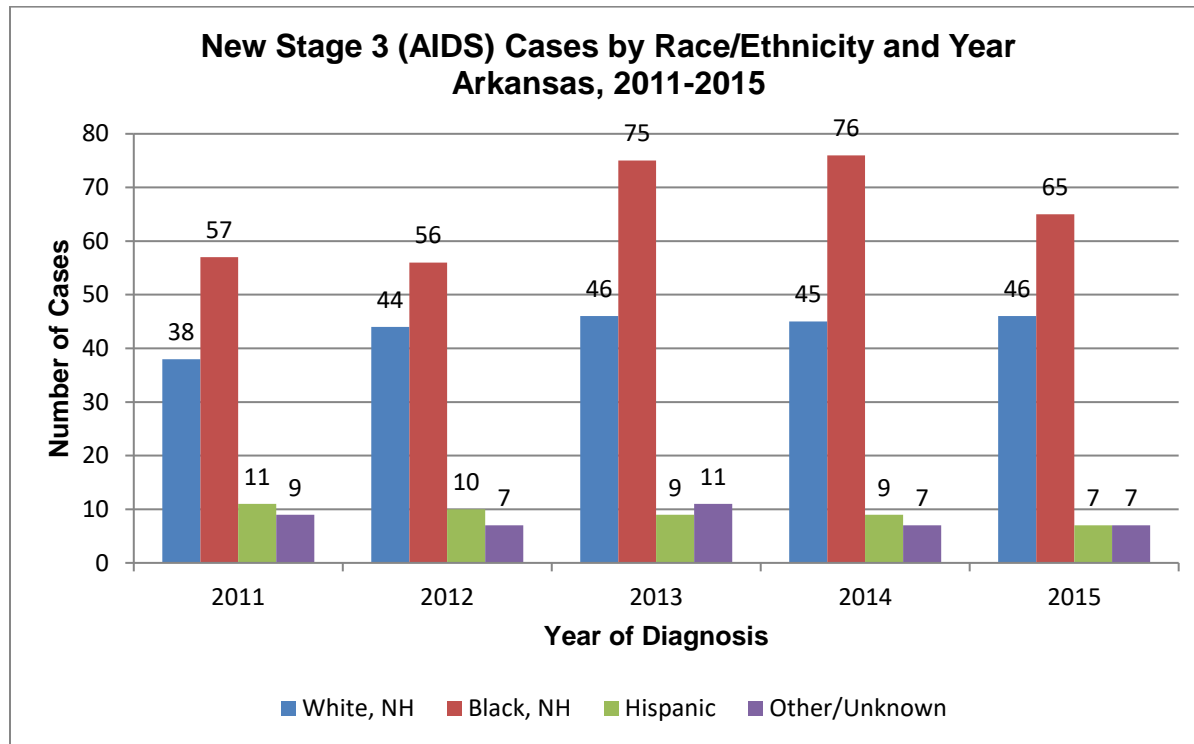
The face of HIV Disease is rapidly changing in Arkansas. Over the past few years, the proportion of cases among minorities varies through years. For example, the percentage of newly diagnosed Stage 3 (AIDS) cases among minorities in 2011 was 67% then it decreased to 62.3% in 2012 and increased again in 2013 and 2014 to 67% then decreased to 63.2% in 2015. Nationally it was almost stable. The rate of infection among non-Hispanic blacks is higher than that for any other minority group in Arkansas. From 2011 to 2013, the number of newly diagnosed Stage 3 (AIDS) cases in non-Hispanic blacks increased, then decreased slightly in 2015, while the number of newly diagnosed Stage 3 (AIDS) cases in whites has decreased slightly or remained steady (Figure 21). The number of newly diagnosed Stage 3 (AIDS) cases in Hispanics has remained steady over the same time period.

Figure 20.



Men made up the majority of newly diagnosed and prevalent Stage 3 (AIDS) cases at the end of 2015 (Table 9). Minorities (blacks, Hispanics, and “Other”) comprised 63.2% of newly diagnosed Stage 3 (AIDS) cases in 2015 and represented 52.5% of people living with Stage 3 (AIDS) in 2015 and made up 25.8% of the whole population. This could indicate disparities in care or in the severity of disease progression at the time of Stage 3 (AIDS) diagnosis. Among prevalent Stage 3 (AIDS) cases, the most common ages at the time of diagnosis were 35–44 years and 25–34 years. Among newly diagnosed Stage 3 (AIDS) cases, the most common age groups were 45–54 years, then 35–44 years and 25–34. This could indicate that late diagnoses (initial diagnosis coming well after HIV infection occurred) are still occurring in Arkansas.

Figure 21.



Regionally, the greatest percentages of Stage 3 (AIDS) cases were located in the Central and Northwest Public Health Regions, home to the major metropolitan areas of the state. The primarily urban Little Rock-North Little Rock-Conway metropolitan statistical area (MSA) continues to have the largest concentration of newly diagnosed and prevalent Stage 3 (AIDS) cases. This MSA accounted for approximately 41.6% of the newly diagnosed Stage 3 (AIDS) cases and 38.3% of the prevalent Stage 3 (AIDS) cases in Arkansas. The Central Region had the highest Stage 3 (AIDS) prevalence rate (126.3 per 100,000 populations) in the State of Arkansas in 2015. The Southeast Region had the second highest prevalence rate in the state, at 124.4 per 100,000 (Table 9).

Table 9. Characteristics of Persons with Stage 3 (AIDS), Arkansas, 2015

	Stage 3 (AIDS) Incidence*		Stage 3 (AIDS) Prevalence*	
	N	%	N	%
Gender				
Male	92	73.6%	1956	78.5%
Female	33	26.4%	535	21.5%
Race/ethnicity				
White, non-Hispanic	46	36.8%	1182	47.5%
Black, non-Hispanic	65	52.0%	1050	42.2%
Hispanic	7	5.6%	147	5.9%
Other, non-Hispanic	7	5.6%	112	4.5%
Age Group				
<13	1	0.8%	19	0.8%
13-14	0	0.0%	1	0.0%
15-24	19	15.2%	215	8.6%
25-34	26	20.8%	823	33.0%
35-44	26	20.8%	883	35.4%
45-54	36	28.8%	416	16.7%
55-64	14	11.2%	114	4.6%
65+	3	2.4%	21	0.8%
Public Health Region				
Central	54	43.2%	1047	42.0%
Northeast	15	12.0%	317	12.7%
Northwest	32	25.6%	552	22.2%
Southeast	13	10.4%	320	12.8%
Southwest	11	8.8%	255	10.2%
Total	125	100.0%	2491	100.0%

* Stage 3 (AIDS) Incidence is defined as the number of new Stage 3 (AIDS) cases diagnosed during the period specified.

** Stage 3 (AIDS) Prevalence is defined as the number of persons living with Stage 3 (AIDS) during the period specified.

Note: Due to rounding, percentages may not add to 100.

Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

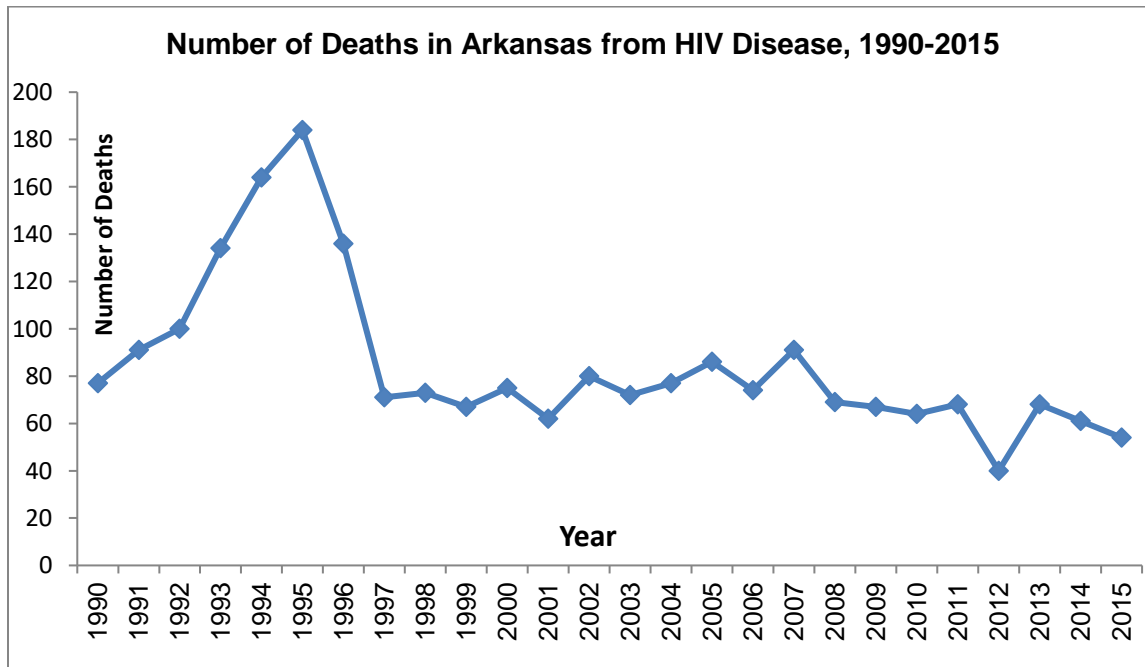
Mortality

The introduction of Highly Active Antiretroviral Therapy (HAART) in 1996 has greatly impacted the life span of persons living with HIV and Stage 3 (AIDS). These medications have been extremely effective in the treatment of HIV infection, so much so, that they have altered the natural progression of HIV Disease. According to the CDC, studies have shown that patients taking HAART have experienced significant reductions in HIV viral loads, even reductions to undetectable levels. HAART has also aided in decreasing the incidence of opportunistic infections (which are one of the main indicators of HIV infection progressing to Stage 3 (AIDS)), hospitalizations and deaths.⁷ Arkansas surveillance data reflects the national trend of sharp declines in Stage 3 (AIDS)-related deaths compared to previous years. Stage 3 (AIDS) surveillance data no longer accurately represent trends in HIV transmission; rather, Stage 3 (AIDS) surveillance data now reflect differences in access to testing and treatment, as well as the failure of certain treatments. Consequently, Stage 3 (AIDS) incidence and deaths since 1996 provide a measure for identifying and describing the populations for whom treatment may not have been accessible, or effective.

HIV Disease Mortality

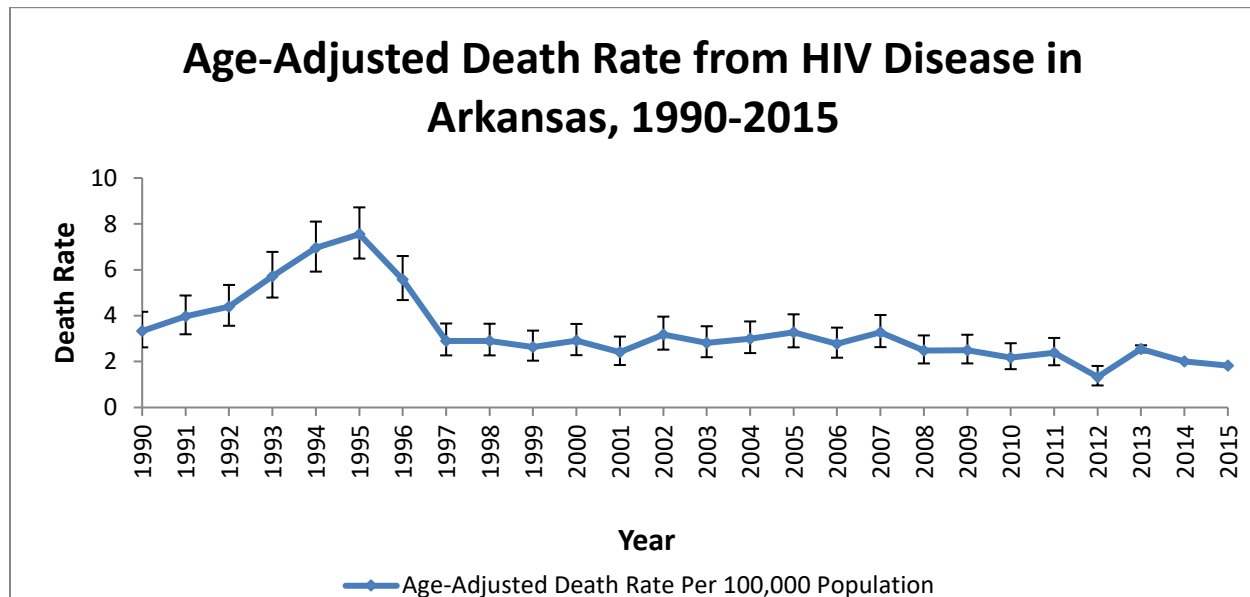
According to causes of death listed on Arkansas death certificates, the number of HIV-related deaths rose sharply from the early to mid-1990s, during the height of the HIV epidemic. From the peak in 1995, HIV-related deaths dropped precipitously with the widespread introduction of HAART in 1996.⁸ Since 1997, annual HIV-related deaths in Arkansas have remained relatively stable (Figure 22), at a rate of 2–4 deaths per 100,000 population (Figure 23). In 2012 the number of HIV-related deaths was the lowest recorded since 1990.

Figure 22



Source: Department of Health, ICD10 Cause of Death Query, Death Certificates

Figure 23.

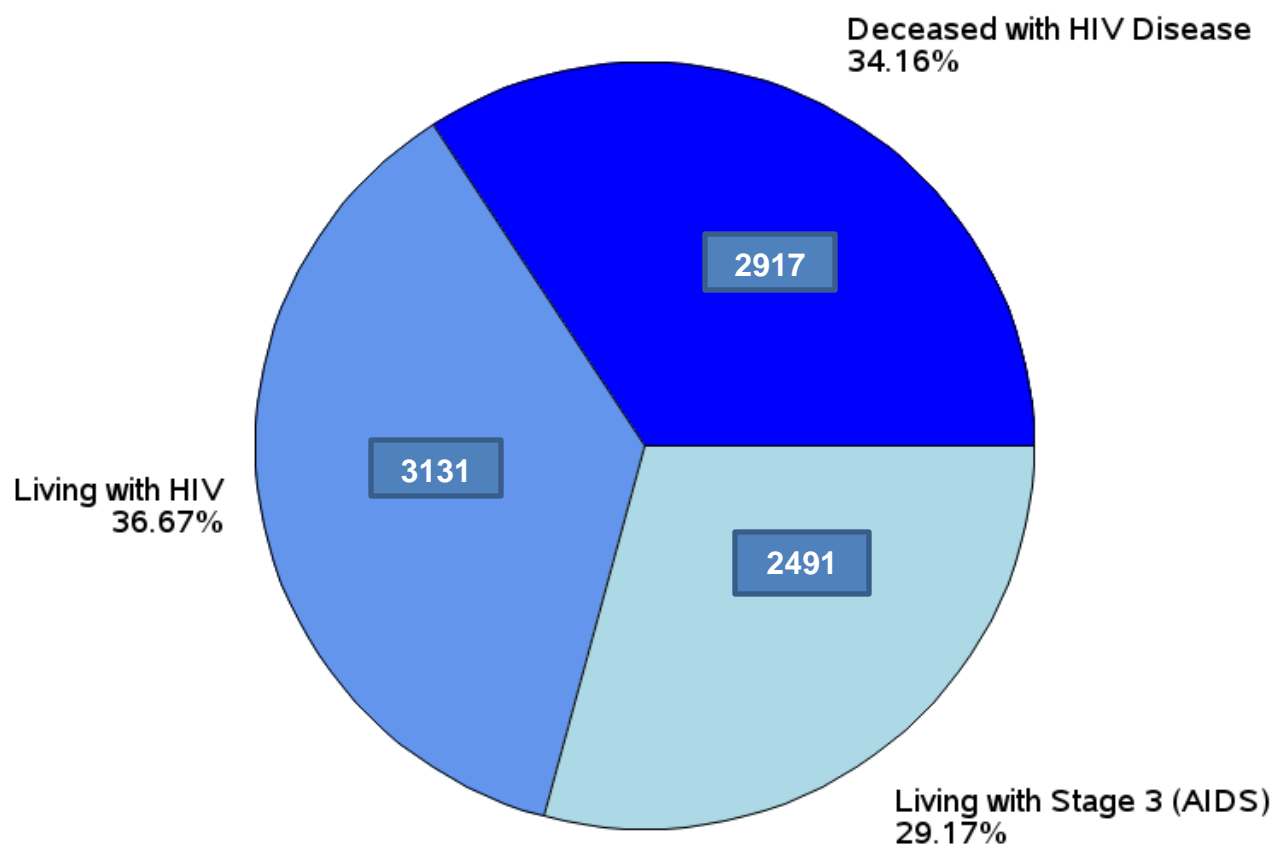


*bars indicate the 95% confidence interval around each point
Source: Department of Health, ICD10 Cause of Death Query, Death Certificates

The number of deaths due to HIV Disease in Arkansas continues to decrease. The age-adjusted death rate per 100,000 population from HIV Disease in Arkansas in 2015 was 1.83 compared to 902.2 for the whole population. According to the Arkansas HIV Disease surveillance system data, 2,917 deaths have been attributed to HIV Disease as of December 31, 2015 (Figure 24, Table 10). The majority of persons with HIV Disease who have died were men (81.4%); this is consistent with the 78.5% of persons living with Stage 3 (AIDS) in Arkansas who were men (Table 10). The greatest percentage of deaths occurred among cases with a reported risk of MSM (52.8%). Approximately 55.7% of the deceased cases were white, 41.5% were black, and 1.7% were Hispanic.

Figure 24.

Cumulative Reports of HIV Disease Cases by Current Status, Arkansas 2015



The Central Region had the greatest percentage of HIV Disease-related deaths (39.4%), compared to other regions of the state (Table 10). The Central Region also had the greatest percentage of persons living with Stage 3 (AIDS) (42.0%) as of December 31, 2015. The number of persons living with Stage 3 (AIDS) has remained stable across all demographic groups in the state. In 2015, the Stage 3 (AIDS) prevalence rate was 83.6 per 100,000, compared to 74.6 per 100,000 in 2011.

Table 10. Characteristics of Persons with HIV Disease Who Died and Persons Living with HIV Disease
Arkansas, 2015

	Deaths among Persons with HIV Disease through 2015		Persons Living with Stage 3 (AIDS) through 2015	
	N	%	N	%
Gender				
Male	2,375	81.4%	1,956	78.5%
Female	542	18.5%	535	21.5%
Race/Ethnicity				
White, non-Hispanic	1,626	55.7%	1,182	47.5%
Black, non-Hispanic	1,211	41.5%	1,050	42.2%
Hispanic	48	1.6%	147	5.9%
Other, non-Hispanic	32	1.1%	112	4.5%
Unknown	0	0.0%	0	0.0%
Age Group				
<13	18	0.6%	19	0.8%
13-14	4	0.1%	0	0.0%
15-24	242	8.3%	215	8.6%
25-34	997	34.2%	823	33.0%
35-44	947	32.5%	883	35.4%
45-54	455	15.6%	416	16.7%
55-64	183	6.3%	114	4.6%
65+	71	2.4%	21	0.8%
Unknown	0	0.0%	0	0.0%
Exposure Category				
Male Sex w/ Male (MSM)	1,539	52.8%	1,373	55.1%
Injection Drug Use (IDU)	410	14.1%	256	10.3%
MSM & IDU	240	8.2%	142	5.7%
High-risk Heterosexual	526	18.0%	515	20.7%
Other	69	2.4%	29	1.2%
No Identified Risk	133	4.6%	176	7.1%
Public Health Region				
Central	1,149	39.4%	1,047	42.0%
Northeast	413	14.2%	317	12.7%
Northwest	604	20.7%	552	22.2%
Southeast	409	14.0%	320	12.8%
Southwest	342	11.7%	255	10.2%
Unknown	0	0.0%	0	0.0%
Total	2,917	100.0%	2,491	100.0%

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

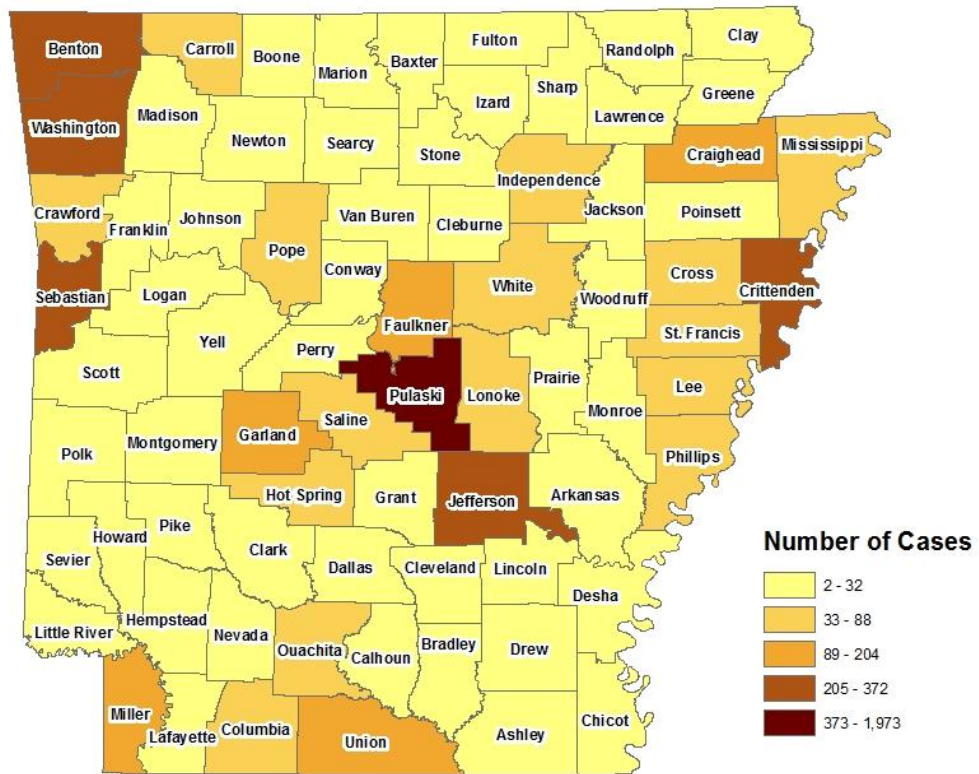
Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Other exposure category includes Transfusion/Hemophiliac and Perinatal Exposure.

REGIONAL PROFILES

The following pages present each ADH Public Health Region in detail from 2011–2015. Public Health Regions having fewer identified cases and smaller numbers of prevalent cases will not be discussed as thoroughly as those with larger numbers. This is done to assure the confidentiality of infected persons. Also, smaller numbers mean that rates and proportions are statistically unstable, and any conclusions drawn from them have the potential to be erroneous. Changes across years may reflect true change, but are more likely the result of normal variation in smaller numbers.

Arkansas HIV Disease Prevalence* Cases by County as of December 31, 2015



Date: April 18, 2018
 Source: Arkansas Department of Health
 Map created by: Marwa Sadawi

*Prevalence is defined as the number of persons living with HIV Disease during the specified time period.
 Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) Data System, retrieved October 26, 2016.

CENTRAL REGION	
Counties in Central Region	Faulkner, Garland, Grant, Lonoke, Perry, Pulaski, Saline
2015 Estimated Population of Central Region	828,789
Prevalent HIV Disease Presumed Living in Central Region	2,439

Regional Information

The Central Region is located in the geographic center of the state and includes seven counties as well as the state capital, Little Rock. This is geographically the smallest region in the state. Non-Hispanic whites make up 70.7% of the region’s population, non-Hispanic blacks 21.9%, Hispanics 5.1%, Asian or Pacific Islanders 1.8%, 0.5% of the population is Native American. The Central Region contains the highest and the sixth-highest counties, by total population density.

Newly Diagnosed HIV Disease, 2011–2015

In the Central Region, there were 773 newly diagnosed HIV Disease cases between 2011 and 2015 (Table 11). The majority of the cases were males (82.5%). The infection rate for this region during this time was 18.7 per 100,000 per year, the highest in the state. During this time period, blacks made up the majority of the newly diagnosed HIV Disease cases (55.0%), followed by whites (35.2%), Hispanics (5.8%), and other races (4.0%). Approximately 31.4% of the newly diagnosed cases between 2011 and 2015 were between the ages of 25 and 34 years old. This region also had a large percentage of cases reported among youth and young adults aged 15 to 24 (29.0%). Male-to-male sexual contact (MSM) was the primary known risk factor (66.4%). Less common primary risk factors were heterosexual contact (12.6% of cases), injection drug use (IDU) (2.1%), and MSM & IDU (1.3%). At the time of reporting, 17.6% of cases had no identified risk factors reported.

Table 11. Central Public Health Region — HIV Disease Incidence and Prevalence as of December 31, 2015

	HIV Incidence 2011-2015		Stage 3 (AIDS) Incidence 2011-2015		HIV Disease Incidence 2011-2015		HIV Prevalence as of Dec. 2015		Stage 3 (AIDS) Prevalence as of Dec. 2015		HIV Disease Prevalence as of Dec. 2015	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	410	83.8	228	80.3	638	82.5	1,129	81.1	852	81.4	1,981	81.2
Female	79	16.2	56	19.7	135	17.5	263	18.9	195	18.6	458	18.8
Age Group												
<13	0	0.0	1	0.4	1	0.1	10	0.7	10	1.0	20	0.8
13-14	0	0.0	0	0.0	0	0.0	4	0.3	0	0.0	4	0.2
15-24	180	36.8	44	15.5	224	29.0	385	27.7	104	9.9	489	20.1
25-34	166	34.0	77	27.1	243	31.4	499	35.9	328	31.3	827	33.9
35-44	69	14.1	73	25.7	142	18.4	307	22.1	370	35.3	677	27.8
45-54	58	11.9	48	16.9	106	13.7	144	10.3	172	16.4	316	13.0
55-64	10	2.0	34	12.0	44	5.7	32	2.3	55	5.3	87	3.6
65+	6	1.2	7	2.5	13	1.7	10	0.7	8	0.8	18	0.7
Unknown	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	1	0.0
Race/Ethnicity												
White, non-Hispanic	188	38.5	84	29.6	272	35.2	605	43.5	452	43.2	1,057	43.3
Black, non-Hispanic	257	52.6	168	59.2	425	55.0	672	48.3	490	46.8	1,162	47.6
Hispanic	30	6.1	15	5.3	45	5.8	61	4.4	49	4.7	110	4.5
Other, non-Hispanic	14	2.9	17	6.0	31	4.0	49	3.5	56	5.4	105	4.3
Unknown	0	0.0	0	0.0	0	0.0	5	0.4	0	0.0	5	0.2
Exposure Category												
Male Sex w/ Male (MSM)	337	68.9	176	62.0	513	66.4	820	58.9	640	61.1	1,460	59.9
Injection Drug Use (IDU)	11	2.3	5	1.8	16	2.1	81	5.8	85	8.1	166	6.8
MSM & IDU	2	0.4	8	2.8	10	1.3	45	3.2	53	5.1	98	4.0
High-risk Heterosexual	48	9.8	49	17.3	97	12.6	223	16.0	174	16.6	397	16.3
Other	0	0.0	1	0.4	1	0.1	8	0.6	13	1.2	21	0.9
No Identified Risk	91	18.6	45	15.9	136	17.6	215	15.5	82	7.8	297	12.2
Total	489	100.0	284	100.0	773	100.0	1,392	100.0	1,047	100.0	2,439	100.0

Note: Due to rounding, percentages may not add to 100.

Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Other exposure category includes Transfusion/Hemophiliac and Perinatal Exposure.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016

NORTHEAST REGION	
Counties in Northeast Region	Cleburne, Clay, Craighead, Crittenden, Cross, Fulton, Izard, Greene, Independence, Jackson, Lawrence, Mississippi, Poinsett, Randolph, Sharp, Stone, White, Woodruff
2015 Estimated Population of Northeast Region	552,708
Prevalent HIV Disease Presumed Living in Northeast Region	732

Regional Information

The Northeast Region, which borders the state of Tennessee, makes up part of the Memphis Transitional Grant Area (TGA). It consists of 18 counties, including the Jonesboro area where Arkansas State University is located. This region has the largest percentage of non-Hispanic whites (81.7%) in the state. Non-Hispanic blacks and Hispanics comprise 13.6% and 3.4% of this region’s population respectively followed by Asians and Native Americans making up 1.2%.

Newly Diagnosed HIV Disease, 2011–2015

Between 2011 and 2015, the Northeast Region had a total of 187 newly diagnosed HIV Disease cases. The HIV infection rate for the Northeast Region was 6.8 per 100,000 per year. Males made up the majority (70.1%) of newly diagnosed HIV cases. Blacks made up the largest percentage of newly diagnosed HIV cases (59.9%), followed by whites (31.6%) and Hispanics (6.4%). Cases occurred most commonly in the 15-24 age group (27.3%), followed by the 25-34 age group (24.6%) and the 45-54 age group (21.9%). Notably, 20.3% of all newly diagnosed HIV Disease cases occurred in 35-44-year olds. The most commonly reported primary risk was male-to-male sexual contact (MSM) (51.3%), followed by high-risk heterosexual contact (23.5%), injection drug use (IDU) (4.3%), and MSM & IDU (3.2%). The remaining 17.7% had no identified risk factors reported.

Table 12. Northeast Public Health Region — HIV Disease Incidence and Prevalence as of December 31, 2015

	HIV Incidence 2011-2015		Stage 3 (AIDS) Incidence 2011-2015		HIV Disease Incidence 2011-2015		HIV Prevalence as of Dec. 2015		Stage 3 (AIDS) Prevalence as of Dec. 2015		HIV Disease Prevalence as of Dec. 2015	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	76	73.1	55	66.3	13	70.1	257	61.9	230	72.6	487	66.5
Female	28	26.9	28	33.7	56	30.0	158	38.1	87	27.4	245	33.5
Age Group												
<13	0	0.0	0	0.0	0	0.0	3	0.7	1	0.3	4	0.6
13-14	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	1	0.1
15-24	43	41.4	8	9.6	51	27.3	133	32.1	30	9.5	163	22.3
25-34	31	29.8	15	18.1	46	24.6	137	33.0	92	29.0	229	31.3
35-44	15	14.4	23	27.7	38	20.3	92	22.2	106	33.4	198	27.1
45-54	11	10.6	30	36.1	41	21.9	40	9.6	71	22.4	111	15.2
55-64	2	1.9	6	7.2	8	4.3	7	1.7	14	4.4	21	2.9
65+	2	1.9	1	1.2	3	1.6	2	0.5	3	1.0	5	0.7
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Race/Ethnicity												
White, non-Hispanic	35	33.7	24	28.9	59	31.6	183	44.1	155	48.9	338	46.2
Black, non-Hispanic	60	57.7	52	62.7	11	59.9	208	50.1	137	43.2	345	47.1
Hispanic	7	6.7	5	6.0	12	6.4	17	4.1	14	4.4	31	4.2
Other, non-Hispanic	2	1.9	2	2.4	4	2.1	7	1.7	11	3.5	18	2.5
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Exposure Category												
Male Sex w/ Male (MSM)	57	54.8	39	47.0	96	51.3	177	42.7	161	50.8	338	46.2
Injection Drug Use (IDU)	5	4.8	3	3.6	8	4.3	45	10.8	25	7.9	70	9.6
MSM & IDU	3	2.9	3	3.6	6	3.2	14	3.4	15	4.7	29	4.0
High-risk Heterosexual	19	18.3	25	30.1	44	23.5	118	28.4	88	27.8	206	28.1
Other	0	0.0	0	0.0	0	0.0	2	0.5	3	1.0	5	0.7
No Identified Risk	20	19.2	13	15.7	33	17.7	59	14.2	25	7.9	84	11.5
Total	104	100.	83	100.0	18	100.0	415	100.0	317	100.0	732	100.0

Note: Due to rounding, percentages may not add to 100.

Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Other exposure category includes Transfusion/Hemophiliac and Perinatal Exposure.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016

NORTHWEST REGION	
Counties in Northwest Region	Baxter, Benton, Boone, Carroll, Conway, Crawford, Franklin, Johnson, Logan, Madison, Marion, Newton, Pope, Searcy, Sebastian, Scott, Van Buren, Washington, Yell
2015 Estimated Population of Northwest Region	1,017,308
Prevalent HIV Disease Presumed Living in Northwest Region	1,151

Regional Information

The Northwest Region which borders Oklahoma on the west and Missouri to the north is comprised of 19 counties, and includes the Fort Smith, Fayetteville-Springdale-Rogers, and Bentonville metropolitan areas. Also located in this region are the University of Arkansas and the headquarters for Wal-Mart, J. B. Hunt, and Tyson. This region is arguably the most economically advantaged area of the state. Non-Hispanic whites account for 80.1% of the population, non-Hispanic blacks 3.1%, Hispanics 12.1%, Asians 3.3%, and Native Americans 1.4%. This region holds the largest percentage of Hispanics in the state; and many Marshallese have also made the Northwest their home.

Newly Diagnosed HIV Disease, 2011–2015

The Northwest Region had a total of 283 newly diagnosed HIV Disease cases between 2011 and 2015. Of these, 82.0% were male and 18.0% were female. The rate of infection during this period was 5.6 per 100,000 per year. Most newly diagnosed cases in this region were white (68.2%), while 11.0% were black and 15.6% were Hispanic. The major age groups impacted were the 25-34 age group (28.6%), followed by the 35-44 age group (26.2%) and the 45-54 age group (21.9%). The primary risk factor reported was male-to-male sexual contact (MSM) (60.8%), followed by high-risk heterosexual contact (10.3%). Less common risk factors were injection drug use (IDU) (7.8%) and MSM & IDU (5.0%). The remaining 16.3% had no identified risk factors reported.

Table 13. Northwest Public Health Region — HIV Disease Incidence and Prevalence as of December 31, 2015

	HIV Incidence 2011-2015		Stage 3 (AIDS) Incidence 2011-2015		HIV Disease Incidence 2011-2015		HIV Prevalence as of Dec. 2015		Stage 3 (AIDS) Prevalence as of Dec. 2015		HIV Disease Prevalence as of Dec. 2015	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	128	85.3	104	78.2	232	82.0	467	78.0	449	81.3	916	79.6
Female	22	14.7	29	21.8	51	18.0	132	22.0	103	18.7	235	20.4
Age Group												
<13	2	1.3	0	0.0	2	0.7	6	1.0	3	0.5	9	0.8
13-14	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	1	0.1
15-24	29	19.3	7	5.3	36	12.7	108	18.0	28	5.1	136	11.8
25-34	44	29.3	37	27.8	81	28.6	217	36.2	195	35.3	412	35.8
35-44	36	24.0	38	28.6	74	26.2	159	26.5	210	38.0	369	32.1
45-54	26	17.3	36	27.1	62	21.9	77	12.9	91	16.5	168	14.6
55-64	8	5.3	9	6.8	17	6.0	24	4.0	20	3.6	44	3.8
65+	5	3.3	6	4.5	11	3.9	7	1.2	5	0.9	12	1.0
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Race/Ethnicity												
White, non-Hispanic	105	70.0	88	66.2	193	68.2	462	77.1	419	75.9	881	76.5
Black, non-Hispanic	20	13.3	11	8.3	31	11.0	61	10.2	45	8.2	106	9.2
Hispanic	21	14.0	23	17.3	44	15.6	62	10.4	64	11.6	126	11.0
Other, non-Hispanic	4	2.7	11	8.3	15	5.3	14	2.3	24	4.4	38	3.3
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Exposure Category												
Male Sex w/ Male (MSM)	99	66.0	73	54.9	172	60.8	328	54.8	317	57.4	645	56.0
Injection Drug Use (IDU)	11	7.3	11	8.3	22	7.8	67	11.2	65	11.8	132	11.5
MSM & IDU	5	3.3	9	6.8	14	5.0	38	6.3	42	7.6	80	7.0
High-risk Heterosexual	12	8.0	17	12.8	29	10.3	92	15.4	94	17.0	186	16.2
Other	0	0.0	0	0.0	0	0.0	7	1.2	5	0.9	12	1.0
No Identified Risk	23	15.3	23	17.3	46	16.3	67	11.2	29	5.3	96	8.3
Total	150	100.0	133	100.0	283	100.0	599	100.0	552	100.0	1151	100.0

Note: Due to rounding, percentages may not add to 100.

Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Other exposure category includes Transfusion/Hemophiliac and Perinatal Exposure.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016

SOUTHEAST REGION	
Counties in Southeast Region	Arkansas, Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson, Lee, Lincoln, Monroe, Phillips, Prairie, St. Francis
2015 Estimated Population of Southeast Region	257,273
Prevalent HIV Disease Presumed Living in Southeast Region	737

Regional Information

The Southeast Region includes 14 counties. This region is dominated by the most economically deprived area of the state, known as the Mississippi Delta. It has the largest percentage of non-Hispanic blacks in the state, at 42.9%. Non-Hispanic whites account for 52.4% of the population, Hispanics 3.6%, and Native Americans and Asians 1.1%.

Newly Diagnosed HIV Disease, 2011–2015

There were 178 newly diagnosed HIV Disease cases between 2011 and 2015 in the Southeast Region. The average rate of infection was 13.8 per 100,000 per year over the five-year period. Of these, 67.4% were male and 32.6% were female. The percentage of cases by race/ethnicity was as follows: 77.5% black, 13.5% white, and 3.9% Hispanic. 27.0% of newly diagnosed cases were aged 25-34, 25.3% of cases aged 15 to 24, the next most common age group, and 23.0% of cases were in the 35-44 age group. Male-to-male sexual contact (MSM) was the most commonly reported risk factor (50.0%), followed by high-risk heterosexual contact (20.2%) and injection drug use (IDU) (7.3%), and MSM & IDU (1.7%). The remaining 20.2% of cases had no identified risk factors reported.

Table 14. Southeast Public Health Region — HIV Disease Incidence and Prevalence as of December 31, 2015

	HIV Incidence 2011-2015		Stage 3 (AIDS) Incidence 2011-2015		HIV Disease Incidence 2011-2015		HIV Prevalence as of Dec. 2015		Stage 3 (AIDS) Prevalence as of Dec. 2015		HIV Disease Prevalence as of Dec. 2015	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	73	75.3	47	58.0	120	67.4	298	71.5	241	75.3	539	73.1
Female	24	24.7	34	42.0	58	32.6	119	28.5	79	24.7	198	26.9
Age Group												
<13	1	1.0	0	0.0	1	0.6	3	0.7	3	0.9	6	0.8
13-14	0	0.0	0	0.0	0	0.0	3	0.7	0	0.0	3	0.4
15-24	35	36.1	10	12.4	45	25.3	124	29.7	36	11.3	160	21.7
25-34	32	33.0	16	19.8	48	27.0	134	32.1	115	35.9	249	33.8
35-44	13	13.4	28	34.6	41	23.0	98	23.5	117	36.6	215	29.2
45-54	13	13.4	17	21.0	30	16.9	46	11.0	36	11.3	82	11.1
55-64	3	3.1	9	11.1	12	6.7	6	1.4	11	3.4	17	2.3
65+	0	0.0	1	1.2	1	0.6	3	0.7	2	0.6	5	0.7
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Race/Ethnicity												
White, non-Hispanic	14	14.4	10	12.4	24	13.5	83	19.9	61	19.1	144	19.5
Black, non-Hispanic	75	77.3	63	77.8	138	77.5	299	71.7	235	73.4	534	72.5
Hispanic	6	6.2	1	1.2	7	3.9	21	5.0	10	3.1	31	4.2
Other, non-Hispanic	2	2.1	7	8.6	9	5.1	12	2.9	14	4.4	26	3.5
Unknown	0	0.0	0	0.0	0	0.0	2	0.5	0	0.0	2	0.3
Exposure Category												
Male Sex w/ Male (MSM)	57	58.8	32	39.5	89	50.0	186	44.6	141	44.1	327	44.4
Injection Drug Use (IDU)	3	3.1	10	12.4	13	7.3	50	12.0	48	15.0	98	13.3
MSM & IDU	2	2.1	1	1.2	3	1.7	12	2.9	18	5.6	30	4.1
High-risk Heterosexual	12	12.4	24	29.6	36	20.2	101	24.2	87	27.2	188	25.5
Other	1	1.0	0	0.0	1	0.6	3	0.7	4	1.3	7	1.0
No Identified Risk	22	22.7	14	17.3	36	20.2	65	15.6	22	6.9	87	11.8
Total	97	100.0	81	100.0	178	100.0	417	100.0	320	100.0	737	100.0

Note: Due to rounding, percentages may not add to 100.

Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Other Exposure Category includes Transfusion/Hemophiliac and Perinatal Exposure.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

SOUTHWEST REGION	
Counties in Southwest Region	Calhoun, Clark, Columbia, Dallas, Hempstead, Howard, Hot Spring, Lafayette, Little River, Miller, Montgomery, Nevada, Ouachita, Pike, Polk, Sevier, Union
2015 Estimated Population of Southwest Region	322,126
Prevalent HIV Disease Presumed Living in Southwest Region	563

Regional Information

The Southwest Region consists of 17 counties in the lower portion of the state bordering Oklahoma, Texas and Louisiana. Included in this area is the bi-state city of Texarkana. Non-Hispanic whites account for 68.9% of the population, non-Hispanic blacks 23.4%, Hispanics 6.2%, and Asians and Native Americans 1.5%.

Newly Diagnosed HIV Disease, 2011–2015

There were 159 newly diagnosed HIV Disease cases in the Southwest Region between 2011 and 2015. Of these, 81.8% were male and 18.2% were female. The average rate of infection in the Southwest Region was 9.9 per 100,000 per year. Most newly diagnosed cases occurred in blacks (67.3%), followed by whites (20.8%) and Hispanics (4.4%). The most common age group reported was 15 to 24 year olds (33.3%), followed by the 25-34 age group (26.4%) and the 35-44 age group (16.4%). 60.4% of the cases noted male-to-male sexual contact (MSM) as their primary risk factor. Less commonly reported risk factors were high-risk heterosexual contact (13.8%), injection drug use (IDU) (4.4%), MSM & IDU (3.1%), and other confirmed risk (0.6%) such as transfusion/hemophiliac and perinatal exposure. The remaining 17.6% of cases had no identified risk factors reported

Table 15. Southwest Public Health Region — HIV Disease Incidence and Prevalence as of December 31, 2015

	HIV Incidence 2011-2015		Stage 3 (AIDS) Incidence 2011-2015		HIV Disease Incidence 2011-2015		HIV Prevalence as of Dec. 2015		Stage 3 (AIDS) Prevalence as of Dec. 2015		HIV Disease Prevalence as of Dec. 2015	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	92	87.6	38	70.4	130	81.8	221	71.8	184	72.2	405	71.9
Female	13	12.4	16	29.6	29	18.2	87	28.3	71	27.8	158	28.1
Age Group												
<13	0	0.0	0	0.0	0	0.0	1	0.3	2	0.8	3	0.5
13-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-24	48	45.7	5	9.3	53	33.3	99	32.1	17	6.7	116	20.6
25-34	30	28.6	12	22.2	42	26.4	101	32.8	93	36.5	194	34.5
35-44	11	10.5	15	27.8	26	16.4	67	21.8	80	31.4	147	26.1
45-54	9	8.6	14	25.9	23	14.5	26	8.4	46	18.0	72	12.8
55-64	5	4.8	8	14.8	13	8.2	10	3.3	14	5.5	24	4.3
65+	2	1.9	0	0.0	2	1.3	4	1.3	3	1.2	7	1.2
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Race/Ethnicity												
White, non-Hispanic	20	19.1	13	24.1	33	20.8	101	32.8	95	37.3	196	34.8
Black, non-Hispanic	72	68.6	35	64.8	107	67.3	181	58.8	143	56.1	324	57.6
Hispanic	5	4.8	2	3.7	7	4.4	10	3.3	10	3.9	20	3.6
Other, non-Hispanic	8	7.6	4	7.4	12	7.6	11	3.6	7	2.8	18	3.2
Unknown	0	0.0	0	0.0	0	0.0	5	1.6	0	0.0	5	0.9
Exposure Category												
Male Sex w/ Male (MSM)	71	67.6	25	46.3	96	60.4	140	45.5	114	44.7	254	45.1
Injection Drug Use (IDU)	2	1.9	5	9.3	7	4.4	26	8.4	33	12.9	59	10.5
MSM & IDU	3	2.9	2	3.7	5	3.1	15	4.9	14	5.5	29	5.2
High-risk Heterosexual	7	6.7	15	27.8	22	13.8	75	24.4	72	28.2	147	26.1
Other	1	1.0	0	0.0	1	0.6	2	0.7	4	1.6	6	1.1
No Identified Risk	21	20.0	7	13.0	28	17.6	50	16.2	18	7.1	68	12.1
Total	105	100.0	54	100.0	159	100.0	308	100.0	255	100.0	563	100.0

Note: Due to rounding, percentages may not add to 100.

Note: Other/Unknown includes American Indian/Alaska Native, Asian/Native Hawaiian/Pacific Islander and multi-race.

Other exposure category includes Transfusion/Hemophiliac and Perinatal Exposure.

Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016

Question 3

What are the indicators of risk for HIV Disease infection in Arkansas?

The persons most likely to become infected with HIV are those who engage in high-risk behaviors and those who live in communities with a high prevalence of HIV. In an effort to assist our stakeholders with understanding the differing risks for HIV infection in Arkansas, this section examines the trends and characteristics of three high-risk populations: men who have sex with men (MSM), injection drug users (IDU), and heterosexual adults.

This section examines direct and indirect measures of risk behavior in the groups most at risk of acquiring HIV infection. Direct measures provide information about risk behavior that is directly associated with HIV transmission. Indirect measures do not directly describe HIV risk behaviors; but instead provide indicators of possible HIV risk that may need further investigation. For example, an increase in STD rates does not directly indicate that HIV exposure is increasing, but indicates an increase in unprotected sex, which increases the risk of HIV exposure.

HIGHLIGHTS

- Since 2011, the number of syphilis cases in all Arkansans has increased by 5.9%.
- From 2011–2015, the proportion of early syphilis cases in MSM that were co-infected with HIV decreased from 55.9% to 29.7%.
- The gonorrhea incidence rate in all Arkansans was 160.1 per 100,000 persons in 2015.
- Primary and secondary syphilis incidence rates increased since 2011, from 6.9 to 7.3 per 100,000 persons among all Arkansans.

MEN WHO HAVE SEX WITH MEN (MSM)

Direct Measures of Risk Behavior

According to the CDC, among males aged 13 years and older at yearend 2014, 70% of HIV infections were attributed to male-to-male sexual contact, 11% to injection drug use, 10% to heterosexual contact, 7% to male-to-male sexual contact and injection drug use, and 1% to perinatal transmission.¹⁰ In Arkansas as well as nationally, male-to-male sexual contact (MSM) has historically been the most commonly reported risk behavior among newly diagnosed cases of HIV Disease. In 2015, 61.7% of newly diagnosed HIV Disease cases in Arkansas and 58.5% of persons living with HIV Disease in Arkansas had MSM or MSM & IDU as their primary risk factor (Figure 16, Figure 17 and Table 8, respectively).

According to CDC, youth reporting a risk factor of MSM engage in behaviors that increase the risk of HIV infection. As yearend 2015, 81% adolescents and young adults aged 13-24 years males living with diagnosed HIV infection reported a risk of male-to-male-sexual contact, and 3% reported as MSM and IDU.⁹

Indirect Measures of Risk Behavior

The prevalence of sexually transmitted infections in populations is often used as an indicator of high-risk behavior. Between 2011 and 2015, there was a 5.9% increase in the total number of early syphilis cases in Arkansas (Figure 25). There was a 117% increase in the number of syphilis cases with risk factors of MSM or MSM & IDU from 2011 to 2015 (Figure 26).

From 2011–2015, the number of syphilis cases co-infected with HIV (having a previous HIV diagnosis or an HIV diagnosis up to a year after the syphilis diagnosis) increased by 62.9% (Figure 25), and the co-infected cases in MSM with syphilis increased by 15.2% (Figure 26).

According to the CDC, at 2015, MSM made up the majority of primary and secondary (P&S) syphilis cases and data suggest that 50% of MSM that have syphilis are infected with HIV. Since the advent of highly active antiretroviral therapy (HAART), an unintended shift in attitude regarding the severity of becoming HIV-infected has occurred. Researchers have found a sense of complacency among MSM regarding the possibility of acquiring the virus. Researchers noted some of the following reasons for an increase in unprotected sexual activity among MSM: optimism about improved HIV treatment, recreational substance abuse, complex sexual decision making, and increased use of the internet to seek sexual partners¹¹.

Figure 25.

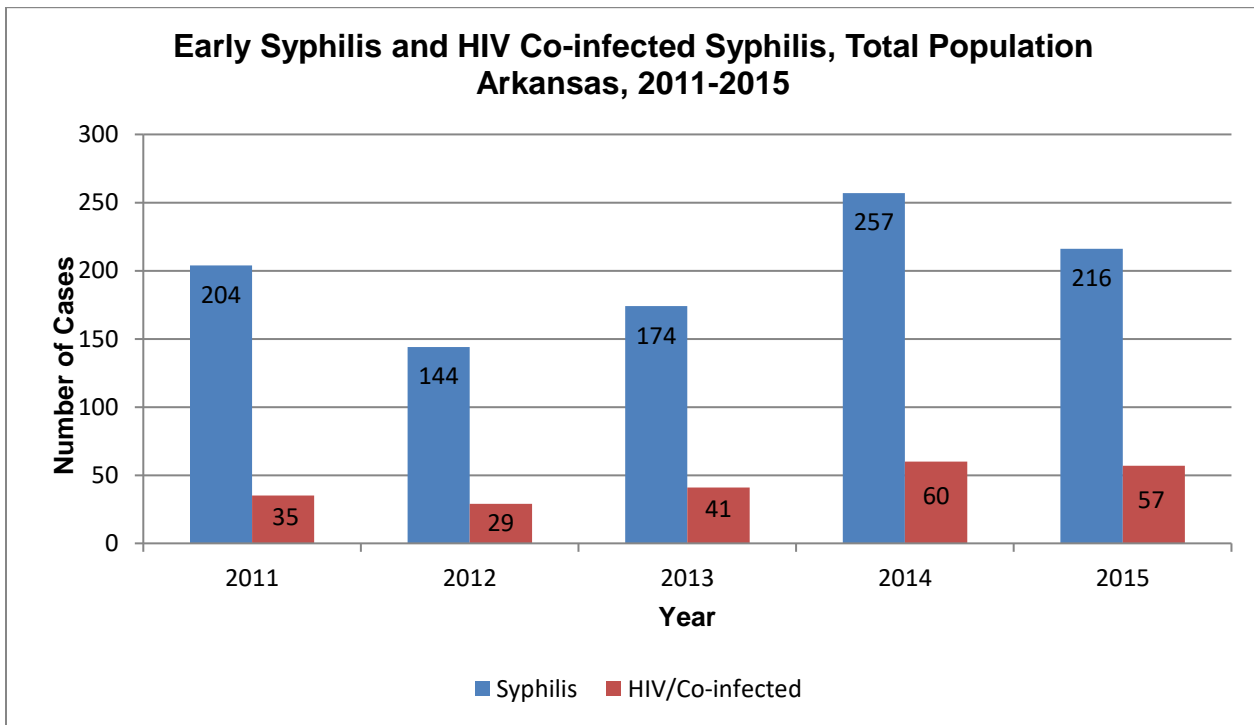
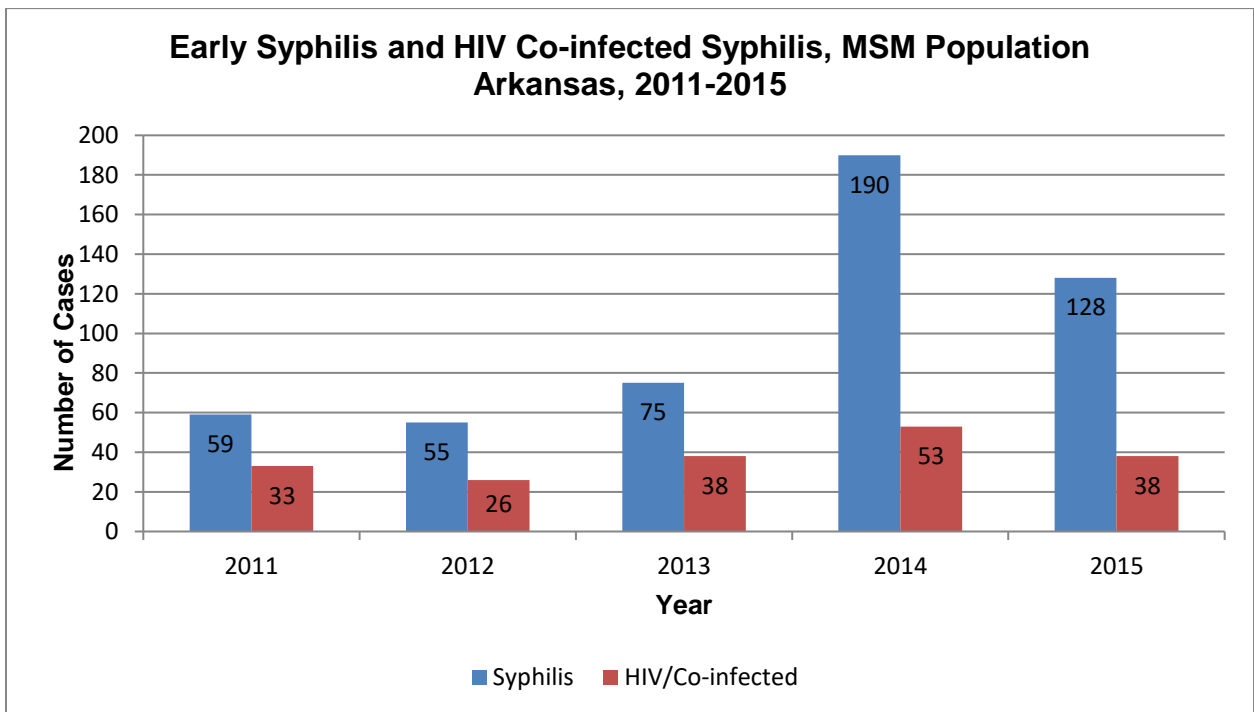


Figure 26.



Risk Factors for Transmission in U.S. Youth

Nationally, youth aged 13 to 24 accounted for more than 1 in 5 new HIV diagnoses (22%) in 2015. Most of those new diagnoses among youth (81%) occurred among gay and bisexual males. According to the CDC, among males aged 13 years and older at yearend 2014, 70% of HIV infections were attributed to male-to-male sexual contact, 11% to injection drug use, 10% to heterosexual contact, 7% to male-to-male sexual contact and injection drug use, and 1% to perinatal transmission.¹⁰ Among females aged 13 to 19, 86.9% of new infections were attributed to heterosexual contact vs. 8.5% attributed to injection drug use.¹⁰

Among youth diagnosed with HIV in 2015, 81% were gay or bisexual males. Of newly diagnosed males, 55% were black, 24% were Hispanic/Latino, and 16% were white.¹² Because of the higher prevalence of HIV among blacks, black youth are at higher risk for infection even with similar levels of risk behaviors.¹³

INJECTION DRUG USE (IDU)

Direct Measures of Risk Behavior

4.6% of the newly diagnosed cases of HIV Disease in Arkansas in 2015 reported injection drug use (IDU) as their primary risk factor. Another 1.8% reported MSM/IDU as their primary risk factor. At the end of 2015, approximately 9% of persons living with HIV Disease in Arkansas had reported injection drug use as their primary risk factor, followed by approximately 5% reporting MSM/IDU.

Indirect Measures of Risk Behavior

HIV Risk Behaviors and HIV Prevalence in IDUs

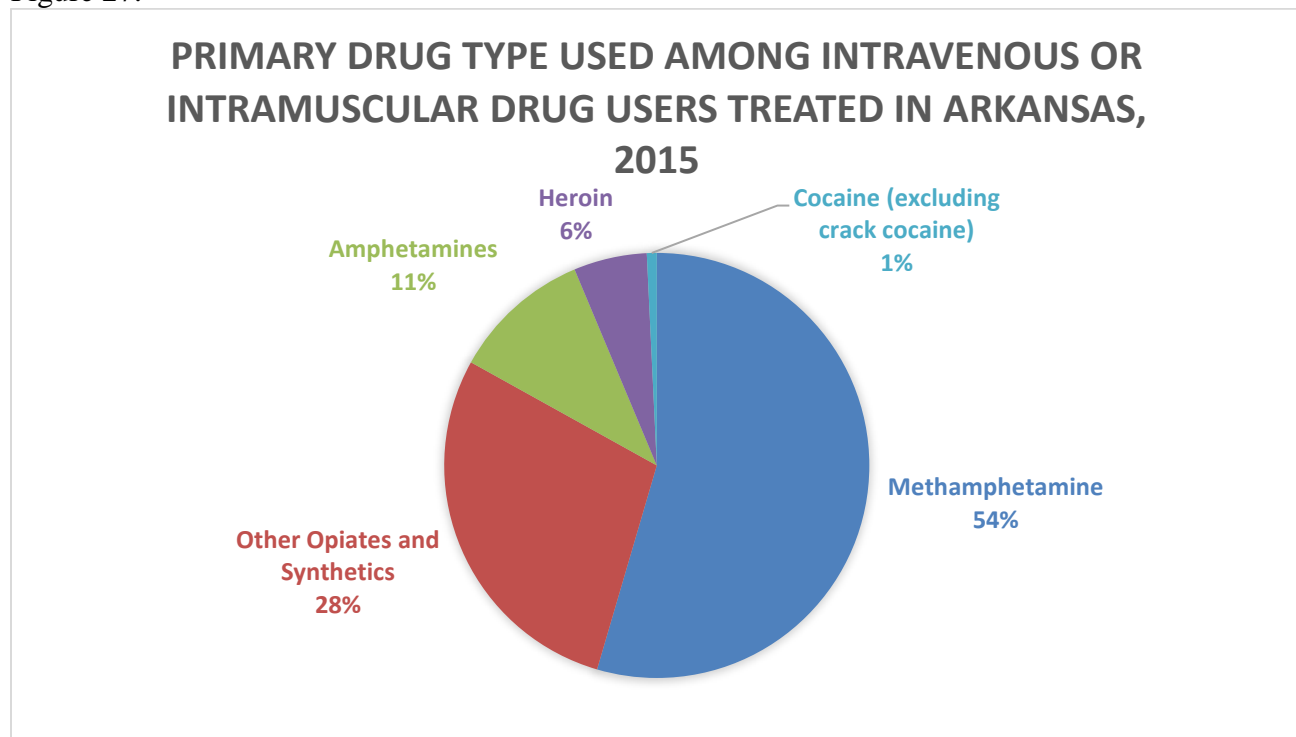
Although injecting drug users make up 2.6% of the national population, they account for 22% of all people living with HIV.¹⁴ According to CDC, the first large assessment of HIV prevalence in IDUs in over 10 years reported that injection drug users in 20 Metropolitan Statistical Areas (MSAs) continued to engage in high-risk behaviors that increase the risk of HIV transmission.¹⁵ Thirty-five percent of IDUs reported sharing syringes and 58% reported sharing other injection equipment. Seventy percent of men and 73% of women reported unprotected vaginal intercourse in the preceding 12 months, and 25% of men and 21% of women reported unprotected anal intercourse in the preceding 12 months. Overall, 9% of survey participants had HIV infection. Four percent of participants were newly identified as being HIV positive, through testing done as part of the survey.¹⁵ Black IDU participants engaged in less risky practices than white IDUs but had a higher prevalence of HIV.

According to CDC's National HIV Behavioral Surveillance (NHBS) report among persons who inject drugs (PWID) in 2015, the most commonly injected drugs were heroin (90%), heroin and cocaine combined (58%), and cocaine or crack (49%). Most participants (74%) also reported use of non-injection drugs. The report describes data from 10,485 PWID who participated in NHBS in 2015, of whom 72% were male, 28% were female, and <1% were transgender; 38% were white, 34% were black, and 23% were Hispanic or Latino. The report shows approximately 89% of participants reported injecting heroin in the past 12 months, and a majority (73%) reported injecting heroin daily.¹⁶

Inpatient treatment for substance abuse in Arkansas

According to Arkansas Department of Substance Abuse in 2015, methamphetamines (54%) were the most common primary drug type used by injection drug users being treated in Arkansas for substance abuse (Figure 27), followed by other opiates and synthetics with 28%, amphetamines with 11%, Heroin with 6% and cocaine (excluding crack cocaine) with 1%.

Figure 27.



Source: Arkansas Department of Human Services, Division of Behavioral Health Services

In all years, the vast majority of treated inpatients (over 90%) were white and about 6 in 10 clients were male. About 60% of clients were between 20 and 34 years of age, and 20–25% of clients were 35 to 44 years old. Therefore, the 20-to-44 year old age group comprised at least 80% of the client population each year.

HETEROSEXUAL POPULATIONS

Direct Measures of Sexual Behavior

In 2015, 14% of newly diagnosed HIV Disease cases in Arkansas reported heterosexual contact as their primary risk factor. Heterosexual risk is traditionally the most common exposure category in females diagnosed with HIV Disease, both nationally and in the State of Arkansas. Increasing reports of this particular risk factor are also being noted among newly diagnosed males.

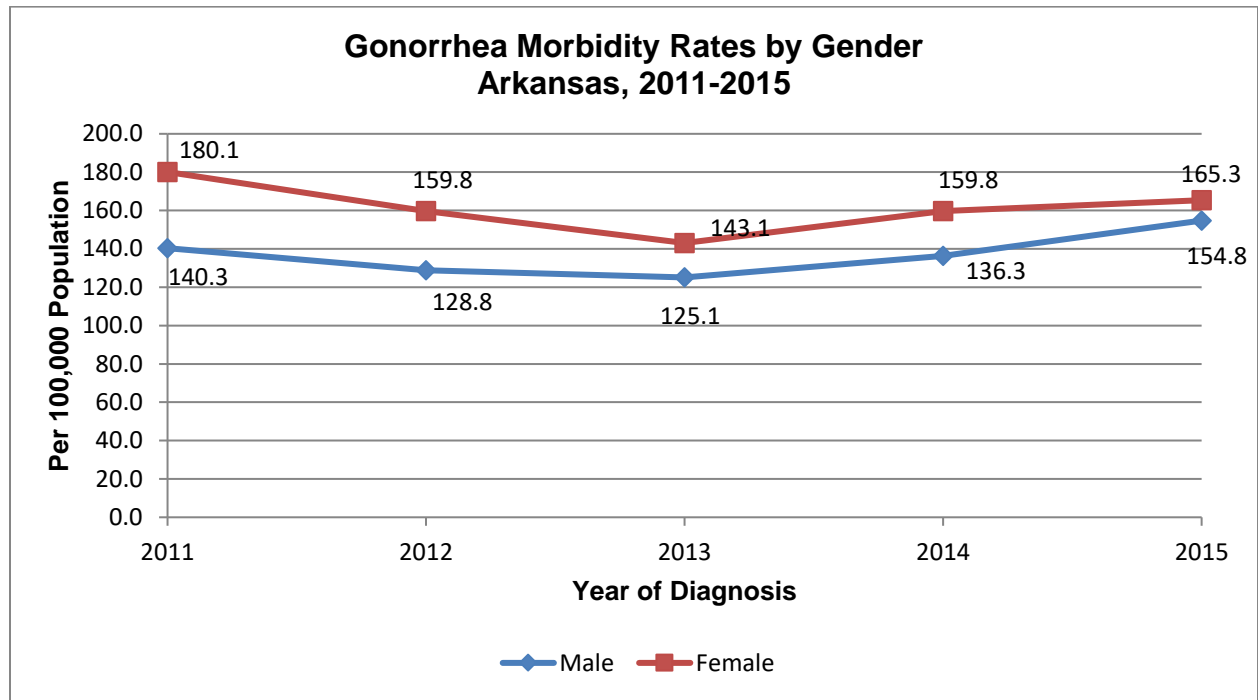
Indirect Measures of Risk Behavior

Sexually Transmitted Disease (STD) surveillance data provide information that may help to identify the potential occurrence of risky sexual behavior. Increases in STD rates do not directly indicate that HIV exposure is increasing. STD rates do, however, indicate an increase in unprotected sexual activity in a particular population. Since 2000, there has been a steady increase in the rate of STDs among Arkansans.

Gonorrhea

In 2015, the overall rate for gonorrhea in the State of Arkansas was 160.1 per 100,000. From 2011 to 2015, the gonorrhea infection rates for women in Arkansas were consistently higher than those for men, and the rate among males increased 11.9% (140.3 to 154.8 cases per 100,000 males), while the rate among females decreased 7.0% (180.1 to 165.3 cases per 100,000 females) (Figure 28). According to CDC, from 2014 to 2015, the gonorrhea rate among males increased 18.3% (119.0 to 140.9 cases per 100,000 males), and the rate among females increased 6.8% (100.4 to 107.2 cases per 100,000 females).¹⁶ Gonorrheal infections in women are usually asymptomatic and often go undiagnosed.

Figure 28.

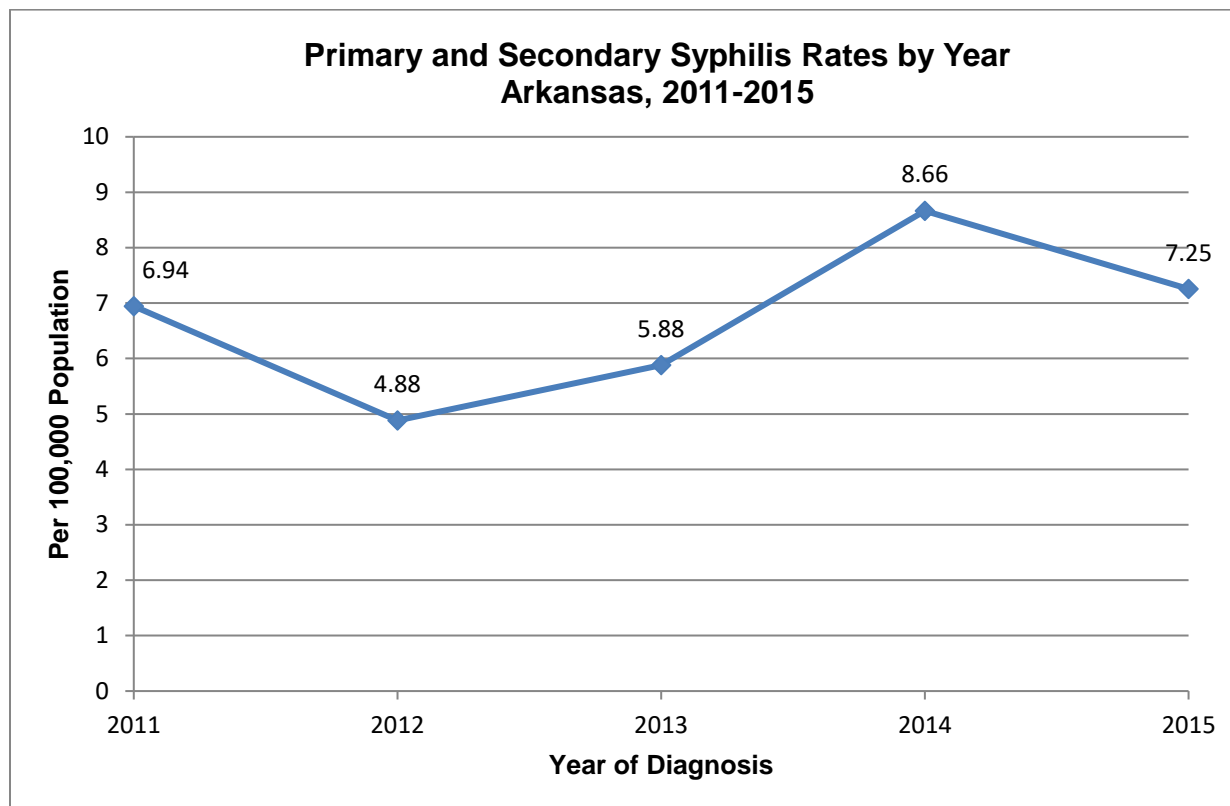


In 2015, there were 4,769 new cases of gonorrhea diagnosed in Arkansas. New cases of gonorrhea were diagnosed in 95% of the counties in the state. Eight counties had more than 150 new cases, one of which had over 1,000 new cases (Pulaski).

Syphilis

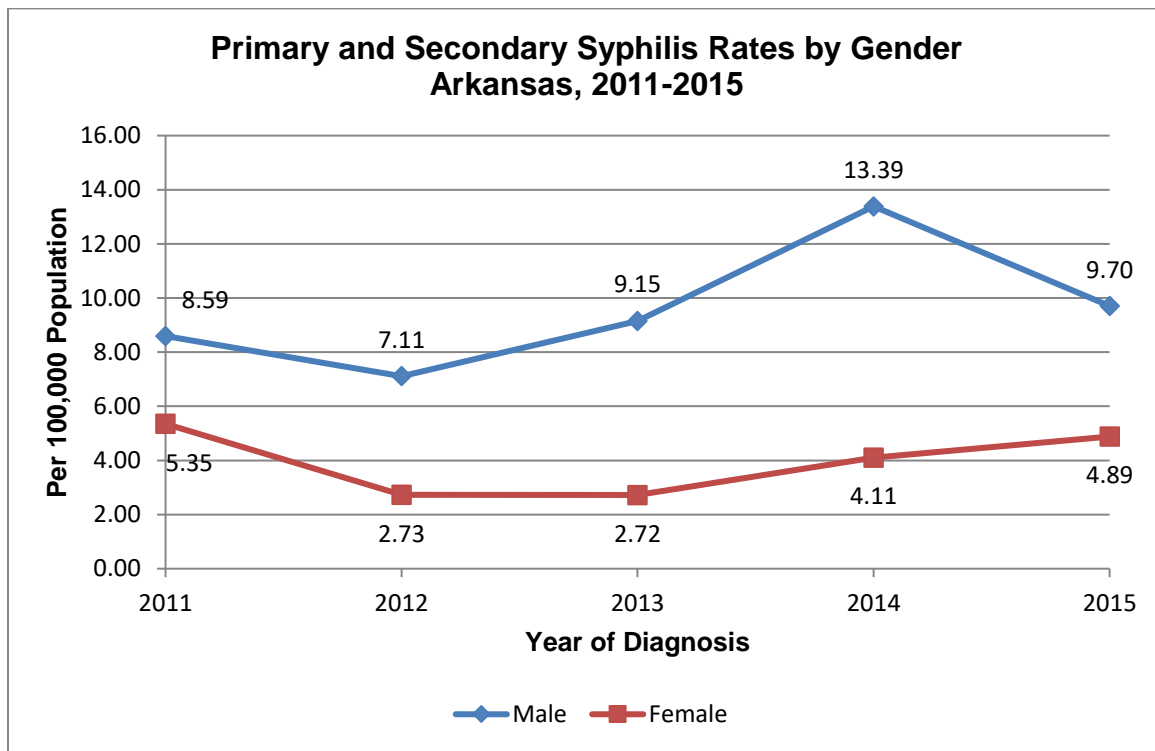
Incidence rates of primary and secondary syphilis in Arkansas remains a public health problem (Figure 29). In 2015, a total of 216 newly diagnosed early syphilis cases were reported in Arkansas. New cases of early syphilis were reported in 14 counties, with one county (Pulaski) reporting more than 50 cases.

Figure 29.



In Arkansas, the incidence rates of primary and secondary syphilis from 2011 to 2015 have been consistently higher in men than in women. In 2013, the incidence rate for men was 9.7 per 100,000 compared to 4.89 per 100,000 for women (Figure 30). This pattern may be because of an increase in syphilis among MSM. According to the CDC, the national incidence rate for men infected with primary and secondary syphilis increased from 8.1 cases per 100,000 in 2011 to 13.7 cases per 100,000 in 2015.¹⁷

Figure 30.



**RYAN WHITE HIV/AIDS
CARE ACT SPECIAL
QUESTIONS AND
CONSIDERATIONS**

Question 1

What are the patterns of utilization for HIV services of persons in Arkansas?

This section focuses on client utilization of HIV Disease services for Care Planning Groups, specifically, the patterns of use of HIV services in the State of Arkansas. The sources of the information were HRSA-funded programs and supplemental studies conducted to examine specific aspects of HIV care in Arkansas.

HIGHLIGHTS

- In 2015, a total of 2,014 clients were referred for services funded through the Ryan White Part B award in Arkansas.
- The racial/ethnic distribution of those referred in 2015 was primarily non-Hispanic whites (46.9%), followed by blacks (44.7%), Hispanics (6.3%) and Asian/PI (0.3%).
- Testing delays increase the spread of disease and have a severe impact on the health and welfare of HIV-positive individuals who are unaware of their status.
- The CDC recommends testing everyone between the ages of 13 and 64 for HIV.

In 2015, 2,014 clients were referred for services funded through the Ryan White Part B Program in Arkansas. During 2015, the distribution of Ryan White Part B clients by race/ethnicity and sex was directly proportional to the distribution of characteristics among persons known to be living with HIV Disease in Arkansas at the end of 2015 (Table 16). The data indicate congruence between the percentages of persons living with HIV Disease and those referred for Ryan White care in Arkansas in 2015 by race and gender.

Table 16. Characteristics of Ryan White Part B Clients and Persons Living with HIV Disease, Arkansas, 2015

	Ryan White Part B Clients	Persons Living with HIV Disease
	(N=2,014)	(N=5,494)
	%	%
Race/Ethnicity		
White, non-Hispanic	46.9	46.8
Black, non-Hispanic	44.7	43.8
Am Ind/AK Nat, non-Hispanic	0.2	0.1
Asian/HI/PI, non-Hispanic	0.3	0.4
Hispanic	6.3	5.5
Other, non-Hispanic	1.5	3.1
Unknown	0.1	0.3
Gender		
Male	76.8	76.7
Female	22.6	23.3
Transgender	0.6	
Age Group		
<13 Yrs	0.1	0.7
13-24 Yrs	6.5	22.3
25-44 Yrs	45.6	61.2
≥45 Yrs	47.8	14.8
Unknown	0.0	1.0

Data Sources: Ryan White Part B Services Program and Arkansas eHARS (enhanced HIV/AIDS Reporting System) Data System

The table below shows the clients served using Ryan White funds in 2015 (Table 17). The average number of visits per client for non-medical case management services was 10.6. The next service type having the greatest number of clients receiving services was medical case management. In 2015, a total of 2,014 clients received services, averaging 13 services each.

Table 17. Utilization of Ryan White Part B Services, by Type of Service, Arkansas, 2015

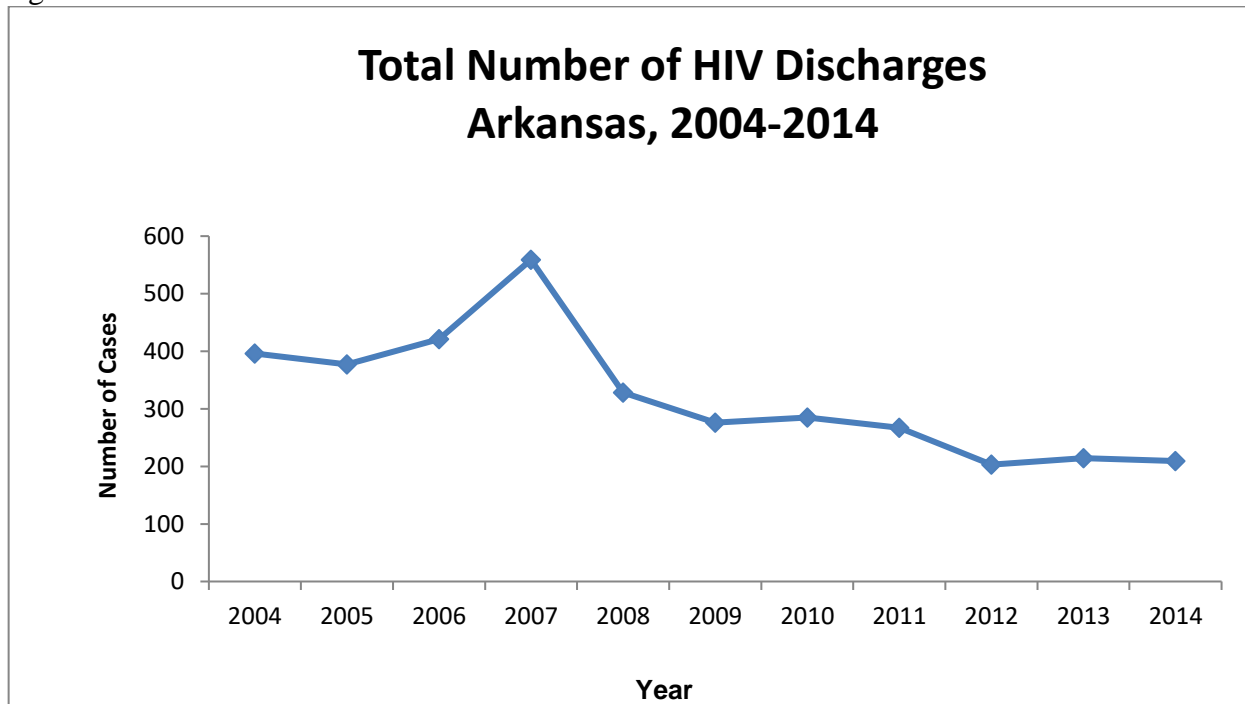
(N=2014)	Case Management	Medical Outpatient/Ambulatory	Health Insurance Continuation	Dental
Clients Receiving Service (#)	2,073	529	718	773
Units of Service Per Client (Avg #)	10.6	3.1	3.1	7.0

Data Source: Ryan White Part B Services Program

Hospital Charges and Length of Stay for Principal Diagnosis – HIV

There were 209 HIV-related hospital stays and 27 stays for other sexually transmitted infections (not including hepatitis) in 2014 in Arkansas. The total number of HIV discharges increased between 2004 and 2007, then steadily declined through 2014 (Figure 31).

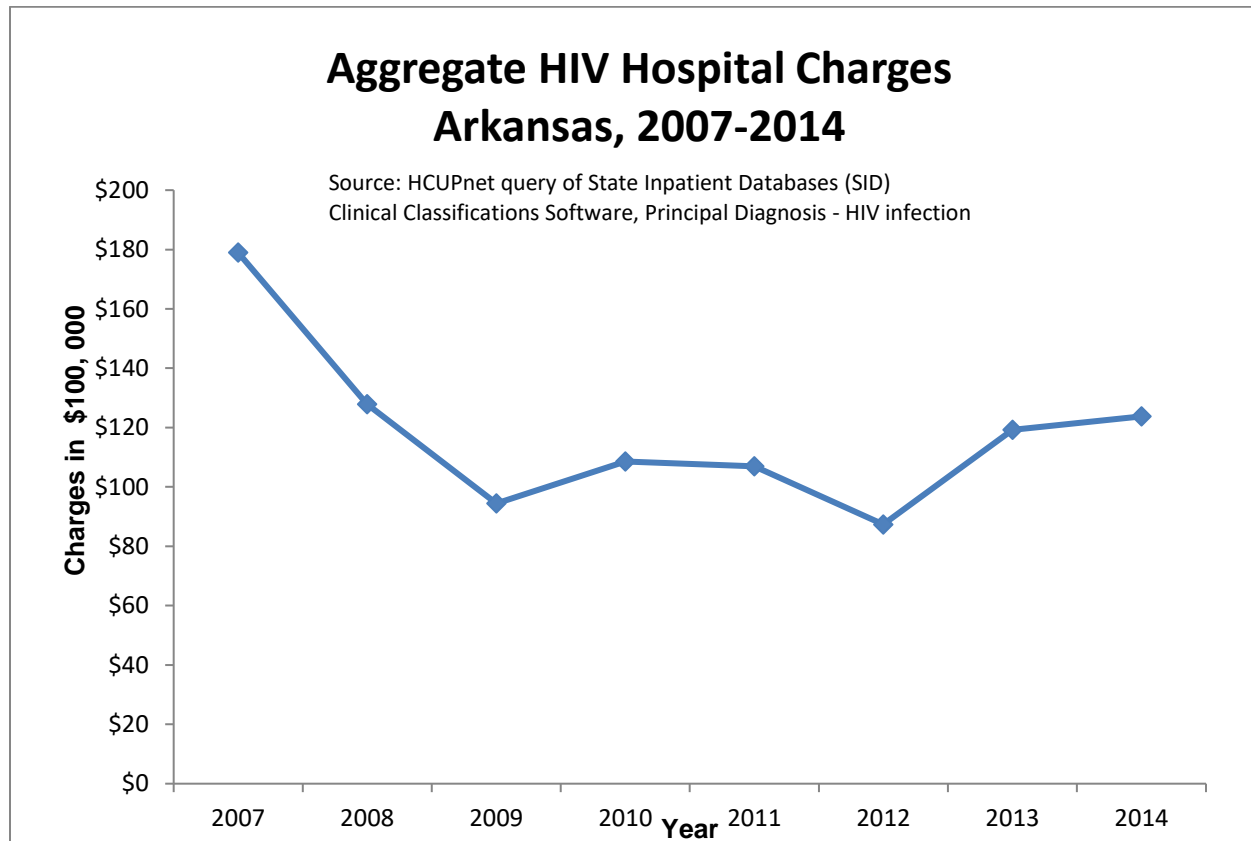
Figure 31.



Source: HCUPnet query of State Inpatient Databases (SID) Clinical Classifications Software, Principal Diagnosis - HIV infection

In total, Arkansas hospitals charged \$12,374,346 for HIV-related stays and \$1,369,336 for stays related to other sexually transmitted infections (not including hepatitis) in 2014. Although the aggregate charges for HIV-related stays in Arkansas dropped from 2007 to 2009, then remained stable through 2012, then increased in 2014 (Figure 32), the average charge for HIV-related stays and for all stays has increased steadily since 2004 (Figure 33).

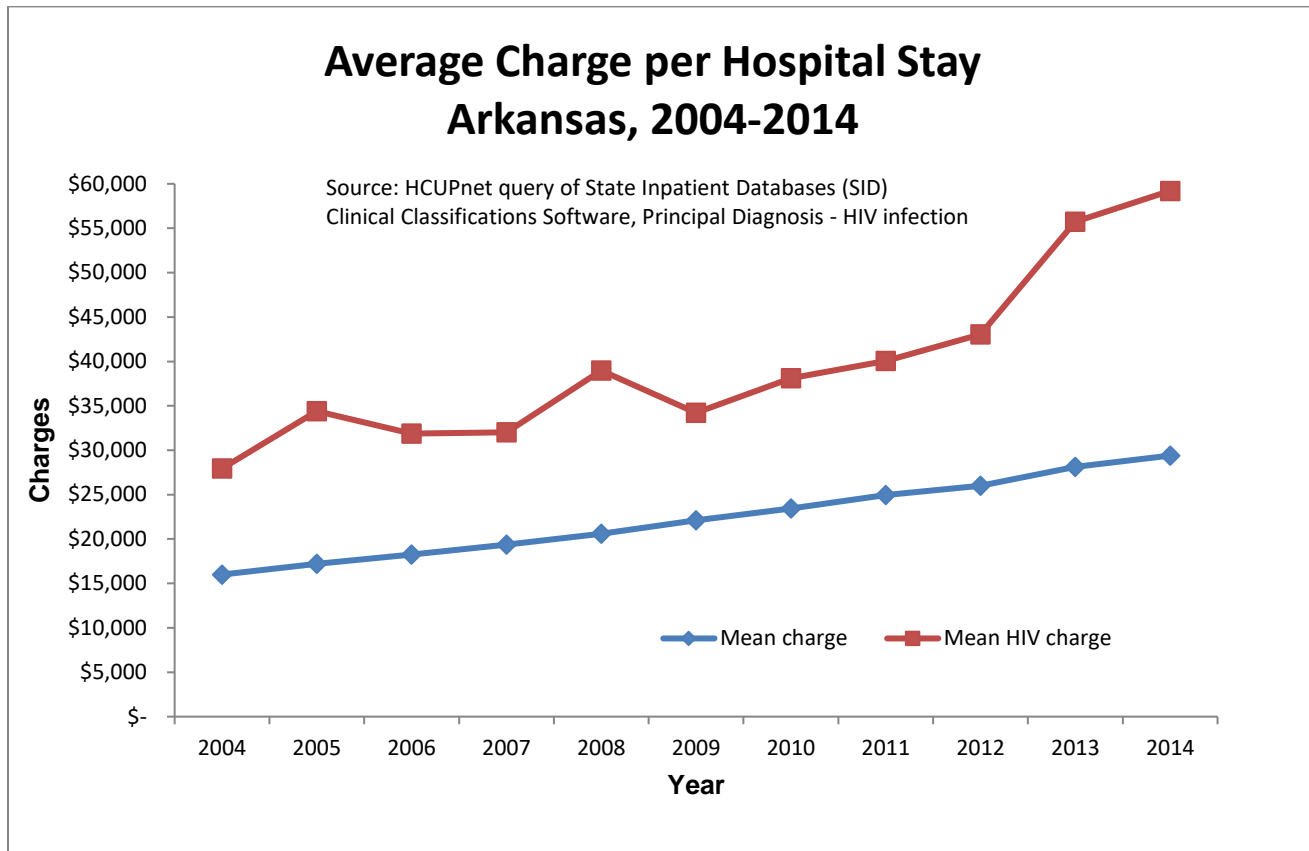
Figure 32.



Source: HCUPnet query of State Inpatient Databases (SID)
Clinical Classifications Software, Principal Diagnosis - HIV infection

In 2014, the mean charge per HIV-related hospital stay in Arkansas was \$59,207; ranking 30th among mean charges for 260 principal diagnoses averaging \$201,552 to \$5,967 per stay. The mean charge for other sexually transmitted infections (not including hepatitis) is ranked 65th, at \$42,792 per stay.

Figure 33.



Source: HCUPnet query of State Inpatient Databases (SID)
Clinical Classifications Software, Principal Diagnosis - HIV infection

From 2004 to 2014, the average length of hospital stay for a principal diagnosis of HIV remained stable, at about 7–11 days compared to about 4–5 days for all diagnoses. In 2014, HIV-related hospital stays in Arkansas averaged 11 days, ranking 14th among 260 principal diagnoses with average stays of 36.1 to 0.9 days. The average hospital stay for other sexually transmitted infections (not including hepatitis) lasted 7.4 days, ranking 43rd among all principal diagnoses.

AIDS Drug Assistance Program (ADAP)

Since 1987, Congress has appropriated funds to assist states in providing antiretroviral therapy (ART), approved by the Federal Drug Administration (FDA), to Stage 3 (AIDS) patients. With the initial passage of the Ryan White Comprehensive Stage 3 (AIDS) Resources Emergency (CARE) Act in 1990, the assistance programs for ART were incorporated into Part B and became commonly known as ADAP. ADAP now provides FDA-approved HIV-related prescription drugs to the underinsured and uninsured persons living with HIV Disease. For many people with HIV, access to ADAP serves as a gateway to a broad array of health care and supportive services as well as other sources of coverage, including Medicaid, Medicare part D, and private insurance.

Persons enrolled in ADAP in Arkansas have been able to receive antiretroviral medications and other medications used to treat HIV related illnesses. According to the data collected in CAREWare, 1255 clients were served in Arkansas during 2015 (Table 18). Most Arkansas ADAP clients served during this year were male (78.9%) and 25 years of age or older (88.9%). The racial/ethnic distribution of those served in 2015 was predominantly non-Hispanic white (47.2%), non-Hispanic black (42.1%), and Hispanic (8.5%).

Table 18. Characteristics of Patients Served in the AIDS Drug Assistance Program, Arkansas, 2015

(N=1255)		%
Gender		
Male		78.9
Female		20.5
Transgender		0.6
Race/Ethnicity		
White, non-Hispanic		47.2
Black, non-Hispanic		42.1
Hispanic		8.2
Other, non-Hispanic		2.5
Age Group		
<25 Yrs		11.1
25-44 Yrs		55.9
≥45 Yrs		33.0

Data Source: Arkansas AIDS Drug Assistance Program

HIV TESTING DELAYS

Stage 3 (AIDS) diagnoses are used by the CDC to compare data nationally. Because there are differences in testing behaviors and treatment outcomes among persons infected with HIV, there are significant variations within the population presenting with Stage 3 (AIDS) at any given time. With the increased availability of antiretroviral medications, which have often been successful in treating HIV-infected persons, it is important that people be tested early for HIV. Those who are tested early in the course of their infection can benefit from advances in treatment and effective drug combinations. However, a significant number of people are not tested until they are already immunosuppressed, or ill with an opportunistic infection.

According to the CDC, there are approximately 56,000 people diagnosed with HIV annually in the United States. Of the estimated one million persons living with HIV Disease in the country, approximately 25% are unaware of their status. The Centers for Disease Control and Prevention reports that this group of status-unaware accounts for approximately 54–70% of new infections in the country annually, compared to the 75% of status-aware, who contribute roughly 30–46% of new HIV infections in the country annually. In light of these facts, it is essential to improve testing initiatives to capture individuals earlier in their infection, to make them aware of their status and the availability of treatment and care. The CDC issued a revised set of recommendations in 2006 to address the late testing issue. The following suggestions were made:

- Routine voluntary HIV screening for all persons ages 13–64 in healthcare settings, not based on risk.
- Repeat screening of high-risk individuals annually.
- Initiate screening in areas of low or unknown prevalence.¹⁸

Table 19 shows the time between a person's first positive confidential HIV test and Stage 3 (AIDS) diagnosis, by demographic and risk characteristics in Arkansas. Of the newly diagnosed cases of HIV between 2011 and 2015 that progressed to Stage 3 (AIDS) within a year of HIV diagnosis, 66% were diagnosed with Stage 3 (AIDS) within a month of their initial HIV test (aka 'late testers'), indicating a simultaneous diagnoses of HIV and Stage 3 (AIDS). This is higher than the national estimate of 40% of newly diagnosed cases having simultaneous diagnoses of HIV and Stage 3 (AIDS).

Nationally, men tend to test later in their disease progression than women, and blacks have a tendency to test later in their infection than any other racial/ethnic group.⁵ In Arkansas, concurrent diagnosis was most prominent among males, whites, people aged 35 to 44, and MSM.

According to the CDC, approximately one-third of all new diagnoses still occur late.⁵ In Arkansas, 20% to 30% of new HIV Disease diagnoses from 2011 to 2015 entered the system at an already immunocompromised state; that is, either received simultaneous diagnoses of HIV and Stage 3 (AIDS) or progressed to Stage 3 (AIDS) within a year of diagnosis (Figure 4). Cases entering care at such late time frames tend to have poor treatment outcomes and survival rates. These data should be interpreted cautiously because a person may have been tested earlier, but anonymously.

Table 19. Stage 3 (AIDS) Cases by Time between First Positive HIV Test and Stage 3 (AIDS) Diagnosis
Arkansas, 2006-2015

	<= 1 Month (%*)	<= 3 Months (%*)	<= 12 Months (%*)
Gender			
Male	53.3%	68.0%	79.1%
Female	12.7%	16.6%	20.9%
Race/ethnicity			
White, non-Hispanic	27.3%	33.9%	38.9%
Black, non-Hispanic	29.0%	38.2%	46.3%
Hispanic	5.9%	6.9%	8.4%
American Indian/AK Native, non-Hispanic	0.1%	0.4%	0.4%
Asian/HI/PI, non-Hispanic	0.5%	0.6%	0.8%
Multi-race	3.1%	4.7%	5.2%
Age Group			
<13	0.0%	0.0%	0.1%
13-14	0.0%	0.0%	0.0%
15-24	5.3%	8.6%	10.5%
25-34	13.9%	18.1%	22.7%
35-44	19.9%	24.7%	29.6%
45-54	17.6%	22.3%	25.2%
55-64	8.2%	9.3%	10.2%
65+	1.1%	1.6%	1.8%
Exposure Category			
Male Sex w/ Male (MSM)	36.1%	46.9%	54.9%
Injection Drug Use (IDU)	3.4%	4.4%	5.2%
MSM & IDU	1.9%	2.6%	2.9%
High-risk Heterosexual	9.6%	13.0%	16.9%
Transfusion/Hemophiliac	0.0%	0.0%	0.0%
Perinatal Exposure	0.0%	0.0%	0.1%
No Identified Risk	15.0%	17.8%	20.0%
Total Cases	524	672	794
Cumulative Percentage of 12-Month Total	66.0%	84.6%	100.0%

* Percentage of the total number of cases diagnosed with Stage 3 (AIDS) within 12 months of their first HIV test.

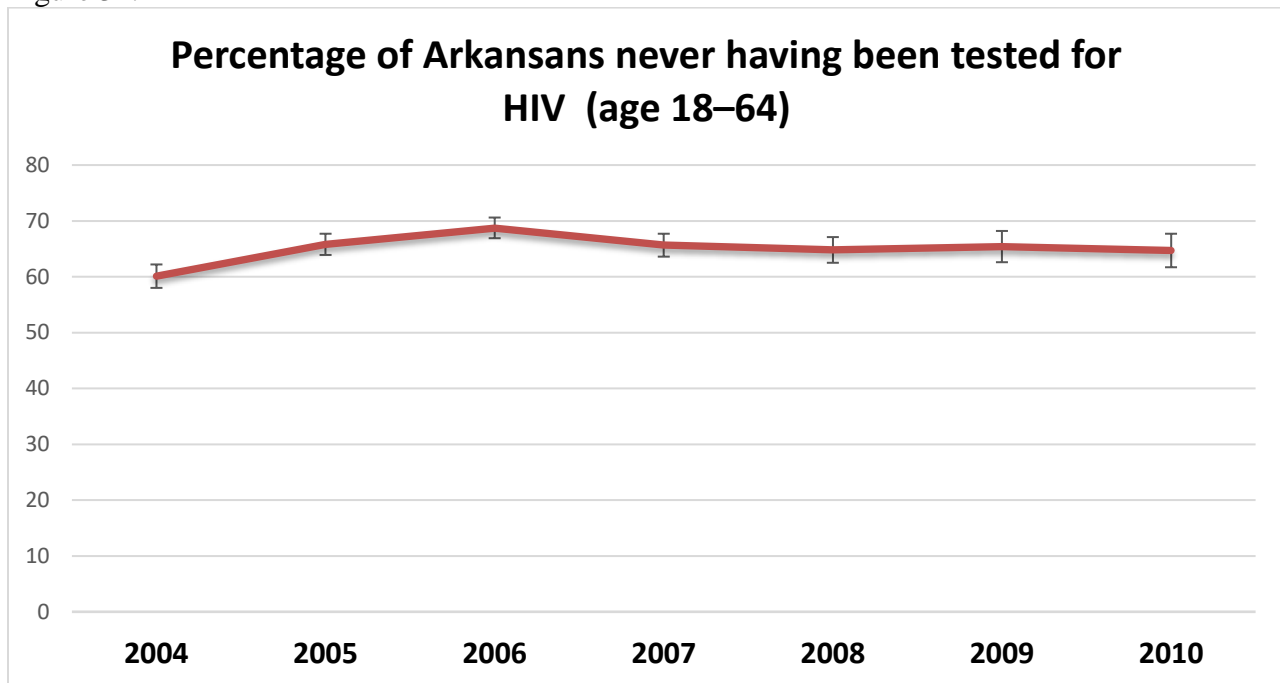
Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) retrieved October 26, 2016.

HIV Testing Prevalence

HIV testing is necessary to identify who is infected, in order to provide medical care and supportive services. As of 2010, an estimated 15.8% of HIV-positive people were not aware of their HIV status.¹⁹ Early diagnosis and linkage to care, otherwise known as “test and treat,” can prevent further transmission of HIV through behavioral change by those who are aware of their HIV status as well as through antiretroviral treatment.²⁰

In every year from 2004 to 2010, at least 60% of Arkansans had never been tested for HIV (Figure 34). Results from 2011 and onward are not comparable to those from previous years, because of changes made to the survey methodology in 2011.²¹

Figure 34.



Source: Behavioral Risk Factor Surveillance System (BRFSS)

In 2012, Arkansas was in the bottom group of states in the percentage of adults who had ever been tested for HIV. At 31.1%, Arkansas lagged behind the national percentage of 37.0%.²²

HIV Test During Pregnancy/Delivery

In Arkansas’ Pregnancy Risk Assessment Monitoring System (PRAMS) survey in 2015, 902 new mothers were asked a series of questions about obtaining the HIV test during their most recent delivery. The first of these questions asked if they were counseled on getting the HIV test. The majority of the 902 women who answered yes were whites (67.6%), followed by blacks (19.3%), Hispanics (10.1%) and other races (3.1%). Women between 25 – 34 years of age (52.1%) were the most likely to have received information on getting an HIV test, followed by women 20 – 24 years of age (28.4%) and those younger than 20 years (11.1%) and 35 years and over (8.4%).

Women were also asked if they had an HIV test at any time during their pregnancy/delivery; there were more than 50% women answered yes. The percentage of women who received an HIV test (66%) was congruent with the percentage of mothers who were counseled on the HIV test (59%).

Most women who reported receiving the HIV test were white (63.4%), followed by blacks (23.9%), Hispanics (10.6%), and other races (2.2%). The age group most commonly reporting receiving the HIV test was 25 – 34 years (53.9%), followed by 20-24 years (26.4%), 19 years or younger (12.8%) and 35 years or older (7.0%).

Question 2

What are the number and characteristics of persons who know they are HIV positive but who are not accessing primary medical care?

The HIV/AIDS Bureau of Health Resources and Services Administration (HRSA) has a guiding principle that states: “to better serve the underserved in response to the HIV Disease epidemic’s growing impact among underserved minority and hard to reach populations.” Jurisdictions are charged with assessing the shifting demographics of new HIV Disease cases throughout their state. In conjunction with this principle, the Arkansas HIV/AIDS Program is developing methods to better identify persons who know their status but who are not receiving primary medical care.

HIGHLIGHTS

- Total unmet need (Number of Persons Living with HIV Disease in Arkansas and not in care) as of December 31, 2015 was 2,826 based on lab reports.
- Non-Hispanic whites (48.2%) made up the highest proportion of cases not in care in 2015, when compared to the other major racial/ethnic groups (non-Hispanic blacks: 43.0% and Hispanics: 5.6%).
- The majority (78.3%) of cases not in primary care in 2015 were between the ages of 20-44.
- The highest proportion of cases not in care were from the Central Region (41.2%), followed by the Northwest Region (21.7%).

MEASURING UNMET NEED

Arkansas statutes require that laboratories report all test results indicative of HIV infection in persons residing in Arkansas to the Arkansas Department of Health.

Once the test results have been reported to the HIV/AIDS Surveillance Program, the results can be linked to the records in the HIV/AIDS case registry, which includes the known population of persons living with HIV in Arkansas. Consequently, each HIV infected person can be characterized as “in care” or “not in care” in a specified time period by the presence or the absence of a laboratory test result (e.g., CD4 cell count or measurement of viral load) or active enrollment presence on the active ADAP drug treatment rolls during that period. This method assumes that laboratory reporting is complete, all HIV-positive persons “in care” will have at least one reportable test result that is reported in Arkansas, and ADAP registration lists are up to date.

The characteristics of persons living with HIV/AIDS in Arkansas and persons “in care” and “not in care” are presented in Table 20. This data refers to cases with a current residence of Arkansas at the time of assessment. The not-in-care population was mostly male (76.9%). Almost half of those were Non-Hispanic white (48.2%), compared to Non-Hispanic black (43.0%) or Hispanic (5.6%). The 25–44 year age group made up 78.3% of cases not in primary care. The Central Region had the greatest percentage of cases “not in care” in 2015 (41.2%), followed by the Northwest Region (21.7%).

Caution should be taken when reviewing the number of persons not in care.²² The results are limited to the completeness of reports of CD4 counts/percentages and viral loads.

It is also important to note that there are a number of Arkansas HIV cases that are currently residing in other states that may be accessing care in other jurisdictions. Arkansas surveillance staff regularly conducts routine case de-duplication with other states in efforts to better track cases. There may be some delays in reporting current residence and lab data for these cases that change locations, thus causing an unintentional error in the calculation of the number of Arkansas cases living with HIV Disease that are not in care or are unaccounted for at the time of analysis.

Table 20. Characteristics of HIV Disease Prevalent* Cases by Care Status, Arkansas, 2015

	Not in Care		In Care		HIV Disease Prevalence	
	N	%	N	%	N	%
Gender						
Male	2,172	76.9	2,044	76.6	4,216	76.7
Female	654	23.1	624	23.4	1,278	23.3
Age Group						
<13 Yrs	23	0.8	15	0.6	38	0.7
13-19 Yrs	148	5.2	140	5.2	288	5.3
20-44 Yrs	2,214	78.3	2,084	78.1	4,298	78.2
45+ Yrs	387	13.7	428	16.0	815	14.8
Unknown	54	2.0	1	0.0	55	1.0
Race/Ethnicity						
White, non-Hispanic	1,363	48.2	1,209	45.3	2,572	46.8
Black, non-Hispanic	1,216	43.0	1,189	44.6	2,405	43.8
Am Ind/AK Nat, non-Hispanic	6	0.2	1	0.0	7	0.1
Asian/HI/PI, non-Hispanic	15	0.5	8	0.3	23	0.4
Hispanic	156	5.6	144	5.4	300	5.5
Other/Unk/Not Specified	16	0.6	0	0.0	16	0.3
Multi-Race	54	1.9	117	4.4	171	3.1
Exposure Category						
Male Sex w/ Male (MSM)	1,371	48.5	1,552	58.2	2,923	53.2
Injection Drug Use (IDU)	320	11.3	205	7.7	525	9.6
MSM & IDU	152	5.4	118	4.4	270	4.9
High Risk Heterosexual	579	20.5	549	20.6	1,128	20.5
Transfusion	5	0.2	3	0.1	8	0.1
Hemophilic	9	0.3	2	0.1	11	0.2
Perinatal Exposure	24	0.8	12	0.4	36	0.7
No Identified/Reported Risk	366	13.0	227	8.5	593	10.8
Public Health Region						
Central	1,165	41.2	1,194	44.8	2,359	42.9
Northeast	374	13.2	353	13.2	727	13.2
Northwest	612	21.7	518	19.4	1,130	20.6
Southeast	373	13.2	354	13.3	727	13.2
Southwest	287	10.2	222	8.3	509	9.3
Unknown	15	0.5	27	1.0	42	0.8
Total	2,826	100.0	2,668	100.0	5,494	100.0

*HIV Disease Prevalence is defined as the number of persons living with HIV and Stage 3 (AIDS) during the specified time period.
 Data Source: Arkansas eHARS (enhanced HIV/AIDS Reporting System) Data System; Retrieved January 2, 2017

The Arkansas HIV Surveillance Program used the following components in the formula to calculate the unmet need in Arkansas:

Data Sources

Two data sources were utilized based upon access and availability to laboratory data and treatment usage. The first was the enhanced HIV/AIDS Reporting System (eHARS). eHARS is a web-based database that allows for the collection of multiple documents pertaining to cases of HIV and Stage 3 (AIDS), such as lab reports, case reports, death certificates, birth certificates, etc. The second was the CAREWare database used by the Ryan White Part B Program. CAREWare contains information pertaining to clients that are accessing care services and receiving assistance for antiretroviral drugs for treatment of HIV Disease supported by Ryan White funds.

Estimation Methods

The process for updating the unmet need estimate began by determining the number of PLWHA as of December 31, 2015 from the enhanced HIV/AIDS Reporting System (eHARS). This data was then analyzed for those individuals who had a viral load test or CD4 test obtained in CY 2016. Those persons that had a viral load or CD4 lab were considered to have a “met need.” Then, the dataset was linked with the Drug Assistance Program (ADAP) services dataset from January 1, 2016 to December 31, 2016. Those that had received an ADAP service were considered to have a “met need.”

”Met need” was defined as any living case of HIV Disease in Arkansas as of December 31, 2015, having a laboratory result (CD4 count/percent or viral load) or current on ADAP roles during a 12-month time frame between January 1, 2016 through December 31, 2016 in eHARS or CAREWare.

“Unmet need” was determined by estimating the number of living cases of HIV Disease in eHARS that were diagnosed prior to January 1, 2015, and did not have any current laboratory tests (CD4 or viral loads) or were not listed on ADAP roles for antiretroviral treatments between January 1, 2016 and December 31, 2016.

Limitations

There are limitations to the unmet need estimation. This method assumes that laboratory reporting is complete and that all HIV-positive persons in care will have at least one test (CD4 count/percent or viral load) result that is reported to the HIV Surveillance Program during the time frame specified. It should also be noted that the antiretroviral treatment rolls are limited in that they only contain information pertaining to cases that are currently enrolled in and receiving Ryan White Care. The data estimation is also dependent upon timely and accurate reporting of deaths among cases in Arkansas. If a person died prior to December 31, 2015, and the HIV Surveillance Program was not notified, that person would be counted in this estimate. The Arkansas HIV Surveillance Program conducts annual matches with its Vital Statistics Program to gain the most current death information on HIV Disease cases in Arkansas. In addition, persons who move out of state will automatically be counted among those listed as “unmet need” if the HIV Surveillance Program is not notified of changes in residency status or retention in care. The Arkansas HIV Surveillance Program does, however, participate in Routine Interstate Duplicate Review (RIDR), where Arkansas collaborates with other states to assess and resolve potential duplicate cases between the states.

GLOSSARY OF TERMS AND ACRONYMS

ADAP	AIDS Drug Assistance Program
ADH	Arkansas Department of Health
Stage 3 (AIDS)	Acquired Immune Deficiency Syndrome
BRFSS	Behavioral Risk Factor Surveillance System
CAREWare	The Ryan White Program data base containing information pertaining to cases accessing care services and receiving assistance for antiretroviral drugs for treatment of HIV Disease infections supported by Ryan White funds
CDC	Centers for Disease Control and Prevention
eHARS	Enhanced HIV/AIDS Reporting System
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus (Stages 0, 1, and 2)
HRSA	Health Resources and Services Administration
IDU	Intravenous (Injection) Drug Use; illegal drugs administered into the body with a needle
Incidence	Number of new cases of a disease divided by the population at that specific time
MSM	Men who have sex with men (or male-to-male sexual contact)
MSM/IDU	Men who have sex with men and engage in Intravenous (Injection) Drug Use
NIR	No Identified Risk
NRR	No Risk Reported
PLWA	Persons Living With Stage 3 (AIDS)
PLWH	Persons Living With HIV
PLWHA	Persons Living With HIV Disease
PRAMS	Pregnancy Risk Assessment Monitoring System
Prevalence	Number of living cases of HIV or Stage 3 (AIDS) divided by the population at that specific time
Rate	The proportion of people with a disease in a specific population, over a specific time period
Risk factor	An aspect of personal behavior and environmental exposure, or an inborn or inherited characteristic that is associated with an increased occurrence of disease
STD	Sexually Transmitted Disease
Surveillance	The ongoing, systematic observation of a population for rapid and accurate detection of the occurrence of diseases
TGA	Transitional Grant Area

Unmet Need

The need for HIV-related health services by individuals with HIV who are aware of their status, but are not receiving regular primary health care

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OUTCOMES OF SURVEILLANCE

Type of Data	Definition	How Data is Used
Reported HIV Disease Diagnosis	The number of cases reported in a specific population during a specific time period	Useful for understanding reporting changes in an area
HIV Disease Prevalence Rate	The HIV Disease prevalence for a specific population divided by the number of people in the population	Prevalence rates can better highlight health disparities than number of cases
HIV Disease Incidence Rate	The HIV incidence for a specific population divided by the number of people in that population	Incidence rates reflect rates of new infection within a population, and can highlight health disparities
Estimated HIV Disease Diagnoses	The number of cases estimated to be diagnosed in a specific population during a specific time period	Serves as a marker of new infections in areas without incidence surveillance
HIV Disease Prevalence Estimate	The number of people estimated to be living with HIV Disease in a specific area at a specific point in time	Planning and resource allocation, monitoring trends and discrepancies between groups
HIV Incidence Estimate	The number of people estimated to be newly infected with HIV in a specific area during a specific time period	Planning and allocating funds, as well as evaluating the success of prevention programs