

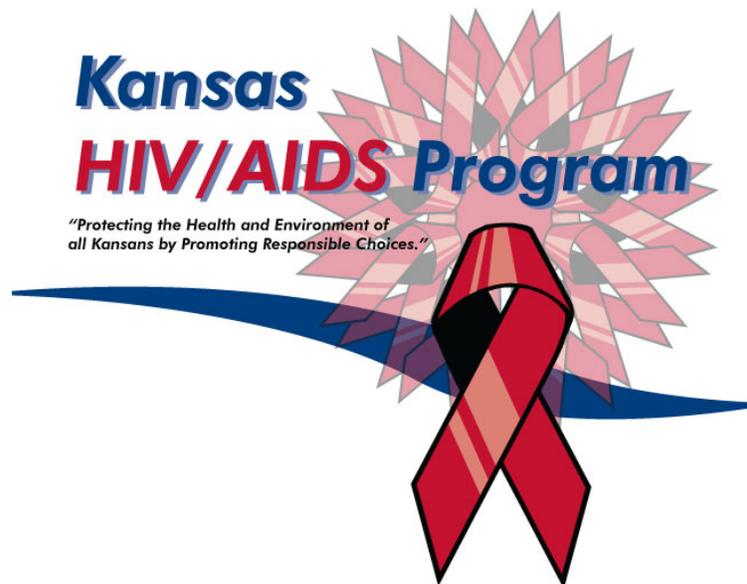
# INTEGRATED EPIDEMIOLOGIC PROFILE FOR HIV/AIDS SURVEILLANCE, PREVENTION, AND CARE PLANNING

## 2006

Report Prepared by:

Praveen R. Pannala, MD, MPH  
Epidemiologist

Jennifer Schwartz, MPH  
Senior Epidemiologist



*The HIV/AIDS Program works to promote public health and enhance the quality of life for Kansas residents by the prevention, intervention, and treatment of HIV and AIDS.*

**HIV/AIDS Surveillance Program  
HIV/AIDS Section  
Bureau of Disease Control and Prevention  
Kansas Department of Health and Environment**



**Kathleen Sebelius**  
**Governor**  
**State of Kansas**

**Roderick L. Bremby**  
**Secretary**  
**Kansas Department of Health and Environment**

**Richard Morrissey**  
**Interim Director of Health**

**Office of Surveillance and  
Epidemiology**

Dr. Gail R. Hansen, DVM, MPH  
State Epidemiologist

Charles D. Hunt, MPH  
Deputy State Epidemiologist

Jennifer Schwartz, MPH  
Senior Epidemiologist

Praveen R. Pannala, MD, MPH  
Epidemiologist

**Bureau of Disease Control and  
Prevention**

Brenda Walker  
Director

William L. Lyons  
Director  
HIV/AIDS Program

Andrea Hall  
Director  
HIV/AIDS Surveillance Program

Jeni Mulqueen  
Director  
Ryan White Care Program

Marc Shiff  
Director  
HIV/AIDS Prevention Program

Terry M. McAdam  
Data Manager

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## **Contact information:**

For questions regarding this document, please contact:

Praveen R. Pannala, MD, MPH  
Epidemiologist  
HIV/AIDS Surveillance Program  
Office of Surveillance and Epidemiology  
Kansas Department of Health and Environment  
1000 SW Jackson, Suite 210  
Topeka, KS 66612-1274  
Phone: (785)-296-5587  
Fax: (785)-296-0792  
E-mail: [ppannala@kdhe.state.ks.us](mailto:ppannala@kdhe.state.ks.us)



# **TABLE OF CONTENTS**

---

List of Figures and Tables..... 5

Executive Summary. .... 10

## **INTRODUCTION**

Background.....15

Data Sources.....16

Correctly Interpreting the Integrated Epidemiologic Profile for HIV/AIDS  
Prevention and Care Planning.....23

Organization of the Profile.....26

## **SECTION 1**

Question 1: What are the socio-demographic characteristics of the general population  
of Kansas?.....29

Question 2: What is the scope of HIV/AIDS epidemic in Kansas?.....36

    Regional Profiles.....68

Question 3: What are the indicators of risk for HIV/AIDS in Kansas?.....97

## **SECTION 2**

Question 1: What are the patterns of utilization of HIV services of persons in Kansas?  
.....111

Question 2: What are the number and characteristics of persons who know they are  
HIV-positive but who are not receiving primary care?.....118

**GLOSSARY**.....126

## **HIV/AIDS**

**SURVEILLANCE DEFINITIONS**.....133

**ABBREVIATIONS**.....141

# **LIST OF FIGURES AND TABLES**

## **FIGURES**

1	Kansas State Population Race/Ethnicity Distribution, Census Estimates 2006.....	32
2	Newly Diagnosed HIV/AIDS Rates in Kansas, 1999-2006.....	39
3	Newly Diagnosed HIV/AIDS Cases in Kansas, by Date of Diagnosis, 2000-2006.....	40
4	Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis and Conversion from HIV/AIDS 2000-2006.....	41
5	Kansas Prevalent HIV/AIDS by Year of Diagnosis and Deaths Among HIV/AIDS Cases by Year of Death.....	42
6	Kansas Major Race/Ethnicity Categories by Percent of All Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis, 2000-2006.....	43
7	State of Kansas Prevalent Cases of HIV/AIDS by County, as of December 31 <sup>st</sup> 2007, by Date of Diagnosis.....	47
8	Newly Diagnosed HIV/AIDS Case Rates by Race/Ethnicity 2000-2006.....	49
9	Newly Diagnosed HIV/AIDS by Mode of Transmission and Year of Diagnosis, 2000- 2006.....	51
10	Newly Diagnosed HIV/AIDS Cases, Proportional Distribution by Mode of Transmission, Kansas, 2006.....	52
11	Proportion of Living HIV (non AIDS) Cases by Risk Categories 2006.....	53
12	Proportion of Living AIDS Cases by Risk Categories 2006.....	54
13	Newly Diagnosed AIDS Cases by Year of Diagnosis, Kansas, 2000-2006.....	57
14	Newly Diagnosed AIDS Cases by Gender and by Year of Diagnosis, 2000- 2006.....	58

15 Newly Diagnosed AIDS Cases by Race/Ethnicity and by Date of Diagnosis, 2000-2006.....	58
16 Proportion of AIDS Cases Diagnosed With an Opportunistic Infection by Time Period of Diagnosis, 1992-2006.....	62
17 Number of Deaths Among Persons Diagnosed with AIDS in Kansas.....	63
18 Cases of Early Syphilis Co-infected with HIV, Co-infected with HIV and MSM, and Early Syphilis Cases Alone 2001-2006.....	100
19 Injection Drug Use by Primary Problem, Kansas, 2006.....	102
20 Proportion of Injection Drug Users Admitted in Treatment Services in Kansas by Age Groups, 2006.....	102
21 Gonorrhea Rates by Gender in Kansas, 2002-2006.....	105
22 Syphilis Rates (Including All Stages) in Kansas, 2002-2006.....	106
23 Primary and Secondary Syphilis Rates in Kansas, 2002-2006.....	107
24 Primary and Secondary Syphilis Rates in Kansas, by Gender, 2002-2006.....	108
25 Distribution of Unmet Need Among Living HIV, and AIDS Cases by Care Status, Kansas 2006.....	120

**TABLES**

1 Percentages of Kansas Counties by Population Density Category, 2006.....	30
2 Percentage of the General Population by Race/Ethnicity and by Public Health Region, Kansas, 2006.....	33
3 Percentage Distribution of the General Population by Age Group and Gender, Kansas, 2006.....	34
4 Characteristics of Persons Infected with HIV (HIV/AIDS), Kansas, 2006.....	45

5	Newly Diagnosed HIV/AIDS Cases and Rates, by Race/Ethnicity and Gender, Kansas, 2006.....	48
6	HIV Diagnoses by Age Group and Gender, Kansas, 2006.....	50
7	Proportion (%) of Living Kansas HIV/AIDS Cases by Category of Exposure and Region, 2006.....	55
8	Characteristics of Persons with AIDS, Kansas, 2006.....	60
9	Characteristics of Persons with AIDS Who Died and Persons Living with AIDS, Kansas .....	65
10	Regional Populations and HIV Disease Rates in Kansas 2003-2006.....	69
11	Proportion of Region 1 Population, HIV Disease Cases Diagnosed Between 2003-2006 .....	71
12	Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 1, Kansas, As of December 31st, 2006 by Date of Diagnosis.....	72
13	Proportion of Region 2 Population, HIV Disease Cases Diagnosed Between 2003-2006.....	74
14	Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 2, Kansas, As of December 31st, 2006 by Date of Diagnosis.....	75
15	Proportion of Region 3 Population, HIV Disease Cases Diagnosed Between 2003-2006.....	77
16	Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 3, Kansas, As of December	

31st, 2006 by Date of Diagnosis.....	78
17 Proportion of Region 4 Population, HIV Disease Cases Diagnosed Between 2003-2006.....	80
18 Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 4, Kansas, As of December 31st, 2006 by Date of Diagnosis.....	81
19 Table 19: Proportion of Region 5 Population, HIV Disease Cases Diagnosed Between 2003-2006.....	83
20 Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 5, Kansas, s of December 31st, 2006 by Date of Diagnosis.....	84
21 Proportion of Region 6 Population, HIV Disease Cases Diagnosed between 2003-2006.....	86
22 Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 6, Kansas, As of December 31st, 2006 by Date of Diagnosis.....	87
23 Proportion of Region 7 Population, HIV Disease Cases Diagnosed Between 2003-2006.....	89
24 Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 7, Kansas, as of December 31st, 2006 by Date of Diagnosis.....	90
25 Proportion of Region 8 Population, HIV Disease Cases Diagnosed Between 2003-2006.....	92

26	Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 8, Kansas, as of December 31st, 2006 by Date of Diagnosis.....	93
27	Proportion of Region 9 Population, HIV Disease Cases Diagnosed Between 2003-2006.....	95
28	Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 9, Kansas, as of December 31st, 2006 by Date of Diagnosis.....	96
29	Primary and Secondary Syphilis Incidence Rate by Gender in 2002 and 2006.....	107
30	Comparison of Demographic Characteristics of Ryan White Title II Clients and Persons Living with HIV/AIDS, Kansas, 2006.....	113
31	Utilization of Ryan White Title II Service, by Type of Service (N=725), Kansas, 2006.....	114
32	Characteristics of Patients Enrolled in the AIDS Drug Assistance Program (N=725), Kansas, June 2006.....	115
33	Table 33: Proportions of Persons with AIDS Diagnosis, by Time Between First Positive HIV Test Result and AIDS Diagnosis (N=1,568), Kansas, 1983-2006.....	117
34	Table 34: Demographic Characteristics of Prevalent HIV Disease Cases and Care Status, Kansas 2006.....	122

## EXECUTIVE SUMMARY

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At the end of 2006, a total of 2,219 persons were presumed to be living with HIV infection in Kansas; of these, 56% (1,238) had progressed to AIDS. Approximately 70% of all counties in Kansas have individuals living with HIV/AIDS. Four of the 105 counties in Kansas contain more than 100 prevalent HIV/AIDS cases. From 2000 to 2006 the number of prevalent cases of HIV/AIDS has increased by 78.5% (1,243 to 2,219). Estimates indicate that there were between 330 and 630 persons living in Kansas who were still unaware of their infection status at the end of 2006.

Since 1996, AIDS-related mortality has declined sharply, coinciding with the emergence of highly active antiretroviral therapy (HAART). From 2001-2006 there were on an average 38 deaths per year, with 31 reported in 2006. In future years as the HIV/AIDS population ages an increase in the number of deaths is expected, not all of which are expected to be AIDS related.

During the last six years, despite a downward trend in the number of new cases diagnosed among non-Hispanic Whites, there have been an **increasing number of newly diagnosed HIV/AIDS cases diagnosed among non-Hispanic Blacks and Hispanics**. In 2006, **the rate among non-Hispanic Blacks (37.4 per 100,000, 95% C.I. 27.8, 46.9)** continues to be clearly more than rates among any other race/ethnicity groups.

**The total number of newly diagnosed HIV/AIDS cases in Kansas each year has increased by 39% from 132 new cases in 2000 to 183 cases in 2006.** The proportion of

newly diagnosed HIV/AIDS cases reported among women in Kansas had been relatively consistent.

**Men who have sex with men (MSM) continued to be the most predominant risk group among all prevalent HIV/AIDS cases in Kansas at the end of 2006.** As in all other analysis there were more cases diagnosed among MSM than any other group regardless of race or ethnicity.

Among 183 newly diagnosed cases of HIV/AIDS in 2006, 49% (90) were new AIDS cases and 51 % (93) were new HIV (non-AIDS) cases. **The proportion of HIV infection cases converting to AIDS within one year of HIV diagnosis has decreased by 29% from 41% in 2000 to 29% in 2006 (Statistically not significant).** Among all AIDS cases diagnosed between 1983 and 2006, 46% had been diagnosed with HIV and AIDS simultaneously, 64% had their first positive HIV test 3 months prior to the AIDS diagnosis, and 77% had their first positive HIV test 12 months prior to the AIDS diagnosis.

Determining the proportion of HIV/AIDS patients that know their HIV status and are not currently seeking primary medical care is ongoing in Kansas. **The current data have significant limitations, however the analysis reveals an estimated 40% of those with HIV disease and aware of their status did not seek care in 2006.** These individuals were considered to have an unmet need for care. **Among individuals with HIV disease and not in care 58% were Whites, 24% were Black, and 14 percent were Hispanic.**

The Ryan White Title II Statewide Needs Assessment has been administered in 2002 and 2005, as a follow-up to the original assessment in 1999 in an effort to continue to determine those services most needed and used by Ryan White clients. According to this survey, medications, case management, and primary medical care (including physician visits and lab tests) were rated as the most needed service. Forty five percent of the survey respondents considered money as the main barrier for seeking care, followed by co-pays for medication (36%), and lack of insurance (31%).

If you have any questions, please contact Praveen R. Pannala in the HIV/AIDS Surveillance Program at (785) 296-5587 or [p pannala@kdhe.stata.ks.us](mailto:p pannala@kdhe.stata.ks.us).  
Current HIV/AIDS surveillance statistics are maintained at:  
<http://www.kdheks.gov/hiv/surveillance.html>

**DIFFERENCE IN HIV (NON-AIDS) CASES REPORTED IN PREVIOUS  
REPORTS AND REPORTS PRODUCED AFTER JANUARY 1st 2008**

There is an increase in the number of living HIV (non AIDS) cases in the reports published after January 1st, 2008 by Kansas HIV/AIDS Surveillance program, compared to reports published prior to January 1st, 2008. Following is a brief explanation for this difference.

Prior to July 1999 Kansas City Missouri Health Department (KCMO) carried on HIV (non-AIDS) surveillance for Kansas and maintained HIV Reporting System (HRS) for Kansas cases receiving services in Missouri. Starting from July 1999 HIV (non-AIDS) surveillance was started in Kansas and the HRS database, which was maintained by Missouri, was merged with the existing Kansas AIDS Reporting System (ARS) and the new database was named HIV/AIDS Surveillance System (HARS). Historically, July 1999 has been used as a start date retrieval criteria for HIV (non AIDS) cases from HARS for analysis purposes. However, it had been established that there were Kansas HIV (non- AIDS) cases reported prior to July 1999 that were not included in the analysis during previous years. Starting from January 1st, 2008, retrieval criteria has been modified so that all HIV (non-AIDS) cases which meet CDC's surveillance definition are included in the analysis.



# **INTRODUCTION**

## **BACKGROUND**

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This epidemiologic profile provides detailed information about the current HIV/AIDS epidemic in Kansas. Specifically, this report describes the general population of Kansas, HIV-infected persons living in Kansas, and persons at risk for HIV infection. The profile is an essential resource for planning HIV/AIDS prevention and care activities throughout the state. The data presented in this report serve to guide prevention and service efforts, to justify and obtain funding for the implementation of prevention and service programs, and to evaluate programs and policies throughout Kansas. Multiple data sources were used to create a thorough and comprehensive document, which addresses 5 key questions:

1. What are the socio-demographic characteristics of the general population in Kansas?
2. What is the scope of the HIV/AIDS epidemic in Kansas?
3. What are the indicators of risk for HIV/AIDS infection in Kansas?
4. What are the patterns of utilization of HIV services in persons in Kansas?
5. What are the number and characteristics of persons who know they are HIV-positive, but who are not receiving primary medical care?

Each question noted above represents a section of the report, which includes relevant data and interpretation.

## **DATA SOURCES**

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The data in this profile are the product of a compilation of data from multiple sources used in an effort to provide the most complete and descriptive picture of the epidemic in Kansas. Although each source has strengths and limitations, significant efforts have been made to present the data in the intended form and for the intended purpose. A brief description of each data source follows and includes brief limitations that should be considered when interpreting data from that source.

### **Core HIV/AIDS Surveillance**

In 1983, the Kansas Department of Health and Environment (KDHE) began AIDS surveillance to track newly diagnosed AIDS cases. Newly initiated statutes from the Kansas legislature required confidential name-based HIV reporting beginning on July 1, 1999. Standardized case report forms issued by the Centers for Disease Control and Prevention (CDC) are used to collect socio-demographic information, mode of exposure, laboratory and clinical information, vital status (i.e. living or dead), and referrals for treatment services. All surveillance data are collected and maintained in the HIV/AIDS Reporting System (HARS).

The body's natural response to a new HIV infection can be overlooked or attributed to other common illnesses and therefore unlike most serious diseases it may not elicit a hospital or doctor's office visit. Consequently, HIV infection data do not accurately represent persons who have recently been infected, but rather persons who have received a test regardless of the position in the history of the disease. Efforts to identify newly

infected individuals by highly specialized testing are being piloted in some high morbidity areas, but at this time no studies are in progress in Kansas.

**Limitations:** The HIV/AIDS surveillance system is naturally reliant on positive laboratory test results and the fulfillment of disease reporting requirements by providers and laboratories.

### **Ryan White CARE Act Data**

The Title II CARE Program in the State of Kansas has been assisting Kansans living with HIV and AIDS through a variety of resources since 1987, before the enactment of the Federal CARE Act in 1990. These resources included private donations, community-based organizations throughout the state and federal funding for the initiation of a statewide AIDS Drug Assistance Program (ADAP) in 1987.

Since 1987, the State of Kansas has benefited in accessing a variety of federally-funded resources, such as: Ryan White Title I, Title II, Title III, Social Rehabilitation Services (SRS) through Medicaid, and the Housing Opportunities for Persons With AIDS (HOPWA) Program. The Title II CARE Program, which includes funding for the statewide ADAP, has continued to received federal and state funding for assistance with:

- AIDS drugs, through the statewide ADAP
- Case Management, which includes transportation
- Primary Medical Care services
- Dental Care services
- Mental Health and Substance Abuse (MH/SA) services
- Home Healthcare services.

Additionally, other Ryan White Title Programs, SRS and HOPWA receive federal and state funding for additional care and supportive services.

In Kansas these services are monitored and administered using multiple sources. The Ryan White Title II database is maintained in the central office in Topeka and contains demographic, diagnostic, financial eligibility, and vital information. Additionally, the Topeka office monitors claim status and case management information. The recent development of a revised medical eligibility form for the Ryan White II CARE program (which mirrors the case report form) has played a vital role in completing or updating records in HARS and identification of new HIV/AIDS cases in Kansas.

Seven contracted case management sites located throughout Kansas also maintain data systems that have additional client case plan and resource determination criteria that enable sites to maximize resources. Kansas ADAP utilization data is available through cooperative efforts with the Kansas Social and Rehabilitative Services (SRS). Prevention Case Management and the "Prevention With Positives" Programs utilize agency-based systems to evaluate activities and service utilization by those enrolled or not enrolled in Ryan White Care Services. Additionally, a system, known as the "evaluation web", tracks other prevention-related activities administered through the contracted sites.

**Limitations:** All non-SRS databases are reliant on client reporting and case management reporting, which may result in time delays. These data cannot be generalized to all HIV-infected persons living in the state because it collects data only on persons who know their HIV serostatus, are not eligible for health coverage through private insurance, are

currently being provided care and treatment services through Ryan White Title II-funded providers, and are financially eligible to receive services.

## **STD Surveillance**

The KDHE HIV Section is responsible for statewide surveillance of reportable STD infections and analyzing trends of infection. Kansas state statutes require reporting of positive laboratory tests indicating infection due to chancroid, chlamydia, gonorrhea, and syphilis to KDHE. The Kansas Infertility Prevention Project (KIPP) within the HIV/STD section funds gonorrhea and chlamydia testing for at risk women as defined by a set of criteria developed by the state KIPP committee. Testing is available at 118 sites throughout Kansas; approximately 30% of chlamydia and gonorrhea cases diagnosed in Kansas are diagnosed at these sites. Additionally, Disease Intervention Specialists (DIS) at KDHE provide Partner Counseling and Referral Services (PCRS). STD surveillance data can serve as a surrogate marker for unsafe sexual practices and demonstrate the prevalence of changes in specific behavior. In addition, gonorrhea, chlamydia, and syphilis can facilitate the transmission of HIV infection.

**Limitations:** The reported infections from the KIPP in addition to the existence of asymptomatic men who are consequently untreated will portray a disproportionate effect on women that is likely exaggerated because of program target requirements. KIPP testing criteria require that all patients tested be females under the age of 25 unless they are symptomatic or a direct contact to a known positive case.

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

The BRFSS is a state population-based random-digit-dialed telephone survey of adults that monitors state-level prevalence of the major behavioral risks associated with premature morbidity and mortality. Respondents to the BRFSS questionnaire are asked about their personal health behaviors and health experiences. Kansas began with the BRFSS survey in 1990 and has participated in the national survey annually since 1992. Beginning in 1992 core questions generated by the CDC concerning AIDS and more recently AIDS, HIV, and STDs have annually been a part of the survey in Kansas. These questions range in scope from attitudes toward infected individuals to an individual's reason for receiving an HIV test in the last 12 months.

**Limitations:** Because this survey is administered over the telephone, persons without telephones or with cell phones only cannot be reached. Since phone ownership is highly correlated to income, persons without a phone or with cell phone service only are more likely to have low incomes when compared to persons with a conventional telephone. This survey is administered among non-institutionalized adults and therefore excludes persons in hospitals, nursing homes, and military bases. All results from the BRFSS are self-report and subject to recall bias. For certain behaviors, the prevalence may be underestimated. Due to the sampling and population rate, it is difficult to obtain subpopulation data such as county level data or data on minorities.

## **Vital Statistics Data**

KDHE collects information on all births and deaths in Kansas. The birth certificate form includes demographic information on the newborn infant and the parents as well as

information about prenatal care, maternal medical history, mode of delivery, events of labor, and abnormal conditions of the infant. Death certificates include demographics, underlying cause of death, and factors contributing to the death. The data are used in combination with the Social Security Death Index to track deaths due to HIV/AIDS and vital status of Kansas HIV/AIDS cases for the purpose of monitoring the effect of deaths related to HIV/AIDS.

**Limitations:** The HIV/AIDS surveillance office does not receive death reports for individuals who may be HIV infected, but do not have HIV or AIDS listed as an immediate cause of death or an underlying cause of death. The completeness of birth certificates is additionally dependent on the diligence of the reporting entity. The effect of these limitations is possible under-reporting of deaths and of HIV positive births.

### **Population Data**

*U.S. Bureau of the Census (Census Bureau)*

The Census Bureau collects and provides timely information about the people and economy of the United States. The Census Bureau's Web site (<http://www.census.gov>) includes data on demographic characteristics (e.g., age, race, Hispanic ethnicity, sex) of the population, family structure, educational attainment, income level, housing status, and the proportion of persons who live at or below the poverty level. Summaries of the most requested information for states and counties are provided, as well as analytical reports on population changes, age, race, family structure, and apportionment. State- and county-specific data are easily accessible, and links to other web sites with census information are included. For the purpose of this report population statistics are based on the estimates generated for 2003 by the Census Bureau as published on September 30, 2004.

**Limitations:** These data are generated from federal statistics and are reliant on the accuracy and participation of citizens throughout the country. Population estimates for this profile may not match other Census Bureau publications exactly due to rounding of stratifications specific to counties and regions in Kansas. Population based data are collected every ten years and intermediate data are estimates generated by trend analysis.

### **Kansas State Data**

Economic and demographic data specific to the population of Kansas are generated from two additional sources to add local perspective. *The Governor's Economic and Demographic Report* summarizes the State of the Kansas's economy, as well as the nation's economy each year in January. It is published as a supplemental publication to *The Governor's Budget Report*\*. In addition, the Office of Local and Rural Health in KDHE brings together multiple sources to publish county health profiles for each county in Kansas to describe local health and population trends.

\* [http://budget.ks.gov/publications/FY2006/2005\\_Economic\\_Demographic\\_Report.pdf](http://budget.ks.gov/publications/FY2006/2005_Economic_Demographic_Report.pdf)

**Limitations:** Local level population data has many of the same limitations as federal population data. Estimates are not specific counts and therefore are more susceptible to unforeseen changes in the population. Despite the local component to these analyses most pieces in some way reference federal level analyses and are therefore reliant on the accuracy of accompanying estimates.

# **CORRECTLY INTERPRETING THE INTEGRATED EPIDEMIOLOGIC PROFILE FOR HIV/AIDS PREVENTION AND CARE PLANNING**

New guidelines have been developed by the Centers for Disease Control and Prevention (CDC) and the Health Resources Services Administration (HRSA) to assist states with the creation of HIV/AIDS epidemiologic profiles. The purpose of the newly designed integrated profile is to create a more standardized and useful profile. The intention is to provide the HIV/AIDS Community Planning Groups (CPG), Ryan White Consortia groups, and HIV Prevention and Care Staff with a tool to guide the development of interventions/programs and the allocation of resources. This profile should also help to reduce duplication of efforts to distribute data, as well as promote consistency and comparability of data. Due to the development of these guidelines comparisons to previous Epidemiologic Profiles will be somewhat challenging, but this profile will discuss and illuminate important changes in the epidemic trends that should reduce the need for retrospective comparisons.

## **New Developments of Note and Important Guidelines for Interpreting Data**

Historically data for the HIV/AIDS epidemiologic profile have been presented in two ways: by year of report and year of diagnosis. For the purpose of this report data is presented by year of diagnosis and contains only those cases diagnosed with either HIV or AIDS prior to January 1, 2007. In order to minimize reporting delays the data used for this report is from the fourth quarter of 2007 (as of December 31<sup>st</sup> 2007), which was completed in February 2008. For all cases of HIV or AIDS reported in Kansas since the institution of HIV name-based reporting on July 1, 1999, approximately 80% of HIV and AIDS cases are reported within nine months of diagnosis. Assuming that this trend will continue nearly 100% of cases actually diagnosed and reported in 2006 will be included in this profile.

Rates for this profile are calculated for the 12-month period per 100,000 persons. For these rates population estimates derived by the census bureau for 2006 were used as the denominator. The numerator is the number of reported cases that were diagnosed during the 12-month period. In some sections 12-month data are combined into multi-year increments to improve the stability of data for trend analysis; in these cases rates will have a denominator based on the average population for that time period.

The Bureau of the Census, in compliance with the Office of Management and Budget Directive 15 (OMB 15), expanded race/ethnicity reporting in 2000. The expanded questionnaire allowed respondents to select one or more races to indicate their racial identity. The race/ethnicity data obtained from the Bureau of the Census were combined into five categories for comparison to HIV/AIDS data: white, not Hispanic; black, not Hispanic; Hispanic; American Indian; and Asian. For analyses involving small numbers of cases in some racial/ethnic groups, those cases have been grouped in a category called “other”.

In order to fully understand the epidemiology of HIV disease in Kansas as described in the Epidemiologic Profile it is essential to understand the definitions of certain terms. Human Immunodeficiency Virus (HIV) disease is used to describe the disease status of a person from the time of infection with HIV until death. Further sub-classifications of individuals infected with HIV are based on CDC established surveillance case definitions. For the purpose of this report and CDC funded surveillance as presented in MMWR (December 10, 1999 / 48(RR13); 29-31) individuals greater than 18 months of age diagnosed with HIV must have had at least one confirmed positive test (antibody or antigen), a detectable quantity of virus or viral nucleic acid

isolated (viral culture or polymerase chain reaction), or had a diagnosis of HIV infection documented by a physician. In a child less than 18 months, HIV is defined by at least two positive results from virologic (non-antibody) tests such as viral culture, P24 antigen testing or PCR; or as documented by a physician diagnosis. Acquired Immunodeficiency Syndrome (AIDS) is defined as those individuals meeting the HIV surveillance case definition, as well as, either CD4<sup>+</sup> cell counts less than 200 cells per microliter or less than 14% of total lymphocytes, or any one or more of the 26 CDC identified AIDS defining opportunistic infections (OIs). The addition of CD4<sup>+</sup> cell counts and three additional OIs in the January 1993 AIDS definition expansion is most likely responsible for the one time dramatic increase in the number of AIDS cases diagnosed in 1993.

## **ORGANIZATION OF THE PROFILE**

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The epidemiologic profile is organized into 2 main sections, within the 5 key questions are addressed.

### **Section 1: Core Epidemiologic Questions**

This section provides the reader with an understanding of the characteristics of the general population of Kansas, the distribution of HIV disease, and a detailed look at persons at risk for HIV infection. The section is organized around 3 key questions:

#### **Question 1: What are the sociodemographic characteristics of the general population in Kansas?**

- Orients the reader to the overall demographic and socioeconomic characteristics of the general population of Kansas.

#### **Question 2: What is the scope of the HIV/AIDS epidemic in Kansas?**

- Examines the effect of the HIV/AIDS epidemic on a number of population groups in Kansas to help planners focus prevention and care services.

#### **Question 3: What are the indicators of risk for HIV/AIDS infection in Kansas?**

- Provides a detailed look at high-risk populations.
- Examines direct measures of risk behaviors associated with HIV transmission and indirect measures that may serve as the indicators of high-risk behavior.

### **Section 2: Ryan White HIV/AIDS CARE Act Special Questions and Considerations**

This section focuses on questions that pertain to HRSA HIV/AIDS care planning groups.

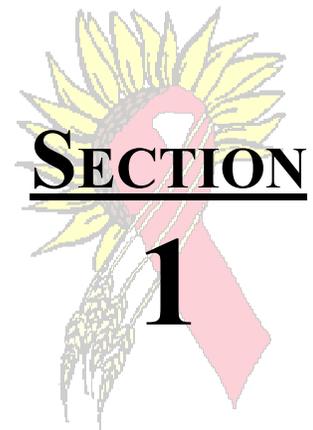
Section 2 describes access to, use of, and standard of care among persons in Kansas who are HIV-infected. It is organized around 2 key questions:

**Question 1: What are the patterns of utilization of HIV services for persons in Kansas?**

- Characterizes the patterns in the use of services by populations living with HIV/AIDS in Kansas.
- Describes the characteristics of those utilizing Ryan White Title II and Title III care services and the types of services they received.

**Question 2: What are the number and characteristics of persons who know they are HIV-positive but who are not receiving primary medical care?**

- Assesses the unmet need of persons who know they are HIV positive, but are not in care.
- Characterizes those persons who are categorized as not in primary care.



## **CORE EPIDEMIOLOGIC QUESTIONS**

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- Question 1:**      **What are the socio-demographic characteristics of the general population in Kansas?**
- Question 2:**      **What is the scope of the HIV/AIDS epidemic in Kansas?**
- Question 3:**      **What are the indicators of risk for HIV/AIDS infection in Kansas?**

## Question 1

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

#### SUMMARY

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**Population:** In the 2006, total population for Kansas was estimated at 2,764,075 persons. This represents a 2.8% increase from the published 2000 Census report of 2,688,418. Kansas' boundaries form a nearly perfect rectangle around 105 counties that, according to 2006 estimates of population, range from 1,331 persons in Greeley County to 516,731 persons in Johnson County. Population density varies widely across the state with more than 52% of the population living in the eastern third of the state (Regions 1, 2, 3, 4, and 5) and 63.1% of the population resides in metropolitan areas (county population greater than 50,000).

The total state land area is 81,815 square miles and the average population density is 33.8 persons per square mile. Kansas has three *major* metropolitan areas (counties with a population density greater than 300 persons per square mile) that contain 47.6% of the state's population: Kansas City (Wyandotte Co. and Johnson Co.), Wichita (Sedgwick Co.), and Topeka (Shawnee Co.). Nearly one-fourth of the Kansas population is found on the Kansas side of the greater Kansas City metropolitan area. Approximately 17% of the state's population resides in the Wichita metropolitan area. Counties on the western side of the state tend to be less populated; four of these counties have a population of less than 2,000 persons (Greeley, Wallace, Comanche, Lane). Thirty-three counties are classified as "frontier counties" by KDHE Center for Health and Environmental Statistics (Table 1).

**Table 1. Percentages of Kansas Counties by Population Density Category, 2006**

<b>Classification</b>	<b>Density Range (average per square mile)</b>	<b>Number of Counties (% of total KS counties)</b>
<b>Frontier</b>	<6.0	33(31.4)
<b>Rural</b>	6.0-19.9	35(33.3)
<b>Densely Settled Rural</b>	20.0-39.9	20(19.1)
<b>Semi-Urban</b>	40.0-149.9	11(10.5)
<b>Urban</b>	≥150	6(5.7)

*Source: 2006 Estimates, US Bureau of the Census*

**Public Health Regional Structure:** The KDHE HIV Prevention Section, in conjunction with the Community Planning Group and HIV Case-Management Section, divided the state into nine regions for public health planning, based on hospital regions. These regions have neither similar geography nor population size, ranging in size from 31 counties (Region 7) to two counties (Regions 1 and 2), and surrounding urban centers: Kansas City (Region 1), Olathe/Overland Park/Shawnee (Region 2), Lawrence (Region 3), Topeka (Region 4), Pittsburg (Region 5), Manhattan (Region 6), Salina (Region 7), Wichita (Region 8), Garden City (Region 9). Region 8 contains the largest proportion of the state population (27%) and Region 6 contains the smallest (4.7%). The range in the number of counties and the area per region is reflective of the dramatic differences in population density throughout the state. One of the challenges in Kansas is to develop health education and promotion programs for a large but less densely populated state, while meeting the needs of a varied population with specific pockets of need.

**Demographic Composition:** According to the 2006 census data, the racial and ethnic composition of the state was estimated to be 81.9% White non-Hispanic, 8.6% Hispanic, 6.2% Black non-Hispanic, 2.3% Asian/Pacific Islander, and 1.0% American Indian (Figure 1).

**Age and Sex:** According to the 2006 census estimate, the median age of Kansas' residents was 36.3 years. Based on the reported median age of 32.9 years in the 1990 Census in Kansas, the

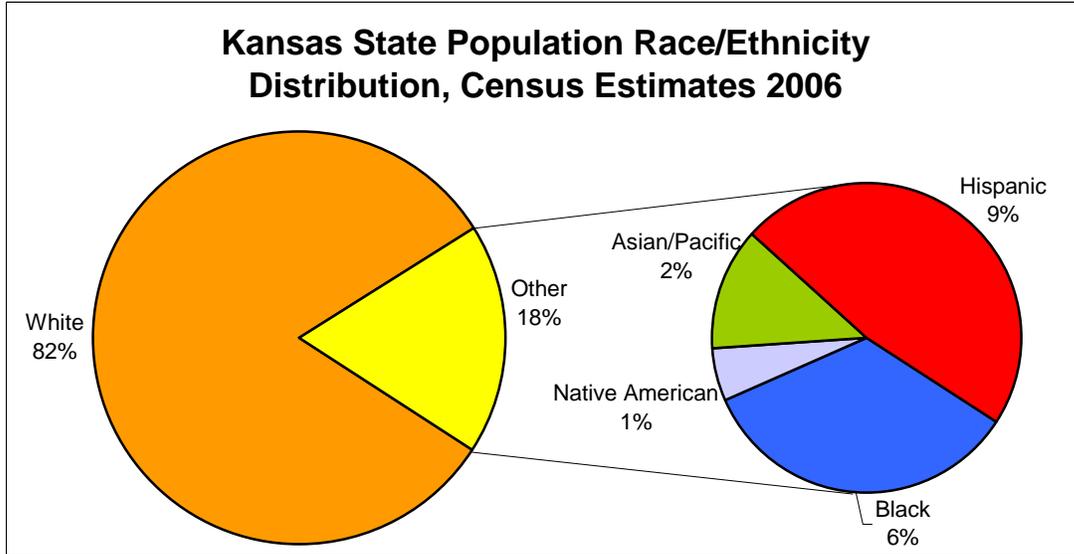
population is aging slightly. Around 27% of the population is 18 years of age or younger, and 13% of the population is 65 years or older. The same data estimates that the proportion of females in the overall population was slightly higher than the proportion of males (50.4% vs. 49.6%).

**Poverty, Health Insurance, Income, and Education:** The median household income in Kansas in 2006 was \$45,478. The estimated proportion of the population below the federal poverty level for 2006 was 12.4% in Kansas as compared to 13.3% nationally. In 2006, among individuals 25 years and above, 89% had at least graduated from high school, 29% had a bachelor's or higher degree, and 12% were dropouts.

## **DEMOGRAPHICS**

According to the Governor's Economic and Demographic Report published in October of 2006, the demographic make up of Kansas is becoming more diverse. Historically, the population of Kansas has been predominantly White non-Hispanic. In 2004, even though the overall makeup remained the same, the proportions of other races and ethnicities displayed an upward trend, especially in the proportion of the Hispanic population. The US Census Bureau estimates that the Hispanic population in Kansas continues to grow, increasing from 3.9% of the total population in 1990 to 8.6% of the total population in 2006.

**Figure 1:**



*Source: 2006 Estimates, US Bureau of the Census*

The White non-Hispanic population maintains the majority in every region; however, their percentage of the population in Regions 1 and 9 is much lower than that of the other regions. The largest Black non-Hispanic population, and percentage of the population, is in Region 1. More than 40% of Kansas' Hispanic population resides in either Regions 8 or 9. Although the size of the Hispanic population in these regions is very similar, Hispanics account for 32.8% of the population in Region 9 and only 8.3% of the population in Region 8 (Table 2).

**Table 2: Percentage of the General Population by Race/Ethnicity and by Public Health Region, 2006**

	White, non-Hispanic, %	Black, non-Hispanic, %	Native American, non-Hispanic, %	Asian/PI, non-Hispanic, %	Multiple Races, non-Hispanic, %	Hispanic, %	Total Population (%)
<b>Region 1</b>	59.1	20.7	0.6	1.6	1.6	16.4	8.3
<b>Region 2</b>	85.6	3.7	0.4	3.6	1.3	5.4	19.8
<b>Region 3</b>	86.7	3.1	1.7	3.1	2.0	3.4	5.7
<b>Region 4</b>	82.3	5.7	1.3	1.0	1.8	7.8	11.0
<b>Region 5</b>	90.2	2.7	1.7	0.8	2.1	2.5	7.0
<b>Region 6</b>	83.7	6.5	0.6	2.6	2.1	4.4	4.7
<b>Region 7</b>	92.0	1.4	0.4	0.7	1.1	4.3	10.5
<b>Region 8</b>	79.9	6.5	0.9	2.7	1.7	8.3	26.8
<b>Region 9</b>	63.0	1.4	0.6	1.5	0.7	32.8	6.2

Source: 2006 Estimates, US Bureau of the Census

Note: Due to rounding percentages may not add to 100%. Crude populations can be calculated by multiplying the total population by the percent value of concern.

PI (Pacific Islander)

Classifying counties based on population density further describes the distribution of persons throughout Kansas and allows for comparisons of counties with similar population characteristics. In Kansas, 6 of the 105 counties have more than 150 persons per square mile and 54.3% of the population lives within these counties. Additionally, the Kansas City Area (Wyandotte and Johnson Counties) contains 24% of the state's population and both counties have a population density of more than 1000 persons per square mile. The urban counties are 76.5% White non-Hispanic, 8.6% Black non-Hispanic, 9.2% Hispanic, 3.3% Asian/Pacific Islander, and 0.8% American Indian. The non-urban counties have a greater percentage of Whites (86.0%) and a nearly equal percentage of Hispanics (7.9%), but have relatively few of the other minority groups (6% combined).

Percentage distribution of population by age group in Kansas is similar to US population. Sixty four percent of the population in Kansas are 25 years or older in Kansas (Table 3)

**Table 3: Percentage Distribution of the General Population by Age Group and Gender, Kansas, 2006**

Age Group (yrs.)	Males, % (N=1,392,629)	Females, % (N=1,371,446)	Total Kansas Population % (N=2,764,075)	Total US Population, % (N=299,398,484)
<13	18.5	17.3	<b>17.9</b>	<b>17.5</b>
13-14	2.9	2.7	<b>2.8</b>	<b>2.8</b>
15-24	15.7	14.3	<b>15.0</b>	<b>14.2</b>
25-34	13.3	12.3	<b>12.8</b>	<b>13.5</b>
35-44	13.7	13.4	<b>13.6</b>	<b>14.6</b>
45-54	14.6	14.5	<b>14.6</b>	<b>14.5</b>
55-64	10.2	10.3	<b>10.3</b>	<b>10.6</b>
≥65	10.9	14.9	<b>12.9</b>	<b>12.4</b>

*Source: 2006 Estimates, US Bureau of the Census, and CDC 2006 WONDER Data*

*Note: Due to rounding percentages may not add to 100%. Crude populations can be achieved by multiplying the total population by the percent value of concern.*

## **SOCIOECONOMIC STATUS**

According to the US Bureau of the Census, US Department of Commerce estimates 343,000 residents were living below the poverty line during 2005-2006, an increase of 28.5% since 1999-2000. Around nineteen percent of Kansan children were living below the poverty line during 2005-2006. According to the US Census Bureau, Current Population Survey, 2005-2007, 11.3% of the state’s population had no insurance coverage compared to 15.3% nationally.

Using the 2006 Behavioral Risk Factor Surveillance System (BRFSS), estimates of households carrying any kind of health care coverage (health insurance, prepaid plans, or government plans) indicate 13% of the adult population of Kansas to be uncovered. At the same time 29.7 % Kansas adults whose household income ranged from \$15,000 to \$24,999, and 27.7% whose household income was less then \$15,000, reported not having any health care coverage. An income of less than \$15,000 was below 100% of the federal poverty level in 2006 (family unit of three) and the individuals in this category are more likely to be eligible for government

assistance. According to the Kansas BRFSS, 27.7% of the adult population in this income group lack health care coverage. Conversely, only 3.9% of the population, whose household income is greater than \$50,000, reported having no healthcare coverage. Among the unemployed population of Kansas, 49.3% are reportedly without healthcare coverage.

## Question 2

### What is the scope of HIV/AIDS epidemic in Kansas?

In 1983, KDHE began monitoring the disease known as Acquired Immunodeficiency Syndrome (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. Since that time, the HIV/AIDS epidemic has affected people of nearly all genders, ages, and racial/ethnic groups, as well as people in almost 70% of the counties in the state. However, the epidemic has not affected all of these groups equally.

Despite the continually disproportionate affect of HIV among non-Hispanic White men who have sex with men (MSM), recent trends indicate a potential change to the face of HIV disease among Kansans. Non-Hispanic Blacks have historically maintained the highest rate per 100,000 in Kansas, but the rate among Hispanics has increased since the start of the epidemic and has stabilized from 2000-2006.

To truly understand the gender distribution of newly diagnosed HIV/AIDS cases, it is essential to examine frequency counts in addition to the proportions among females since majority of the cases are among males.

As the number of people living with HIV disease continues to increase (due to improvements in treatment and increasing number of new diagnoses) it has become increasingly important to focus limited resources on those populations most affected and most at risk for HIV.

## HIGHLIGHTS

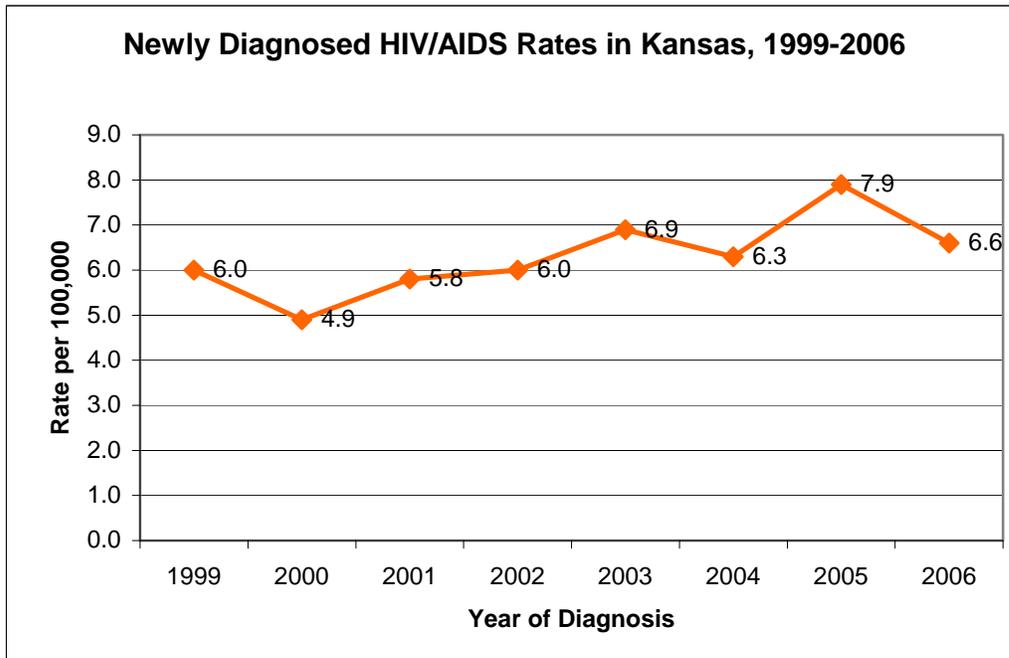
- During 2006, among all newly diagnosed and reported HIV/AIDS cases, 90 (49.2%) were new AIDS cases and 93 (50.8%) were HIV (non-AIDS) cases.
- At the end of 2006, 2,219 persons were presumed to be living with HIV/AIDS in Kansas. Of those, 55.8% (1,238 persons) had an AIDS diagnosis.
- The number of deaths among AIDS cases showed a decline in 1997 to 61 deaths. From 2001-2006, this number has stabilized to around 38 deaths per year.
- Newly diagnosed HIV/AIDS rates among non-Hispanic Blacks has increased from 21.6 per 100,000 in 2000 to 37.4 per 100,000 in 2006.
- In 2006, newly diagnosed HIV/AIDS rate among non-Hispanic Blacks (37.4 per 100,000, 95% C.I. 27.8, 46.9) was highest when compared to any other race/ethnicity group.
- Those cases newly diagnosed in 2006 that designate another country as their country of origin are responsible for 34.4% of the cases categorized as “No Identifiable Risk” (NIR).
- With the development of HAART therapies now approaching its 12<sup>th</sup> year, and the ability of HIV to mutate into multi-drug resistant variants, mortality rates could also be affected by the emergence of untreatable patients with resistance to every available therapy and combination therapy.

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 2006 and reported through December 2007. The regional epidemiological profiles included at the end of this section provide a more detailed description of the epidemic in each public health region. Unless noted, all data comes from Kansas' HIV/AIDS Surveillance Program.

## **OVERALL HIV/AIDS TRENDS**

Statewide during 2006, 183 new cases of HIV/AIDS were diagnosed (anonymous test results from this period were not collected and consequently are not included in this count). This number reflects those persons whose HIV infection (including AIDS) was first diagnosed in 2006 and who were reported to the state health department. AIDS and HIV may be diagnosed at the same time. If a person is diagnosed with AIDS and HIV in the same year, they are counted as an AIDS case only in order to avoid "double-counting." Once diagnosed with AIDS, a person does not re-enter the HIV "pool," even if they no longer meet the case definition of AIDS (e.g. a person who is HIV positive in 2006, who subsequently develops *Pneumocystis carinii* pneumonia (PCP), becomes an AIDS case. They do not become an HIV case again, however, even if the PCP is resolved).

**Figure 2:**

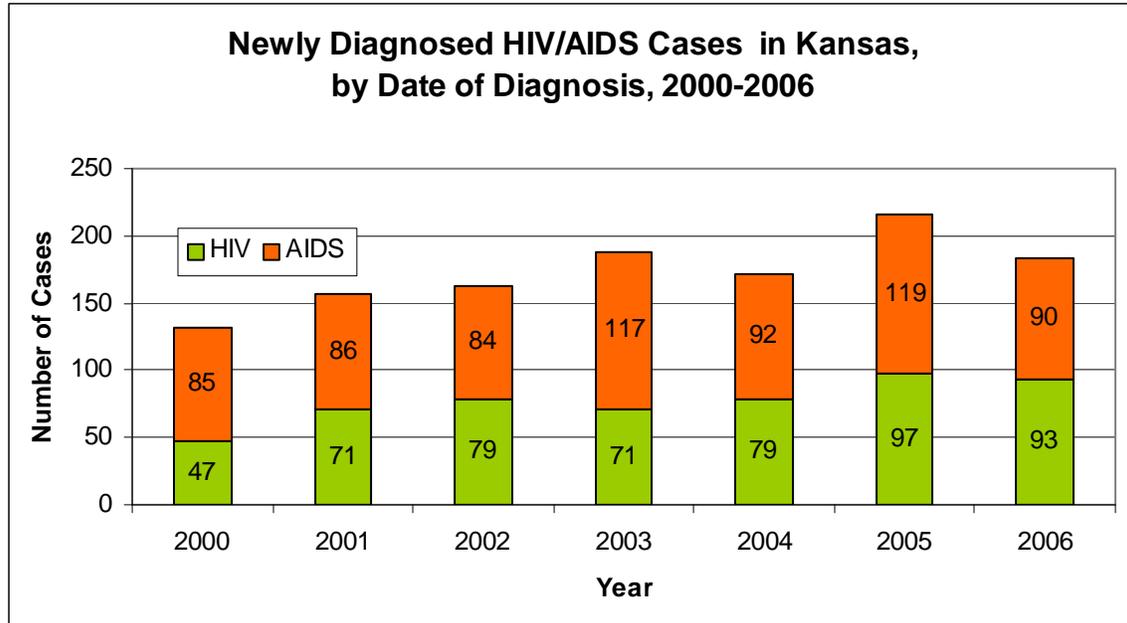


*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

Although not statistically significant there was an increase of newly diagnosed HIV/AIDS rates from 4.9 per 100,000 in 2000 to 6.6 per 100,000 in 2006(Figure 1). Newly diagnosed HIV/AIDS rates were the highest in 2005 (7.9 per 100,000, C.I, 6.8, 8.9). KDHE will continue to monitor to see if the trend continues (Figure 2).

During 2006, 90 new AIDS cases were diagnosed and reported, and 93 HIV cases (no AIDS) were diagnosed and reported (Figure 3).

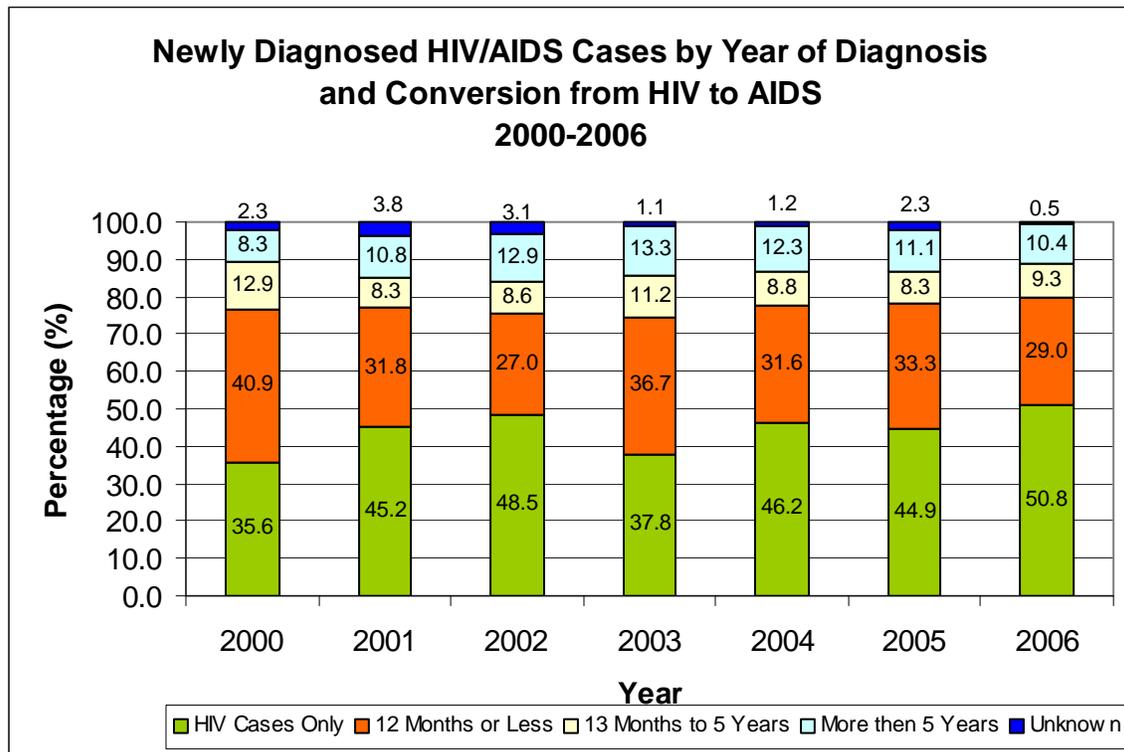
**Figure 3:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

The number of persons newly infected with HIV or AIDS in Kansas has increased nearly every year. At the end of 2006, 2,219 persons were presumed to be living with HIV/AIDS in Kansas; of these, 55.8% (1,238 persons) had progressed to AIDS. Among the 183 newly diagnosed cases of HIV/AIDS in 2006, 53 (29%) were simultaneously diagnosed with HIV and AIDS. The overall proportion of HIV cases that converted to AIDS within one year of the HIV diagnosis decreased from 40.9% in 2000 to 29% in 2006 (not statistically significant Chi-Square test= 1.604, P value 0.205) (Figure 4).

**Figure 4:**

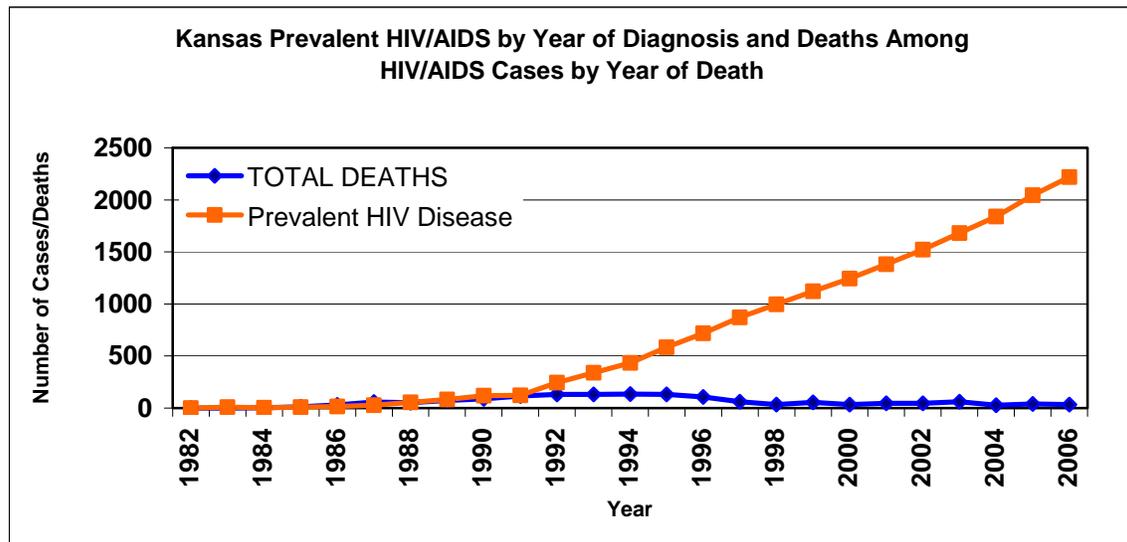


*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

Prevalence numbers represent a minimum estimate of the actual persons living with HIV in Kansas at the end of 2006. As previously mentioned, the number does not include those who only test anonymously or those who are infected and have not been tested and therefore not reported. Historically, Kansas has accounted for approximately 0.3% of the total number of cases of HIV/AIDS reported in the United States, and accounts for 0.9% of the U.S. population. Assuming that this trend continues to be true, the Kansas HIV/AIDS Surveillance Program estimates that there are between 2,550 and 2,850 persons living in Kansas with HIV/AIDS with or without knowledge of their status. Therefore, estimates indicate that there were between 330 and 630 persons living in Kansas who were still unaware of their infection status at the end of 2006.

As noted in Figure 5, the number of prevalent (cumulative, living) cases in Kansas has consistently risen and deaths have remained relatively stable, never exceeding 134 deaths per year. From 2000 to 2006, the number of prevalent cases increased by 78.5% (1,243 to 2,219). The number of deaths showed a decline after 1996. From 2000 to 2006, the number of deaths has stabilized at around 50 deaths per year. This is not surprising considering that prevalent cases are an accrual of many years, and deaths are reported only in the year they occur. The total number of deaths to HIV/AIDS in Kansas since 1983 is 1,513 (Figure 5).

**Figure 5:**

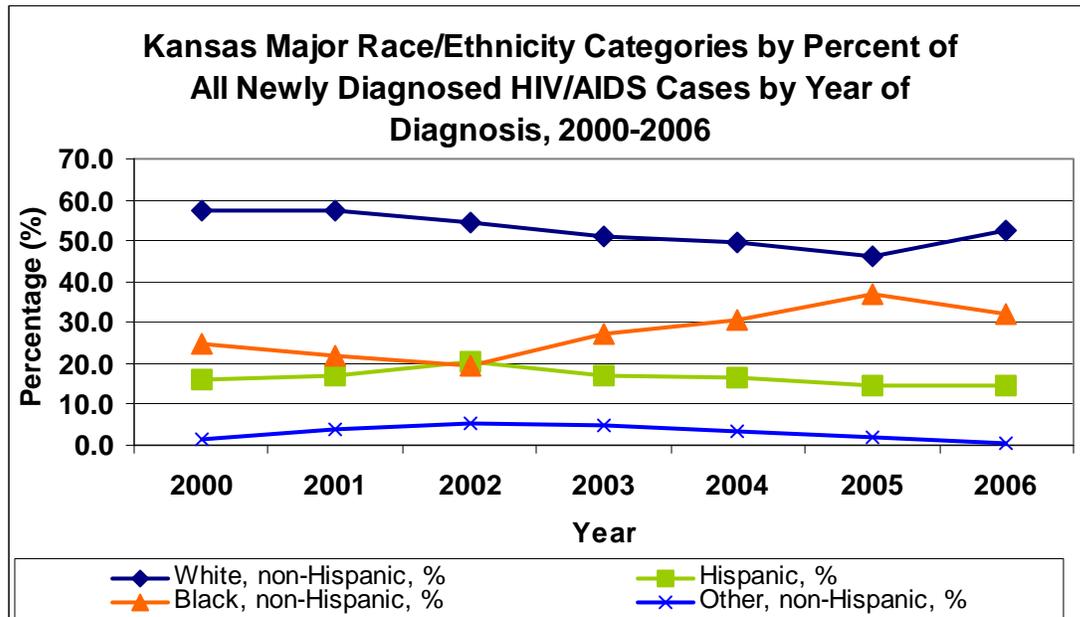


*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

During 2000-2005, there was a downward trend in the proportion of HIV/AIDS cases newly diagnosed among non-Hispanic Whites, and an increase in the proportion of non-Hispanic Black cases. However, in 2006 the proportion of non-Hispanic White cases increased slightly, while the proportion of non-Hispanic Blacks decreased. The proportion of newly diagnosed HIV/AIDS cases among Hispanics has relatively remained stable from 2000 to 2006. Since the Hispanic population continues to grow in Kansas the future trends

among this population will continue to be monitored (Figure 6).

**Figure 6:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

Minority groups compose 40% of all persons living in Kansas with HIV/AIDS and around 47% of all newly diagnosed HIV/AIDS in 2006. Hispanics and Black non-Hispanics are the leading contributors to this minority population accounting for 14.8% and 32.2% of all newly diagnosed HIV infections, respectively (Table 4).

The proportion of newly diagnosed HIV/AIDS cases reported among women in Kansas during the last seven years (2000-2006) has consistently been above 20%, except for 15.9% in 2001, and 15.3% in 2006. From 2000 to 2005, the number of female cases diagnosed each year increased by 81.5% (27 cases in 2000 to 49 cases in 2005), while the total number of cases only increased 63.6% (132 cases to 216 cases). However, though statistically not significant the proportion of cases among females has decreased from 22.7% in 2005 to 15.3% in 2006.

The majority of persons newly diagnosed with HIV/AIDS in 2006, as well as the majority of those living with HIV/AIDS at the end of 2006 was between the ages of 25 and 44. In 2006, there were no new cases of children (less than 13 years of age) diagnosed with HIV in Kansas. Diagnoses among those between the ages of 45 and 64, for the second consecutive year, topped 10% of the total percent of new cases. For the last four years this age group (44-64) has averaged 22.7% of the cases newly diagnosed in Kansas and has averaged 26% of the cases converting from HIV to AIDS within one year. In 2006, the highest proportion of cases converting from HIV to AIDS within one year was in 25-34 year age group (43.4%) as compared to other age groups. This could indicate that the 25-34 year old age group is getting tested later in the course of the disease than any other age group (Statistically not significant).

In 2006, more cases of HIV/AIDS were diagnosed in Region 8 (32.2%) than in any other region. However, Regions 2 and 1 closely followed with 24.6% and 16.4% of the newly diagnosed HIV/AIDS cases, respectively. Comparing HIV/AIDS incidence rates (number of cases per population in the region), Region 1 has the highest rate of 13.1 per 100,000. Among those living with HIV/AIDS at the end of 2006, 31.9% reside in Region 8, 22.2% live in Region 1, and 19.9% live in Region 2 around Kansas City (Table 4).

**Table 4 Characteristics of persons infected with HIV (HIV/AIDS), Kansas, 2006**

	NEW HIV/AIDS CASES DIAGNOSED, 2006			PERSONS LIVING WITH HIV/AIDS, THROUGH 2006		
	N	%	Incidence Rate <sup>1</sup>	N	%	Prevalence Rate <sup>1</sup>
<b>TOTAL</b>	183	100.0	6.6	2219	100.0	80.3
<b>GENDER</b>						
Male	155	84.7	11.3	1804	81.3	131.5
Female	28	15.3	2.0	415	18.7	29.8
<b>RACE/ETHNICITY</b>						
Hispanic	27	14.8	11.4	277	12.5	116.7
American-Indian	.	0.0	***	19	0.9	80.7
Asian/PI	1	0.5	**	14	0.6	**
Black Non-Hispanic	59	32.2	37.4	539	24.3	341.4
White Non-Hispanic	96	52.5	4.3	1334	60.1	59.6
Multi-Race	.	0.0	***	35	1.6	80.9
Unknown	.	0.0	*	1	0.0	*
<b>AGE GROUP (YRS.)<sup>@</sup></b>						
<13	.	.	***	18	0.8	3.6
13-14	1	0.5	**	2	0.1	**
15-24	29	15.8	7.0	298	13.4	71.9
25-34	60	32.8	16.9	840	37.9	236.7
35-44	57	31.1	15.2	723	32.6	192.5
45-54	24	13.1	6.0	261	11.8	64.8
55-64	11	6.0	**	67	3.0	23.6
65 Years and older	1	0.5	**	10	0.5	**
<b>PUBLIC HEALTH REGION</b>						
1	30	16.4	13.1	492	22.2	214.7
2	45	24.6	8.2	441	19.9	80.5
3	8	4.4	**	94	4.2	59.7
4	25	13.7	8.2	202	9.1	66.1
5	1	0.5	**	61	2.7	31.6
6	2	1.1	**	67	3.0	51.2
7	9	4.9	**	84	3.8	29.1
8	59	32.2	8.0	707	31.9	95.4
9	4	2.2	**	70	3.2	40.9
Unknown	.	.	*	1	0.0	*

<sup>1</sup>Rates per 100,000 persons, @ Age at diagnosis

<sup>†</sup>No available reliable denominator for these categories from the current Census estimates so rates cannot be determined

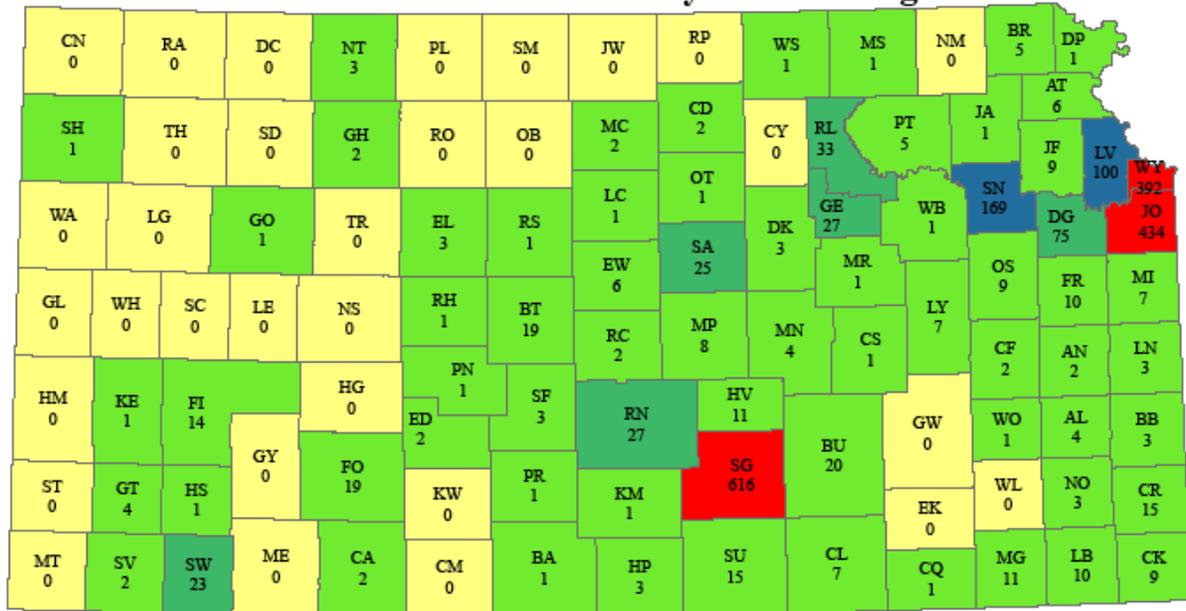
\*\* Rate Based on very small numbers are not reliable and not reported here, \*\*\* No cases were diagnosed in this category

Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007

Prevalence calculations for HIV/AIDS were based on counts by residence at diagnosis. These statistics do not take into account in-state or out-of-state migration patterns unless alternately specified. The HIV/AIDS Surveillance Program is not designed to track cases individually and passively collects address information after diagnosis when contacted by other state surveillance programs or when observed through other normal surveillance activities. As of December 31, 2006, 2,219 persons were reported to be living with HIV/AIDS in Kansas. This map illustrates the counties where these persons lived when diagnosed with HIV or AIDS. Currently, 75 counties, or approximately 70% of all counties in Kansas, have been affected by HIV/AIDS. Five of the 105 counties in Kansas contain more than 100 prevalent HIV/AIDS cases (Figure 7). These counties are also among the largest counties in the state by population. The six urban counties (population density  $\geq$  150 persons per square mile in 2006) contain 80.5% of all prevalent cases.

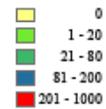
Figure 7:

### State of Kansas Prevalent Cases of HIV / AIDS by County as of December 31st 2007 by Date of Diagnosis



Data Sources: Kansas Cartographic Dataset, and Kansas HIV / AIDS Reporting System (HARS)

Prevalent Cases by County as of December 31st, 2007 by Date of Diagnosis.



Prevalent cases are those people presumed living with HIV / AIDS. County of residence is based on county of residence at diagnosis. Cases that do not have a documented county of residence at diagnosis are not reflected in this map.

Disclaimer: The purpose of this publication is to illustrate the status of HIV / AIDS epidemic in the state of Kansas. The map product is provided without representation or implied or expressed warranty of accuracy for any uses beyond those expressed. The originating agencies are not responsible for publication or use of this product for purposes other than those expressed. This product may be corrected or updated as necessary without prior notification.

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## **HIV/AIDS, BY RACE/ETHNICITY AND SEX**

The epidemic affects both males and females in the non-Hispanic Black communities with 45 cases among males and 14 cases among females diagnosed in 2006. Among females, non-Hispanic Blacks have the highest number of cases when compared to all other race/ethnicity groups. In all other racial/ethnic communities, females are less significantly affected. Non-Hispanic Black females accounted for 50% of all newly diagnosed HIV/AIDS cases among females in Kansas in 2006 (Table 5).

**Table 5 Newly Diagnosed HIV/AIDS Cases and rates, by race/ethnicity and Gender, Kansas, 2006**

Race/ethnicity	Males		Females		Total		
	N	% <sup>1</sup>	N	% <sup>1</sup>	N	% <sup>1</sup>	Rate <sup>2</sup>
<b>White, non-Hispanic</b>	86	47.0	10	5.5	96	52.5	4.3
<b>Black, non-Hispanic</b>	45	24.6	14	7.7	59	32.2	37.4
<b>Hispanic</b>	23	12.6	4	2.2	27	14.8	11.4
<b>Other/unknown</b>	1	0.6	.	.	1	0.6	**
<b>Total</b>	155	84.7	28	15.3	183	100*	

<sup>1</sup>Calculated as the percentage of all newly diagnosed HIV disease in 2006.

<sup>2</sup>Rates calculated per 100,000

\*Due to rounding percentages do not add up to 100 percent

\*\* Rates based on small numbers are not reliable

Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007

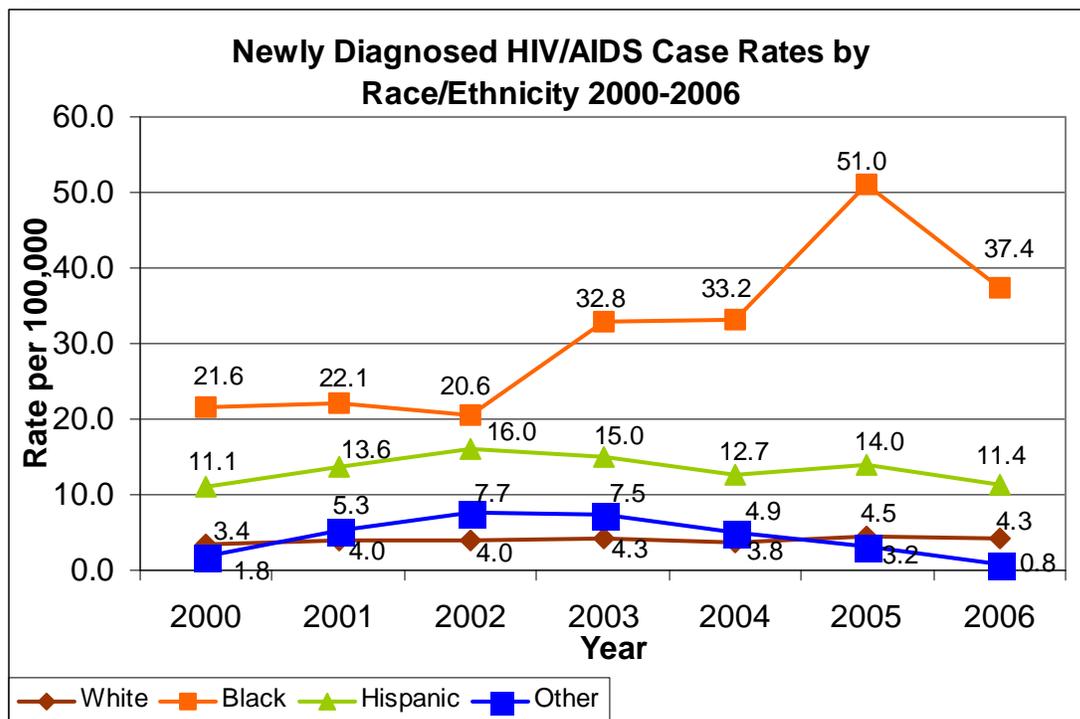
Analyzing trends based on the number of new diagnoses by racial/ethnic groups and genders in Kansas, by one-year increments, is not possible due to the small number of cases. However, comparing 2000 data to 2006 data there was a 34% increase in the number of newly diagnosed HIV/AIDS cases among White males (64 in 2000 to 86 in 2006). The number of newly diagnosed HIV/AIDS cases among non-Hispanic Black males increased by 104.5% (24 cases in 2000 to 45 cases in 2006). During the same time period, the HIV/AIDS cases among non-Hispanic Black females increased by 27% (11 cases in 2000 to 14 in 2006).

During the last six years, the number of newly diagnosed HIV/AIDS cases among non-Hispanic

Blacks and Hispanics has been increasing. Disease rates account for changes in the population that case counts only do not.

In 2006, the rate among non Hispanic Blacks was 37.4 per 100,000 (95% C.I. 27.8, 46.9), which is -clearly more than rates among any other race/ethnicity groups. This is about eight times greater than the rate among the Non-Hispanic White population (4.3 per 100,000, 95% C.I. 3.4, 5.1), and around three times greater than the rate among the Hispanic population (11.4 per 100,000 (C.I. 7.1, 15.7) during the same year (Figure 8).

**Figure 8:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

Considering the number of cases among non-Hispanic Whites in Kansas, the majority of prevention efforts should continue to be focused on this group. However, it is imperative that the potential for prevention among minority populations is not neglected, including non-Hispanic Blacks and Hispanics who have higher rates when compared to the non- Hispanic Whites.

## **HIV/AIDS, BY AGE GROUP**

In 2006, persons aged 25-44 at the time of HIV/AIDS diagnosis accounted for nearly two-thirds (63.9%) of the 183 newly diagnosed HIV disease cases. Males between the ages of 25-44 accounted for 62.6% of these newly diagnosed HIV diseases cases. The majority of newly diagnosed women (71.4%) were also in this group (Table 6).

**Table 6 HIV/AIDS diagnoses by Age Group and Gender, Kansas, 2006**

Age Group (yrs.)*	Males		Females		Total	
	N	% <sup>1</sup>	N	% <sup>1</sup>	N	% <sup>1</sup>
<13	.	.	.	.	.	.
13-14	1	0.6	.	.	1	0.5
15-24	28	18.1	1	3.6	29	15.8
25-34	49	31.6	11	39.3	60	32.8
35-44	48	31.0	9	32.1	57	31.1
45-54	19	12.3	5	17.9	24	13.1
55-64	9	5.8	2	7.1	11	6.0
≥65	1	0.6	0	0.0	1	0.5
<b>Total</b>	155	100	28	100	183	100

<sup>1</sup>Calculated as the percentage of all newly diagnosed HIV/AIDS Cases in 2006  
*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

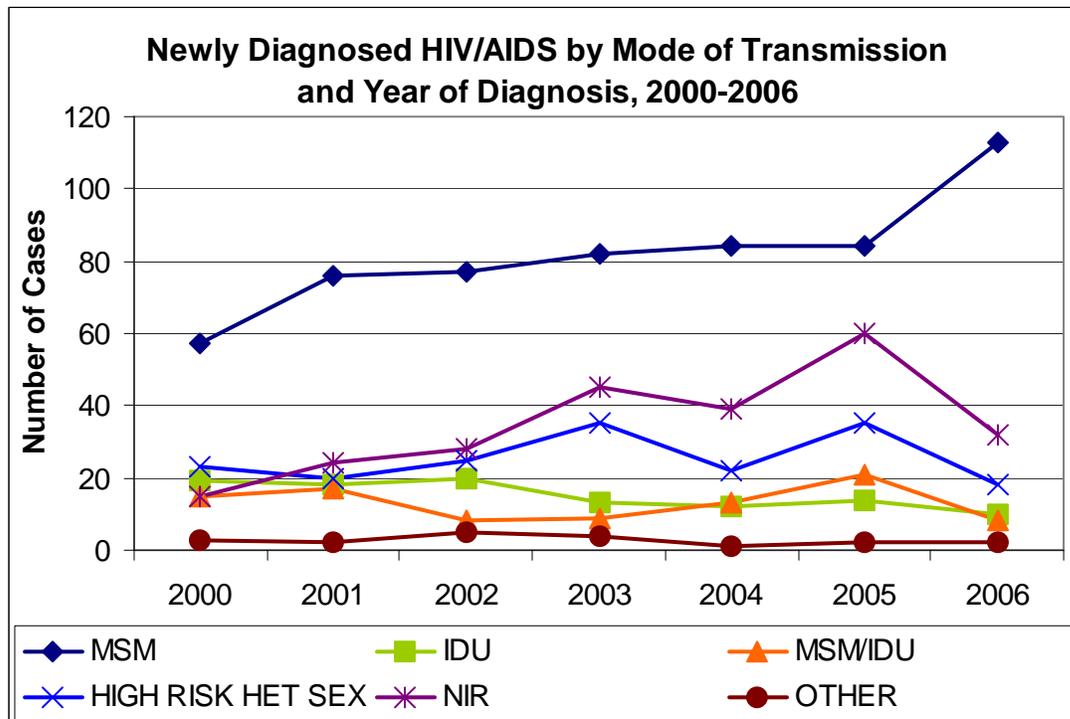
\*Age at diagnosis

The age distribution in Kansas has been relatively stable for the last seven years (2000-2006). There has been a slight increase in the number of cases among those aged 13-24 years and 25-44 years. And, there has been a slight increase among those aged 45-64 years, with an increase of fifteen cases from the same age group in 1999. No obvious trend can be concluded from age analysis in Kansas, except that those aged 25-44 have been, and continue to be the largest group represented among those newly diagnosed with HIV/AIDS. As these individuals age in future years an increase in number of senior citizens living with HIV/AIDS can be expected.

## HIV/AIDS, BY MODE OF EXPOSURE

Among newly diagnosed HIV/AIDS cases, men who have sex with men (MSM) increased by 98% from 2000 to 2006. In 2006, among the newly diagnosed HIV/AIDS cases, 62% reported to be MSM, while 10% have reported high-risk heterosexual contact. Throughout the surveillance of HIV/AIDS in Kansas, most HIV transmission has occurred among MSM. This continues to be the case in 2006 (Figure 9).

**Figure 9:**

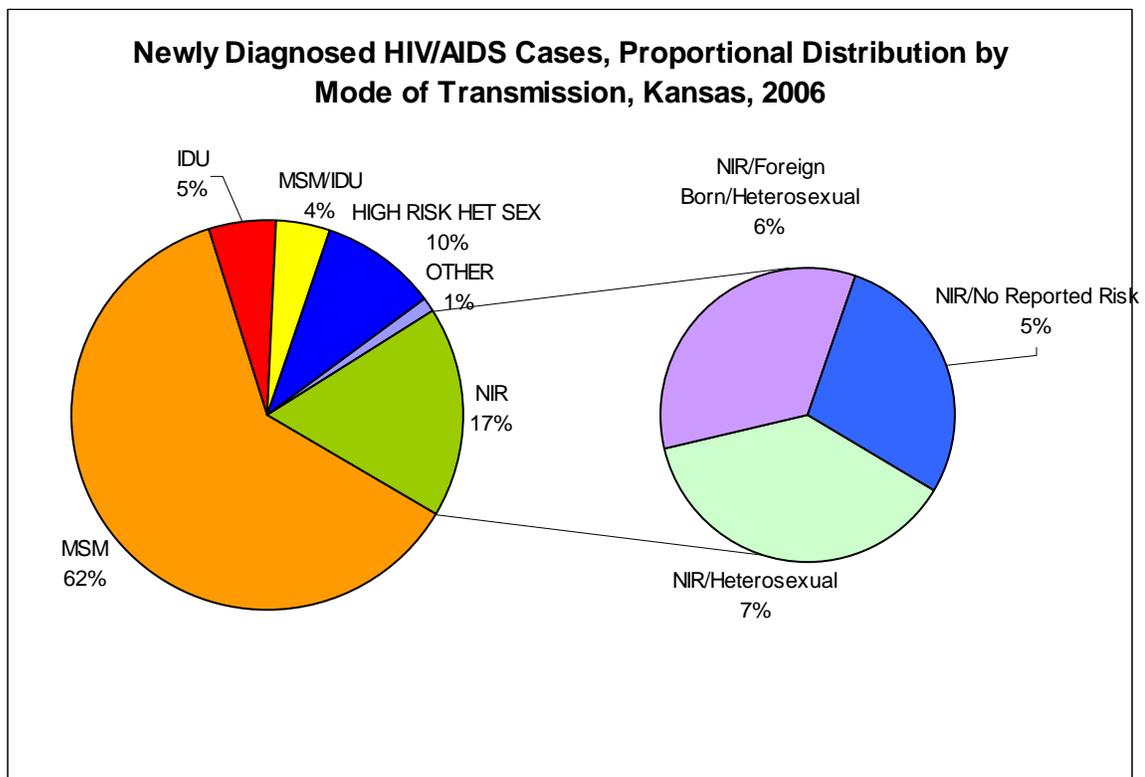


*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

The most notable change in exposure categories from 2000 to 2005 is the increase among those classified as No Identified Risk (NIR). However, in 2006, the number of cases in this group has dropped significantly by 47%, when compared to 2005. This could be due to the recent data cleaning efforts of the Kansas HIV/AIDS Surveillance program, as well as an increased resolution of the NIR cases by risk assignment. Around 17% of those newly diagnosed with HIV/AIDS in 2006 have no identified risk (Figure 9). A large percentage of

NIR cases will never be reclassified due to current exposure category definitions. Among newly diagnosed HIV/AIDS cases in 2006 that are classified as NIR, (32) 34.4% designated another country as their country of origin, and 37.5% described themselves as heterosexual. These persons are not classified in the same category as those with high-risk heterosexual contact because the contact is not with a person who is a known HIV/AIDS case, or is at an increased risk for HIV infection (e.g., an IDU) (Figure 10).

**Figure 10:**



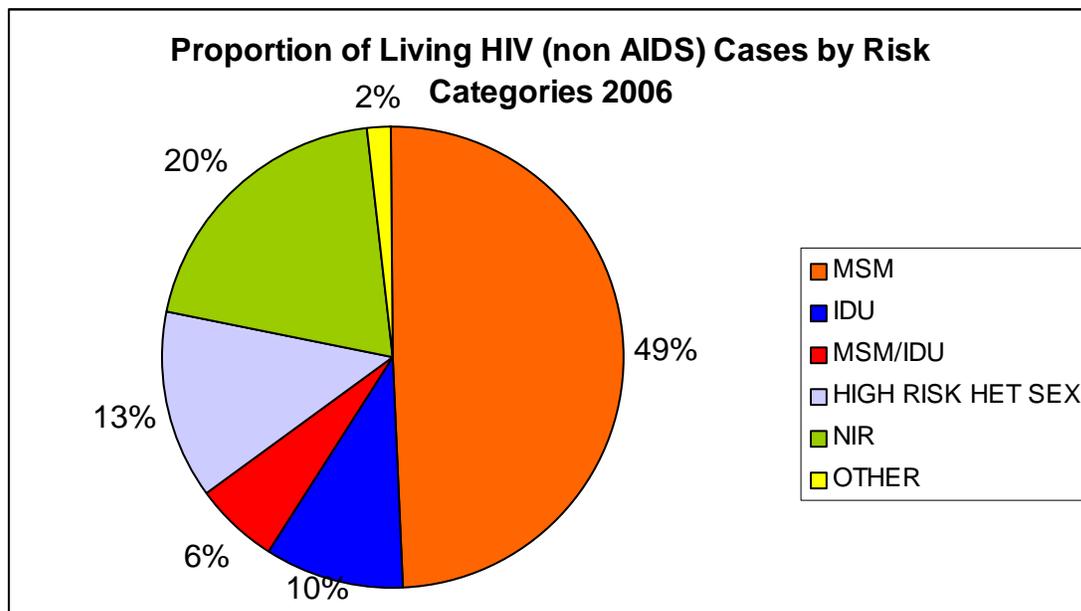
*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

At the end of 2006, MSM cases of HIV/AIDS continue to be the most predominant among all prevalent cases in Kansas.

Funding for behavioral studies has not been made available to Kansas. Recently, however, efforts are in place to assess the prevalence of risk behaviors among those being tested in

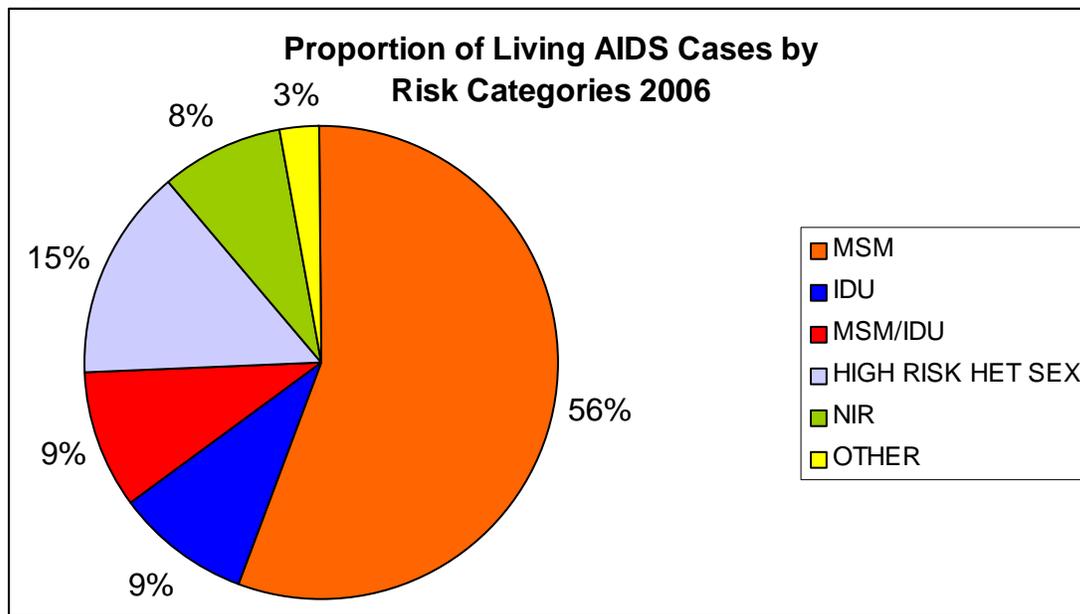
counseling and testing sites. Although the differences between prevalent HIV (non-AIDS) cases and prevalent AIDS cases are minor, the majority of this difference is accounted for by prevalent HIV cases categorized as NIR. Among prevalent HIV (non AIDS) cases, 20% are NIR, and among prevalent AIDS cases, only 8% are classified as NIR. Additionally, among prevalent AIDS cases, 56% are MSM whereas, among prevalent HIV cases, 49% are MSM (Figure 11-12).

**Figure 11:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

**Figure 12:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

Among MSM, the proportion of cases that are non-Hispanic Blacks and Hispanics has increased during recent years. As in all other analyses, there are more cases diagnosed among MSM than any other group regardless of race or ethnicity. All other analysis produces little to no change in the trends among racial and ethnic groups over time.

Regional comparisons of category of exposure provide important information for the development of prevention messages in specific geographic areas of the state. The regional comparisons provide some insight into the distribution of risk groups throughout the state. The largest proportion of prevalent cases is in the MSM category of exposure in every region. Proportion of IDU cases among exposure groups is highest in region 7 (27.4%), followed by Region 9 (18.6%), and Region 5 (14.7%). The highest proportion of NIR cases were reported in Region 6 (22.4%), followed by Region 1 (18.7%) and Region 2 (15.9%) (Table 7).

<b>Table 7 Proportion (%) of Living Kansas HIV/AIDS Cases by Category of Exposure and Region, 2006</b>							
<b>Region</b>	<b>MSM</b>	<b>IDU</b>	<b>MSM/IDU</b>	<b>Het Sex</b>	<b>NIR</b>	<b>Other</b>	<b>Total (N)</b>
<b>1</b>	49.6	9.0	6.5	14.6	18.7	1.6	(492)
<b>2</b>	57.6	5.0	6.8	13.1	15.9	1.6	(441)
<b>3</b>	60.6	6.4	9.6	14.9	5.3	3.2	(94)
<b>4</b>	48.0	12.9	7.4	17.3	11.9	2.5	(202)
<b>5</b>	45.9	14.7	8.2	21.31	6.6	3.3	(61)
<b>6</b>	38.8	9.0	7.5	19.4	22.4	3.0	(67)
<b>7</b>	46.4	27.4	7.1	11.9	3.6	3.6	(84)
<b>8</b>	55.7	8.5	10.3	12.2	10.7	2.5	(707)
<b>9</b>	41.4	18.6	0.0	21.4	15.7	2.9	(70)
<b>Unknown</b>	100.0	.	.	.	.	.	(1)
<b>Total (N)</b>	(1169)	(209)	(175)	(316)	(300)	(50)	2219

*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

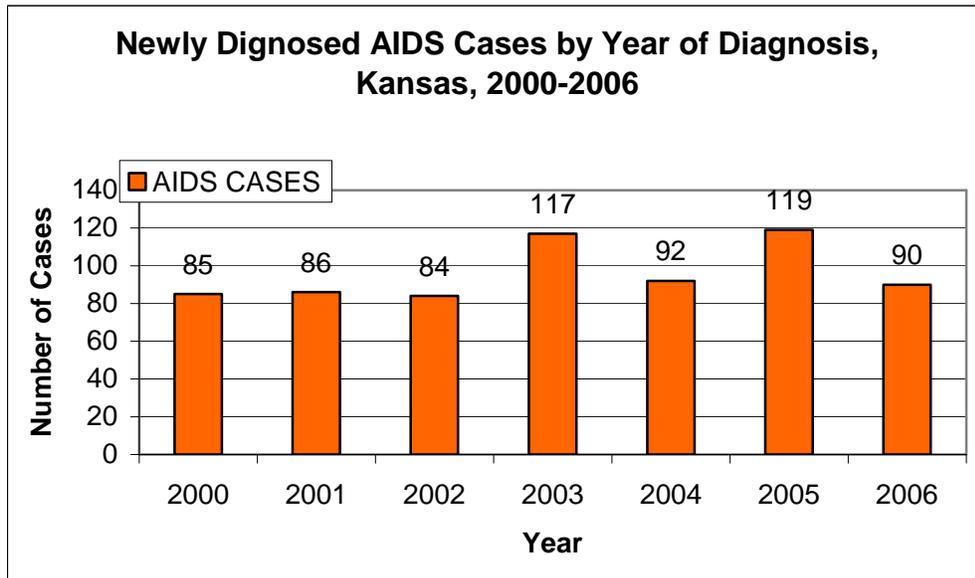
## **AIDS TRENDS AND HIV/AIDS MORTALITY**

Highly active antiretroviral therapy (HAART) was introduced in 1996. These medications have been effective in the treatment of HIV infection and, since that time, have altered the natural progression of HIV infection. HAART has delayed the progression from HIV to AIDS and from AIDS to death. Because of the widespread use of the HIV treatments, Kansas, along with the rest of the nation, had seen declines both in the number of new AIDS cases diagnosed and the number of AIDS-related deaths compared to previous years. AIDS surveillance data no longer accurately represent trends in HIV transmission; rather, AIDS surveillance data now reflect differences in access to testing and treatment, as well as the failure of certain treatments. Consequently, 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.

### **AIDS Trends**

The number of newly diagnosed AIDS cases diagnosed annually had declined from 1997 to 2002; however, the number increased by 39% from 2002 to 2003, and by 41% from 2002 to 2005. In 2006, 90 cases of AIDS were newly diagnosed which is a 7% increase from 2002 (Statistically not significant) (Figure 13).

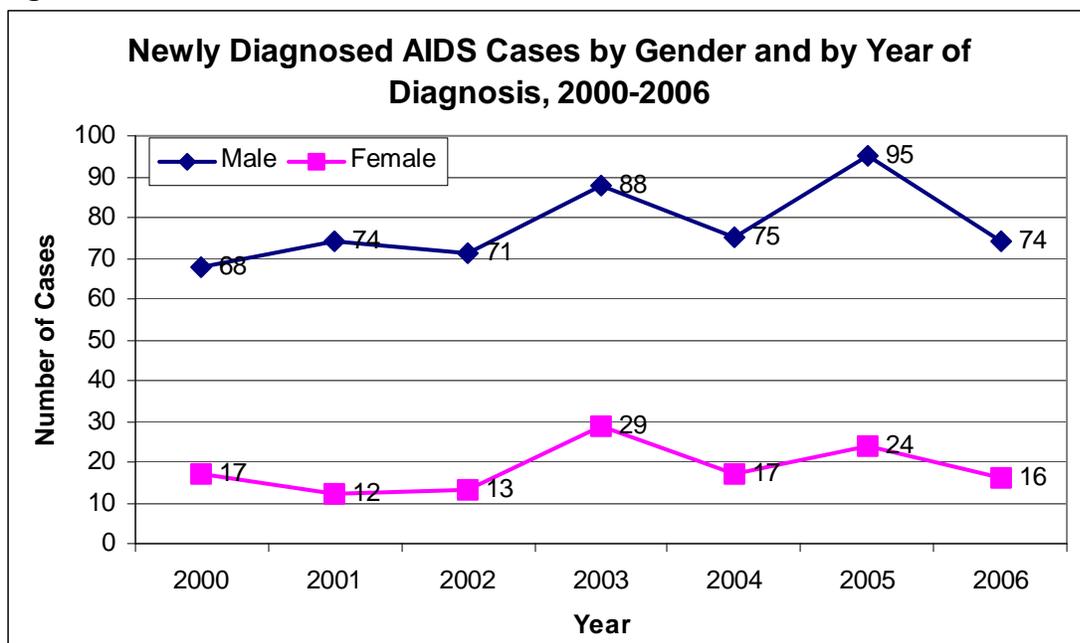
**Figure 13:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

There were more cases of AIDS diagnosed among men in 2005 than any prior year. The number of cases among women had relatively remained stable until 2003 when the number (29) and proportion of female cases (25%) was higher than when compared to any other year. In 2005, there was an overall increase in the number of newly diagnosed AIDS cases; however, this increase was due more to an increase in male cases (Figure 14).

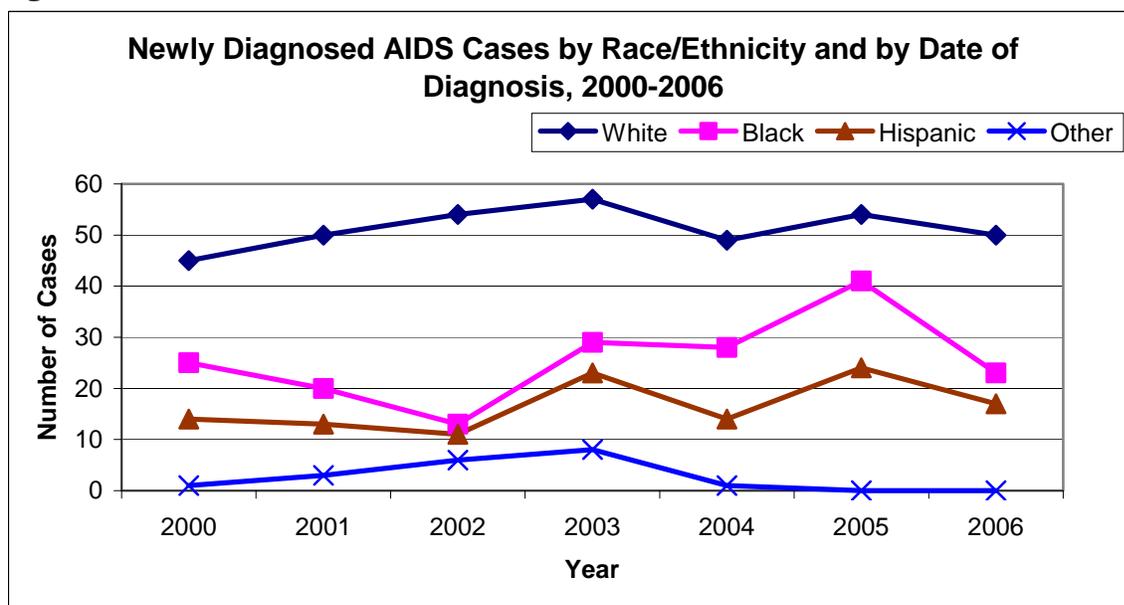
Figure 14:



Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007

Despite the relatively steady decline among non-Hispanic Whites, minority groups like non-Hispanic Blacks and Hispanics have shown an increase from 2003 to 2005 (Figure 15).

Figure 15:



Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007

The trends in AIDS case distribution by gender and race/ethnicity in Kansas reflect the overall influence of non-Hispanic White males. However, the newest changes indicate that this influence may be decreasing. Although progression to AIDS may indicate disparities in access to care or the effectiveness of treatment, the proportional distribution of persons with a new diagnosis of AIDS is also related to the characteristics of persons living with HIV/AIDS. Using the diagnoses of HIV as a comparison to the newly diagnosed AIDS cases can serve to indicate disparities in access to care and treatment among those that are HIV infected. These comparisons would be better suited for larger populations with a more stable epidemic, but even with a small population the racial/ethnic distribution of conversion to AIDS does not appear to be significantly different from the distribution among HIV diagnoses in 2000. However, comparing the newly diagnosed AIDS cases to prevalent AIDS cases at the end of 2006, there are some differences in characteristics (Table 8). These differences were discussed in the description of newly diagnosed cases and trends, but are also seen when comparing prevalent cases to newly diagnosed-AIDS cases. This indicates some potential changes to the face of the epidemic in Kansas.

<b>Table 8 Characteristics of Persons with AIDS, Kansas, 2006</b>				
	<b>Persons Newly Diagnosed, 2006</b>		<b>Persons Living with AIDS through 2006</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Gender</b>				
Male	74	82.2	1035	83.6
Female	16	17.8	203	16.4
<b>Race/Ethnicity</b>				
White, non-Hispanic	50	55.5	773	62.4
Black, non-Hispanic	23	25.6	277	22.4
Hispanic	17	18.9	157	12.7
Other/Unknown	.	.	31	2.5
<b>Age Groups (yrs.)*</b>				
<13	.	.	6	0.5
13-14	1	1.1	2	0.2
15-24	3	3.3	87	7.0
25-34	30	33.3	449	36.3
35-44	30	33.3	465	37.6
45-54	17	18.9	178	14.4
55-64	8	8.9	44	3.6
≥65	1	1.1	7	0.6
<b>Public Health Regions</b>				
1	13	14.4	268	21.6
2	19	21.1	235	19.0
3	2	2.2	54	4.4
4	14	15.6	112	9.0
5	1	1.1	26	2.1
6	1	1.1	31	2.5
7	7	7.8	55	4.4
8	32	35.6	422	34.1
9	1	1.1	35	2.8
<b>Total</b>		100.0		100.0

*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

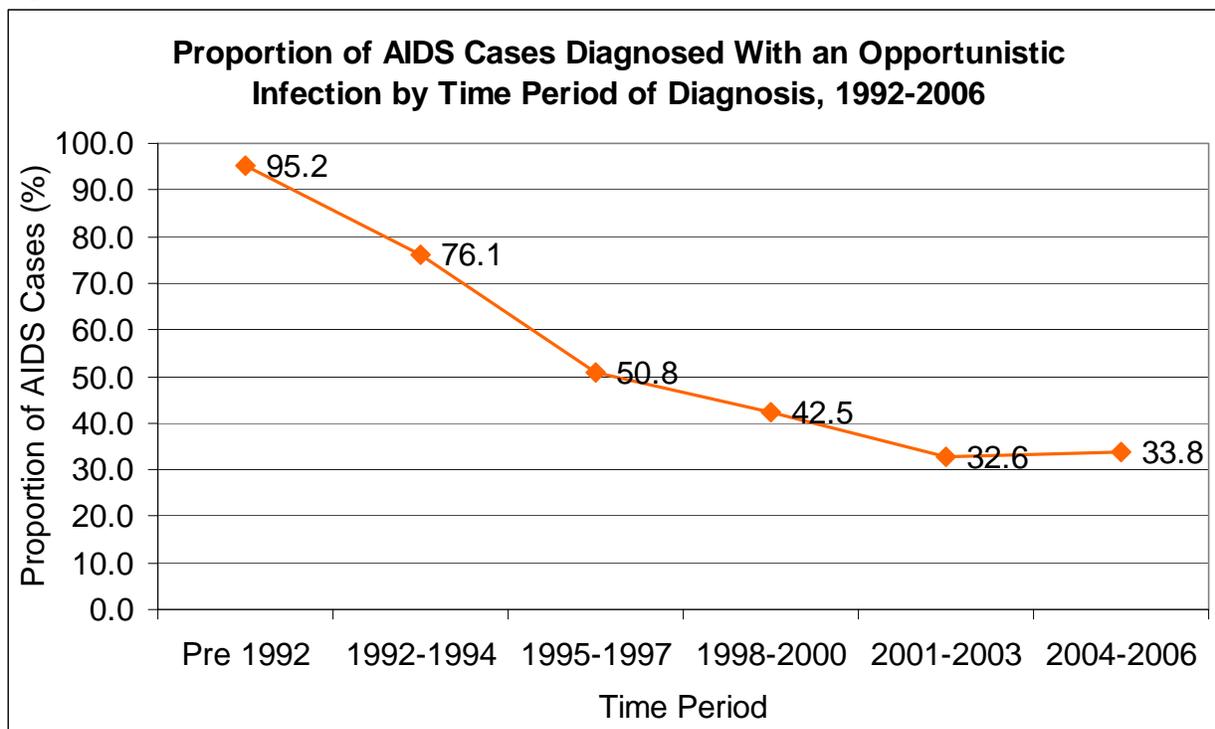
\*Age at diagnosis

The regions surrounding Wichita and Kansas City continue to have the largest number of new diagnoses and number of prevalent cases. Comparing AIDS cases by population density reveals a distinct difference in gender distribution of newly diagnosed cases. Among those counties designated as non-urban, 11 (73.3%) cases were diagnosed among males and 4 (26.7%) AIDS cases were diagnosed among females. This is in strong contrast to the distribution of cases among males and females in urban counties. Among urban counties, 63 (84.0%) males and 12 (16.0%) females were newly diagnosed with AIDS in 2006. Although

the proportions are less stable among non-urban counties, the same number of females was diagnosed among urban and non-urban counties, but the number of males was significantly different. This observation should be noted and observed for possible future trend developments.

Since the beginning of AIDS reporting, there has been a dramatic reduction in the proportion of cases diagnosed with opportunistic infections (OI). The changes in reporting practices, case definitions, and surveillance procedures have definitely contributed to the number of infections reported. Additionally, with the introduction of HARRT in 1996, the number of opportunistic infections (OIs) reported nationwide has decreased. Grouping AIDS cases by the year of AIDS diagnosis into three-year periods provides strength in numbers to analyze the declining trend in the proportion of cases subsequently diagnosed with an OI (Figure 16). In the most recent period, the majority of AIDS cases were not converted from HIV based on the diagnosis of an opportunistic infection, but rather a low CD4 count. Among those AIDS cases diagnosed in the time period 2003-2006, 95% have had an AIDS defining CD4 count and only 34% have been diagnosed with at least one OI (Figure 16).

**Figure 16:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007, Prior to 1993 only AIDS defining illness were part of the AIDS definition criteria. From 1993 onwards AIDS case definition for adults and adolescents included HIV infection among persons with CD4+ T-lymphocyte counts of fewer than 200 cells/ $\mu$ L.*

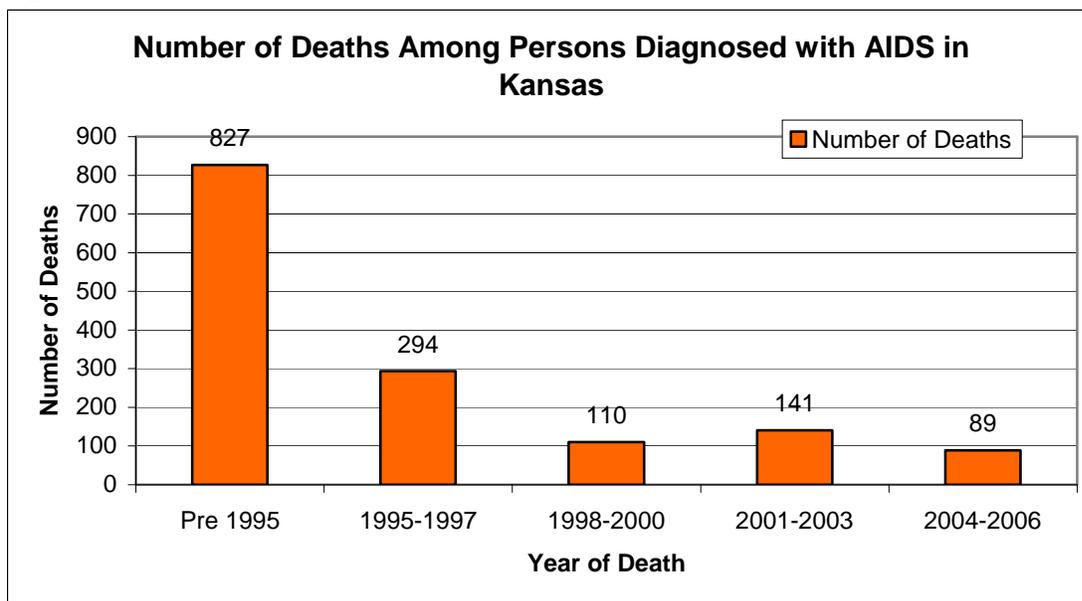
### **Mortality Trends**

Death reports in Kansas are forwarded to the surveillance program whenever the immediate or secondary cause of death is noted to be HIV or AIDS on the death certificate. However, there are also instances when death status is updated in HARS based on information received from other sources. In such instances, the exact cause of death is may be unknown; hence AIDS mortality trends need to be interpreted with caution. It should be noted that death data presented in this report is based on the death status of the cases in HARS database. The exact cause of death may not always be due to an AIDS related illness.

During 2001-2003, there was a slight increase in deaths over the previous period (1998-2000), but the most recent period (2004-2006) shows a decline in the number of deaths. Since 1996,

AIDS-related mortality has declined sharply, coinciding with the emergence of highly active antiretroviral therapy (HAART). The number of deaths among AIDS cases dropped to 31 in 2006 (Figure 17). With the development of HAART therapies now approaching its 12<sup>th</sup> year and the ability of HIV to mutate into multi-drug resistant variants, mortality rates could also be affected by the emergence of untreatable patients with resistance to every available therapy and combination therapy. Additionally, as the prevalent HIV/AIDS population ages an increase in the number of deaths is expected.

**Figure 17:**



*Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007*

*Note: Pre 1995 (pre HAART) period includes counts for 12 years (1983-1995), other time periods include 3-year counts each*

Among those persons with AIDS who died between 2004 and 2006, 91% had an AIDS defining CD4 count, and 48.3% were diagnosed with at least one OI. Between 2004 and 2006, most of the persons with AIDS who died were men (87.6%), which is consistent with the fact that 83.6% of the persons living with AIDS were men (Table 9). There is no notable difference between the age groups with the highest number of deaths and the age groups with the highest

number of prevalent cases of AIDS (25-34, and 35-44).

Comparing the proportion of living AIDS cases and deaths among persons with AIDS by race/ethnicity, non-Hispanic Blacks account for 22.4% among persons living with AIDS, however they account for 29% among persons who are dead. Exact cause of death among person reported to the HIV/AIDS Surveillance program is not clear, as of date. Since, the actual cause of death could be anything (e.g.: suicide, homicide, motor vehicle crashes, etc.) caution should be exercised while making comparisons. Plans are in progress to match HARS data with death certificate data and update the cause of death information in HARS, which could help in making comparisons and deciding on policy and interventions (Table 9).

**Table 9 Characteristics of Persons with AIDS Who Died and Persons Living with AIDS, Kansas**

	Deaths among persons with AIDS, 2003-2006		Persons Living with AIDS through 2006	
	N	%	N	%
<b>Gender</b>				
Male	78	87.6	1035	83.6
Female	11	12.4	203	16.4
<b>Race/Ethnicity</b>				
White, non-Hispanic	45	50.6	773	62.4
Black, non-Hispanic	26	29.2	277	22.4
Hispanic	13	13.5	157	12.7
Other/Unknown	5	5.6	31	2.5
<b>Age Groups (yrs.)*</b>				
<13	.	.	6	0.5
13-14	.	.	2	0.2
15-24	3	3.4	87	7.0
25-34	31	34.8	449	36.3
35-44	34	38.2	465	37.6
45-54	17	19.1	178	14.4
55-64	3	3.4	44	3.6
≥65	1	1.1	7	0.6
<b>Public Health Regions</b>				
1	17	19.1	268	21.6
2	15	16.9	235	19.0
3	1	1.1	54	4.4
4	6	6.7	112	9.0
5	4	4.5	26	2.1
6	3	3.4	31	2.5
7	3	3.4	55	4.4
8	37	41.6	422	34.1
9	3	3.4	35	2.8
<b>Total</b>	<b>89</b>	<b>100.0</b>	<b>1238</b>	<b>100.0</b>

\*Age at diagnosis

Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007

Comparing the regional distribution of deaths among persons with AIDS in the time period 2003-2006 to the regional distribution of prevalent AIDS cases at the end of 2006, illustrates some minor differences. Regions surrounding Kansas City (Regions 1 and 2) account for 40.6% of the prevalent AIDS cases in Kansas and 36% of the deaths among persons with AIDS. Region 8 (Wichita) accounts for nearly all of this difference with 41.6% of the deaths

among persons with AIDS, but only 34.1% of the prevalent AIDS cases in Kansas. Although data concerning deaths is difficult to interpret, this disproportionate effect in Region 8 may reflect a difference in the availability of services and treatments in and around Wichita. All other regional differences are difficult to interpret due to the small number of deaths compared to prevalent cases.

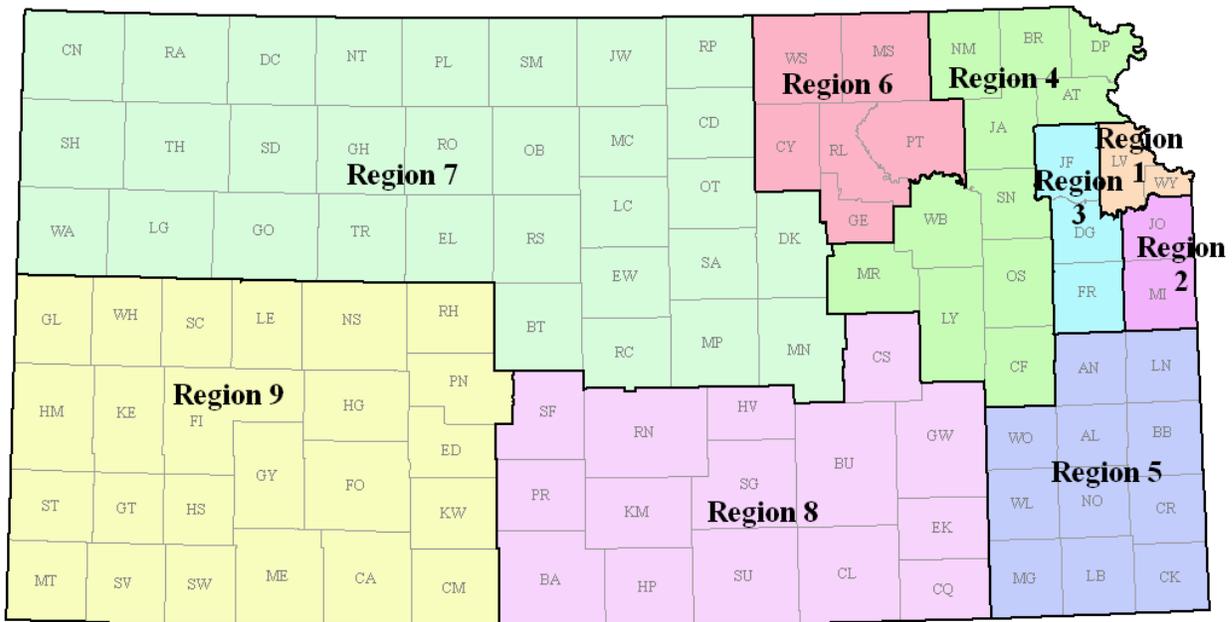


# **REGIONAL PROFILES**

Each HIV case management-planning region is presented in some detail. Those regions with fewer identified cases and smaller numbers of prevalent cases will not be discussed as thoroughly as those regions with larger numbers. This is done mostly to assure the confidentiality of infected persons. Also, smaller numbers mean that rates and proportions are statistically unstable so conclusions drawn are more likely to be erroneous. Changes from one year or group of years may reflect true changes, but are more likely the result of normal variations that present as large changes with small numbers.

Prevalent HIV and AIDS cases and region of current residence are presented and used for calculations in this section. Most of the information on prevalent cases is presented in the table, with less emphasis in the narrative.

## HIV/AIDS Community Planning Regions



Published by:  
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 Bureau of Epidemiology and Disease Prevention  
 Information Systems, Geographic Data Services  
 Date of Publication: December 2004



Data Source:  
 Kansas Cartographic Dataset  
 Kansas HIV/STD Surveillance Program

Disclaimer: The purpose of this publication is to illustrate the status of the HIV/AIDS epidemic in the state of Kansas. This map product is provided without representation or implied or expressed warranty of accuracy for any uses beyond those expressed. The originating agencies are not responsible for publication or use of this product for purposes other than those expressed. This product may be corrected or updated as necessary without prior notification.

**Table 10: Regional Populations and HIV Disease Rates in Kansas 2003-2006**

Regions	Population	Cases 2003-2006	Rate per 100,000/Year
1	229,137	142	15.4
2	547,631	181	8.3
3	157,484	35	5.6
4	305,382	61	5.0
5	192,739	15	1.9
6	130,839	22	4.2
7	288,916	30	2.6
8	740,702	250	8.4
9	171,245	23	3.4

Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

Data Source: 2006 Regional Population Estimates - US Bureau of the Census

## **REGION 1**

Counties in Region 1:	Leavenworth Wyandotte
2006 Estimated Population of Region 1	229,137
Prevalent HIV/AIDS Presumed Living in Region 1	492

### **Regional Information**

Region 1 is in the northeastern section of Kansas and includes two counties as well as the city of Kansas City, Kansas. This is geographically the smallest region in the state. Non-Hispanic Whites make up 59.1% of the region's population, non-Hispanic Blacks 20.7%, Hispanics 16.4%, non-Hispanic Asian or Pacific Islanders 1.6% and less than one percent of the population is non-Hispanic American Indian. This region has the largest percentage of non-Hispanic Blacks and the third largest percentage of Hispanics in the state. Region 1 contains the highest and the sixth highest ranked counties by total population density.

### **HIV Disease Diagnosed 2003-2006**

There were 142 newly diagnosed HIV disease cases between 2003 and 2006 in Region 1, with an average rate of about 15 cases /100,00 population per year. This is the highest rate in the state. The highest proportion of newly diagnosed cases between 2003 and 2006 was among non-Hispanic Blacks (45.1 %), followed by non-Hispanic Whites (34.5%), and Hispanics (19.7%), this is very similar to the population distribution in this region by race/ethnicity. Analyzing cases by mode of transmission reveals the highest number of cases diagnosed among MSM (46.5%), followed by individuals with no identified risk (33.8%) and risky heterosexual sex (13.4%). Sixty-seven percent of the newly diagnosed HIV disease in Region 1 was diagnosed in persons aged 25-44. Among females newly diagnosed with HIV disease, 60.7% (17) were non-Hispanic Blacks, 25% (7) were Hispanic, and 14.3% (4) were non-

Hispanic Whites. Among newly diagnosed males, the race/ethnicity proportions were similar to the overall disease distribution in this region with 41.2% (47) of the cases among males being diagnosed among non-Hispanic Blacks, 39.5% (45) being diagnosed in non-Hispanic Whites, and 18.4% (21) of the cases being diagnosed among Hispanics. Stratifications by race/ethnicity and gender in this region should be interpreted with caution considering the small number of newly diagnosed cases among minorities.

**Table 11: Proportion of Region 1 Population, HIV Disease Cases Diagnosed Between 2003-2006**

Race/Ethnicity	2006 Region 1 Population (%) N=229,137	HIV Disease Cases Diagnosed 2003-2006 (%) N=142	Male HIV Disease Cases 2003-2006 (%) N=114	Female HIV Disease Cases 2003-2006 (%) N=28
White non-Hispanic	59.1	34.5	39.5	14.3
Black non-Hispanic	20.7	45.1	41.2	60.7
Hispanic	16.4	19.7	18.4	25.0
Others*	3.8	0.7	<1	0.0

*Others\*:* Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups

*Data Source:* Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

**Table 12: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 1, Kansas, As of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	142	100.0	222	99.1	267	99.6	489	99.4	772	99.5
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	.	.	2	0.9	1	0.4	3	0.6	4	0.5
<b>TOTAL</b>	142	100.0	224	100.0	268	100.0	492	100.0	776	100.0
<b>AGE</b>										
< 13 Years	.	.	2	0.9	1	0.4	3	0.6	4	0.5
13 To 14 Years	.	.	.	.	.	.	.	.	.	.
15 To 24 Years	19	13.4	46	20.5	20	7.5	66	13.4	83	10.7
25 To 34 Years	50	35.2	91	40.6	103	38.4	194	39.4	324	41.8
35 To 44 Years	45	31.7	60	26.8	93	34.7	153	31.1	234	30.2
45 To 54 Years	19	13.4	17	7.6	39	14.6	56	11.4	89	11.5
55 To 64 Years	9	6.3	6	2.7	10	3.7	16	3.3	31	4.0
65 Years or Older	.	.	2	0.9	2	0.7	4	0.8	11	1.4
<b>RACE/ETHNICITY</b>										
Hispanic	28	19.7	34	15.2	47	17.5	81	16.5	98	12.6
American-Indian Non-Hispanic	1	0.7	1	0.4	1	0.4	2	0.4	3	0.4
Asian / Pacific Islander Non-Hispanic	.	.	.	.	.	.	.	.	1	0.1
Black Non-Hispanic	64	45.1	85	37.9	94	35.1	179	36.4	274	35.3
White Non-Hispanic	49	34.5	94	42.0	124	46.3	218	44.3	388	50.0
Multi-Race Non-Hispanic	.	.	10	4.5	2	0.7	12	2.4	12	1.5
<b>GENDER</b>										
Male	114	80.3	181	80.8	230	85.8	411	83.5	673	86.7
Female	28	19.7	43	19.2	38	14.2	81	16.5	103	13.3
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	66	46.5	104	46.4	140	52.2	244	49.6	418	53.9
Injection Drug User (IDU)	6	4.2	17	7.6	27	10.1	44	8.9	79	10.2
MSM and IDU	3	2.1	9	4.0	23	8.6	32	6.5	57	7.3
Hemophilia/Coagulation Disorder or Transfusion/Transplant	.	.	.	.	5	1.9	5	1.0	15	1.9
High Risk Heterosexual Contact	19	13.4	28	12.5	44	16.4	72	14.6	94	12.1
No Identified Risk (NIR) or Other	48	33.8	64	28.6	28	10.4	92	18.7	109	14.0
Pediatric (All Risk Combined)	.	.	2	0.9	1	0.4	3	0.6	4	0.5
<b>TOTAL</b>	142	100.0	224	100.0	268	100.0	492	100.0	776	100.0

*Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006*

*Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006*

*Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006*

*Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006*

*Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006*

*As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007*

## **REGION 2**

Counties in Region 2:	Johnson Miami
2006 Estimated Population of Region 2	547,631
Prevalent HIV/AIDS Presumed Living in Region 2	442

### **Regional Information**

Region 2 is also in the northeastern section of Kansas and includes two counties in the Kansas City Metropolitan area. Non-Hispanic Whites make up 85.6% of the population, non-Hispanic Blacks 3.7%, Hispanics 5.4%, non-Hispanic Asian or Pacific Islanders 3.6%, and less than 1% of the population is non-Hispanic American Indian. Johnson County is also the most populous county in the state.

### **HIV Disease Diagnosed 2003-2006**

There were 181 newly diagnosed HIV disease cases between 2003 and 2006 in Region 2, with an average rate of about 8 Cases /100,000 population per year. The highest proportion of newly diagnosed cases between 2000 and 2003 was among non-Hispanic Whites (55.8%), followed by non-Hispanic Blacks (30.9%) and Hispanics (12.2%). Stratifying cases by mode of transmission reveals the highest number of cases diagnosed among MSM (50.3%) followed by those with no identified risk (25.4%), and risky heterosexual sex (16%). Sixty-seven percent of the newly diagnosed HIV disease in Region 2 was diagnosed in persons aged 25-44. Among females newly diagnosed with HIV disease 64.5% (24) were non-Hispanic Blacks and 29.7% (11) were non-Hispanic Whites. Among newly diagnosed males the race/ethnicity proportions were similar to the overall disease distribution with 62.5% (90) of the cases among males being diagnosed in non-Hispanic Whites. However, 22.2% (32) of the newly diagnosed male HIV disease was among non-Hispanic Blacks, and 14.6% (21) was among Hispanics. Stratifications

by race/ethnicity and gender in this region should be interpreted with caution considering the small number of newly diagnosed cases among minorities.

**Table 13: Proportion of Region 2 Population, HIV Disease Cases Diagnosed Between 2003-2006**

Race/Ethnicity	2006 Region 2 Population (%) N=547,631	HIV Disease Cases Diagnosed 2003-2006 (%) N=181	Male HIV Disease Cases 2003-2006 (%) N=144	Female HIV Disease Cases 2003-2006 (%) N=37
White non-Hispanic	85.6	55.8	62.5	29.7
Black non-Hispanic	3.7	30.9	22.2	64.9
Hispanic	5.4	12.2	14.6	2.7
Others*	5.3	1.1	0.7	2.7

*Others\*:* Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups

*Data Source:* Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

**Table 14: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 2, Kansas, As of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	179	98.9	205	99.5	234	99.6	439	99.5	717	99.6
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	2	1.1	1	0.5	1	0.4	2	0.5	3	0.4
<b>TOTAL</b>	181	100.0	206	100.0	235	100.0	441	100.0	720	100.0
<b>AGE</b>										
< 13 Years	2	1.1	1	0.5	1	0.4	2	0.5	3	0.4
13 To 14 Years	.	.	.	.	.	.	.	.	1	0.1
15 To 24 Years	27	14.9	45	21.8	16	6.8	61	13.8	73	10.1
25 To 34 Years	60	33.1	86	41.7	92	39.1	178	40.4	280	38.9
35 To 44 Years	57	31.5	51	24.8	87	37.0	138	31.3	230	31.9
45 To 54 Years	25	13.8	18	8.7	23	9.8	41	9.3	83	11.5
55 To 64 Years	7	3.9	5	2.4	13	5.5	18	4.1	37	5.1
65 Years or Older	3	1.7	.	.	3	1.3	3	0.7	13	1.8
<b>RACE/ETHNICITY</b>										
Hispanic	22	12.2	15	7.3	21	8.9	36	8.2	50	6.9
American-Indian Non-Hispanic	.	.	.	.	1	0.4	1	0.2	3	0.4
Asian / Pacific Islander Non-Hispanic	2	1.1	4	1.9	3	1.3	7	1.6	9	1.3
Black Non-Hispanic	56	30.9	44	21.4	44	18.7	88	20.0	103	14.3
White Non-Hispanic	101	55.8	140	68.0	165	70.2	305	69.2	550	76.4
Multi-Race Non-Hispanic	.	.	3	1.5	1	0.4	4	0.9	5	0.7
<b>GENDER</b>										
Male	144	79.6	168	81.6	203	86.4	371	84.1	627	87.1
Female	37	20.4	38	18.4	32	13.6	70	15.9	93	12.9
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	91	50.3	116	56.3	138	58.7	254	57.6	451	62.6
Injection Drug User (IDU)	6	3.3	11	5.3	11	4.7	22	5.0	37	5.1
MSM and IDU	7	3.9	13	6.3	17	7.2	30	6.8	45	6.3
Hemophilia/Coagulation Disorder or Transfusion/Transplant	.	.	.	.	5	2.1	5	1.1	22	3.1
High Risk Heterosexual Contact	29	16.0	25	12.1	33	14.0	58	13.2	76	10.6
No Identified Risk (NIR) or Other	46	25.4	40	19.4	30	12.8	70	15.9	85	11.8
Pediatric (All Risk Combined)	2	1.1	1	0.5	1	0.4	2	0.5	4	0.6
<b>TOTAL</b>	181	100.0	206	100.0	235	100.0	441	100.0	720	100.0

Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006  
 Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006  
 Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006  
 Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006  
 Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006  
 As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau  
 Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

### **REGION 3**

Counties in Region 3:	Douglas Jefferson Franklin
2006 Estimated Population of Region 3	157,484
Prevalent HIV/AIDS Presumed Living in Region 3	94

### **Regional Information**

Region 3 is the third region in the northeastern section of Kansas and is comprised of three counties. Douglas County includes the main campus of the University of Kansas and Haskell Indian Nations University. Non-Hispanic Whites account for 86.7% of the population, non-Hispanic Blacks 3.1%, Hispanics 3.4%, non-Hispanic Asian or Pacific Islanders 3.1%, and 1.7% of the population is non-Hispanic American Indian.

### **HIV Disease Diagnosed 2003-2006**

There were 35 newly diagnosed HIV disease cases between 2003 and 2006 in Region 3, with an average rate of about 6 Cases /100,000 population per year. Given the extremely small number of newly diagnosed HIV disease cases in Region 3 all further analysis should be interpreted cautiously. The highest proportion of newly diagnosed cases between 2003 and 2006 was among non-Hispanic Whites (71.4%), followed by non-Hispanic Blacks (17.1%) and Hispanics (8.6%). Stratifying cases by mode of transmission reveals the highest number of cases diagnosed among MSM (48.6%) followed by those with risky heterosexual behavior (20%), and individuals with no identified risk (11.4%). Fifty one percent of the newly diagnosed HIV disease in Region 3 was diagnosed in persons aged 25-44. Among females newly diagnosed with HIV disease all (6) were non-Hispanic Whites. Among newly diagnosed males the race/ethnicity proportions were similar to the overall disease distribution in this region with 73.1% of the cases among males being

diagnosed in non-Hispanic Whites and 15.4% being diagnosed among non-Hispanic Blacks. Stratifications by race/ethnicity and gender in this region should be interpreted with caution considering the small number of newly diagnosed cases among minorities.

**Table 15: Proportion of Region 3 Population, HIV Disease Cases Diagnosed Between 2003-2006**

Race/Ethnicity	2006 Region 3 Population (%) <b>N=157,484</b>	HIV Disease Cases Diagnosed 2003-2006 (%) <b>N=35</b>	Male HIV Disease Cases 2003-2006 (%) <b>N=26</b>	Female HIV Disease Cases 2003-2006 (%) <b>N=9</b>
White non-Hispanic	86.7	71.4	73.1	66.7
Black non-Hispanic	3.1	17.1	15.4	22.2
Hispanic	3.4	8.6	7.7	11.1
Others*	6.8	2.9	3.8	0.0

*Others\*: Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007*

**Table 16: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 3, Kansas, As of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	34	97.1	39	97.5	52	96.3	91	96.8	147	98.0
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	1	2.9	1	2.5	2	3.7	3	3.2	3	2.0
<b>TOTAL</b>	35	100.0	40	100.0	54	100.0	94	100.0	150	100.0
<b>AGE</b>										
< 13 Years	1	2.9	1	2.5	2	3.7	3	3.2	3	2.0
13 To 14 Years	.	.	.	.	.	.	.	.	1	0.7
15 To 24 Years	9	25.7	10	25.0	7	13.0	17	18.1	21	14.0
25 To 34 Years	10	28.6	17	42.5	17	31.5	34	36.2	57	38.0
35 To 44 Years	8	22.9	9	22.5	13	24.1	22	23.4	40	26.7
45 To 54 Years	5	14.3	3	7.5	13	24.1	16	17.0	21	14.0
55 To 64 Years	1	2.9	.	.	2	3.7	2	2.1	4	2.7
65 Years or Older	1	2.9	.	.	.	.	.	.	3	2.0
<b>RACE/ETHNICITY</b>										
Hispanic	3	8.6	2	5.0	3	5.6	5	5.3	8	5.3
American-Indian Non-Hispanic	.	.	1	2.5	2	3.7	3	3.2	5	3.3
Black Non-Hispanic	6	17.1	6	15.0	9	16.7	15	16.0	21	14.0
White Non-Hispanic	25	71.4	30	75.0	39	72.2	69	73.4	114	76.0
Multi-Race Non-Hispanic	1	2.9	1	2.5	.	.	1	1.1	1	0.7
Unknown Non-Hispanic	.	.	.	.	1	1.9	1	1.1	1	0.7
<b>GENDER</b>										
Male	26	74.3	35	87.5	42	77.8	77	81.9	129	86.0
Female	9	25.7	5	12.5	12	22.2	17	18.1	21	14.0
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	17	48.6	27	67.5	30	55.6	57	60.6	95	63.3
Injection Drug User (IDU)	3	8.6	1	2.5	5	9.3	6	6.4	11	7.3
MSM and IDU	3	8.6	3	7.5	6	11.1	9	9.6	15	10.0
Hemophilia/Coagulation Disorder or Transfusion/Transplant	.	.	.	.	.	.	.	.	3	2.0
High Risk Heterosexual Contact	7	20.0	6	15.0	8	14.8	14	14.9	16	10.7
No Identified Risk (NIR) or Other	4	11.4	2	5.0	3	5.6	5	5.3	6	4.0
Pediatric (All Risk Combined)	1	2.9	1	2.5	2	3.7	3	3.2	4	2.7
<b>TOTAL</b>	35	100.0	40	100.0	54	100.0	94	100.0	150	100.0

*Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006*

*Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006*

*Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006*

*Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006*

*Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006*

*As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007*

## **REGION 4**

Counties in Region 4:	Atchison Brown Coffey Doniphan	Jackson Lyon Morris Nemaha	Osage Shawnee Wabaunsee
2006 Estimated Population of Region 4	305,382		
Prevalent HIV/AIDS Presumed Living in Region 4	202		

### **Regional Information**

Region 4 is in the northeast section of Kansas, and includes eleven counties as well as the capital city, Topeka. Non-Hispanic Whites account for 82.3% of the population, non-Hispanic Blacks 5.7%, Hispanics 7.8%, non-Hispanic Asian or Pacific Islanders 1%, and 1.3% of the population is non-Hispanic American Indian. Region 4 holds the second largest proportion of non-Hispanic American Indian followed closely by Region 5; however, the largest population is in Region 8.

### **HIV Disease Diagnosed 2003-2006**

There were 61 newly diagnosed HIV disease cases between 2003 and 2004 in Region 4, with an average rate of about 5 Cases /100,000 population per year. The highest proportion of newly diagnosed cases between 2003 and 2006 was among non-Hispanic Whites (52.5 %), followed by non-Hispanic Blacks (36.1%) and Hispanics (8.2%). Stratifying cases by mode of transmission reveals the highest number of cases diagnosed among MSM (49.2%) followed by individuals with risky heterosexual sex (19.7%), and individuals with no identified risk (13.1%). Sixty-two percent of the newly diagnosed HIV disease in Region 4 was diagnosed in persons aged 25-44. Analyses by race/ethnicity and gender in this region should be interpreted with caution considering the small number of newly diagnosed cases. Among newly diagnosed males 60.4% of the cases were among non-Hispanic Whites, 29.2% among non-Hispanic Blacks and 10.4% were diagnosed among Hispanics.

**Table 17: Proportion of Region 4 Population, HIV Disease Cases Diagnosed  
Between 2003-2006**

Race/Ethnicity	2006 Region 4 Population (%)  N=305,382	HIV Disease Cases Diagnosed 2003-2006 (%)  N=61	Male HIV Disease Cases 2003-2006 (%)  N=48	Female HIV Disease Cases 2003-2006 (%)  N=13
White non-Hispanic	82.3	52.5	60.4	23.1
Black non-Hispanic	5.7	36.1	29.2	61.5
Hispanic	7.8	8.2	10.4	0.0
Others*	4.2	3.3	0.0	15.4

*Others\*: Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007*

*Percentages may not add up to 100% due to rounding*

**Table 18: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 4, Kansas, As of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	61	100.0	89	98.9	112	100.0	201	99.5	363	99.7
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	.	.	1	1.1	.	.	1	0.5	1	0.3
<b>TOTAL</b>	61	100.0	90	100.0	112	100.0	202	100.0	364	100.0
<b>AGE</b>										
< 13 Years	.	.	1	1.1	.	.	1	0.5	1	0.3
13 To 14 Years	.	.	.	.	.	.	.	.	.	.
15 To 24 Years	6	9.8	20	22.2	5	4.5	25	12.4	32	8.8
25 To 34 Years	22	36.1	32	35.6	35	31.3	67	33.2	118	32.4
35 To 44 Years	22	36.1	31	34.4	51	45.5	82	40.6	149	40.9
45 To 54 Years	8	13.1	5	5.6	17	15.2	22	10.9	46	12.6
55 To 64 Years	2	3.3	1	1.1	3	2.7	4	2.0	10	2.7
65 Years or Older	1	1.6	.	.	1	0.9	1	0.5	8	2.2
<b>RACE/ETHNICITY</b>										
Hispanic	5	8.2	3	3.3	8	7.1	11	5.4	19	5.2
American-Indian Non-Hispanic	2	3.3	1	1.1	2	1.8	3	1.5	4	1.1
Asian / Pacific Islander Non-Hispanic	.	.	1	1.1	.	.	1	0.5	3	0.8
Black Non-Hispanic	22	36.1	26	28.9	28	25.0	54	26.7	82	22.5
White Non-Hispanic	32	52.5	58	64.4	74	66.1	132	65.3	252	69.2
Multi-Race Non-Hispanic	.	.	1	1.1	.	.	1	0.5	4	1.1
<b>GENDER</b>										
Male	48	78.7	64	71.1	97	86.6	161	79.7	304	83.5
Female	13	21.3	26	28.9	15	13.4	41	20.3	60	16.5
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	30	49.2	38	42.2	59	52.7	97	48.0	199	54.7
Injection Drug User (IDU)	6	9.8	15	16.7	11	9.8	26	12.9	44	12.1
MSM and IDU	3	4.9	5	5.6	10	8.9	15	7.4	33	9.1
Hemophilia/Coagulation Disorder or Transfusion/Transplant	2	3.3	.	.	4	3.6	4	2.0	8	2.2
High Risk Heterosexual Contact	12	19.7	15	16.7	20	17.9	35	17.3	48	13.2
No Identified Risk (NIR) or Other	8	13.1	16	17.8	8	7.1	24	11.9	31	8.5
Pediatric (All Risk Combined)	.	.	1	1.1	.	.	1	0.5	1	0.3
<b>TOTAL</b>	61	100.0	90	100.0	112	100.0	202	100.0	364	100.0

*Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006*

*Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006*

*Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006*

*Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006*

*Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006*

*As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007*

## **REGION 5**

Counties in Region 5:	Allen	Crawford	Neosho
	Anderson	Labette	Wilson
	Bourbon	Linn	Woodson
	Cherokee	Montgomery	
2006 Estimated Population of Region 5	192,739		
Prevalent HIV/AIDS Presumed Living in Region 5	61		

### **Regional Information**

Region 5 is in the southeastern section of Kansas and includes eleven counties. The region borders on both Oklahoma and Missouri. Non-Hispanic Whites account for 90.2% of the population, non-Hispanic Blacks 2.7%, Hispanics 2.5%, non-Hispanic American Indian 1.7%, and less than one percent of the population is non-Hispanic Asian or Pacific Islanders. Region 5 holds third largest population of non-Hispanic American Indians in the state.

### **HIV Disease Diagnosed 2003-2006**

There were 15 newly diagnosed HIV disease cases between 2003 and 2006 in Region 5, with an average rate of about 2 Cases /100,000 population per year. Given the extremely small number of newly diagnosed HIV disease cases in Region 5 all further analysis should be interpreted cautiously. The highest proportion of newly diagnosed HIV cases between 2003 and 2006 was among non-Hispanic Whites (80%), followed by non-Hispanic Blacks (13.3%). Analyzing cases by mode of transmission reveals the highest number of cases diagnosed among MSM (33.3%) followed by individuals with heterosexual contact (20%), individuals with no identified risk, and injection drug users (13.3%). Sixty seven percent of the newly diagnosed HIV disease in Region 5 was diagnosed in persons aged 25-44. Among males newly diagnosed with HIV disease all 9 were diagnosed in non-Hispanic Whites. Stratifications by

race/ethnicity and gender in this region should be interpreted with caution considering the small number of newly diagnosed cases among minorities.

**Table 19: Proportion of Region 5 Population, HIV Disease Cases Diagnosed Between 2003-2006**

Race/Ethnicity	2006 Region 5 Population (%)  N=192,739	HIV Disease Cases Diagnosed 2003-2006 (%)  N=15
White non-Hispanic	90.2	80.0
Black non-Hispanic	2.7	13.3
Hispanic	2.5	0.0
Others	4.6	6.7

*Others\*: Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007*

**Table 20: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 5, Kansas, s of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	15	100.0	35	100.0	26	100.0	61	100.0	144	100.0
<b>TOTAL</b>	15	100.0	35	100.0	26	100.0	61	100.0	144	100.0
<b>AGE</b>										
< 13 Years	.	.	.	.	.	.	.	.	.	.
13 To 14 Years	.	.	.	.	.	.	.	.	.	.
15 To 24 Years	2	13.3	6	17.1	1	3.8	7	11.5	7	4.9
25 To 34 Years										
35 To 44 Years	5	33.3	9	25.7	9	34.6	18	29.5	54	37.5
45 To 54 Years	3	20.0	5	14.3	2	7.7	7	11.5	16	11.1
55 To 64 Years	.	.	2	5.7	1	3.8	3	4.9	6	4.2
65 Years or Older	.	.	.	.	.	.	.	.	4	2.8
<b>RACE/ETHNICITY</b>										
Hispanic	.	.	1	2.9	1	3.8	2	3.3	4	2.8
American-Indian Non-Hispanic	.	.	.	.	1	3.8	1	1.6	2	1.4
Asian / Pacific Islander Non-Hispanic	.	.	.	.	.	.	.	.	.	.
Black Non-Hispanic	2	13.3	4	11.4	.	.	4	6.6	7	4.9
White Non-Hispanic	12	80.0	29	82.9	24	92.3	53	86.9	130	90.3
Multi-Race Non-Hispanic	1	6.7	1	2.9	.	.	1	1.6	1	0.7
<b>GENDER</b>										
Male	9	60.0	26	74.3	18	69.2	44	72.1	118	81.9
Female	6	40.0	9	25.7	8	30.8	17	27.9	26	18.1
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	5	33.3	15	42.9	13	50.0	28	45.9	72	50.0
Injection Drug User (IDU)	2	13.3	6	17.1	3	11.5	9	14.8	16	11.1
MSM and IDU	1	6.7	2	5.7	3	11.5	5	8.2	13	9.0
Hemophilia/Coagulation Disorder or Transfusion/Transplant	.	.	.	.	1	3.8	1	1.6	11	7.6
High Risk Heterosexual Contact	3	20.0	8	22.9	5	19.2	13	21.3	21	14.6
No Identified Risk (NIR) or Other	3	20.0	4	11.4	.	.	4	6.6	10	6.9
Pediatric (All Risk Combined)	1	6.7	.	.	1	3.8	1	1.6	1	0.7
<b>TOTAL</b>	15	100.0	35	100.0	26	100.0	61	100.0	144	100.0

*Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006*

*Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006*

*Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006*

*Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006*

*Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006*

*As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31st 2007*

## **REGION 6**

Counties in Region 6:	Clay Geary Marshall	Pottawatomie Riley Washington
2006 Estimated Population of Region 6	130,839	
Prevalent HIV/AIDS Presumed Living in Region 6	67	

### **Regional Information**

Region 6 is in the north central section of Kansas. Six counties make up Region 6, which also includes a major military base and the main campus of Kansas State University. This region has the smallest population of the nine public health planning regions though it is not geographically the smallest region. Non-Hispanic Whites make up 83.7% of the population, non-Hispanic Blacks 6.5%, Hispanics 4.4%, non-Hispanic Asian or Pacific Islanders 2.6%, and less than one percent of the population is non-Hispanic American Indian.

### **HIV Disease Diagnosed 2003-2006**

There were 22 newly diagnosed HIV disease cases between 2003 and 2006 in Region 6, with an average rate of about 4 Cases /100,000 population per year. Given the extremely small number of newly diagnosed HIV disease cases in Region 6 all further analysis should be interpreted cautiously. This region has a higher proportion of females (32.8%) among prevalent HIV/AIDS cases than any other region. Fifty percent of the individuals newly diagnosed with HIV/AIDS were blacks; the other fifty percent were whites. Stratifying cases by mode of transmission reveals an equal distribution between cases diagnosed among MSM (50%) followed by individuals with no identified risk (31.8%). Sixty four percent of the newly diagnosed HIV disease in Region 6 was diagnosed in persons aged 25-44. Among males and females newly diagnosed with HIV disease the racial/ethnic distribution mirrors that of the overall disease distribution in this region. Stratifications by race/ethnicity and gender in this

region should be interpreted with caution considering the small number of newly diagnosed cases among minorities.

**Table 21: Proportion of Region 6 Population, HIV Disease Cases Diagnosed between 2003-2006**

Race/Ethnicity	2006 Region 6 Population (%) N=130,839	HIV Disease Cases Diagnosed 2003-2006 (%) N=22
White non-Hispanic	83.7	50.0
Black non-Hispanic	6.5	50.0
Hispanic	4.4	0.0
Others*	5.3	0.0

*Others\*:* Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups

*Data Source:* Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

**Table 22: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 6, Kansas, As of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	22	100.0	35	97.2	30	96.8	65	97.0	120	97.6
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	.	.	1	2.8	1	3.2	2	3.0	3	2.4
<b>TOTAL</b>	22	100.0	36	100.0	31	100.0	67	100.0	123	100.0
<b>AGE</b>										
< 13 Years	.	.	1	2.8	1	3.2	2	3.0	3	2.4
13 To 14 Years	.	.	.	.	.	.	.	.	.	.
15 To 24 Years	3	13.6	7	19.4	2	6.5	9	13.4	13	10.6
25 To 34 Years	9	40.9	15	41.7	7	22.6	22	32.8	47	38.2
35 To 44 Years	5	22.7	7	19.4	17	54.8	24	35.8	44	35.8
45 To 54 Years	3	13.6	3	8.3	4	12.9	7	10.4	11	8.9
55 To 64 Years	2	9.1	3	8.3	.	.	3	4.5	5	4.1
65 Years or Older	.	.	.	.	.	.	.	.	.	.
<b>RACE/ETHNICITY</b>										
Hispanic	.	.	3	8.3	1	3.2	4	6.0	10	8.1
American-Indian Non-Hispanic	.	.	.	.	1	3.2	1	1.5	1	0.8
Asian / Pacific Islander Non-Hispanic	.	.	.	.	.	.	.	.	.	.
Black Non-Hispanic	11	50.0	16	44.4	10	32.3	26	38.8	44	35.8
White Non-Hispanic	11	50.0	17	47.2	19	61.3	36	53.7	68	55.3
Multi-Race Non-Hispanic	.	.	.	.	.	.	.	.	.	.
<b>GENDER</b>										
Male	20	90.9	25	69.4	20	64.5	45	67.2	92	74.8
Female	2	9.1	11	30.6	11	35.5	22	32.8	31	25.2
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	11	50.0	13	36.1	13	41.9	26	38.8	58	47.2
Injection Drug User (IDU)	1	4.5	2	5.6	4	12.9	6	9.0	17	13.8
MSM and IDU	2	9.1	1	2.8	4	12.9	5	7.5	8	6.5
Hemophilia/Coagulation Disorder or Transfusion/Transplant	.	.	.	.	.	.	.	.	1	0.8
High Risk Heterosexual Contact	1	4.5	5	13.9	8	25.8	13	19.4	19	15.4
No Identified Risk (NIR) or Other	7	31.8	14	38.9	1	3.2	15	22.4	17	13.8
Pediatric (All Risk Combined)	.	.	1	2.8	1	3.2	2	3.0	3	2.4
<b>TOTAL</b>	22	100.0	36	100.0	31	100.0	67	100.0	123	100.0

Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006  
 Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006  
 Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006  
 Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006  
 Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006  
 As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau  
 Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

## **REGION 7**

Counties in Region 7:	Barton	Lincoln	Republic
	Cheyenne	Logan	Rice
	Cloud	Marion	Rooks
	Decatur	McPherson	Russell
	Dickinson	Mitchell	Saline
	Ellis	Norton	Sheridan
	Ellsworth	Osborne	Sherman
	Gove	Ottawa	Smith
	Graham	Phillips	Thomas
	Jewell	Rawlins	Trego
	Wallace		
2006 Estimated Population of Region 7	288,916		
Prevalent HIV/AIDS Presumed Living in Region 7	84		

### **Regional Information**

Region 7 includes 32 counties that occupy most of the northwestern quarter of Kansas.

Thirteen of the counties in Region 7 are considered frontier counties, defined as an average population density of less than six persons per square mile. Consequently this is the largest region by geographic area. Non-Hispanic Whites account for 92% of the population (the largest percentages of Whites in the state), non-Hispanic Blacks 1.4%, Hispanics 4.3%, and less than one percent of the population is non-Hispanic Asian or Pacific Islanders or non-Hispanic American Indian.

### **HIV Disease Diagnosed 2003-2006**

There were 30 newly diagnosed HIV disease cases between 2003 and 2006 in Region 7, with an average rate of about 3 Cases /100,000 population per year. The highest proportion of newly diagnosed cases between 2003 and 2006 was among non-Hispanic Whites (56.7%), followed by non-Hispanic Blacks (20%) and Hispanics (20%). Stratifying cases by mode of transmission reveals the even distribution among MSM (43.3%) and injection drug users (23.3%) followed

by those with high-risk heterosexual contact (20%). Fifty three percent of the newly diagnosed HIV disease in Region 7 was diagnosed in persons aged 25-44. Analyses by race/ethnicity and gender in this region should be interpreted with caution considering the small number of newly diagnosed cases. Among newly diagnosed males the racial/ethnic distribution of cases is similar to that of the overall disease distribution in this region with 65% of the cases being among non-Hispanic Whites, 15% among non-Hispanic Blacks and 20% were diagnosed among Hispanics.

**Table 23: Proportion of Region 7 Population, HIV Disease Cases Diagnosed Between 2003-2006**

Race/Ethnicity	2006 Region 7 Population (%)  N=288,916	HIV Disease Cases Diagnosed 2003-2006 (%) N=30
White non-Hispanic	92.0	56.7
Black non-Hispanic	1.4	20.0
Hispanic	4.3	20.0
Others*	2.3	3.3

*Others\*:* Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups

*Data Source:* Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

**Table 24: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 7, Kansas, as of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	30	100.0	28	96.6	54	98.2	82	97.6	139	97.9
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	.	.	1	3.4	1	1.8	2	2.4	3	2.1
<b>TOTAL</b>	30	100.0	29	100.0	55	100.0	84	100.0	142	100.0
<b>AGE</b>										
< 13 Years	.	.	1	3.4	1	1.8	2	2.4	3	2.1
13 To 14 Years	.	.	.	.	.	.	.	.	.	.
15 To 24 Years	3	10.0	3	10.3	2	3.6	5	6.0	10	7.0
25 To 34 Years	4	13.3	10	34.5	17	30.9	27	32.1	48	33.8
35 To 44 Years	12	40.0	8	27.6	22	40.0	30	35.7	52	36.6
45 To 54 Years	8	26.7	5	17.2	11	20.0	16	19.0	24	16.9
55 To 64 Years	3	10.0	2	6.9	2	3.6	4	4.8	4	2.8
65 Years or Older	.	.	.	.	.	.	.	.	1	0.7
<b>RACE/ETHNICITY</b>										
Hispanic	6	20.0	4	13.8	9	16.4	13	15.5	15	10.6
American-Indian Non-Hispanic	.	.	.	.	.	.	.	.	.	.
Asian / Pacific Islander Non-Hispanic	1	3.3	.	.	1	1.8	1	1.2	2	1.4
Black Non-Hispanic	6	20.0	9	31.0	8	14.5	17	20.2	22	15.5
White Non-Hispanic	17	56.7	15	51.7	36	65.5	51	60.7	101	71.1
Multi-Race Non-Hispanic	.	.	1	3.4	1	1.8	2	2.4	2	1.4
<b>GENDER</b>										
Male	20	66.7	18	62.1	43	78.2	61	72.6	108	76.1
Female	10	33.3	11	37.9	12	21.8	23	27.4	34	23.9
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	13	43.3	9	31.0	30	54.5	39	46.4	66	46.5
Injection Drug User (IDU)	7	23.3	9	31.0	14	25.5	23	27.4	32	22.5
MSM and IDU	1	3.3	2	6.9	4	7.3	6	7.1	14	9.9
Hemophilia/Coagulation Disorder or Transfusion/Transplant	1	3.3	.	.	1	1.8	1	1.2	5	3.5
High Risk Heterosexual Contact	6	20.0	6	20.7	4	7.3	10	11.9	15	10.6
No Identified Risk (NIR) or Other	2	6.7	2	6.9	1	1.8	3	3.6	6	4.2
Pediatric (All Risk Combined)	.	.	1	3.4	1	1.8	2	2.4	4	2.8
<b>TOTAL</b>	30	100.0	29	100.0	55	100.0	84	100.0	142	100.0

*Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006  
 Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006  
 Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006  
 Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006  
 Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006  
 As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau  
 Data Source: Kansas HIV/AIDS Reporting System (HARS) as of December 31<sup>st</sup> 2007*

## **REGION 8**

Counties in Region 8:	Barber	Elk	Pratt
	Butler	Greenwood	Reno
	Chase	Harper	Sedgwick
	Chautauqua	Harvey	Stafford
	Cowley	Kingman	Sumner
2006 Estimated Population of Region 8	740,702		
Prevalent HIV/AIDS Presumed Living in Region 8	707		

### **Regional Information**

Region 8 includes 15 counties in south central Kansas. The region includes one of the state's largest cities, Wichita, and is the most populous of all the regions. Non-Hispanic Whites account for 79.9% of the population, non-Hispanic Blacks 6.5%, Hispanics 8.3%, non-Hispanic Asian or Pacific Islanders 2.7%, and less than one percent of the population is non-Hispanic American Indian. This region contains the largest populations of Hispanics, non-Hispanic Asian or Pacific Islanders, and non-Hispanic American Indians in the state.

### **HIV Disease Diagnosed 2003-2006**

There were 250 newly diagnosed HIV disease cases between 2003 and 2006 in Region 8, with an average rate of about 8 Cases /100,000 population per year. These cases are relatively even in their distribution by race/ethnicity. The highest proportion of newly diagnosed cases between 2003 and 2006 was among non-Hispanic Whites (49.2%) followed by non-Hispanic Blacks (28.8%), and Hispanics (17.6%). Stratifying cases by mode of transmission reveals the highest number of cases diagnosed among MSM (48.8%), followed by those with no identified risk (20.4%), individuals who reported being MSM and additionally using injection drugs (12%), and individuals with high risky heterosexual behavior (10.8%). Sixty four percent of the newly diagnosed HIV disease in Region 8 was diagnosed in persons aged 25-44. Among females newly diagnosed with HIV disease

44.6%(25) were non-Hispanic Blacks, 32.1% (18) were non-Hispanic Whites, and 21.4% (12) were Hispanic. Among newly diagnosed males the race/ethnicity proportions were similar to the overall disease distribution in this region with 54.1% of the cases among males being diagnosed in non-Hispanic Whites, 24.2% were diagnosed among non-Hispanic Blacks, and 16.5% of the cases were diagnosed among Hispanics. Stratifications by race/ethnicity and gender in this region should be interpreted with caution considering the small number of newly diagnosed cases among minorities.

**Table 25: Proportion of Region 8 Population, HIV Disease Cases Diagnosed Between 2003-2006**

Race/Ethnicity	2006 Region 8 Population (%) <b>N=740,702</b>	HIV Disease Cases Diagnosed 2003-2006 (%) <b>N=250</b>	Male HIV Disease Cases 2003-2006 (%) <b>N=194</b>	Female HIV Disease Cases 2003-2006 (%) <b>N=56</b>
White non-Hispanic	79.9	49.2	54.1	32.1
Black non-Hispanic	6.5	28.8	24.2	44.6
Hispanic	8.3	17.6	16.5	21.4
Others*	5.3	4.4	4.1	1.8

*Others\*:* Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups

*Data Source:* Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007

**Table 26: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 8, Kansas, as of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	250	100.0	280	98.2	422	100.0	702	99.3	1206	99.4
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	.	.	5	1.8	.	.	5	0.7	7	0.6
<b>TOTAL</b>	250	100.0	285	100.0	422	100.0	707	100.0	1213	100.0
<b>AGE</b>										
< 13 Years	.	.	5	1.8	.	.	5	0.7	7	0.6
13 To 14 Years	1	0.4	.	.	1	0.2	1	0.1	1	0.1
15 To 24 Years	33	13.2	65	22.8	31	7.3	96	13.6	111	9.2
25 To 34 Years	69	27.6	110	38.6	151	35.8	261	36.9	493	40.6
35 To 44 Years	92	36.8	75	26.3	163	38.6	238	33.7	411	33.9
45 To 54 Years	38	15.2	25	8.8	62	14.7	87	12.3	144	11.9
55 To 64 Years	17	6.8	4	1.4	13	3.1	17	2.4	40	3.3
65 Years or Older	.	.	1	0.4	1	0.2	2	0.3	6	0.5
<b>RACE/ETHNICITY</b>										
Hispanic	44	17.6	38	13.3	48	11.4	86	12.2	112	9.2
American-Indian Non-Hispanic	1	0.4	4	1.4	3	0.7	7	1.0	12	1.0
Asian / Pacific Islander Non-Hispanic	.	.	1	0.4	4	0.9	5	0.7	5	0.4
Black Non-Hispanic	72	28.8	70	24.6	83	19.7	153	21.6	221	18.2
White Non-Hispanic	123	49.2	165	57.9	277	65.6	442	62.5	845	69.7
Multi-Race Non-Hispanic	10	4.0	7	2.5	7	1.7	14	2.0	18	1.5
<b>GENDER</b>										
Male	194	77.6	230	80.7	355	84.1	585	82.7	1054	86.9
Female	56	22.4	55	19.3	67	15.9	122	17.3	159	13.1
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	122	48.8	145	50.9	249	59.0	394	55.7	740	61.0
Injection Drug User (IDU)	19	7.6	27	9.5	33	7.8	60	8.5	98	8.1
MSM and IDU	30	12.0	23	8.1	50	11.8	73	10.3	127	10.5
Hemophilia/Coagulation Disorder or Transfusion/Transplant	.	.	4	1.4	7	1.7	11	1.6	25	2.1
High Risk Heterosexual Contact	27	10.8	32	11.2	54	12.8	86	12.2	118	9.7
No Identified Risk (NIR) or Other	51	20.4	49	17.2	27	6.4	76	10.7	96	7.9
Pediatric (All Risk Combined)	1	0.4	5	1.8	2	0.5	7	1.0	9	0.7
<b>TOTAL</b>	250	100.0	285	100.0	422	100.0	707	100.0	1213	100.0

Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006

Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006

Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006 Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006

Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006

As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau

Data Source: Kansas HIV/AIDS Reporting System (HARS) as of December 31<sup>st</sup> 2007

## **REGION 9**

Counties in Region 9:	Clark	Hamilton	Ness
	Comanche	Haskell	Pawnee
	Edwards	Hodgeman	Rush
	Finney	Kearny	Scott
	Ford	Kiowa	Seward
	Grant	Lane	Stanton
	Gray	Meade	Stevens
	Greeley	Morton	Wichita
2006 Estimated Population of Region 9	171,245		
Prevalent HIV/AIDS Presumed Living in Region 9	70		

### **Regional Information**

Region 9 comprises much of the southwestern corner of Kansas and includes 24 counties, 15 of which are considered frontier counties and average less than 6 persons per square mile. Whites make up 63% of the population, Blacks 1.4%, Hispanics 32.8%, non-Hispanic Asian or Pacific Islanders 1.5%, and less than one percent of the population is non-Hispanic American Indian. Region 9 has the highest percentage of Hispanics in the state and the second largest Hispanic population. Region 8 has a much smaller percentage of Hispanics, but a slightly larger Hispanic population.

### **HIV Disease Diagnosed 2003-2006**

There were 23 newly diagnosed HIV disease cases between 2003 and 2006 in Region 9, with an average rate of about 3 Cases /100,000 population per year. The highest proportion of newly diagnosed cases between 2003 and 2006 was among Hispanics (52.2%) followed by non-Hispanic Whites (30.4%) and non-Hispanic Blacks (13%). Stratifying cases by mode of transmission reveals a relatively even distribution among all modes of transmission with the largest proportion being MSM (34.8%). Sixty five percent of the newly diagnosed HIV disease in Region 9 was diagnosed in persons aged 25-44. Analyses by race/ethnicity and gender in

this region should be interpreted with caution considering the small number of newly diagnosed cases. Among newly diagnosed cases racial/ethnic distribution of cases is similar to that of the overall disease distribution in this region with nearly half of the newly diagnosed cases both male and female being among Hispanics (53.3%% and 50%, respectively).

**Table 27: Proportion of Region 9 Population, HIV Disease Cases Diagnosed Between 2003-2006**

Race/Ethnicity	2006 Region 9 Population (%)  N=171,245	HIV Disease Cases Diagnosed 2003-2006 (%) N=23
White non-Hispanic	63.0	30.4
Black non-Hispanic	1.4	13.0
Hispanic	32.8	52.2
Others*	2.9	4.3

*Others\*: Includes American-Indian non-Hispanic, Asian/Pacific Islander non-Hispanic, Multi-Race non-Hispanic, and unknown non-Hispanic race groups*

*Data Source: Kansas HIV/AIDS Reporting System (HARS), as of December 31<sup>st</sup> 2007*

**Table 28: Incident HIV Disease cases, Prevalent HIV Cases, Prevalent AIDS Cases, Prevalent HIV Disease Cases, Cumulative HIV Disease Cases in Region 9, Kansas, as of December 31st, 2006 by Date of Diagnosis**

	Incident HIV Disease Cases in Kansas Jan 1st, 2003- Dec 31st, 2006		Prevalent HIV Cases in Kansas as of Dec 31st, 2006		Prevalent AIDS Cases in Kansas as of Dec 31st, 2006		Prevalent HIV Disease Cases in Kansas as of Dec 31st, 2006		Cumulative HIV Disease Cases in Kansas as of Dec 31st, 2006	
	N	%	N	%	N	%	N	%	N	%
<b>ADULT/ADOLESCENT</b>	23	100.0	35	100.0	35	100.0	70	100.0	118	99.2
<b>PEDIATRIC (&lt;13 YEARS OLD)</b>	.	.	.	.	.	.	.	.	1	0.8
<b>TOTAL</b>	23	100.0	35	100.0	35	100.0	70	100.0	119	100.0
<b>AGE</b>										
< 13 Years	.	.	.	.	.	.	.	.	1	0.8
13 To 14 Years	.	.	.	.	1	2.9	1	1.4	1	0.8
15 To 24 Years	5	21.7	9	25.7	3	8.6	12	17.1	15	12.6
25 To 34 Years	10	43.5	16	45.7	14	40.0	30	42.9	45	37.8
35 To 44 Years	5	21.7	8	22.9	10	28.6	18	25.7	41	34.5
45 To 54 Years	3	13.0	2	5.7	7	20.0	9	12.9	13	10.9
55 To 64 Years	.	.	.	.	.	.	.	.	3	2.5
65 Years or Older										
<b>RACE/ETHNICITY</b>										
Hispanic	12	52.2	20	57.1	19	54.3	39	55.7	48	40.3
American-Indian Non-Hispanic	1	4.3	1	2.9	.	.	1	1.4	1	0.8
Asian / Pacific Islander Non-Hispanic	.	.	.	.	.	.	.	.	.	.
Black Non-Hispanic	3	13.0	2	5.7	1	2.9	3	4.3	7	5.9
White Non-Hispanic	7	30.4	12	34.3	15	42.9	27	38.6	63	52.9
Multi-Race Non-Hispanic	.	.	.	.	.	.	.	.	.	.
<b>GENDER</b>										
Male	15	65.2	21	60.0	27	77.1	48	68.6	90	75.6
Female	8	34.8	14	40.0	8	22.9	22	31.4	29	24.4
<b>EXPOSURE CATEGORY</b>										
Men who have sex with men (MSM)	8	34.8	14	40.0	15	42.9	29	41.4	51	42.9
Injection Drug User (IDU)	.	.	8	22.9	5	14.3	13	18.6	21	17.6
MSM and IDU	1	4.3	.	.	.	.	.	.	4	3.4
Hemophilia/Coagulation Disorder or Transfusion/Transplant	1	4.3	.	.	1	2.9	1	1.4	7	5.9
High Risk Heterosexual Contact	6	26.1	6	17.1	9	25.7	15	21.4	19	16.0
No Identified Risk (NIR) or Other	7	30.4	7	20.0	4	11.4	11	15.7	15	12.6
Pediatric (All Risk Combined)	.	.	.	.	1	2.9	1	1.4	2	1.7
<b>TOTAL</b>	23	100.0	35	100.0	35	100.0	70	100.0	119	100.0

*Incident HIV Disease cases are new cases of HIV or AIDS diagnosed between January 1st 2003 - December 31st, 2006  
Prevalent HIV cases are individuals infected with HIV and not diagnosed with AIDS yet, and are presumed to be alive as of December 31st, 2006  
Prevalent AIDS cases are individuals with AIDS who are presumed to be alive as of December 31st, 2006  
Prevalent HIV Disease cases are individuals with HIV regardless of AIDS status who are presumed to be alive as of December 31st, 2006  
Cumulative HIV Disease cases are individuals both living and dead who were diagnosed with HIV or AIDS in Kansas as of December 31st, 2006  
As of 1/1/03 CDC requires all Surveillance Programs to collect Race/Ethnicity in the same manner as the Census Bureau  
Data Source: Kansas HIV/AIDS Reporting System (HARS) as of December 31<sup>st</sup> 2007*

## Question **3**

### **What are the indicators of risk for HIV/AIDS infection in Kansas?**

The persons most likely to become infected with HIV are those who engage in high-risk behaviors and who live in communities where HIV prevalence is highest. To help community planning groups understand the differing risks for HIV infection in Kansas, this section examines the trends and characteristics of populations that practice high-risk behaviors. The primary focus of this section is three high-risk populations: men who have sex with men (MSM), injection drug users (IDU), and heterosexual adults.

The preceding section addressed the level of HIV infection in various groups affected by HIV. This section examines direct and indirect measures of risk behavior in the groups most at risk of acquiring HIV infection. Direct measures of risk provide information about risk behavior that is directly associated with HIV transmission. Indirect measures do not directly describe HIV risk behaviors; rather, they are indicators of possible HIV risk that may need further investigation. For example, an increase in bacterial STD or teen pregnancy rates does not directly indicate that HIV exposure is increasing, but indicates an increase in unprotected sex, which is a risk factor for both bacterial STDs and HIV.

## HIGHLIGHTS

- From 2004-2006, the proportion of MSM early syphilis cases co-infected with HIV has increased from 13.5% (5 cases) in 2004 to 35%(15 cases) in 2006.
- Gonorrhea incidence rate in Kansas was 80.5 per 100,000 persons in 2006.
- Wyandotte County had the highest Gonorrhea incidence rate (326.7 per 100,000 persons) in Kansas when compared to other counties in 2006.
- Primary and secondary syphilis incidence rates have slightly increased among men from 1 per 100,000 in 2002 to 1.8 per 100,000 in 2006.
- Since 2000 syphilis has been nearly 100% within the heterosexual and IDU populations in Kansas, but recent infections among MSM may indicate a changing risk population that has been seen in many states across the country.
- Hispanic teens had a highest teen pregnancy rates in 2006 52.7 per 1,000 in Kansas.

## **MEN WHO HAVE SEX WITH MEN (MSM)**

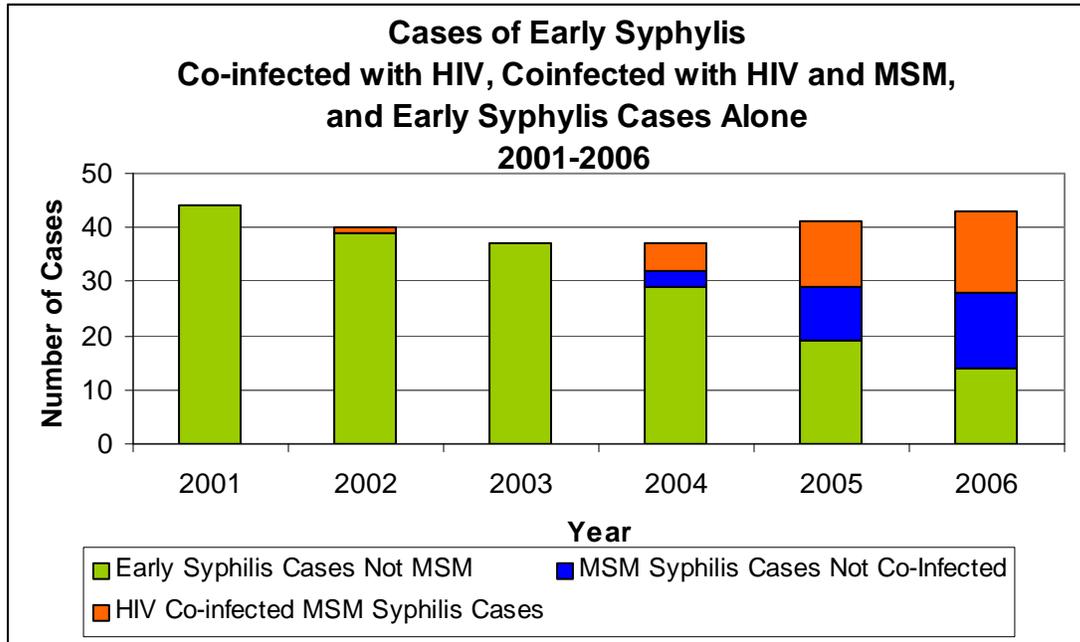
### **Direct Measures of Risk Behavior**

From 2000-2006, there was 98% increase in newly diagnosed HIV/AIDS cases reporting to be men who have sex with men. The proportion of cases reporting to be men who have sex with men (MSM) compared to other risk groups from 2000-2006 has always been the highest risk factor in Kansas (See Figure 9, Core Epidemiology Section, Page 51).

### **Indirect Measures of Risk Behavior**

Sexually Transmitted Disease (STD) surveillance data may provide information about the potential occurrence of high-risk behavior. From 2001 to 2003, there was only one case of MSM early syphilis case co-infected with HIV in Kansas. However, from 2004-2006, the proportion of MSM early syphilis cases co-infected with HIV increased from 13.5% (5 cases) in 2004 to 35% (15 cases) in 2006. Evidence of the emerging problem may be occurring in Kansas with an increasing proportion of early syphilis in MSM co-infected with HIV. However, the apparent increase might be an artifact of the small number of cases (Figure 18).

Figure 18:



Data Source: Kansas HIV/AIDS Surveillance System; As of December 31<sup>st</sup> 2007

## **INJECTION DRUG USERS (IDU)**

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### **Direct Measures of Risk Behavior**

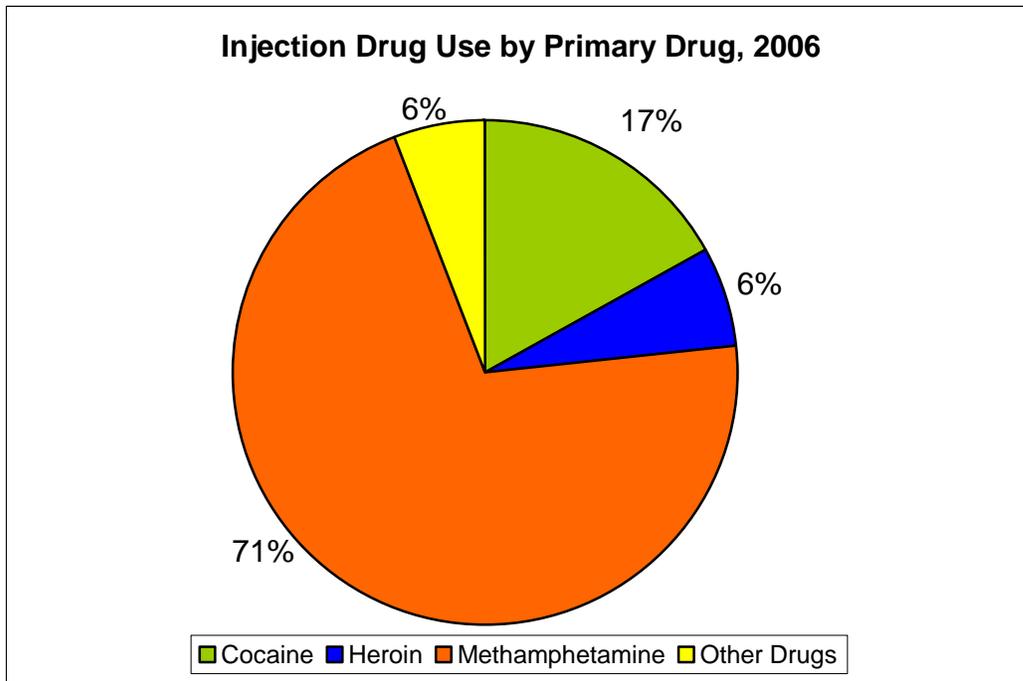
Among newly diagnosed cases of HIV/AIDS in Kansas in 2006 around 5% reported to be injection drug users, and around 4% reported being both MSM and IDU. By the end of 2006, around 10% HIV (non-AIDS) living cases reported being IDU and another 6% reported being both MSM and IDU. Among living AIDS cases, 9% reported being IDU and another 9% reported being both MSM and IDU.

### **Indirect Measures of Risk Behavior**

The Kansas Client Placement Criteria (KCPC) System is an integral part of Addiction and Prevention Services (AAPS), which helps collect data, related to substance abuse treatment admissions at treatment service centers in Kansas. KCPC data are used to assess demographic characteristics of injection drug users.

In 2006, 15,678 drug users were admitted in treatment centers in Kansas, of these admissions, 987 (6.3%) injected cocaine, heroin, methamphetamine or other drugs. Among injection drug users, 71% used methamphetamine, 17% used cocaine, 6% used heroine, and 6% used other drugs (Figure 19).

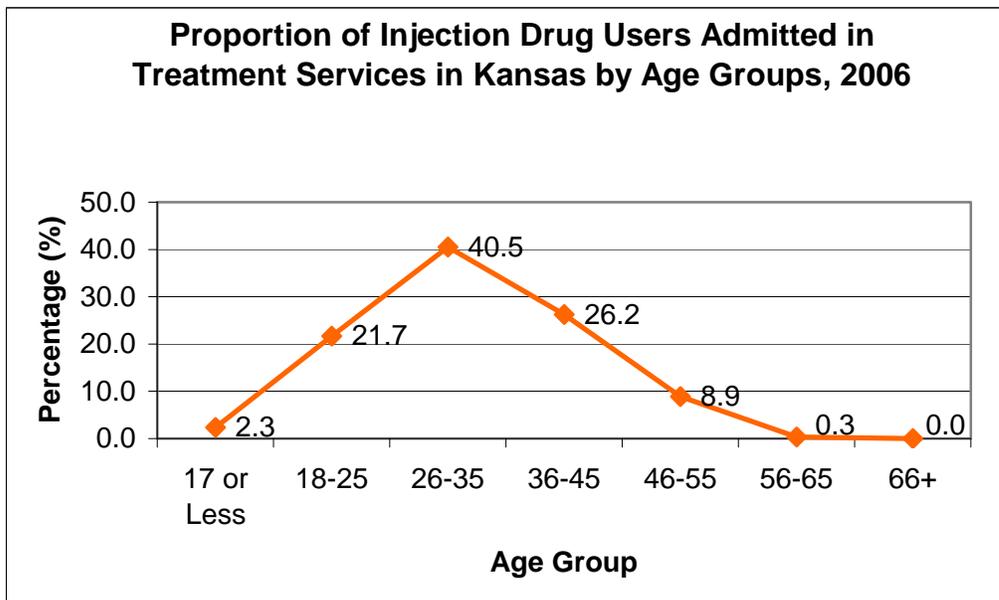
**Figure 19:**



Data Source: Alcohol and Prevention Services, The Kansas Client Placement Criteria (KCPC) System, 2006.

The majority (40.5%) of the injection drug users admitted to the treatment centers belonged to the 26-35 year age group (over 400 cases) (Figure 20). Average age of injection drug users at the time of admission was 33 years in 2006.

**Figure 20:**



Data Source: Alcohol and Prevention Services, The Kansas Client Placement Criteria (KCPC) System, 2006.

Fifty seven percent of the injection drug users admitted in treatment services in Kansas were males in 2006, the rest were females.

## **HETEROSEXUAL POPULATIONS**

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### **Direct Measures of Sexual Behavior**

Among newly diagnosed cases of HIV/AIDS in Kansas in 2006, 9.8% reported having had high-risk heterosexual contact.

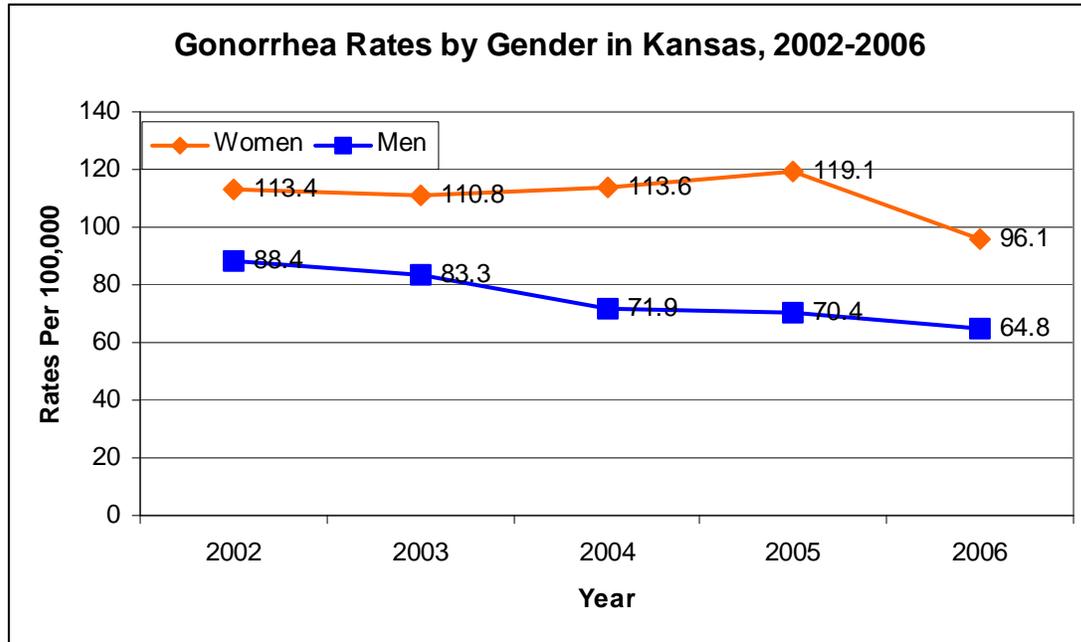
### **Indirect measures of Risk Behavior**

Bacterial STD surveillance provides information that may help to identify the potential occurrence of risky heterosexual behavior. Although increases in bacterial STD rates do not directly indicate that HIV exposure is increasing, these measures may indicate an increase in unprotected sex.

### **Gonorrhea**

During 2002-2006, gonorrhea rates in Kansas for females were consistently higher than those for males (Figure 21). Majority of individuals tested in the infertility project are women, hence there is a possibility of ascertainment bias. Gonorrheal infections among women are usually asymptomatic and often go undiagnosed. Untreated infections can lead pelvic inflammatory disease, which is a well-established cause of tubal infertility, ectopic pregnancy, and chronic pelvic pain. Newly diagnosed case rates among males have shown a consistent decline since 2002. Rates among females had been relatively stable from 2002-2005. However, from 2005-2006 there was a statistically significant drop in the rate from 119 cases per 100,000 (95% C.I. 113.3, 124.9) to 96 cases per 100,000 (95% C.I. 90.2, 100.4) (Figure 21). It is not clear at this time the actual reasons for this decrease.

**Figure 21:**



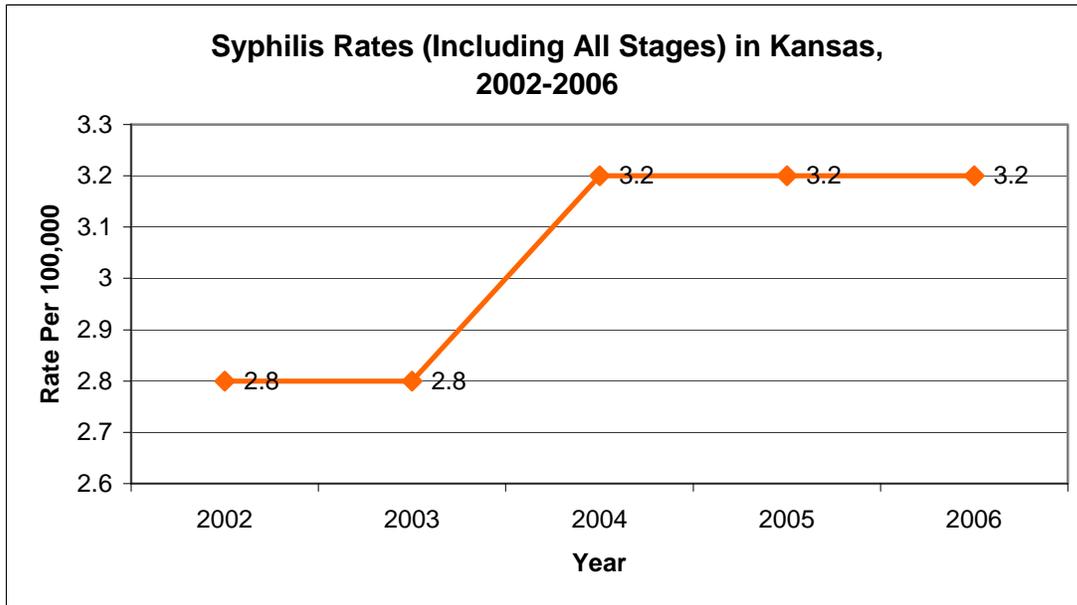
*Data Source: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2006. Atlanta, GA: U.S. Department of Health and Human Services, November 2007*

In 2006, there were 2,208 new cases of gonorrhea diagnosed in Kansas. New cases of gonorrhea were diagnosed in 56% of the counties in the state. Four counties had more than 150 new cases diagnosed and two of those had more than 500 new cases (Sedgwick and Wyandotte). The incidence rate for Kansas in 2006 was 80.5 per 100,000 persons. In 2006, Wyandotte had the highest gonorrhea incidence rate in the state (326.6 per 100,000) compared to all other counties.

## **Syphilis**

From 2002-2003 syphilis rates in Kansas were 2.8 per 100,000 then starting from 2004-2006 the rates increased to 3.2 per 100,000 and had been stable from past three years (Figure 22).

**Figure 22:**



*Data Source: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2006. Atlanta, GA: U.S. Department of Health and Human Services, November 2007*

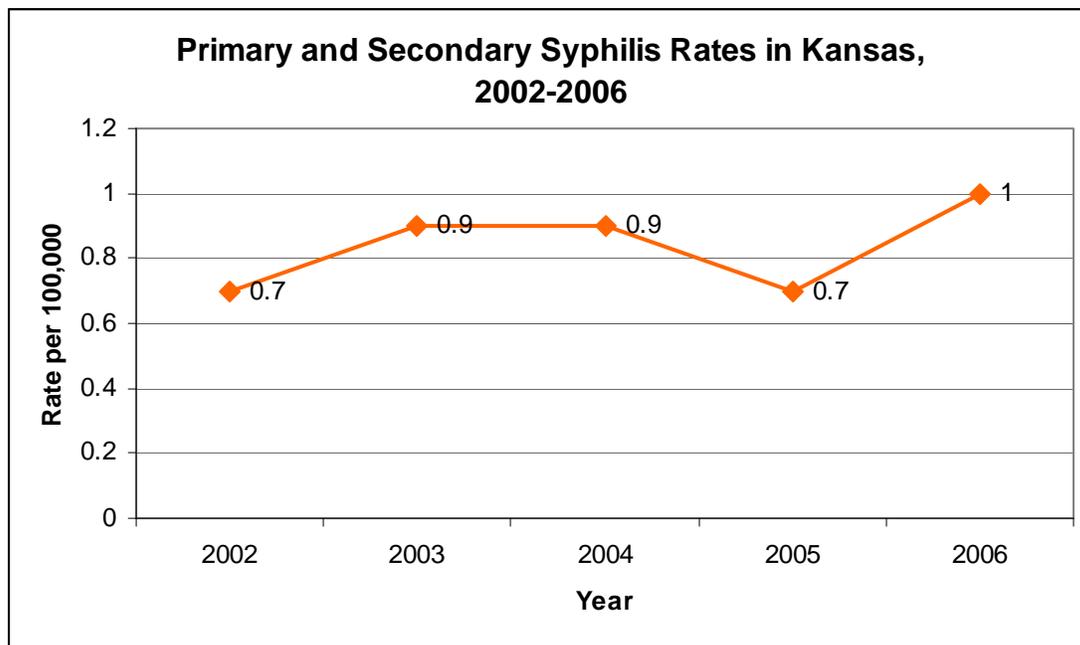
Primary and secondary syphilis rates in Kansas have been relatively stable from 2002-2006 (Figure 23). By gender, primary and secondary incidence rates among men though statistically not significant have slightly increased from 1 per 100,000 in 2002 to 1.8 per 100,000 in 2006, at the same time among women though statistically not significant it has slightly decreased from 0.4 per 100,000 in 2002 to 0.1 per 100,000 in 2006 (Figure 24) (Table 29). There was however a statistically significant difference between rates among men and women in 2006 with rates among men being higher when compared to women (Table 29). This could be because of increase in syphilis among MSM in Kansas.

**Table 29: Primary and Secondary Syphilis Incidence Rate by Gender in 2002 and 2006**

	2002		2006	
	Rate per 100,000	95% Confidence Intervals	Rate per 100,000	95% Confidence Intervals
Male	1.0	(0.5, 1.6)	1.8	(1.1, 2.5)
Female	0.4	(0.1, 0.8)	0.1	(-0.1, 0.3)

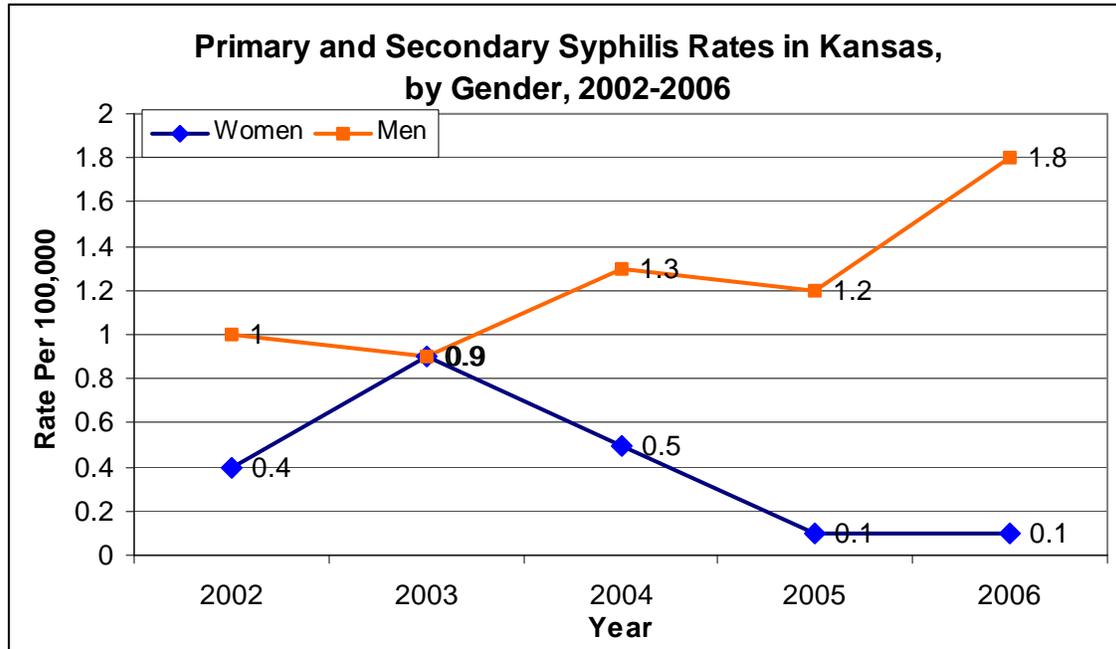
*Data Source: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2006. Atlanta, GA: U.S. Department of Health and Human Services, November 2007*

**Figure 23:**



*Data Source: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2006. Atlanta, GA: U.S. Department of Health and Human Services, November 2007*

Figure 24:

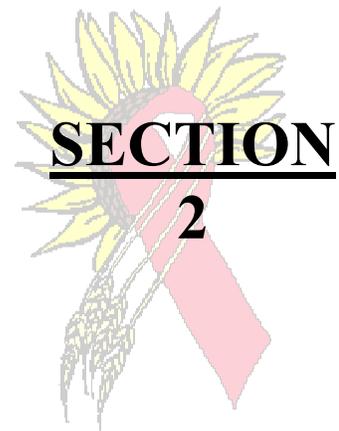


Data Source: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2006. Atlanta, GA: U.S. Department of Health and Human Services, November 2007

In 2006, 45 new early syphilis cases, 27 new cases of primary and secondary syphilis, and 18 cases of early latent syphilis were diagnosed and reported in Kansas. New cases of early syphilis were reported in nine Kansas counties (Johnson, Leavenworth, Shawnee, Riley, Franklin, Sedgwick, Seward, and Wyandotte counties). Efforts to eradicate syphilis in Kansas and other states have been complicated by emerging unhealthy sexual behaviors including: Internet acquired anonymous partners. Additionally, the emergence of co-infected HIV/syphilis patients has raised special public health concerns. Historically in Kansas, syphilis has been nearly 100% within the heterosexual and IDU populations, but recent infections among MSM may indicate a changing risk population that has been seen in many states across the country. However, due to the small number of new syphilis cases diagnosed in Kansas this could also be an artifact of the small numbers.

## **Pregnancy Rates for Teenagers (10-19 years of age)**

From 1987 to 2006, overall pregnancy rates for teenagers decreased 15% from 31.9 per 1,000 to 27.1 per 1,000. Teen pregnancy rates in 2006 among the leading racial/ethnic groups in Kansas range from 20.7 per 1,000 among non-Hispanic Whites to 52.7 per 1,000 among Hispanics. From 2002-2006, pregnancy rates among non-Hispanic White teens had decreased by 10.8 %, while among Hispanic teens it had increased by 5.3%. In 2006, Hispanic teens had highest pregnancy rates in Kansas.



# **RYAN WHITE SPECIAL QUESTIONS AND CONSIDERATIONS**

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- Question 1:** What are the patterns of utilization of HIV services for persons in Kansas?
- Question 2:** What are the number and characteristics of persons who know they are HIV-positive but who are not receiving primary care?

## Question **1**

### **What are the patterns of utilization for HIV services of persons in Kansas?**

This section focuses on information that pertains to HRSA HIV/AIDS care planning groups. Specifically, this section characterizes the patterns in the use of services by a number of populations in the state of Kansas. The sources of the information were HRSA-funded programs and supplemental studies conducted to examine specific aspects of HIV care in Kansas.

In 1990, Congress enacted the Ryan White CARE Act to provide funding for states, territories, and EMAs. The purpose of the funding was to offer primary care and support services for persons living with HIV disease who lack health insurance and financial resources for their care. Congress reauthorized the Ryan White CARE Act in 1996 and in 2000. These reauthorizations supported Titles I-IV, Special Projects of National Significance (SPNS), the HIV/AIDS Education Training Centers and the Dental Reimbursement Program, all of which are part of the CARE Act.

## HIGHLIGHTS

- In 2006, 725 clients received services funded through Ryan White Title II award in Kansas; of these, 210 were new clients.
- Most Kansas AIDS Drug Assistance (ADAP) clients served during 2006 were male (80%) and 25 years of age or older (96%).
- The racial/ethnic distribution of those served in 2006 was predominantly non-Hispanic Whites (59%). Of the remainder, 13% of the clients were Hispanics and 27% non-Hispanic Blacks. This reflects the proportion of eligible clients in these groups.
- Nearly all (89%) of those served in 2006 lived at or below 200% of the poverty level.
- Among the 183 newly diagnosed cases of HIV/AIDS in 2006, 53 (29%) were simultaneously diagnosed with HIV and AIDS. The overall proportion of HIV cases that converted to AIDS within one year of the HIV diagnosis decreased from 40.9% in 2000 to 29% in 2006).
- Of the persons who had a positive result from a confidential HIV test during 1983-2006 and were reported to the state's HIV/AIDS Surveillance Program, 64.2% had an AIDS diagnosis within 3 months of their first positive HIV result.

The purpose of Part B funding is to improve the quality, availability, and organization of health care and support services for individuals and families with, or affected by, HIV disease in each state or territory. In addition, the funding provides access to needed pharmaceuticals through ADAP.

In 2006, 725 clients received services funded through Ryan White Title II award in Kansas; of these, 210 were new clients. During 2006, the distribution of Ryan White Title II clients by race/ethnicity, and sex was similar to the distribution of these characteristics among persons known to be living with HIV/AIDS in Kansas at the end of 2006 (Table 28).

**Table 30: Comparison of Demographic Characteristics of Ryan White Title II Clients and Persons Living with HIV/AIDS, Kansas, 2006**

	<b>Ryan Title II clients, % (N=725)</b>	<b>Persons living with HIV/AIDS, % (N= 2,219)</b>
<b>Race/Ethnicity</b>		
<b>White, non-Hispanic</b>	58.0	60.1
<b>Black, non-Hispanic</b>	27.0	24.3
<b>Hispanic</b>	13.0	12.5
<b>Asian/Pacific Islander</b>	0.5	0.6
<b>American Indian/ Alaskan Native</b>	1.1	0.9
<b>Multiple Races</b>	0.7	1.6
<b>Unknown</b>	1.0	0.0
<b>Gender</b>		
<b>Male</b>	80.0	81.3
<b>Female</b>	20.0	18.7
<b>Age (yrs.)</b>		
<b>≤13</b>	0.6	0.8
<b>13-24</b>	4.0	13.5
<b>25-44</b>	57.0	70.5
<b>≥45</b>	0.38	15.3

*Data Source: Ryan White Title II Service Program*

*Data Source: Kansas HIV/AIDS Surveillance Program, as of December 31<sup>st</sup> 2007*

Most of the visits of Kansas Part B clients involved case management (N= 725); followed by dental care (N= 296). In 2006, the average number of visits by Part B clients was highest for case management services (51 visits/client). The average number of visits (among those utilizing Ryan Part B services) to Mental Health/Substance Abuse per client was the second largest with 7 visits per client in 2006. Part B clients who sought primary medical care made

an average of 6 visits related to medical care during 2006. In 2006, the Mental Health/Substance Abuse services were paid with funds from the Housing Opportunities for Persons Living with AIDS (HOPWA).

**Table 31: Utilization of Ryan White Title II Service, by Type of Service (N=725), Kansas, 2006**

	Case Management	Medical	Dental	Mental Health/ Substance Abuse
<b>Clients Receiving Service (#)</b>	725	167	296	27
<b>Visits per Client Utilizing Services (avg. #)</b>	51	6	3	7

*Source: Ryan White Title II Service Program*

### **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 AIDS patients. With the initial passage of the Ryan White 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/AIDS. 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 D, and private insurance.

Since June 2001, persons enrolled in ADAP in Kansas have been able to receive antiretroviral medications. These medications include nucleoside analogues, protease inhibitors, and non-nucleosides. According to the National ADAP Monitoring Project

Survey, 338 clients were served in Kansas during June 2006. Most Kansas ADAP clients served during this month were male (76%) and 25 years of age or older (96%). The racial/ethnic distribution of those served in June of 2006 was predominantly non-Hispanic Whites (80%), Hispanics (6%), and non-Hispanic Blacks (13%). Nearly all (93%) of those served in June 2006 lived at or below 200% of the poverty level (Table 30).

**Table 32: Characteristics of Patients Enrolled in the AIDS Drug Assistance Program (N=725), Kansas, June 2006**

	Patients, %
<b>Gender</b>	
Male	76
Female	24
<b>Race/Ethnicity</b>	
White, non-Hispanic	80
Black, non-Hispanic	13
Hispanic	6
<b>Age (yrs.)</b>	
<25	4
25-44	59
≥45	37
<b>Poverty Level (%)</b>	
<100	72
101-200	21

*Source: National ADAP Monitoring Project, Annual Report, June 2006.*

## **HIV TESTING DELAYS**

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 disease 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.

Among the 183 newly diagnosed cases of HIV/AIDS in 2006, 53 (29%) were simultaneously diagnosed with HIV and AIDS. The overall proportion of HIV cases that converted to AIDS within one year of the HIV diagnosis decreased from 40.9% in 2000 to 29% in 2006 (Figure 4, page 28).

Of the persons diagnosed and reported with AIDS during 1983-2006, 46.4% were diagnosed with AIDS within a month of first HIV positive test. Just over 64% were diagnosed within 3 months and 77.0 % within 12 months of first HIV positive test. Table 33 shows the time between a person's first positive confidential test and AIDS diagnosis, by demographic and risk characteristics. However, these data should be interpreted cautiously, because a person may have been tested earlier, but anonymously.

Among persons who were tested confidentially during 1983-2006, women tested later in their disease process than men, and Hispanic tested later than non-Hispanics Whites, and non-Hispanic Blacks as evidenced by the time lapse between diagnosis of HIV and AIDS.

**Table 33: Proportions of Persons with AIDS Diagnosis, by Time Between First Positive HIV Test Result and AIDS Diagnosis (N=1,568), Kansas, 1983-2006**

	AIDS Diagnosis, %		
	At time of 1 <sup>st</sup> HIV + test result	≤3 Months	≤12 Months
<b>Total</b>	46.4	64.2	77.0
<b>Gender</b>			
Male	46.0	63.3	75.8
Female	49.7	71.8	85.9
<b>Race/Ethnicity</b>			
White, non-Hispanic	43.5	59.6	71.5
Black, non-Hispanic	45.8	67.4	84.7
Hispanic	60.9	83.9	92.9
<b>Exposure Category</b>			
MSM	43.4	60.1	72.8
Injection Drug User (IDU)	40.4	58.2	77.4
MSM/IDU	47.5	68.6	83.9
High Risk Hetero Sexual	56.8	80.6	94.2
Transfusion/Transplant	35.1	45.6	57.9
No Identified Risk (NIR)	66.9	86.2	89.2
Pediatric (all risks combined)	44.4	55.6	66.7
<b>Age (yrs.)</b>			
< 13	44.4	55.6	66.7
13-14	0.0	0.0	0.0
15-24	50.0	74.4	84.4
25-34	49.4	66.7	78.0
35-44	49.4	66.7	78.0
45-54	51.2	69.5	82.3
55-64	40.5	63.5	74.3
65+	31.0	55.2	55.2
<b>Public Health Region</b>			
1	48.5	68.2	84.3
2	49.0	68.0	79.7
3	63.9	82.0	88.5
4	41.3	57.3	68.7
5	49.2	69.5	81.4
6	27.0	46.0	63.5
7	47.6	61.9	79.4
8	44.9	60.9	73.0
9	47.9	70.8	77.1

*Data Source: Kansas HIV/AIDS Surveillance Program, as of December 31<sup>st</sup> 2007*

## Question 2

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

### HIGHLIGHTS

- Total unmet need: People Living with AIDS (PLWA) and People Living with HIV (PLWH) = 882 (40%)
- Non-Hispanic Blacks have the highest proportion of cases not in care in 2006 when compared to other major racial/ethnic groups (non-Hispanic Whites: 24.4% and Hispanics: 13.7%)
- Highest proportion of cases among persons living with HIV disease and not in primary care is among age groups 25-44 (70.1%), followed by 13-24 year age group (17.8%)
- In 2005, forty-five percent (45%) of the Ryan White statewide needs assessment survey respondents (N=258) considered money to be a barrier to obtain care and/or care services
- In 2005, eighty-eight percent (88%) of Ryan White statewide needs assessment survey respondents (N=258) were taking prescription medications for HIV/AIDS (71% through the Ryan White AIDS Drug Assistance Program).

## **MEASURING UNMET NEED BY USING LABORATORY DATA**

Unmet need is an estimate of number of individuals with HIV/AIDS who are not receiving any treatment services for their illness.

Kansas statutes require that laboratories report all test results indicative of HIV infection in persons residing in Kansas. The interpretation of results indicating HIV infection currently includes only detectable viral loads. A separate statute requires the reporting of any CD4<sup>+</sup> T-lymphocyte count of less than 500 per micro liter or a CD4<sup>+</sup> T-lymphocyte percent of total lymphocytes less than 29.

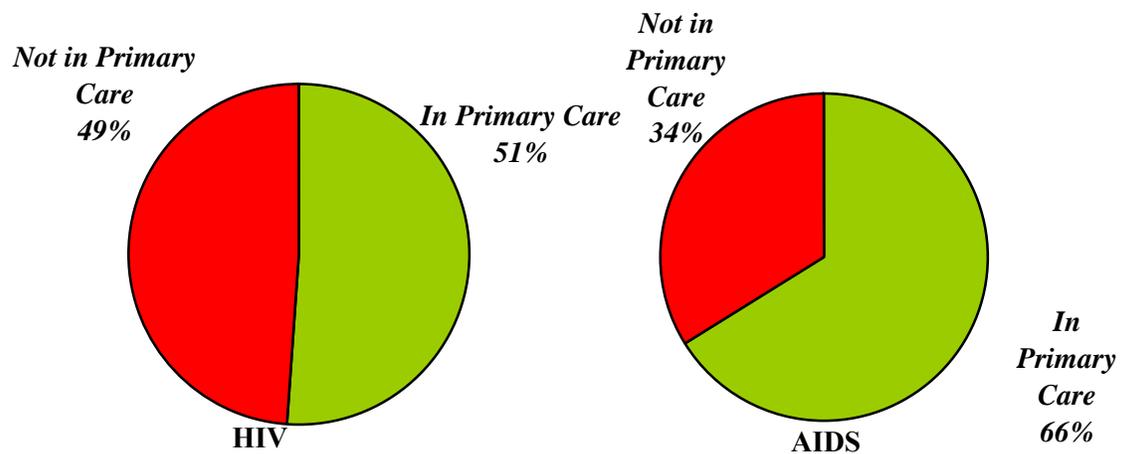
Once the test results have been reported to the HIV/AIDS Surveillance Program, the results can be linked to the records in the HIV/AIDS case registry, which includes the known population of persons living with HIV/AIDS in Kansas. Consequently, for a specified time period, each HIV-infected person can be characterized as “in care” or “not in care” by the presence or the absence of a laboratory test result (e.g., CD4 cell count or measurement of viral load) during that period. This method assumes that laboratory reporting is complete and that all HIV-positive persons in care will have at least one test result that is reportable in Kansas. Reporting is complete only if all laboratories that perform HIV related tests in Kansas report their results to the HIV/AIDS Surveillance Program.

The Kansas HIV/AIDS Surveillance Program used the following components in the formula to calculate the unmet need in Kansas:

- Total number of Persons Living with AIDS (PLWA) in 2006: 1,238
- Total number of Persons Living with HIV (PLWH) in 2006: 981
- Total number of PLWA who received specified services in 2006: 806 (66%)

- Total number of PLWH who received specified services in 2006: 492 (51%)
- Unmet need among PLWA in 2006:  $(1,238-806) = 412$  (34%)
- Unmet need among PLWH in 2006:  $(981-470) = 470$  (49%)
- Total unmet need among PLWA + PLWH in 2006: 882 (40%) (Figure 25)

**Figure 25. Distribution of Unmet Need Among Living HIV, and AIDS Cases by Care Status, Kansas 2006**



*Data Source: Kansas HIV/AIDS Surveillance Program, as of December 31<sup>st</sup> 2007*

Difference between the proportion of individuals with unmet need among people living with AIDS and people living with HIV can be accounted for by the overall health differences associated with AIDS versus HIV. By definition the conversion to AIDS indicates a weakening of the immune system, which usually results in increased illness and increased need for medical care.

The characteristics of persons living with HIV disease in Kansas, persons “in”, and “not in”

primary care are presented in Table 32. The data reveals that there are a larger proportion of males not accessing primary care when compared to females. Non-Hispanic Whites had the highest proportion (58.2%) of cases not in care in 2006 when compared to other major racial/ethnic groups (non-Hispanic Blacks: 24.4% and Hispanics: 13.7%).

Highest proportion of cases among persons living with HIV disease and not in primary care is among age groups 25-44 (70.1%), followed by 13-24 year age group (17.8%).

Region 1 had the highest proportion of cases among person living with HIV Disease and not in primary care in 2006 followed by Region 8 (24.3%) and Region 2 (22.3%).

There are several limitations to “in” and “not in” primary care estimate in Kansas that should be considered when interpreting this data. First, only viral loads that are detectable are interpreted as reportable in Kansas. Therefore estimates of those without a viral load in the previous 12 months would likely exclude those individuals who are on HAART and consequently do not have detectable amounts of HIV virus in the blood sample. Secondly, statutes in Kansas require laboratory reporting of any CD4<sup>+</sup> T-lymphocyte count of less than 500 per micro liter or a CD4<sup>+</sup> T-lymphocyte percent of total lymphocytes less than 29. This will again exclude those HIV-positive patients that are healthy and show no obvious signs of immunosuppression at the time the test is drawn. Thirdly, the mobility of today’s society and the surveillance program’s limited ability to monitor this movement among HIV positive individuals can cause patients to appear as though they are out of care when in reality they are no longer seeking care in Kansas.

**Table 34: Demographic Characteristics of Prevalent HIV Disease Cases and Care Status, Kansas 2006**

	IN CARE		NOT IN CARE		PREVALENT HIV DISEASE CASES AS OF DEC 31st 2006	
	N	%	N	%	N	%
<b>GENDER</b>						
Male	1052	81.0	720	81.6	1772	81.3
Female	246	19.0	162	18.4	408	18.7
<b>AGE</b>						
< 13 Years	11	0.8	6	0.7	17	0.8
13 TO 14 Years	1	0.1	1	0.1	2	0.1
15 TO 24 Years	134	10.3	156	17.7	290	13.3
25 TO 34 Years	465	35.8	363	41.2	828	38.0
35 TO 44 Years	458	35.3	255	28.9	713	32.7
45 TO 54 Years	183	14.1	72	8.2	255	11.7
55 TO 64 Years	42	3.2	23	2.6	65	3.0
65 Years or Older	4	0.3	6	0.7	10	0.5
<b>RACE/ETHNICITY</b>						
Hispanic	153	11.8	121	13.7	274	12.6
American-Indian Non-Hispanic	10	0.8	9	1.0	19	0.9
Asian / Pacific Islander Non-Hispanic	9	0.7	4	0.5	13	0.6
Black Non-Hispanic	313	24.1	215	24.4	528	24.2
White Non-Hispanic	797	61.4	513	58.2	1310	60.1
Multi-Race Non-Hispanic	15	1.2	20	2.3	35	1.6
Unknown Non-Hispanic	1	0.1	.	.	1	0.0
<b>REGION</b>						
Region 1	229	17.6	253	28.7	482	22.1
Region 2	234	18.0	197	22.3	431	19.8
Region 3	56	4.3	35	4.0	91	4.2
Region 4	119	9.2	78	8.8	197	9.0
Region 5	38	2.9	22	2.5	60	2.8
Region 6	28	2.2	39	4.4	67	3.1
Region 7	67	5.2	17	1.9	84	3.9
Region 8	484	37.3	214	24.3	698	32.0
Region 9	43	3.3	26	2.9	69	3.2
Unknown	.	.	1	0.1	1	0.0
<b>TOTAL</b>	1298	100.0	882	100.0	2180	100.0

*Data Source: Kansas HIV/AIDS Surveillance Program, as of December 31<sup>st</sup> 2007*

## **RYAN WHITE STATEWIDE NEEDS ASSESSMENT SURVEY**

A statewide needs assessment survey is conducted in Kansas every three years. The 2005 survey was distributed to 1200 known cases of HIV/AIDS cases in Kansas and returned completed by 258 persons (21.5% response rate). Information from the survey provided insight into whether persons were seeking medical care, how often, and where, although the low response rate limits generalizability. Additional information was collected on persons' available income and health insurance to pay for these services and treatments as well as strengths and barriers encountered when they attempted to obtain medical care. The 2005 Statewide Needs Assessment was an adaptation of the 2002 Needs Assessment originating from the 1999 version. Consistent questions over time have allowed for some longitudinal understanding of trends.

### **Service Needs/Availability**

One of the most notable differences over time is the number of respondents from the survey indicating that they have a Ryan White number or card. Having one is a measure of access to these services. In 2005, 80% of the respondents indicated they had a number or card. This compares to 51% in 1999 and 61% in 2002. These data support other data that indicate a substantial increase in HIV positive individuals accessing care, including medications, over time.

Respondents were also asked to report their need for services. Respondents indicated whether they needed the service, whether they used the service, where they would rank this service by importance (1= most important to 6= not important). Additionally they were asked to rank 14 offered services in relation to each other by their relative importance. Respondents were asked about the services that would most impact them if they were **not** offered (1=greatly affect,

6=no affect). Average ratings in order, Medications (1.47), Case Management (1.79), Primary Care (HIV specific) (1.89), Oral Health (Dental) Care (2.12), Health Insurance Assistance (2.13) and Referral for Health Care and Supportive Services (2.16) were identified indicating those considered most important.

Of interest in the survey, was a reduction in the number of visits for primary care services.

There was an upward trend noted between 1999 and 2005 in the frequency of care with in four times a year category, while there was a downward trend within the 1 time per month category. This response correlates with the increased numbers of individuals accessing medications and reductions in the numbers of new AIDS diagnoses since the introduction of ARV therapies in 1996. This increase in the 4 times a year response in contrast to the reductions in one time per month response is very likely associated with improved health outcomes associated with antiretroviral therapy and recommended quarterly visits associated with public health service recommendations surrounding care services.

Also of interest in light of decreases in access to primary care (HIV specific), are the data that reflect meetings with Ryan White Case Managers over time. Eight-five percent (85%) of 2005 survey respondents received case management services. The survey summary notes, “Twenty-three (23%) of respondents in 2005 had contact one time per month. In 2002, twenty-nine percent (29%) had contact with their HIV case manager one time per month. There was a decrease in each response category except for the 2 times per year (no change) and 4 times per month (5% increase) response categories.” Changing demographics and “risks” associated with how individuals became infected could be factors in these changes, but reasons for these changes are presently unclear. Rising caseloads could also be a factor in the overall decreases seen.

## **Barriers to Care**

Barriers to care are very important. Respondents to the 2005 survey checked a list of items they consider to be barriers to obtaining care and/or care services. Forty-five percent consider money to be a barrier. Other important barriers include co-pays for medication (36%) and a lack of insurance (31%). Transportation and related “distance to services” were the next rated barriers at 21% and 20% respectively. These last two are continuing themes in historical needs assessments for Care, Housing and HIV Prevention. The geographic challenges associated with a large rural state have been consistent over time.

## **Antiretroviral Therapy (ART)**

In the 2005 Needs Assessment Survey, 88% of respondents to the 2005 study are taking prescription medications for HIV/AIDS (71% through the Ryan White AIDS Drug Assistance Program), 9% never have and 4% have in the past but are not now. This compares to 91% of the 2002 survey respondents reporting taking medications for their HIV/AIDS. In the 2002 survey, the remaining respondents (9%) were equally distributed between those who have never taken medications for their HIV/AIDS and those who have previously taken medications, but are not currently taking them.

## **GLOSSARY**

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**AIDS (acquired immunodeficiency syndrome):** An HIV-infected person receives a diagnosis of AIDS after the development of 1 of the CDC-defined AIDS indicator illnesses (see *opportunistic infection*) or on the basis of the results of specific blood tests (i.e., a CD4<sup>+</sup> count of less than 200 cells/micro liter or a CD4<sup>+</sup> percentage of less than 14). A positive HIV test result does not mean that a person has AIDS.

**Antiretroviral therapy (ART):** Anti-HIV treatments designed to reduce the levels of HIV in a person's body.

**Bias:** Refers to results that do not represent true findings because of a systematic error in the data. For example, if persons feel uncomfortable reporting that they have engaged in high-risk behaviors, these behaviors will be systematically underreported. Consequently, conclusions about the occurrence of such behaviors would be considered biased.

**CDC:** The Centers for Disease Control and Prevention, in the U.S. Department of Health and Human Services, is the lead federal agency for protecting the health and safety of the people of the United States. CDC accomplishes its mission through developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve public health in the United States. The CDC provides most of the funding for HIV prevention and HIV surveillance activities in Kansas.

**Denominator:** Divisor; the term of a fraction, usually written under or after the line that

indicates the number of equal parts into which the unit is divided; used to calculate a rate or ratio. For example, in the fraction  $\frac{3}{4}$ , four is the denominator.

**Epidemiology:** Study of how diseases or health conditions are distributed in a population. Consequently, an epidemiologist may analyze public health data to determine how a disease is transmitted and to recommend intervention, to identify segments of a population at risk of acquiring a disease, or to monitor disease trends and predict the course and effect of a disease.

**Exposure categories:** To monitor how HIV is being transmitted, HIV/AIDS cases are classified as one of several exposure (risk) categories developed by the CDC.

- Male-male sexual contact refers to men who have sex with men (MSM); that is, homosexual or bisexual contact.
- Injection drug use refers to the use of forms of drugs that require injection. Although it may be valuable to know that a person has used illicit drugs through other routes, this information would not be enough to classify a case as an exposure through injection drug use.
- High-risk heterosexual contact refers to heterosexual contact with a partner who is at increased risk for HIV infection, i.e., a homosexual or bisexual man, an injection drug user, or a person with documented HIV infection.
- Hemophilia/transfusion/transplant cases are those resulting from a transfusion of blood or blood products before 1985.
- Perinatal HIV cases are cases of HIV infection in children resulting from transmission from an HIV-positive mother.

- Unspecified, or no identified risk (NIR), cases are those in persons who have no reported history of exposure at the time of the report date. This category includes persons for whom the surveillance protocols to document risk behavior information have not yet been completed, persons whose exposure history is incomplete because they have died, persons who have declined to disclose their risk behavior or who deny any risk behavior, and persons who do not know the HIV status or risk behaviors of their sex partners.

**HAART (highly active antiretroviral therapy):** Aggressive anti-HIV treatments that usually include a combination of protease and reverse transcriptase inhibitors, which interrupt the HIV life cycle and whose purpose is to reduce a person's viral load to undetectable levels.

**HIV (human immunodeficiency virus):** The virus that causes AIDS. A person who has contracted the virus is said to be HIV-positive or HIV infected.

**High Risk Heterosexual Contact:** Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

**Incidence:** Refers to the number of new cases of a disease that occur in a population during a specified time, usually a year. Even though HIV data are often presented as “new cases of HIV”, these data do not represent new infections (true HIV incidence) because a person may not be tested for HIV during the same period that he or she became infected. On the other hand, incidence can be calculated for diseases (e.g., some STDs). These diseases have clear

symptoms that are detectable when a person becomes infected and that cause a person to be tested or to seek treatment shortly after infection.

**Numerator:** Dividend, the term of a fraction, usually written above or before the line that indicates the number of parts that are to be divided used to calculate a rate or ration. For example, in the fraction  $\frac{3}{4}$ , three is the numerator.

**Opportunistic infection (OI):** HIV infection can weaken a person’s immune system to the point that it has difficulty fighting off certain infections. These types of infections are known as opportunistic infections because they take the opportunity a weakened immune system gives to cause illness. Some examples of opportunistic infections are *Pneumocystis carinii* pneumonia (PCP) and Kaposi’s sarcoma (KS). Opportunistic infections are CDC-defined AIDS indicator illnesses (infectious diseases, HIV related cancers, and other conditions), which means that an HIV-infected person receives a diagnosis of AIDS after the development of one of them.

Candidiasis, bronchi, trachea, or lungs	Lymphoma, Burkitt’s (or equivalent term)
Candidiasis, esophageal	Lymphoma, immunoblastic (or equivalent term)
Carcinoma, invasive cervical	Lymphoma, primary in brain
Coccidioidomycosis, disseminated or extrapulmonary	Mycobacterium avium complex or M. kansasii, disseminated or extrapulmonary
Cryptococcosis, extrapulmonary	M. tuberculosis, pulmonary
Cryptosporidiosis, chronic intestinal (>1 mo. Duration)	M. tuberculosis, disseminated or extrapulmonary
Cytomegalovirus disease (other than in liver, spleen, or nodes)	Mycobacterium, of other species or unidentified species, disseminated or extrapulmonary
Cytomegalovirus retinitis (with loss of vision)	Pneumocystis carinii pneumonia
HIV encephalopathy	Pneumonia, recurrent, in 12 mo. Period
Herpes simplex: chronic ulcer(s) (>1 mo. Duration); or bronchitis, pneumonitis or esophagitis	Progressive multifocal leukoencephalopathy
Histoplasmosis, disseminated or extrapulmonary	Salmonella septicemia, recurrent
Isosporiasis, chronic intestinal (>1 mo. Duration)	Toxoplasmosis of brain
Kaposi’s sarcoma	Wasting syndrome due to HIV

**Perinatal:** The word means “around birth” and is used to describe events that occur during labor and birth, and immediately after delivery. When used to describe HIV transmission, however, this work applies more broadly and describes any time that a mother may transmit HIV to her child-while she is pregnant, during birth, or through breast-feeding.

**Prevalence:** Refers to the total number of persons with a specific disease or condition at a give time. HIV prevalence data are generally presented as “persons living with HIV”. HIV prevalence data provided by HIV surveillance programs underestimate the true HIV prevalence because HIV-infected persons who have not yet been tested or reported to the health department are not included.

**Proportion (percentage):** A proportion is a type of ratio in which the numerator is included in the denominator. Because the numerator is a subset of the denominator, a proportion can be thought of as a ration of a part to the whole. A proportion is usually expressed as a percentage.

**Rate:** Type of ratio that includes a specification of time. In epidemiology, rates express the probability of, or risk for, disease or other events in a defined population during a specified period, often 1 year.

**Ratio:** The value obtained by dividing one quantity by another. For example, the fraction  $\frac{3}{4}$  is a ratio and can be expressed verbally as “three divided by four”. Both rates and proportions are specific examples of ratios.

**Reporting delay:** The time lag between the diagnosis of a new case of HIV or AIDS and the report to the health department. Currently in Kansas, 75% of HIV cases and 80% of AIDS cases are reported to the HIV/AIDS Surveillance Program within 9 months of diagnosis. Because of reporting delays, surveillance estimates of cases diagnosed in recent periods underestimate the actual number of cases diagnosed in those periods.

**Ryan White CARE Act:** The Ryan White Comprehensive AIDS Resources Emergency Act was created to provide federal assistance to increase the availability of primary health care and support services for persons living with HIV disease, to increase access to care for underserved populations, and to improve the quality of life of those affected by HIV infection. The CARE Act was first enacted by Congress in 1990 and was reauthorized in 1996 and 2000.

HRSA implements the CARE Act and directs assistance through the following channels:

- Title I provides support to eligible metropolitan areas (EMAs) with the largest number of reported AIDS cases, to meet emergency service needs of persons living with HIV.
- Title II provides support to all states and territories to improve the quality, availability, and organization of health care and support services for persons living with HIV and their families.
- Title III supports early-intervention outpatient HIV services through funding to public and private nonprofit entities.
- Title IV funds public and private nonprofit entities to conduct projects to coordinate services to children, youth, women, and families with HIV/AIDS.

- Part F provides support for Special Project of National Significance (SPNS) to develop and evaluate innovative models of HIV/AIDS care, for AIDS Education and Training Centers (AETCs) to conduct education and training for health care providers, and for the HIV/AIDS Dental Reimbursement Program to assist with providing oral health services to HIV-infected patients.

**Statistical Significance:** The probability that an event is not likely to be due to chance alone.

**Surveillance:** In a public health context, refers to the intentional collection of data on diseases or other important health conditions in order to monitor where the condition occurs and to determine the risk factors associated with the condition.

**Testing (anonymous, confidential):** In Kansas, a person can choose to be tested anonymously or confidentially for HIV infection. Positive results of anonymous and confidential HIV tests are reported to the health department, where the information is maintained under the strictest security and confidentiality measures. Persons who are tested anonymously do not provide their names when they are tested. Persons who are tested confidentially do provide their names when they are tested.

## **HIV/AIDS Surveillance Definitions**

**AIDS Cases:** Individuals infected with HIV and whose CD4 counts are <200 or CD4 cells <14% of total T lymphocytes or present or previous AIDS defining opportunistic infections.

**Cumulative AIDS Cases:** Total number of AIDS cases including both living and dead during specific time period (E.g. January 1<sup>st</sup> 1983 – December 31<sup>st</sup> 2006).

**Cumulative HIV Cases:** Total number of HIV cases (non AIDS), including both living and dead during specific time period (E.g. January 1<sup>st</sup> 1983 – December 31<sup>st</sup> 2006).

**Date of Diagnosis:** Date when a case was diagnosed.

**Date of Report:** Date when a case was reported to the HIV/AIDS Surveillance Program.

**HIV/AIDS Cases:** Individuals who either meet HIV (non AIDS) cases definition or AIDS case definition.

**HIV (non AIDS) cases:** Individuals infected with HIV, but have not yet progressed to AIDS

**HIV Disease Cases:** Individuals who either meet HIV (non AIDS) cases definition or AIDS case definition.

**HIV Infection Cases:** Regardless of AIDS status, individuals infected with HIV virus.

**Incident AIDS Cases:** Number of new AIDS cases during specific time period (E.g. January 1<sup>st</sup> 2006 – December 31<sup>st</sup> 2006).

**Incident HIV Cases:** Number of new HIV (non AIDS) cases during specific time period (E.g. January 1<sup>st</sup> 2006 – December 31<sup>st</sup> 2006).

**Prevalent AIDS Cases:** Number of living cases of AIDS during specific time period (E.g. January 1<sup>st</sup> 1983 – December 31<sup>st</sup> 2006).

**Prevalent HIV Cases:** Number of living cases of HIV (non AIDS) during specific time period (E.g. January 1<sup>st</sup> 1983 – December 31<sup>st</sup> 2006).

### **Revised CDC Surveillance Case Definition for HIV Infection**

This revised definition of HIV infection, which applies to any HIV (e.g., HIV-1 or HIV-2), is intended for public health surveillance only. It incorporates the reporting criteria for HIV infection and AIDS into a single case definition. The revised criteria for HIV infection update the definition of HIV infection implemented in 1993 (18); the revised HIV criteria apply to AIDS-defining conditions for adults (18) and children (17,19), which require laboratory evidence of HIV. This definition is not presented as a guide to clinical diagnosis or for other uses (17,18).

- I. In adults, adolescents, or children aged greater than or equal to 18 months\*\*, a reportable case of HIV infection must meet at least one of the following criteria:**

***Laboratory Criteria***

- Positive result on a screening test for HIV antibody (e.g., repeatedly reactive enzyme immunoassay), followed by a positive result on a confirmatory (sensitive and more specific) test for HIV antibody (e.g., Western blot or immunofluorescence antibody test)

or

- Positive result or report of a detectable quantity on any of the following HIV virologic (nonantibody) tests:
  - HIV nucleic acid (DNA or RNA) detection (e.g., DNA polymerase chain reaction [PCR] or plasma HIV-1 RNA)\*\*\*
  - HIV p24 antigen test, including neutralization assay
  - HIV isolation (viral culture)

***OR***

***Clinical or Other Criteria (if the above laboratory criteria are not met)***

- Diagnosis of HIV infection, based on the laboratory criteria above, that is documented in a medical record by a physician

or

- Conditions that meet criteria included in the case definition for AIDS (17-19)

**II. In a child aged less than 18 months, a reportable case of HIV infection must meet at least one of the following criteria:**

***Laboratory Criteria***

Definitive

- Positive results on two separate specimens (excluding cord blood) using one or more of the following HIV virologic (nonantibody) tests:
  - HIV nucleic acid (DNA or RNA) detection
  - HIV p24 antigen test, including neutralization assay, in a child greater than or equal to 1 month of age
  - HIV isolation (viral culture)

or

Presumptive

A child who does not meet the criteria for definitive HIV infection but who has:

- Positive results on only one specimen (excluding cord blood) using the above HIV virologic tests and no subsequent negative HIV virologic or negative HIV antibody tests

***OR***

*Clinical or Other Criteria (if the above definitive or presumptive laboratory criteria are not met)*

- Diagnosis of HIV infection, based on the laboratory criteria above, that is documented in a medical record by a physician

or

- Conditions that meet criteria included in the 1987 pediatric surveillance case definition for AIDS (17,19)

**III. A child aged less than 18 months born to an HIV-infected mother will be categorized for surveillance purposes as "not infected with HIV" if the child does not meet the criteria for HIV infection but meets the following criteria:**

***Laboratory Criteria***

**Definitive**

- At least two negative HIV antibody tests from separate specimens obtained at greater than or equal to 6 months of age

or

- At least two negative HIV virologic tests\* from separate specimens, both of which were performed at greater than or equal to 1 month of age and one of which was performed at greater than or equal to 4 months of age

**AND**

No other laboratory or clinical evidence of HIV infection (i.e., has not had any positive virologic tests, if performed, and has not had an AIDS-defining condition)

or

Presumptive

A child who does not meet the above criteria for definitive "not infected" status but who has:

- One negative EIA HIV antibody test performed at greater than or equal to 6 months of age and NO positive HIV virologic tests, if performed

or

- One negative HIV virologic test\* performed at greater than or equal to 4 months of age and NO positive HIV virologic tests, if performed

or

- One positive HIV virologic test with at least two subsequent negative virologic tests\*\*\*\*, at least one of which is at greater than or equal to 4 months of age; or negative HIV antibody test results, at least one of which is at greater than or equal to 6 months of age

**AND**

No other laboratory or clinical evidence of HIV infection (i.e., has not had any positive virologic tests, if performed, and has not had an AIDS-defining condition).

**OR**

*Clinical or Other Criteria (if the above definitive or presumptive laboratory criteria are not met)*

- Determined by a physician to be "not infected", and a physician has noted the results of the preceding HIV diagnostic tests in the medical record

**AND**

NO other laboratory or clinical evidence of HIV infection (i.e., has not had any positive virologic tests, if performed, and has not had an AIDS-defining condition)

**IV. A child aged less than 18 months born to an HIV-infected mother will be categorized as having perinatal exposure to HIV infection if the child does not meet the criteria for HIV infection (II) or the criteria for "not infected with HIV" (III).**

\* Draft revised surveillance criteria for HIV infection were approved and recommended by the membership of the Council of State and Territorial Epidemiologists (CSTE) at the 1998 annual meeting (11). Draft versions of these criteria were previously reviewed by state HIV/AIDS surveillance staffs, CDC, CSTE, and laboratory experts. In addition, the pediatric criteria were reviewed by an expert panel of consultants. [External Pediatric Consultants: C. Hanson, M. Kaiser, S. Paul, G. Scott, and P. Thomas. CDC staff: J. Bertolli, K. Dominguez, M. Kalish, M.L. Lindegren, M. Rogers, C. Schable, R.J. Simonds, and J. Ward]

\*\* Children aged greater than or equal to 18 months but less than 13 years are categorized as "not infected with HIV" if they meet the criteria in **III**.

\*\*\* In adults, adolescents, and children infected by other than perinatal exposure, plasma viral RNA nucleic acid tests should **NOT** be used in lieu of licensed HIV screening tests (e.g., repeatedly reactive enzyme immunoassay). In addition, a negative (i.e., undetectable) plasma HIV-1 RNA test result does not rule out the diagnosis of HIV infection.

\*\*\*\* HIV nucleic acid (DNA or RNA) detection tests are the virologic methods of choice to exclude infection in children aged less than 18 months. Although HIV culture can be used for this purpose, it is more complex and expensive to perform and is less well standardized than nucleic acid detection tests. The use of p24 antigen testing to exclude infection in children aged less than 18 months is not recommended because of its lack of sensitivity.

## **ABBREVIATIONS**

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<b>ADAP</b>	AIDS Drug Assistance Program
<b>AIDS</b>	Acquired Immunodeficiency Syndrome
<b>ART</b>	antiretroviral therapy
<b>BRFSS</b>	Behavioral Risk Factor Surveillance System
<b>CADR</b>	CARE Act Data Report
<b>CBO</b>	community-based organization
<b>CDC</b>	Centers for Disease Control and Prevention
<b>CTS</b>	Counseling and Testing System
<b>CY</b>	calendar year
<b>HAART</b>	highly active antiretroviral therapy
<b>HARS</b>	HIVAIDS Reporting System
<b>HITS</b>	HIV Testing Survey
<b>HIV</b>	Human Immunodeficiency Virus
<b>HOPWA</b>	Housing Opportunities for People with AIDS
<b>HRSA</b>	Health Resources and Services Administration
<b>IDU</b>	injection drug user
<b>MAC</b>	<i>Mycobacterium avium</i> complex
<b>MOS</b>	MSM Outreach Survey
<b>MSA</b>	metropolitan statistical area
<b>MSM</b>	men who have sex with men
<b>MSM/IDU</b>	Men who have sex with Men and Injection Drug User
<b>NHSDA</b>	National Household Survey of Drug Abuse

<b>OMB 15</b>	Office of Management and Budget Directive 15
<b>PLWA</b>	Persons living with AIDS
<b>PLWH</b>	Persons living with HIV
<b>PCP</b>	<i>Pneumocystis carinii</i> pneumonia
<b>SAMHSA</b>	Substance Abuse and Mental Health Services Administration
<b>STD</b>	sexually transmitted disease
<b>TB</b>	tuberculosis
<b>ZDV</b>	zidovudine