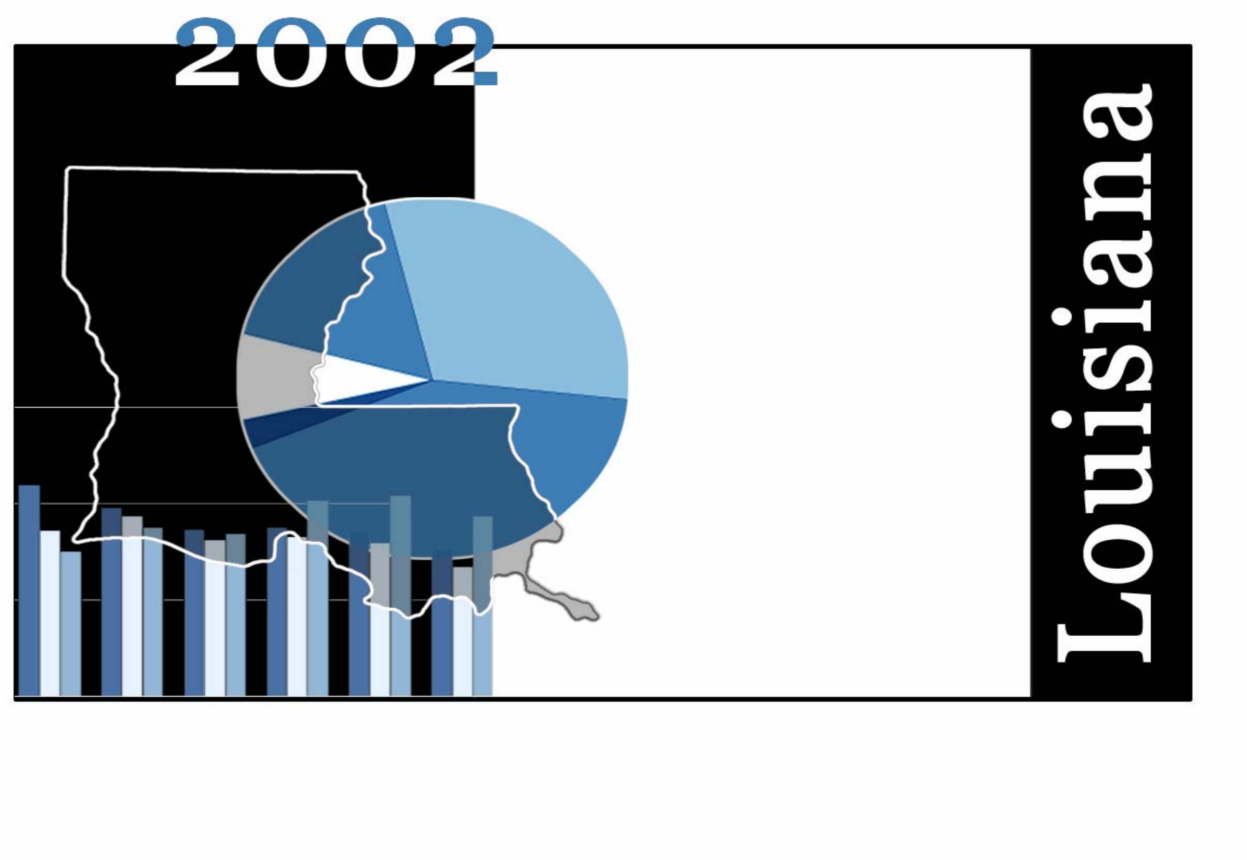

INTEGRATED EPIDEMIOLOGIC PROFILE FOR HIV/AIDS PREVENTION AND CARE PLANNING

ACKNOWLEDGMENTS

We are indebted to the persons and programs that provided data for this document. They have demonstrated their support of efforts to promote the use of high-quality data by community planning groups to help prevent HIV transmission and to provide necessary services for persons affected by HIV disease. We are especially grateful to the staff, past and present, of the Louisiana HIV/AIDS Surveillance Program, who collected much of the data presented in this profile; the Louisiana STD Surveillance Program, especially Jim Scioneaux, Dennis Dorst, Joy Ewell, and Rafael Jarpa; Buddy Bates, coordinator of Louisiana’s Behavioral Risk Factor Surveillance System; Abdelhak Abdou, services data manager in Louisiana’s Ryan White Title II Program; Jessica Lin, data manager in Louisiana’s HIV Prevention Program; and Janet Blair and Amy Drake, of the HIV Incidence and Case Surveillance Branch, Centers for Disease Control and Prevention CDC.

We recognize the following persons, who provided insight and contributed substantially to the writing, organizing, or editing of this document: Stephanie Broyles, Jennifer Chase, Debbie Wendell, Paige Bordelon, Amy Zapata, Courtney Alison, Daphne LeSage, Kira Radtke, and Beth Scalco, of the Louisiana HIV/AIDS Program, which includes Louisiana’s HIV prevention, HIV/AIDS surveillance, and Ryan White Title II programs; and Mary Lyn Gaffield, Hazel Dean, Brooke Steele, and Irum Zaidi, of the HIV Incidence and Case Surveillance Branch, CDC. We appreciate their thoughtful contributions and hard work.

Lastly, we thank the persons who have been involved in the HIV Prevention Community Planning Groups and the Ryan White Title II regional CARE Consortia for providing feedback over the years regarding which data are most helpful to their respective planning groups. We continue to solicit their input, as our efforts are only as good as the information on which we base our programmatic decisions.

This document was created in collaboration with the CDC.

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EXECUTIVE SUMMARY

At the end of 2001, a total of 13,565 persons were known to be living with HIV/AIDS in Louisiana, nearly half (46%) of whom had a diagnosis of AIDS. Currently, there are persons living with HIV in all 64 parishes (county-equivalent subdivisions) in the state, and the number continues to increase each year. Declines in the number of deaths of persons with AIDS since 1995 were caused primarily by the slower progression of HIV-associated immune deficiency among persons who used highly active antiretroviral therapy (HAART) (Centers for Disease Control and Prevention, 1998; Fleming et al., 1998; McNaghten et al., 1999; Palella et al., 1998).

Most new HIV/AIDS cases continue to be diagnosed in the New Orleans region, where nearly half (45%) of all persons currently living with HIV in Louisiana reside. The Baton Rouge region, however, continues to have the highest HIV/AIDS diagnosis rates. In addition, the Baton Rouge region has the highest prevalence of HIV among black women who give birth, as well as a higher-than-expected proportion of deaths among persons with AIDS. Persons from the Baton Rouge region accounted for 32% of the deaths, although only 20% of persons living with AIDS reside in this region.

Of the total general population of Louisiana, 33% are black. The HIV diagnosis rate for this group continues to be disproportionately high; in 2001, it was more than 6 times higher than for whites. In 2001, 74% of newly diagnosed HIV cases and 75% of newly diagnosed AIDS cases were among blacks. For all racial groups in Louisiana, the proportion of newly diagnosed HIV/AIDS cases reported among women has increased steadily; women represented 36% of new HIV/AIDS cases in 2001. Although HIV/AIDS rates in men have declined since 1993, rates in black women have remained stable. Rates among white women have also been relatively stable, despite a slight increase from 2000 to 2001.

Among blacks, heterosexual contact has been the predominant mode of exposure since 1996. Among whites, the predominant exposure remains male-to-male sexual activity. Since 1993, however, the number of cases among men who have sex with men (MSM) has declined substantially. Behavioral data indicate that high-risk behaviors continue in all risk groups.

Although the number of women living with HIV in Louisiana has risen, perinatal transmission rates have dropped dramatically, from more than 25% in 1993 to 5% in 2000. The decrease in transmission rates has been attributed to screening programs for pregnant women and increased use of antiretroviral therapy in pregnant women and their infants. Despite the low transmission rates, the number of HIV-infected infants may continue to increase as the number of infants born to HIV-infected mothers increases because growing numbers of women are living with HIV infection.

In a behavioral survey of high-risk populations conducted in 2001, less than half (45%) of the persons surveyed reported that they had been tested for HIV in the last 12 months. Surveillance data on HIV testing delays indicate that some groups may not fully benefit from recent treatment advances because they do not get tested early in their infections. For example, among persons who tested positive during 1996–2000, one third were diagnosed with AIDS within 3 months of receiving their first positive HIV test results. Testing delays may have contributed to the recent increase in AIDS cases and the leveling of AIDS mortality; the recent changes in these measures were preceded by several years of decreases. Other contributing factors may be limited access to, or use of, health services, and the limitations of current therapies.

In 2001, Ryan White Comprehensive AIDS Resources Emergency (CARE) Act Title II funds provided assistance to approximately 30% of persons living with HIV in Louisiana. There did not seem to be disparities in access to this assistance, as the sociodemographic characteristics of CARE Act clients were representative of the general HIV-positive population in Louisiana. During that same year, Ryan White (CARE) Act Title II funds were used primarily to provide case management and medical care services. In addition, Title II funds were used to supplement primary medical care in areas where gaps in services have been identified (New Orleans, Baton Rouge, and Monroe). However, most primary care funds are contributed by the state of Louisiana through annual funding to 10 regional public medical centers to provide care to uninsured, low-income, or indigent patients, including those living with HIV. Despite the multiple sources of funding for primary medical care, nearly 1 in 4 persons living with HIV who completed the 2000 Statewide Needs Assessment and reported primary care as a need said that they needed more primary care than was available or that their need for care was not being met at all.

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INTRODUCTION

This epidemiologic profile provides detailed information about the current HIV/AIDS epidemic in Louisiana. Specifically, this report describes the general population of Louisiana, HIV-infected persons living in Louisiana, 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 Louisiana. 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 Louisiana?
2. What is the scope of the HIV/AIDS epidemic in Louisiana?
3. What are the indicators of risk for HIV/AIDS infection in Louisiana?
4. What are the patterns of utilization of HIV services in persons in Louisiana?
5. What are the number and characteristics of persons who know they are HIV-positive, but who are not receiving primary medical care?

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

BACKGROUND

This profile was developed as a sample to demonstrate how to use the new integrated guidance for HIV/AIDS prevention and care planning. Previous epidemiologic profiles developed for the State of Louisiana focused on answering questions specific to prevention planning. However, this profile, in accordance with the new integrated guidelines, has been expanded to meet the needs of both prevention and care planning. Many new data sources were included to provide a comprehensive and multi-perspective profile.

DATA SOURCES

Data were compiled from a variety of sources to provide the most complete picture possible. When interpreting the data, keep in mind that each of the data sources has strengths and limitations. A brief description of each of the data sources follows. (For a more detailed description, see Appendix A.)

Core HIV/AIDS Surveillance

HIV/AIDS Surveillance Data

In 1984, the Louisiana Office of Public Health established a surveillance system to track newly diagnosed AIDS cases. This surveillance system was expanded in February 1993 to include confidential name-based HIV reporting. Standardized case report forms are used to collect sociodemographic information, mode of exposure, laboratory and clinical information, vital status (i.e., living or dead), and referrals for treatment or services. According to state evaluations (Louisiana HIV/AIDS Program), HIV infection reporting is estimated to be more than 85% complete for persons who have tested positive for HIV. HIV surveillance data may underestimate the number of recently infected persons because some infected persons either do not know they are infected or have not sought testing. Persons who tested positive at an anonymous test site and have not sought medical care (where they would be confidentially tested) are not included in HIV surveillance statistics. Therefore, HIV infection data can provide only minimum estimates of the number of persons known to be HIV infected. In addition, newly diagnosed cases may be reported to the health department at any point along the clinical spectrum of disease. Consequently, HIV infection data do not necessarily represent characteristics of persons who have been recently infected with HIV. The characteristics of persons who are tested anonymously differ from those who are tested confidentially. Whites and males are more likely to be tested anonymously. Females and blacks are more likely to be tested confidentially. Also, older persons are more likely to be tested anonymously; while younger persons tend to be tested confidentially.

Enhanced Perinatal Surveillance

Perinatal HIV/AIDS surveillance is the ongoing and systematic collection of information on HIV-infected pregnant mothers and on perinatally exposed (i.e., exposed around the time of birth) and HIV-infected children. Extensive medical record abstractions are conducted for all HIV-exposed children and their mothers, and the children are followed up until their infection status is determined. These data address the prevention of perinatal transmission and describe prenatal care, HIV counseling and testing during pregnancy, and use of zidovudine (ZDV) or other antiretroviral drugs for pregnant mothers and neonates. Also, questions regarding treatment issues for women infected with HIV and their children are answered. Enhanced perinatal surveillance data provide perinatal-specific data that can be used to determine the extent to which testing is conducted and ZDV is prescribed in clinical practice, and to identify barriers to the implementation of Public Health Service guidelines. The perinatal data may underestimate the number of mother-infant pairs, because some pregnant women may not know they are infected or have not been tested for HIV. Perinatal data include only those women who have had a positive result from a confidential HIV test and their infants. Perinatal testing for HIV is not required in Louisiana.

Supplemental HIV/AIDS Surveillance Projects

Adult/Adolescent Spectrum of HIV Disease (ASD) Study

The ASD study tracks the spectrum and progression of HIV disease among HIV-infected persons enrolled in the study. Data have been collected since 1990 among persons 13 years and older who have a diagnosis of HIV infection and have received health care at a participating facility. Patient records are abstracted for 12 months before enrollment and at 6-month intervals thereafter until patients die or are lost to follow-up. Louisiana's ASD study is based in 3 publicly funded facilities in New Orleans that provide health care to most of the persons living with HIV infection in the New Orleans area. ASD data are useful for assessing the prescription of prophylactic and antiretroviral treatment over time and for monitoring the clinical manifestations of disease. However, because the ASD study is not population-based, information from this study is not generalizable to HIV-infected persons statewide.

HIV Testing Survey (HITS)

HITS assesses HIV testing patterns among persons at high risk for HIV, evaluates reasons for seeking or avoiding testing, and examines knowledge of state policies for HIV surveillance. In addition, HITS collects behavioral risk information from persons at high risk for infection. The data can be used to evaluate the representativeness of HIV surveillance data by determining the characteristics of persons who delay testing, who are tested anonymously, or who are not tested at all. In 2001, the survey was conducted in Louisiana in New Orleans (Orleans Parish), Baton Rouge (East Baton Rouge Parish), and Monroe. HITS is an anonymous, venue-based survey that targets persons at least 18 years of age and at high risk for HIV infection—men who have sex with men (MSM), injection drug users (IDUs), and high-risk heterosexual adults. Interviewees were recruited at gay bars (MSM), at street locations (IDUs), or in sexually transmitted disease (STD) clinics (high-risk heterosexual adults). The information collected is self-reported and may be biased by what persons are able to remember or feel comfortable reporting. Further, HITS data are not population-based and may not represent the entire high-risk population of an area.

Survey of HIV Disease and Care (SHDC)

SHDC is a review of medical records conducted among a sample of HIV-infected persons receiving medical care in Louisiana. Demographic and clinical information include whether patients are receiving preventive services and therapy recommended by current treatment guidelines. SHDC is designed to collect data from a representative sample of patients receiving HIV care so that population-based estimates of the proportion of HIV-infected persons receiving recommended standards of care can be made. However, trends in care cannot be assessed over time, and the quality of the data depends on the completeness of documentation in the patient's medical record. SHDC collects some behavioral information (e.g., drug use, STDs), but self-reported adherence to therapies may not be known. In addition, data from SHDC may underestimate the amount and type of medical care if the patient received medical care from more than one provider. For example, gynecologic care may be underreported if the provider of this care was not an HIV specialist.

Behavioral Surveys

MSM Outreach Survey (MOS)

During 1995–2000, outreach surveys were conducted across Louisiana at bars whose clientele are MSM. The survey was a 1-page, self-administered questionnaire distributed by outreach workers from 20 local community-based organizations (CBOs). Each CBO surveyed 50 to 150 MSM twice per year at 1 to 2 bars where they conducted outreach activities. Every person at the bar was approached. If the bar was very busy, the outreach workers selected a representative sample of persons at the bar (e.g., they approached every 3rd person who entered the bar). Respondents were asked about sex partners, history of condom use, history of receptive and insertive anal sex, and HIV status. Because these data were collected in bars, the data are representative of only the MSM who go to gay bars and cannot be generalized to all MSM.

Street Outreach Surveys (SOS)

SOS have been administered by CBOs in every region of the state since 1995. The surveys, 1-page, self-administered questionnaires, are distributed each quarter by outreach workers at 3 sites where they actively conduct street outreach activities. These sites are in neighborhoods with one or more of the following characteristics: high rates of HIV/STDs, high levels of drug use, exchange of sex for money or drugs, or "crack" houses. Questionnaires are collected between 3:00 p.m. and 8:00 p.m. at outdoor locations (i.e., street corners, at bus stops, in public housing developments, and locations outside convenience stores and apartment complexes). All surveys are generally conducted at the same sites each quarter. Every person at the site is approached, but workers select a representative sample of persons at the site (e.g., every 3rd person) if it is very busy. Respondents are asked about sex partners, history of condom use, drug use, HIV testing history, and exposure to prevention programs. These data represent persons at particularly high risk for HIV and are not generalizable to the general population in the local community.

Behavioral Risk Factor Surveillance System (BRFSS)

The BRFSS is a state-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. A sexual behavior module was added in 1994, 1995, 1996, 1998 and 2000. In this module, adults (aged 18–49) were asked about number of sex partners, condom use, and treatment for STDs. Data from the BRFSS survey are population-based; thus, estimates about testing attitudes and practices can be generalized to the adult population of a state, not just persons at highest risk for HIV/AIDS. However, because BRFSS respondents are contacted by telephone, the data are not representative of households that do not have telephones.

Youth Risk Behavior Survey (YRBS)

The YRBS is a self-administered questionnaire given every 2 years to a representative sample of students in grades 9 through 12 at the state and local level. In Louisiana, the survey is administered at the state level and in Orleans Parish public schools; however, only the survey administered to Orleans Parish high school students includes questions related to sexual behavior. The Orleans Parish YRBS collects information on 6 categories of behaviors; sexual behaviors that contribute to unintended pregnancy and STDs, including HIV infection, constitute 1 category. Questions are also asked about exposure to HIV prevention education materials, sexual activity (age at initiation, number of partners, condom use, past drug or alcohol use), contraceptive use, and pregnancy history. The YRBS is a standardized questionnaire, so comparisons can be made across participating jurisdictions. Jurisdictions may also add questions of local interest. However, because the YRBS project relies upon self-reported information, sensitive behavioral information may be underreported or overreported. Also, because the YRBS questionnaire is administered in school, the data are representative only of adolescents who are enrolled in school and cannot be generalized to all adolescents. For example, students at highest risk, who may be more likely to be absent from school or to drop out of school, may be underrepresented in this survey, especially those in upper grades. The questionnaire does not include questions about homosexual or bisexual behavior.

STD Surveillance

STD Case Reporting

The Louisiana Office of Public Health STD Control Program conducts statewide surveillance to determine the number of reported cases of STDs and monitor trends. Other services include partner counseling and, to help reduce the spread of STDs, referral services for examination and treatment. In Louisiana, chancroid, chlamydia, gonorrhea, lymphogranuloma venereum, and syphilis are reportable STDs. STD surveillance data (e.g., rates of rectal gonorrhea) can serve as a surrogate marker for unsafe sexual practices and demonstrate the prevalence of changes in a specific behavior. STD data are widely available at the state and local level. Because of shorter incubation periods between exposure and infection, STDs can serve as a marker of recent unsafe sexual behavior. In addition, certain STDs (e.g., ulcerative STDs) can facilitate the transmission or acquisition of HIV infection. Finally, changes in trends of STDs may indicate changes in community sexual norms, such as unprotected sex. Some STDs are reportable, but state requirements for reporting differ. The reporting of STDs from private-sector providers may be less complete. Although STD risk behaviors result from unsafe sexual behavior, they do not necessarily correlate with HIV risk.

HIV Counseling and Testing Data

Counseling and Testing System (CTS)

The Louisiana Office of Public Health conducts HIV CTS services at more than 150 sites across Louisiana. These sites include STD, family planning, prenatal and tuberculosis (TB) clinics, drug treatment centers, CBOs, parish health units, community health centers, and mobile test sites. The CTS collects information on counseling and testing services and the characteristics of clients receiving the services, such as demographics, risk information, and testing information (testing history, test result). All sites offer anonymous and confidential testing. Of the persons tested in 2000, 84% received confidential testing. The CTS provides standardized data on clients who are tested for HIV, which may offer insights into HIV infection rates in an area's high-risk population. The CTS collects information only from persons who seek counseling and testing services or agree to be tested after consultation at one of the publicly funded sites. Therefore, estimation of HIV statewide seroprevalence is not possible with CTS data because the clients self-select for testing.

Substance Abuse Data

Treatment Episode Data Set (TEDS)

TEDS is a national data set maintained by the Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA), which accrues more than 1.5 million records of treatment admissions for substance abuse annually. TEDS comprises data routinely collected by states for the monitoring of their individual substance abuse treatment programs. TEDS collects information on client demographics, information about the number of prior treatments, usual route of administration for each problem substance, frequency of use, age at first use, and services provided. Most facilities that report TEDS data receive state funding for the provision of substance abuse treatment. Although TEDS does not represent the total demand for substance abuse treatment, it does include a significant proportion of all admissions to substance abuse treatment. The data also include admissions that constitute a burden on public funds. TEDS is based upon records of admissions and does not represent individuals. Thus, a person admitted to treatment twice within the same calendar year would be counted as 2 admissions.

Drug Abuse Warning Network (DAWN)

The DAWN is an ongoing, national data system that collects information on drug-related visits to hospital emergency departments and on drug-related deaths (provided by participating medical examiner offices). Emergency department estimates are produced for 21 large metropolitan areas and for the nation. Drug-related death data are collected in more than 40 metropolitan areas. DAWN was established to (1) provide national, state, and local areas with data for program planning and policy development; (2) identify substances associated with drug abuse deaths; (3) monitor drug abuse patterns and trends; (4) detect new drugs of abuse; and (5) assess adverse health outcomes associated with drug abuse. Standardized data collection and data management procedures are used to ensure the accuracy of DAWN data. Participation in DAWN is voluntary;

therefore, counts of drug abuse deaths do not represent the entire service area if participation is not universal. DAWN collects information only about drug abuse episodes that have resulted in a death that has been identified as a drug-induced or drug-related death. Finally, because DAWN relies on death investigation case files for reporting, drugs may be underreported (if not reported), or drug information may not be specific (if drug name is recorded differently).

National Household Survey of Drug Abuse (NHSDA)

The NHSDA is an ongoing survey on the use of illicit drugs by the U.S. population aged 12 or older. The information collected includes use of cocaine, receipt of treatment for illicit drugs, and need of treatment for illicit drugs during the past year; use of alcohol, tobacco, or marijuana during the past month; and perceived risk for binge drinking, marijuana use, or smoking during the past month. To increase the level of valid reporting, a combination of computer-assisted interviewing methods has been used since 1999 to provide respondents with highly private and confidential means of responding to questions about substance use and other sensitive behaviors. Direct state-level estimates are available only for the 8 states with the largest populations; therefore, the Louisiana data are based on statistical estimates. Because the NHSDA estimates represent behaviors in the general population, the survey may underestimate the level of substance use in the population at highest risk for HIV. Further, data from the NHSDA are self-reported and subject to recall bias; therefore, the level of a sensitive behavior may be underreported.

Vital Statistics Data

Birth and Death Data

The National Center for Health Statistics receives information on births and deaths in the United States through a program of voluntary cooperation with state government agencies (i.e., state departments of health, state offices of vital statistics) called the Vital Statistics Cooperative Program. States use standard forms to collect birth and death data. The birth certificate form includes demographic information on the newborn and the parents, insurance status, prenatal care, prenatal risk factors, maternal morbidity, mode of delivery, pregnancy history, and clinical characteristics of the newborn. Death certificates include demographics, underlying cause of death, and contributions of selected factors to the death (i.e., smoking, accident, or injury) of all deceased persons. Reporting is approximately 100% complete for births and deaths. Therefore, inferences can be made concerning the number of live births in a service area. The data can also be used to determine the effect of deaths related to HIV infection in a service area. The data on birth certificates that are obtained from patient medical records (i.e., smoking history, morbidity) may be incomplete. In addition, deaths resulting from, or whose underlying cause was, HIV infection may be underreported on a death certificate. Clinical information related to HIV or AIDS may be missing. In Louisiana, death records are not available as promptly as AIDS case reports are.

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.

Louisiana State Census Data Center

This data center is administered by the State of Louisiana. The Web site for the center (http://www.state.la.us/census) includes current population estimates and projections; socioeconomic, income, and poverty status information; demographic profiles and rankings; and geographic units from which census data are obtained (state, parishes, cities, and metropolitan areas). Parish population trends are also provided. Links to local affiliates of the state census data center and to other Web sites with census information are included as well.

Ryan White CARE Act Data

Title I and II Statewide HIV/AIDS Needs Report

Every 2 years, Ryan White Title I and Title II programs administer a detailed survey to persons living with HIV/AIDS in Louisiana. The purposes of the survey are to gain a greater understanding of the current level of HIV/AIDS service needs and to provide insight into consumers' perceptions of the availability and quality of HIV/AIDS services throughout the state. The 2000–2001 survey included a variety of demographic questions (residence, age, race, gender, income levels and sources, and type of health insurance coverage), as well as questions about HIV-related primary care, illness severity, and individual experiences with taking combination therapy. The sample population is weighted heavily toward persons who are in care, as potential respondents were encountered in primary care clinics, social service agencies, community health centers, Medicaid enrollment centers, substance abuse or mental health treatment facilities, homeless or transitional shelters, and local jails. Persons who were not in care during the relevant time period, not in care at all, or who were unwilling or unable to complete the questionnaire were not surveyed. Thus, the survey provides a measure of the needs of only the persons who were receiving some type of care and does not adequately address the needs of those who have not sought care.

Ryan White Title II CAREWare

Since 1993, the HIV/AIDS Program of the Louisiana Office of Public Health has collected data on persons served through Louisiana Ryan White Title II funding. In late 1999, the AIDS Drug Assistance Program (ADAP) data collection system was expanded into a more comprehensive database named Louisiana CAREWare. This database includes key information on all persons receiving assistance through any of the programs funded by Ryan White Title II, as well as through funds from State Formula Housing Opportunities for People with AIDS (HOPWA) funds. To be eligible for Ryan White Title II services, a person must be living with HIV/AIDS, be a resident of Louisiana, and have an income that is equal to or less than 200% of the current year's federal poverty level. Information collected from service providers throughout the state includes basic demographic and risk information on each of the clients, eligibility verification data (current address, current income, HIV diagnosis, Louisiana Medicaid number), the type of services received, the date and quantity of services received, the cost of these services, and other pertinent information (history of substance abuse or mental health treatment, veteran status, current pregnancy status). CAREWare is an important tool for monitoring which Ryan White resources are being used, how often, and by whom. However, the data in Louisiana CAREWare cannot be generalized to all HIV-infected persons living in the state, because the data collected are only for persons who (1) know their HIV serostatus, (2) are not eligible for health coverage through private insurance or Louisiana Medicaid, (3) are currently seeking care and treatment services from providers funded through Ryan White Title II, and (4) are financially eligible to receive services.

PROFILE STRENGTHS AND LIMITATIONS

When making planning decisions, it is important to consider the overall strengths and limitations of this document. Although the profile is comprehensive and draws from a number of data sources, there are many things that the profile cannot explain.

Although the HIV/AIDS surveillance system in Louisiana is extensive, it is based on data on people who have been tested confidentially for HIV. Consequently, HIV infections are underdetected and underreported because only persons with HIV who choose to be tested confidentially are counted. Also, persons are tested at differing times after they become infected, and many persons are not tested until HIV infection has progressed to AIDS. Thus, it is important to remember that the data in this report do not necessarily represent the characteristics of persons who have been recently infected with HIV, nor do they provide a true measure of HIV incidence.

Analyses of many different data sets are presented to provide robust representations of particular subpopulations. However, demographic and geographic subpopulations are disproportionately sensitive to differences and changes in access to health care, HIV testing patterns, and specific prevention programs and services. All of these issues must be carefully considered when interpreting HIV data. Therefore, it is important to make comparisons across data sources to get the most complete picture.

The most current analysis available is presented for each source of data; however, the most recent data differ from one source to another. For example, the most recent data available for the SHDC are from 1998, whereas some data (e.g., HITS) were collected in 2001. In addition, more detailed analyses are available for some sources. Although a limited number of analyses were available from the Bureau of the Census at the time this profile was prepared, that agency expanded its race/ethnicity reporting categories in 2000. In this profile, however, the new categories are not used in analyses of HIV/AIDS data. The information in this report is for statewide planning, but some regional data are presented. Detailed regional information is available within regional HIV/AIDS profiles.

PROFILE PREPARATION

This profile was prepared by the Louisiana Office of Public Health HIV/AIDS Surveillance Program in close collaboration with the Louisiana Ryan White CARE Act and Prevention Programs and the Centers for Disease Control and Prevention (CDC). The Louisiana STD

Control Program provided direct guidance on the use and interpretation of STD (non-HIV) data, and BRFSS data were provided by the Louisiana BRFSS program. The World Wide Web was used as much as possible to obtain needed data. All the sociodemographic data, vital statistics, substance abuse data, and YRBSS information were downloaded from Web sites. Several of the Web sources compile their data from other organizations and agencies, such as the Kaiser Family Foundation (for insurance information) and the Health Resources and Services Administration (HRSA) (for the CARE Act Data Report [CADR]).

Throughout this report, the following statistical methods were used to measure the effect of the epidemic upon specific populations, adjust for delays in reporting, and account for cases with missing risk information:

- HIV prevalence estimates were calculated using a method recommended by the CDC. This method takes into account the reporting delay for HIV (non-AIDS) and AIDS cases and divides the number of persons diagnosed with HIV/AIDS by the estimated range of persons diagnosed with HIV infection (71%–79%).
- Case rates were calculated for the 12-month period per 100,000 population. For these rates, denominators were derived from the 2000 census. The numerator is the number of reported cases that were diagnosed during the 12-month period.
- When HIV/AIDS data are presented as trends, the data are adjusted to account for reporting delay for recently diagnosed cases. Reporting delay refers to the time between the diagnosis of a case and receipt of the report by the health department. Cases recently diagnosed may not yet have been reported; therefore, for recent periods, the number of cases diagnosed, but not yet reported, is estimated and presented as expected cases. (For the methods used to estimate the numbers of these cases, see reporting delay in the Glossary.)
- Regarding "missing risk information," the cases that have been diagnosed recently are more likely to be reported without a specified risk (exposure). To provide data on the reclassification of risk over time, the cases with missing risk information must be assigned to one of the risk categories. Cases with missing risk information are distributed to a risk category based on regional sex- and race-specific risk probabilities provided by the CDC. Consequently, data adjusted for risk redistribution represent the expected number of cases in each risk category. For example, the adjusted number of cases attributed to injection drug use in 2001 would be the sum of (1) the number of cases diagnosed in 2001 in which injection drug use was the risk factor and (2) the number of cases diagnosed in 2001 without risk information, but in which injection drug use was assigned as the likely risk factor.
- 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 1 or more races to indicate their racial identity. However, for comparisons with HIV/AIDS data for which information on only 1 race and Hispanic ethnicity is collected, the race/ethnicity data obtained from the Bureau of the Census were combined into 5 categories: 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.

ORGANIZATION OF THE PROFILE

The epidemiologic profile is organized into 2 main sections, within which 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 in Louisiana, 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 Louisiana? Orients the reader to the overall demographic and socioeconomic characteristics of the general population of Louisiana.

Question 2: What is the scope of the HIV/AIDS epidemic in Louisiana? Examines the effect of the HIV/AIDS epidemic on a number of population groups in Louisiana to help planners focus prevention and care services.

Question 3: What are the indicators of risk for HIV/AIDS infection in Louisiana? 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 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 Louisiana who are HIV-infected. It is organized around 2 key questions:

Question 1: What are the patterns of utilization of HIV services of persons in Louisiana? Characterizes the patterns in the use of services by a number of the populations living with HIV/AIDS in Louisiana. Information is provided from HRSA-funded programs as well as supplemental studies that examine specific aspects of HIV care in Louisiana.

Question 2: What are the number and characteristics of persons who know they are HIV-positive but who are not receiving primary medical care? Describes current studies in Louisiana to assist in assessing the unmet need of persons who know they are HIV-positive, but who are not in care. Presents special studies in which persons living with HIV/AIDS are asked about their service needs and their perceptions of care in Louisiana.

Section

1

CORE EPIDEMIOLOGIC QUESTIONS

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

Question 1

What are the sociodemographic characteristics of the general population in Louisiana?

This section provides information on the demographic and socioeconomic characteristics of the state. Regional Implementation Plans, which are included as a separate chapter of the Comprehensive Plan, profile each region in more detail.

SUMMARY

Population: In the 2000 census, the total population reported for Louisiana was 4,468,976 persons. Louisiana comprises 64 county-equivalent subdivisions that are called parishes. Parish populations ranged from a low of 6,618 persons (Tensas Parish) to upwards of a half-million persons in Orleans Parish. The Greater New Orleans area (Orleans, Jefferson, Plaquemines, St. Bernard, and St. Tammany Parishes) represented 30% of Louisiana's population. The major cities in order of descending population are New Orleans, Baton Rouge, Shreveport, Lafayette, and Lake Charles, with populations ranging from 484,674 to 71,757. The state is considered rural; however, 75% of its population reside in urban areas. Overall, the state has 8 metropolitan statistical areas (MSAs).

Public Health Regional Structure: The Louisiana Office of Public Health is divided into 9 distinct geographic regions (see map on page 97). A public health region comprises 4 to 12 parishes surrounding one of the major urban centers in the state. Regional activities include clinical services for family planning, STD screening and treatment, maternal and child health, special health services for children, nutrition programs, and immunizations. Services also include sanitation, environmental monitoring, and epidemiologic investigations. Each region is home to a public hospital where residents may obtain primary care.

Demographic Composition: According to the 2000 census data, the racial and ethnic composition of the state was estimated to be 64% white, 32% black, 1% Asian, and 0.6% American Indian. Persons of Hispanic origin were estimated to make up 2.4% of the total population.

Age and Sex: In 2000, the median age of Louisiana residents was 34 years. More than 25% of the population were younger than 18 years of age; 11% of the population were 65 or older. The proportion of females in the overall population was slightly higher than the proportion of males (52% vs. 48%).

Poverty, Income, and Education: In 2000, the median household income in Louisiana was $31,034. According to the 2000 census, nearly 900,000 residents (20% of the population) for whom poverty status was determined had incomes that fell below the federally defined poverty level, compared with 13% nationally. Louisiana has one of the highest proportions of children living in poverty: 27% of all children 18 years or younger in 2000. Of the total number of families, 42% had a female head of household (no husband present), and 16% of all families had incomes below the poverty level. The unemployment rate in 2000 was 6% statewide. One of every 5 adults (19–64 years) in Louisiana is uninsured. In 2000, Louisiana ranked 45th among states for per capita income. In the 2000 census, more than 75% of Louisiana residents aged 25 years and older reported educational attainment of high school diploma or higher.

Health Indicators: It was recently reported in *Health Care State Rankings for 2002* that Louisiana ranks 49th in the nation in health indicators. According to this report, prenatal care needs to be improved in the state: Louisiana ranked 2nd in the percentage of low-birthweight babies (10.3% of live births), 4th in the rate of infant mortality (9.3 infant deaths per 1,000 live births), and 15th in the proportion of women receiving late or no prenatal care. Additionally, Louisiana ranks 9th highest in the rate of births to teenagers (62.1 births to mothers aged 15–19 per 1,000 live births vs. 48.5 nationally) and 3rd in the nation for rates of syphilis and gonorrhea. In 2000, the transmission rates for these diseases were at least twice the national rate (5.0 syphilis cases per 100,000 persons vs. 2.5 nationally; 314 gonorrhea cases per 100,000 persons vs. 133.2 nationally). Lastly, the *2002 Louisiana Health Report Card* indicates that many persons in Louisiana seek care at hospital emergency departments in lieu of a primary care physician: Louisiana ranked 17th nationally in the number of visits to emergency departments in hospitals.

Public Aid: In 2000, 16.2% of Louisiana residents were covered by Medicaid, and 13.4% were covered by Medicare. Approximately 502,000 children 20 years of age or younger rely on Medicaid for their health needs.

DEMOGRAPHICS

In 2000, the population of the state of Louisiana was 4,468,976 persons (Table 1). The largest proportion of the population were 25–44 years of age (28.9% overall), and nearly 50% of the population were in the combined age groups 13–24 and 25–44 years. The age distribution among males and females was similar; however, a slightly higher proportion of women, compared with men, were elderly (65 years and older).

Table 1. Percentage distribution of the general population, by age group and sex, Louisiana, 2000

Age group (yrs.)	Males, % (N = 2,162,903)	Females, % (N = 2,306,073)	Total population, % (N = 4,468,976)
< 2	3.0	2.7	2.9
2–12	17.3	15.5	16.4
13–24	19.3	18.0	18.6
25–44	29.2	28.7	28.9
45–64	21.5	21.7	21.6
≥ 65	9.6	13.4	11.6

Source. Census 2000, US Bureau of the Census, and Louisiana Census Data Center Profile.
Note. Percentages may not add to 100% because of rounding.

The collection of race and ethnicity information was expanded in the 2000 census to allow persons the opportunity to report belonging to more than 1 race, as well as to report Hispanic ethnicity. Despite this expansion, more than 60% of men and women in Louisiana reported themselves as non-Hispanic whites (Table 2). Non-Hispanic blacks constituted 32.6% of the population, Hispanics constituted 2.4%, and Asians and American Indians totaled 1.3% and 0.5%, respectively.

Table 2. Percentage distribution of the general population, by race/ethnicity and sex, Louisiana, 2000

Race/ethnicity	Males, % (N = 2,162,903)	Females, % (N = 2,306,073)	Total population (N = 4,468,976)
White, not Hispanic	63.9	62.5	63.2
Black, not Hispanic	31.7	33.5	32.6
Hispanic	2.5	2.3	2.4
American Indian	0.6	0.5	0.5
Asian	1.3	1.2	1.3

Source. Census 2000, US Bureau of the Census, 2001, and Louisiana Census Data Center Profile.
Note. For an explanation of how racial/ethnic groups were combined in this profile, see p. 11.

Louisiana is divided into 9 public health regions for the purpose of public health planning. The regions comprise 4 to 12 parishes surrounding one of the major urban centers in the state: New Orleans (Region I), Baton Rouge (Region II), Houma (Region III), Lafayette (Region IV), Lake Charles (Region V), Alexandria (Region VI), Shreveport (Region VII), Monroe (Region VIII), and Hammond/Slidell (Region IX). Region I has the largest population in the state, and Region V has the smallest. The proportion of persons reporting themselves as non-Hispanic white ranges from a low of 49% in Region I to a high of 81% in Region IX (Table 3).

Table 3. Percentage distribution of the general population, by race/ethnicity and public health region, Louisiana, 2000

Public health region		Race/ethnicity [a]					
		White, not Hispanic %	Black, not Hispanic %	Hispanic %	American Indian %	Asian %	Total population
I	New Orleans	49	43	5	<1	3	1,034,126
II	Baton Rouge	58	39	2	<1	2	603,634
III	Houma	70	25	2	2	<1	383,697
IV	Lafayette	70	27	1	<1	<1	548,154
V	Lake Charles	76	21	2	<1	<1	283,429
VI	Alexandria	70	27	2	<1	<1	301,390
VII	Shreveport	59	38	2	<1	<1	522,560
VIII	Monroe	62	36	1	<1	<1	353,865
IX	Hammond/Slidell	81	16	2	<1	<1	438,121

Source. Census 2000, US Bureau of the Census, and Louisiana Census Data Center Profile.
Note. Percentages may not add to 100% because of rounding.
[a]For an explanation of how racial/ethnic groups were combined in this profile, see p. 11.

Regions I and II have the highest proportions of non-Hispanic blacks (43% and 39%, respectively). In Region I, 5% of persons consider themselves Hispanic and 3% consider themselves Asian; therefore, this area has the highest concentration of both Hispanic and Asian persons in the state. Region III is home to the highest concentration of persons reporting themselves as American Indian.

According to the 2000 census, the distribution of race/ethnicity differed in Louisiana parishes with populations of more than 250,000 (Table 4). In Orleans Parish, the most populous parish, 67.3% of the population indicated their race/ethnicity as non-Hispanic black, compared with 40.1% in East Baton Rouge and only 22.9% in Jefferson. Jefferson Parish reported the highest proportion of Hispanics and non-Hispanic whites. Less than 1% of the population in each of these parishes reported themselves as American Indian. The proportions of persons in the 3 parishes that identified themselves as Asian ranged from 2% to 3%; approximately 1% in each of the areas reported that they were non-Hispanic and belonged to 2 or more races.

Table 4. Percentage distribution of the general population, by race/ethnicity for parishes of >250,000 population compared with population of Louisiana, 2000

	Population, %			
Race/ethnicity[a]	East Baton Rouge (N = 412,852)	Jefferson (N = 455,466)	Orleans (N = 484,674)	State (N = 4,468,976)
White, not Hispanic	56.2	69.8	28.1	63.2
Black, not Hispanic	40.1	22.9	67.3	32.6
Hispanic	1.8	7.1	3.0	2.4
American Indian	0.2	0.4	0.2	0.5
Asian	2.1	3.1	2.3	1.3

Source. Census 2000, US Bureau of the Census, and Louisiana Census Data Center Profile.

[a] For an explanation of how racial/ethnic groups were combined in this profile, see p. 11.

SOCIOECONOMIC STATUS

In 2000, the highest proportion of persons living below the poverty level during the last 12 months—statewide and in the most populous parishes—were less than 25 years of age (Table 5). Nearly 60% of the males and approximately 47% of the females who were living below the poverty level were less than 25 years of age. In each of the 3 parishes and statewide, a greater proportion of women living below the poverty level, compared with men, were older than 25 years. For example, statewide, 25.4% of women aged 26–44 were living below the poverty level, compared with 17.1% of the men in that age group.

Table 5. Percentage distribution of persons living below the poverty level during the past 12 months, by sex and age group for parishes of >250,000 population, Louisiana, 2000

	Below poverty level, %							
	East Baton Rouge		Jefferson		Orleans		Statewide	
Age group (yrs.)	Males (N = 34,201)	Males (N = 34,201)	Males (N = 23,456)	Females (N = 31,162)	Males (N = 57,140)	Females (N = 75,500)	Males (N = 370,499)	Females (N = 505,738)
≤ 25	74.3	74.3	59.4	40.9	56.3	47.6	59.9	46.8
26–44	11.3	11.3	13.2	27.3	22.7	28.2	17.1	25.4
45–64	7.4	7.4	18.8	18.7	18.0	17.1	15.4	16.3
≥ 65	7.0	7.0	8.5	13.1	3.1	7.1	7.6	11.5

Source. Census 2000, US Bureau of the Census, and Louisiana Census Data Center Profile.

The most common level of educational attainment among persons 25 years and older, regardless of location or sex, was a high school diploma or its equivalent (Table 6). Statewide, 32.8% of men and 35.9% of women had earned a high school diploma or its equivalent. Similar percentages were observed in Orleans and Jefferson Parishes. In East Baton Rouge, higher proportions of men reported attending some college or receiving an associate’s or a bachelor’s degree or a graduate degree compared with statewide estimates or those in Jefferson or Orleans Parishes. Fewer than 10% of men or women received less than a 9th grade education in the most populous parishes or statewide.

Table 6. Percentage distribution of the population 25 years or older, by educational attainment and sex, for parishes of >250,000 population, Louisiana, 2000

	East Baton Rouge		Jefferson		Orleans		Total	
Education	Males, % (N = 112,063)	Females, % (N = 127,597)	Males, % (N = 138,586)	Females, % (N = 156,417)	Males, % (N = 132,414)	Females, % (N = 159,864)	Males, % (N =1,254,831)	Females, % (N =1,436,647)
< 9th Grade	5.7	4.3	7.9	7.4	7.5	9.7	9.7	8.7
High school, no diploma	8.4	10.9	11.2	13.8	11.9	12.1	14.3	13.8
High school, diploma	25.0	31.3	30.7	32.7	30.8	32.9	32.8	35.9
Some college	25.6	20.2	20.3	21.8	18.2	19.0	19.9	19.5
Associate or bachelor’s degree	20.8	22.6	21.8	18.3	18.8	18.0	15.8	15.9
Graduate or professional degree	14.4	10.7	8.0	5.9	12.8	8.3	7.5	6.1

Source. Census 2000, US Bureau of the Census, and Louisiana Census Data Center Profile.

In a population survey conducted in Louisiana in 1999–2000, 24% of the men and the women aged 19–64 years reported that they did not have health insurance coverage (Table 7). Approximately two thirds (65%) of the men received health insurance coverage through their employer; a slightly lower proportion of women obtained their health insurance coverage through an employer (61%). Few persons reported coverage through individual plans, and 5% of men and 8% of women received health coverage from Louisiana's Medicaid Program.

Table 7. Percentage distribution of adults (19–64 years), by health insurance coverage and sex, Louisiana, 1999–2000

Source of insurance	Men, % (N = 1,205,800)	Women, % (N = 1,399,380)
Employer	65	61
Individual plan	6	6
Medicaid	5	8
None/uninsured	24	24

Source. 2001 Current Population Survey, Kaiser Family Foundation.

Question 2 What is the scope of the HIV/AIDS epidemic in Louisiana?

The HIV/AIDS epidemic has affected persons in all sex, age and racial/ethnic groups and all parishes in Louisiana. This effect, however, has not been the same for all groups. In the beginning of the epidemic, the number of cases of HIV infection increased most sharply among white MSM. Although white MSM are still disproportionately affected by the epidemic, recent trends suggest a shift in the HIV/AIDS epidemic toward women, blacks, and high-risk heterosexual adults. To plan for HIV prevention and care and to allocate limited resources as the epidemic continues to change and the number of persons living with HIV continues to grow, it is extremely important to identify those populations most affected and most at risk for HIV infection.

Highlights

- There are persons living with HIV in every parish in Louisiana, and the number continues to increase each year. At the end of 2001, a total of 13,565 persons were known to be living with HIV/AIDS in Louisiana, 6,236 (46%) of whom had a diagnosis of AIDS.
- In 2001, as in past years, the Baton Rouge region surpassed the New Orleans region in the rates of diagnosis of HIV/AIDS (number of cases per population in the region). However, the New Orleans region had the highest number of HIV/AIDS cases diagnosed that year.
- Since 1996, the number of new AIDS cases and deaths of persons with AIDS has decreased dramatically, coinciding with the widespread use of antiretroviral therapy. However, data from recent years indicate a leveling or a reversal of these declines, which may be due to factors such as late testing; limited access to, or use of, health services; and the limitations of current therapies.
- The HIV diagnosis rate for blacks continues to be disproportionately high and, in 2001, was more than 6 times higher than that for whites. In 2001, 74% of newly diagnosed HIV cases and 75% of newly diagnosed AIDS cases were in the black population.
- Among blacks, heterosexual contact has been the predominant mode of exposure since 1996. Among whites, the predominant exposure remains male-male sexual activity, although the number of cases among MSM has declined substantially since 1993.
- For all racial groups in Louisiana, the proportion of newly diagnosed HIV/AIDS cases reported among women has increased steadily since the beginning of the epidemic; women represented 36% of new HIV/AIDS cases in 2001. Although HIV/AIDS rates for men have been declining since 1993, rates for black women have remained relatively stable. Rates for white women have also been stable, but they increased slightly from 2000 to 2001.
- Because of screening programs for pregnant women and the increased use of antiretroviral therapy in pregnant women and their infants, perinatal transmission rates have dropped dramatically, from more than 25% in 1993 to 5% in 2000. However, despite the low transmission rates, the number of HIV-infected infants may continue to increase as the number of infants born to HIV-infected mothers increases because growing numbers of women are living with HIV.

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 2001 and reported through May 2002. The regional epidemiologic profiles provide a more detailed description of the epidemic in each public health region. Unless noted, all data come from Louisiana's HIV/AIDS Surveillance Program.

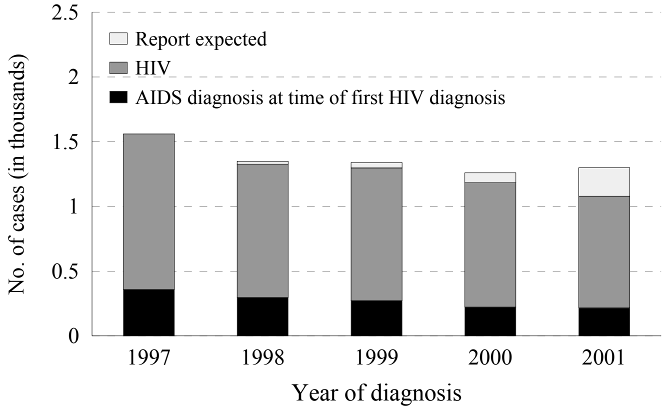
OVERALL HIV/AIDS TRENDS

Statewide during 2001, a total of 1,078 new HIV cases were diagnosed. This number reflects persons whose HIV infection was first diagnosed in 2001 and who were reported to the health department. Because of the potentially long delay from HIV infection to diagnosis, AIDS and HIV infection may be diagnosed at the same time. (Positive results of anonymous tests are not included in the data because of the likelihood of repeat tests.) In recent years, the number of diagnosed cases, including the number of expected cases (for methods of estimating, see *reporting delay* in the Glossary), has remained fairly stable. Reporting delays were estimated by using a maximum likelihood procedure, taking into account possible differences in reporting delays in the exposure, geographic, ethnic, age, and gender categories. The estimated numbers of cases that will be reported are presented as expected cases. Of the newly diagnosed cases in 2001, 20% were simultaneous diagnoses of AIDS and HIV infection (Figure 1).

Figure 1

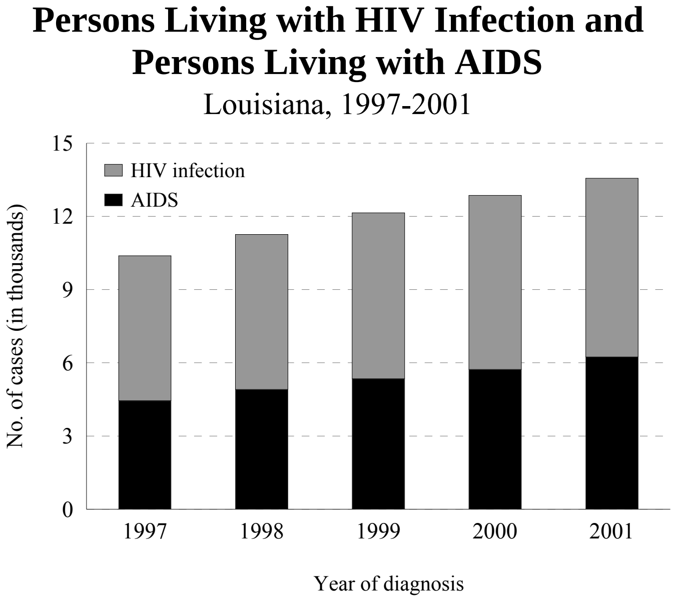
Trends in Cases of HIV Infection and AIDS

Louisiana, 1997-2001



The number of persons living with HIV infection has increased each year (Figure 2). At the end of 2001, a total of 13,565 persons were known to be living with HIV in Louisiana; in 6,236 persons (46%), HIV infection had progressed to AIDS. This number represents a *minimum* estimate of persons living with HIV by the end of 2001 because it does not include HIV-infected persons who have not been tested or who have only been tested anonymously. The HIV/AIDS Surveillance Program estimates that between 18,600 and 20,700 persons were living with HIV at the end of 2001. Of all persons living with HIV infection, the proportion of persons living with AIDS increased from 43% in 1997 to 46% in 2001. This trend is largely due to the introduction of effective drug treatment and therapies, which can often delay the progression from HIV to AIDS and from AIDS to death.

Figure 2



Blacks continue to be disproportionately affected by HIV/AIDS. Although only 32% of the state's population is black, this group represented 74% of the new HIV cases diagnosed in 2001 and 64% of all persons living with HIV infection (Table 8). The HIV diagnosis rate for blacks is more than 6 times higher than the rate for whites and 3 times higher than that for Hispanics.

The proportion of new HIV/AIDS cases reported among women in Louisiana has increased steadily. In 2001, 28% of the persons living with HIV were women; however, 36% of new cases diagnosed were in women.

The majority of persons diagnosed with HIV in 2001 and living with HIV at the end of 2001 were between the ages of 25 and 44 (Table 8). Twenty percent of new HIV cases were diagnosed in teenagers or young adults, ages 13-24. In 2001, nine infants were diagnosed with HIV.

In 2001, more cases of HIV were diagnosed in the New Orleans region (Region I) than the other regions. However, that same year, as in past years, the Baton Rouge region (Region II) surpassed the New Orleans region in the rate of diagnosis of HIV infection (number of cases per population in the region). More than two thirds of the persons living with HIV/AIDS in Louisiana reside in either the New Orleans or Baton Rouge regions (Table 8).

Table 8. Characteristics of persons infected with HIV (HIV/AIDS), Louisiana, 2001

	HIV/AIDS cases diagnosed, 2001			Persons living with HIV/AIDS, through 2001		
	No.	%	Rate[a]	No.	%	Rate[a]
Total	1,078	100	24.1	13,565	100	303.5
Sex						
Male	689	64	31.9	9,823	72	454.2
Female	389	36	16.9	3,742	28	162.3
Race/ethnicity[b]						
White, not Hispanic	243	23	8.6	4,389	32	155.5
Black, not Hispanic	796	74	54.6	8,726	64	598.3
Hispanic	30	3	27.8	374	3	347.1
Other/unknown	9	1	–	76	1	–
Age group (yrs.)						
0–1	9	1	6.9	15	<1	11.6
2–12	1	<1	–	132	1	18.0
13–24	219	20	26.3	866	6	104.2
25–44	601	56	46.5	8,907	66	689.6
45–64	227	21	23.5	3,466	26	359.1
≥ 65	21	2	4.1	179	1	34.3
Public health region						
I	422	39	40.8	6,094	45	589.3
II	281	26	46.6	2,858	21	473.5
III	25	2	6.5	403	3	105.0
IV	68	6	12.4	833	6	152.0
V	48	4	16.9	671	5	236.7
VI	62	6	20.6	591	4	196.1
VII	76	7	14.5	931	7	178.2
VIII	65	6	18.4	604	4	170.7
IX	31	3	7.1	580	4	132.4

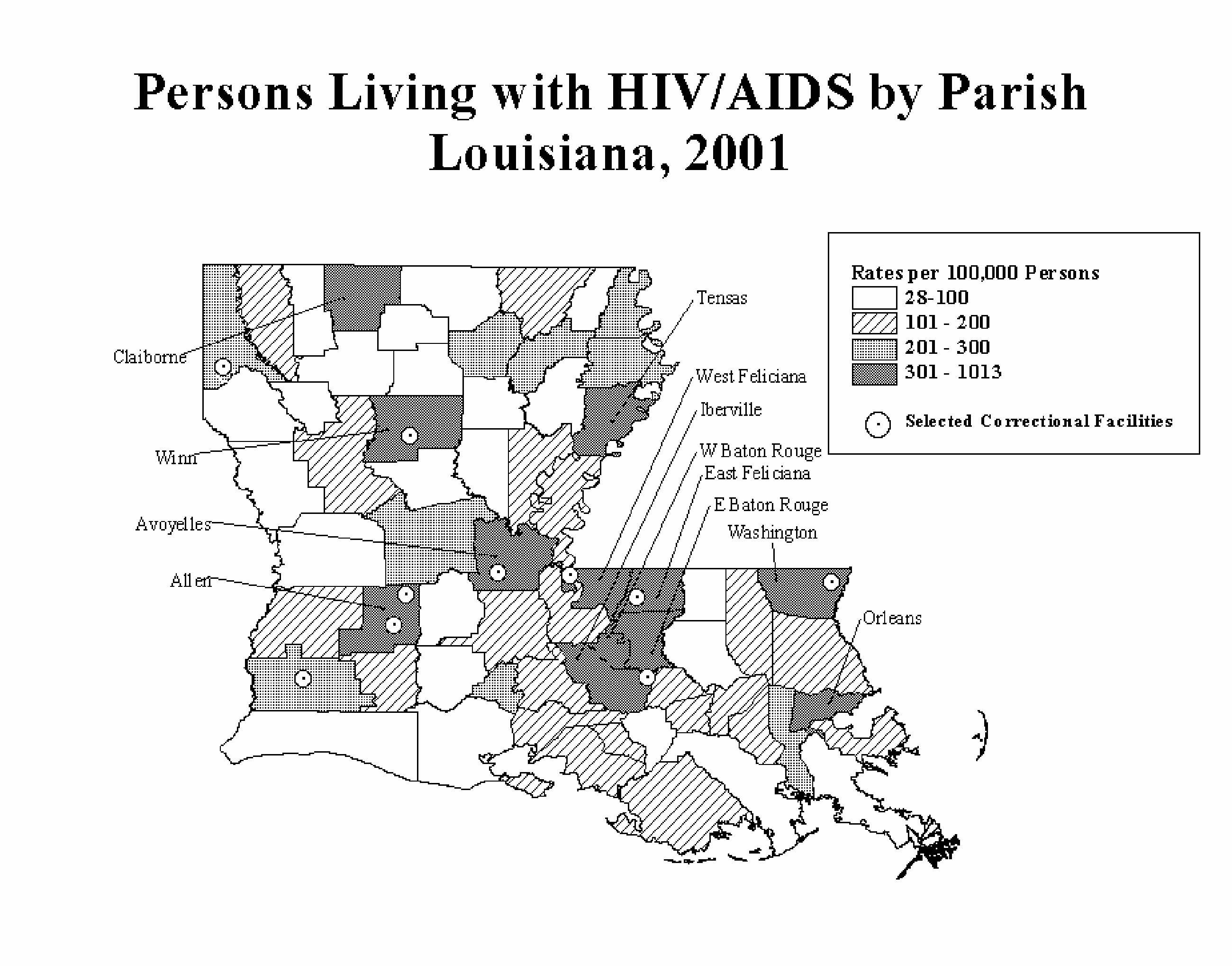
Note. Dash indicates the rate could not be calculated because of small numbers.

[a] Per 100,000 persons.

[b] For an explanation of how racial/ethnic groups were combined, see p.11.

As of December 31, 2001, a total of 13,565 persons were reported to be living with HIV/AIDS in Louisiana. This map (Figure 3) illustrates the parishes where these persons reside. Currently, there are HIV-infected persons living in every parish in Louisiana.

Figure 3



Persons Living with HIV/AIDS by Parish
Louisiana, 2001

As of the end of 2001, there were 12 parishes in which more than 300 persons per 100,000 were living with HIV infection. The reporting of large numbers of HIV cases by correctional facilities accounts for disproportionately high HIV prevalence rates in some of these parishes (e.g., Allen, Avoyelles, West Feliciana, Winn). The Baton Rouge region had the highest concentration of persons per capita living with HIV; prevalence rates for 5 of the 7 parishes in this region were more than 300 per 100,000 (Figure 3). Although most of the persons living with HIV are concentrated in urban areas, 15% live in rural areas.

HIV/AIDS, BY RACE/ETHNICITY AND SEX

The epidemic significantly affects both males and females in the black and Hispanic communities (Table 9). In 2001, the rate of HIV diagnosis for black males was almost 1.5 times the rate for Hispanic males and nearly 5 times the rate for white males. The rate of HIV diagnoses for black women was more than 11 times that for white women. Rates were not calculated for other ethnic groups because of the small number of cases.

Table 9. HIV diagnoses and rates, by race/ethnicity and sex, Louisiana, 2001

	Males			Females			Total		
Race/ethnicity[a]	No.	%[b]	Rate[c]	No.	%[b]	Rate[c]	No.	%[b]	Rate[c]
White, not Hispanic	189	18	13.7	54	5	3.7	243	23	8.6
Black, not Hispanic	468	43	68.2	328	30	42.5	796	74	54.6
Hispanic	26	2	47.4	4	<1	–	30	3	27.8
Other/unknown	6	1	–	3	<1	–	9	1	–
Total	689	64	31.9	389	36	16.9	1,078	100	24.1

Note. Dash indicates the rate could not be calculated because of small numbers.

[a] For an explanation of how racial/ethnic groups were combined, see p. 11.

[b] Calculated as the percentage of all cases diagnosed in 2001.

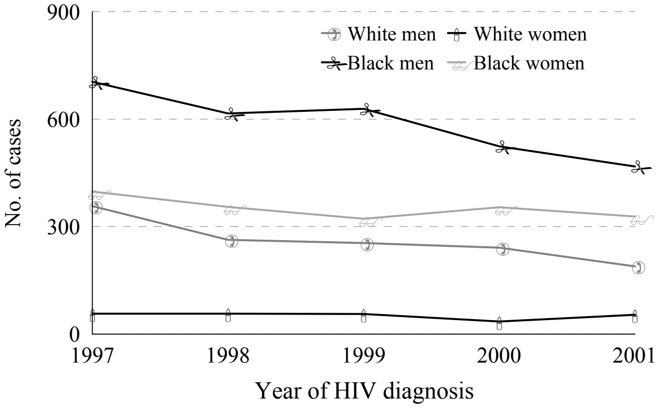
[c] Rates per 100,000 persons in racial/ethnic subgroups.

Overall, the number of new HIV cases diagnosed has been declining among white and black men; however, this same decrease in rates has not been seen among black or white women (Figure 4). The annual number of new HIV cases among black women has been higher than that among white men since 1993.

Figure 4

Trends in HIV/AIDS, by Ethnicity and Sex

Louisiana, 1997-2001



HIV counseling and testing data provide information on new HIV diagnoses among persons who are tested at public sites, such as STD, family planning, prenatal, and TB clinics; drug treatment centers; CBOs; parish health units; community health centers; and mobile test sites. Among persons tested for the first time, the percentage of seropositive results was higher among males than females (Figure 5). In 2001, compared with 2000, the percentage of seropositive results among females increased significantly. The percentage of seropositive results among males decreased in 1998 and 1999 and then increased slightly in 2000 and 2001. HIV seropositivity is highest among blacks, and the percentage increased substantially in this population in 2001 (Figure 6).

Figure 5

Percentage of Positivity Among Persons Tested for the First Time, by Sex

Louisiana Counseling and Testing Data, 1997-2001

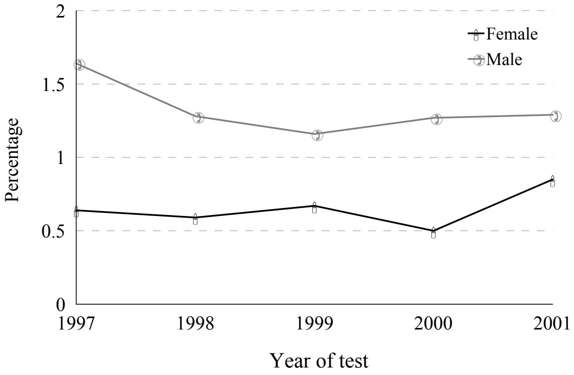
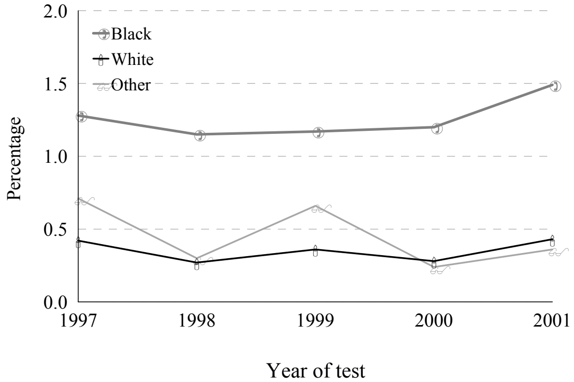


Figure 6

Percentage of Positivity Among Persons Tested for the First Time, by Race

Louisiana Counseling and Testing Data, 1997-2001



HIV/AIDS, BY AGE GROUP

In 2001, persons aged 25–44 years accounted for more than half (56%) of the newly diagnosed cases. Females accounted for a higher proportion of cases among youth (13–24 years) than in any other adult age groups (Table 10). This may be due in part to more opportunities for HIV screening of young women, such as during routine HIV screening of pregnant women.

Table 10. HIV diagnoses, by age group and sex, Louisiana, 2001

Age group (yrs.)	Males		Females		Total	
	No.	%[a]	No.	%[a]	No.	%[a]
0–1	4	<1	5	<1	9	1
2–12	0	0	1	<1	1	<1
13–24	105	10	114	11	219	20
25–44	394	37	207	19	601	56
45–64	170	16	57	5	227	21
≥65	16	1	5	<1	21	2
Total	689	64	389	36	1,078	100

[a]Calculated as the percentage of all cases diagnosed in 2001.

In 2001, as in past years, the highest number of newly diagnosed cases was among persons 25–44 years of age (Figure 7). However, the diagnosis of HIV for persons in this age group has been declining substantially since 1997. The decrease in this age group accounts for much of the decline in the number of new HIV cases seen in recent years.

HIV seropositivity is highest in the age group 35–39 years and lowest in the age group 13–19 years (Figure 8). In 2001, HIV seropositivity increased in almost all age groups, but the most dramatic increase was in the age group 35–39 years.

Figure 7

Trends in HIV/AIDS, by Age Group

Louisiana, 1997-2001

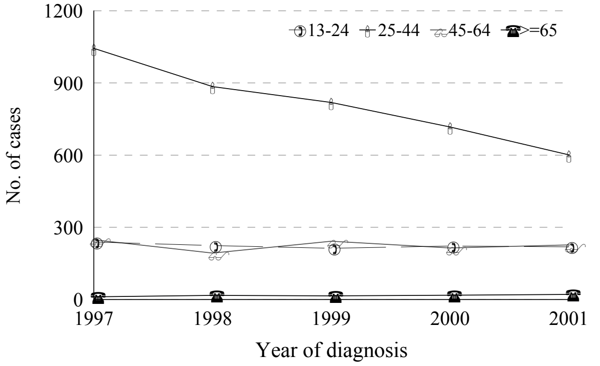
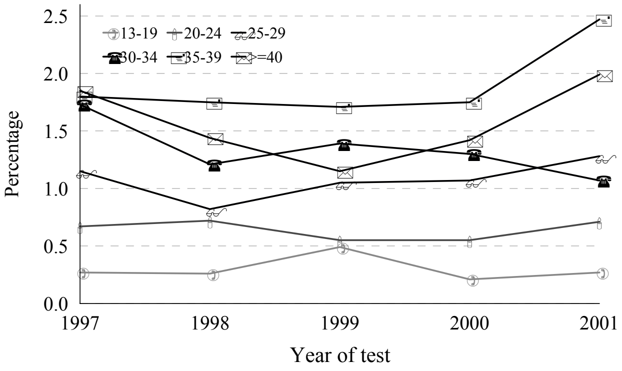


Figure 8

Percentage of Positivity among Persons Tested for the First Time, by Age Group

Louisiana Counseling and Testing Data, 1997-2001

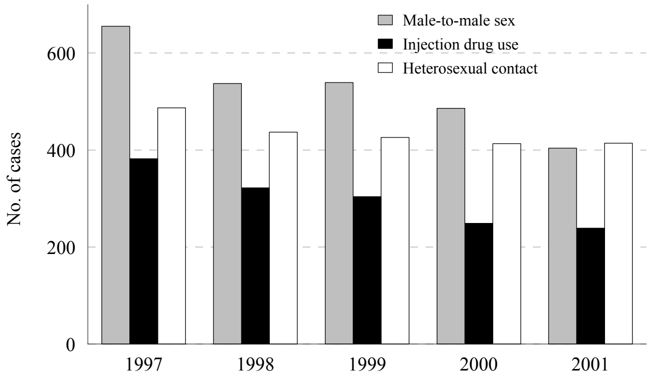


HIV/AIDS, BY MODE OF EXPOSURE

The proportions of cases attributed to specific exposure (i.e., risk) categories have changed significantly in recent years. Throughout the epidemic, most HIV transmission has occurred among MSM; however, the proportion of cases attributed to male-male sexual activity has been declining. The proportion of cases among persons who report specific heterosexual contact with a person with, or at increased risk for, HIV infection (e.g., an IDU) has been increasing, in large part due to the increase in the proportion of cases among women (data not shown). In 2001, the numbers of new HIV cases in MSM and in heterosexual adults were similar (Figure 9).

Figure 9

Trends in Exposure Categories of Cases of HIV/AIDS, Louisiana, 1997-2001



Year of diagnosis

Number of cases adjusted for risk redistribution; male-to-male sex includes MSM who inject drugs

After adjustment for unreported risk, the largest proportion of cases diagnosed in 2001 (38%) was attributed to heterosexual contact (Table 11). Cases among MSM, including MSM who inject drugs, accounted for 37% of all cases diagnosed in 2001; however, nearly half of all persons living with HIV in Louisiana (48%) may have been exposed to the virus through male-male sexual contact. IDUs constitute an important risk group as well, accounting for 22% of newly diagnosed cases and 23% of persons living with HIV/AIDS.

Table 11. Risk characteristics of persons with HIV infection (HIV/AIDS), Louisiana, 2001

	Persons with new diagnoses, 2001		Persons living with HIV/AIDS, 2001	
Exposure category	No.[a]	%	No.[a]	%
Male-to-male sexual activity	367	34	5,366	40
Injection drug use	239	22	3,102	23
Male-to-male sex and injection drug use	37	3	1,023	8
Heterosexual contact	414	38	3,657	27
Transfusion/hemophilia	10	1	220	2
Mother with, or at risk for, HIV infection	10	1	174	1
Risk not reported or not identified	1	<1	23	<1
Total	1,078	100	13,565	100

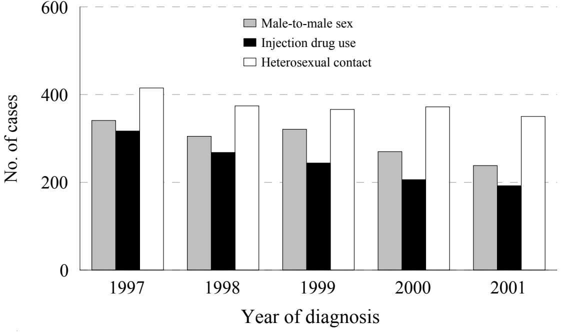
[a] Adjusted for unreported risk.

Among both blacks and whites, the number of new cases diagnosed among MSM has declined during recent years (Figures 10 and 11); however, this decline is more pronounced among whites. Among blacks, heterosexual contact has emerged as the leading exposure category, accounting for nearly half of all newly diagnosed cases (44%) (Table 12). Among whites, the predominant exposure remains male-to-male sexual activity (total of 62%, male-to-male sexual activity and male-to-male sexual activity plus injection drug use) (Table 12), although the number of new cases among MSM has been declining.

Figure 10

Trends in Exposure Categories of Cases of HIV/AIDS in Black Adults

Louisiana, 1997-2001

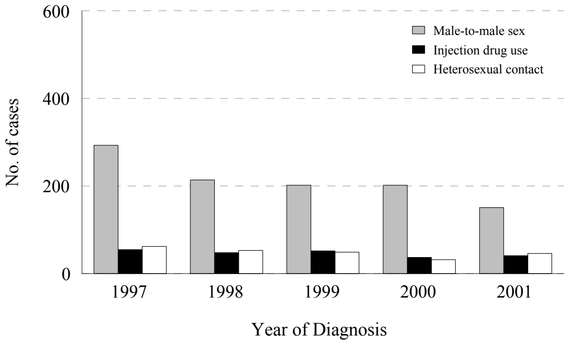


Note: Number of cases adjusted for risk distribution. Male-to-male sex includes MSM who inject drugs.

Figure 11

Trends in Exposure Categories of Cases of HIV/AIDS in White Adults

Louisiana, 1997-2001



Note: Number of cases adjusted for risk distribution. Male-to-male sex includes MSM who inject drugs.

Table 12. HIV diagnoses, by exposure category and race/ethnicity, Louisiana, 2001

	Whites		Blacks		Total[a]	
Exposure category	No.[b]	%	No.[b]	%	No.[b]	%
Male-to-male sexual activity	138	57	215	27	367	34
Injection drug use	41	17	192	24	239	22
Male-to-male sex and injection drug use	13	5	23	3	37	3
Heterosexual contact	46	19	350	44	414	38
Transfusion/hemophilia	3	1	7	1	10	1
Mother with, or at risk for, HIV infection	2	1	8	1	10	1
Risk not reported or not identified	0	0	1	<1	1	<1
Total	243	100	796	100	1,078	100

[a] All racial/ethnic categories, including ones not shown.

[b] Adjusted for unreported risk.

In 2001, 74% of new cases diagnosed among women were attributed to heterosexual contact, and 23% were attributed to injection drug use (Table 13). Among men, more than half of the new cases occurred in MSM (58%, including MSM who inject drugs). Injection drug use was the second most commonly reported risk among men, accounting for 22% of cases diagnosed among men in 2001.

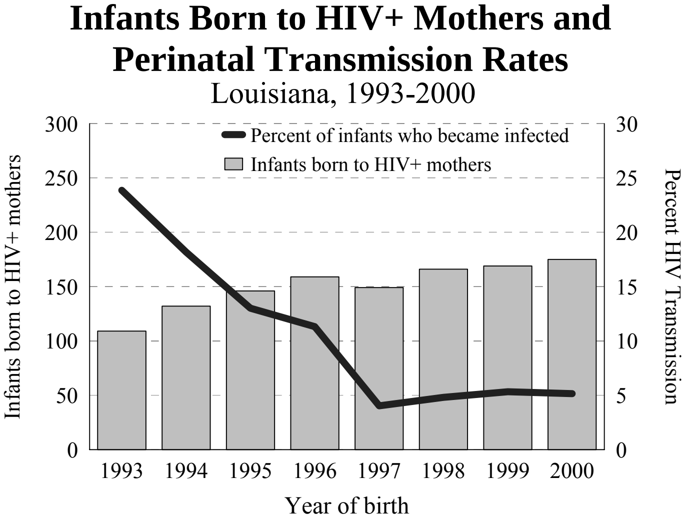
Table 13. HIV diagnoses, by exposure category and sex, Louisiana, 2001

	Males		Females		Total	
Exposure category	No.[a]	%	No.[a]	%	No.[a]	%
Male-to-male sexual activity	367	53	–	–	367	34
Injection drug use	149	22	90	23	239	22
Male-to-male sex and injection drug use	37	5	–	–	37	3
Heterosexual contact	126	18	287	74	413	38
Transfusion/hemophilia	5	1	5	1	10	1
Mother with, or at risk for, HIV infection	4	1	6	2	10	1
Risk not reported/identified	1	<1	1	<1	2	<1
Total	689	100	389	100	1,078	100

Note: Dash indicates not applicable.
[a] Adjusted for unreported risk.

Perinatal transmission dropped dramatically from 1993 to 1997 with the introduction and widespread use of antiretroviral therapy during pregnancy and labor and delivery (Figure 12). In recent years, the perinatal transmission rates have remained fairly stable. Since 1996, the number of infants born to HIV-infected mothers has also leveled. Despite the stable transmission rates, the number of HIV-infected infants may increase as the number of infants born to HIV-infected mothers increases because growing numbers of women are living with HIV infection. Of the 175 infants born in 2000 to HIV-infected mothers, 9 have a diagnosis of HIV infection. *Note: For additional information regarding risk for perinatal HIV exposure, see pp. 82-83, Enhanced Perinatal Surveillance.*

Figure 12



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 for many people infected with HIV. Because of the widespread use of these HIV treatments, Louisiana, along with the rest of the nation, has seen declines both in the number of new AIDS cases diagnosed and the number of AIDS-related deaths. For this reason, 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 have not been accessible or effective.

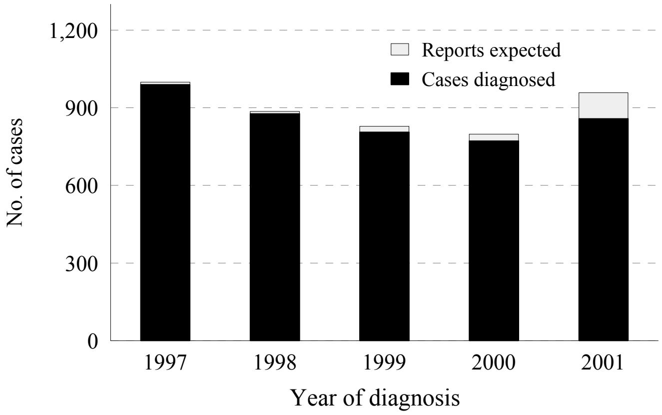
AIDS Trends

From 1997 to 2000, the number of new cases declined steadily each year. However, the number of new AIDS cases increased in 2001 for the first time since the introduction of HAART in 1996 (Figure 13).

Figure 13

Trends in AIDS Cases

Louisiana, 1997-2001



In 2001, most of the new AIDS cases occurred in men (69%), blacks (75%), and persons ages 25–44 (66%) (Table 14). 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. For example, if there were no disparities in the progression of HIV infection to AIDS, one would expect the characteristics of persons with a recent diagnosis of AIDS to resemble the characteristics of persons living with HIV in the preceding calendar year. In 2000, 68% of persons living with HIV (non-AIDS) were black (data not shown); however, blacks represented

75% of persons in whom HIV infection progressed to AIDS in 2001, which may indicate some disparities in access to testing and treatment.

Table 14. Characteristics of persons with AIDS, Louisiana, 2001

	Persons with new diagnoses 2001		Persons living with AIDS through 2001	
	No.	%	No.	%
Sex				
Male	593	69	4,890	78
Female	265	31	1,346	22
Race/ethnicity[a]				
White, not Hispanic	193	22	2,263	36
Black, not Hispanic	643	75	3,756	60
Hispanic	20	2	193	3
Other/Unknown	2	<1	24	<1
Age group (yrs.)				
0–1	0	0	0	0
2–12	0	0	44	1
13–24	58	7	162	3
25–44	566	66	3,992	64
45–64	221	26	1,945	31
≥ 65	13	2	93	1
Public health region				
I	343	40	2,900	47
II	237	28	1,223	20
III	27	3	199	3
IV	49	6	363	6
V	34	4	305	5
VI	35	4	229	4
VII	56	6	444	7
VIII	51	6	278	4
IX	26	3	295	5
Total	858	100	6,236	100

[a]For an explanation of how racial/ethnic groups were combined, see p.11.

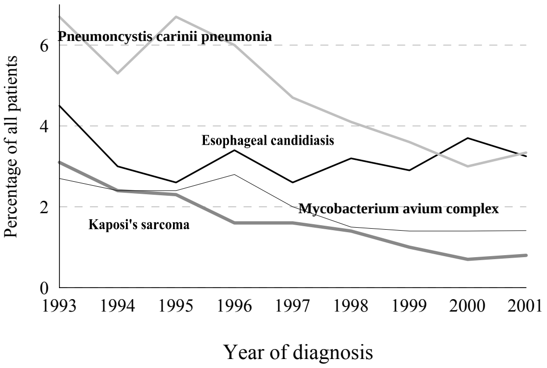
The New Orleans region (Region I) is the largest region in the state. This area had the highest number of new AIDS cases diagnosed in 2001, as well as the largest population of persons living with HIV. However, in 2001, as in years past, the Baton Rouge region (Region II) surpassed the New Orleans region in rates of diagnosis of HIV/AIDS. In Louisiana, more than two thirds of persons with a new diagnosis of AIDS and persons living with AIDS reside in either the New Orleans or Baton Rouge regions.

Although the number of new AIDS cases has increased statewide, among patients enrolled in the ASD study in New Orleans, the occurrence of new opportunistic infections has generally declined over time (Figure 14). Although the proportion of patients with *Pneumocystis carinii* pneumonia (PCP) and Kaposi's sarcoma (KS) has declined significantly since 1995, this decline seems to have moderated in 2001. The proportion of patients with esophageal candidiasis has remained relatively stable.

Figure 14

Trends in Selected Opportunistic Infections

New Orleans, Adult Spectrum of Disease Study,
1993-2001



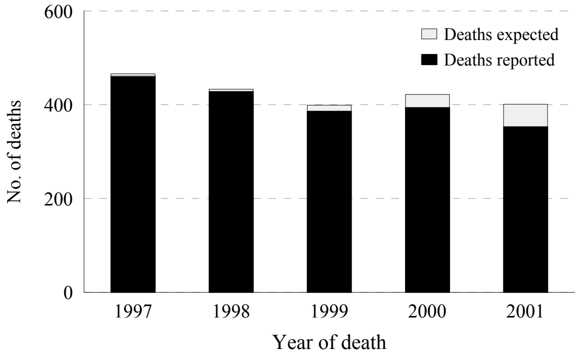
Mortality Trends

The mortality data that follow are presented in a variety of ways and are drawn both from surveillance data and vital statistics data. In some instances, data on the characteristics of persons living with AIDS has been included to provide context and to assist interpretation.

Figure 15

Deaths of Persons with AIDS

Louisiana, 1997-2001



From 1999 through 2001, the estimated number of deaths of persons with AIDS has remained relatively stable (Figure 15). Since 1996, AIDS-related mortality has declined sharply, coinciding with the emergence of HAART. Although this decline has continued, the slowing of the declines in the number of deaths in recent years may reflect limited access to, or use of, health care services, and the limitations of current therapies among persons in care.

In 2001, most of the persons with AIDS who died were men (72%), which is consistent with the fact that 78% of persons living with AIDS were men (Table 15). Although blacks represented 60% of persons living with AIDS in 2001, they made up 75% of persons who died. This disparity may indicate a disparity in access to, or use of, health care services or differences in the effectiveness of antiretroviral medications. Similarly, 32% of AIDS deaths were of persons living in Region II, although only 20% of persons living with AIDS reside in this region.

Table 15. Characteristics of persons with AIDS who died and persons living with AIDS, Louisiana, 2001

	Deaths among persons with AIDS, 2001		Persons living with AIDS through 2001	
	No.	%	No.	%
Sex				
Male	255	72	4,890	78
Female	98	28	1,346	22
Race/ethnicity[a]				
White, not Hispanic	88	25	2,263	36
Black, not Hispanic	264	75	3,756	60
Hispanic	1	<1	193	3
Other/unknown	0	0	24	<1
Age group (yrs.)				
0–1	0	0	0	0
2–12	1	0	44	1
13–24	9	3	162	3
25–44	211	60	3,992	64
45–64	125	35	1,945	31
≥ 65	7	2	93	1
Public health region				
I	129	37	2,900	47
II	112	32	1,223	20
III	17	5	199	3
IV	14	4	363	6
V	13	4	305	5
VI	9	3	229	4
VII	29	8	444	7
VIII	16	5	278	4
IX	12	3	295	5
Total	353	100	6,236	100

[a] For an explanation of how racial/ethnic groups were combined, see p. 11.

Data from the Louisiana Office of Vital Statistics on deaths that were attributed to HIV infection or AIDS were not yet available for 2001; therefore, the data in Table 16 are for calendar year 2000. The rates were calculated on the basis of overall population numbers in each group, and they describe the population-level effect of HIV/AIDS mortality on each subgroup. They do not address the differences among HIV-infected persons that could result in higher mortality in some groups than in others. To address this disparity, compare the distribution of deaths (Table 16) with the distribution of persons living with AIDS (Table 17).

Table 16. Deaths due to HIV infection or AIDS, by race and sex, Louisiana, 2000

	Males			Females			Total		
Race	No.	%[a]	Rate[b]	No.	%[a]	Rate[b]	No.	%[a]	Rate[b]
White, not Hispanic	75	19	5.4	6	2	–	81	21	2.9
Black, not Hispanic	219	57	31.9	84	22	13.9	303	78	20.8
Other	–	<1	–	0	0	0.0	–	<1	–
Total	296	77	13.7	90	23	4.8	386	100	8.6

Source. State Center for Health Statistics, Louisiana Office of Public Health.

Note. Dash indicates numbers suppressed because of small cell sizes (≤ 3) or rates could not be calculated because of small numbers.

[a] Each percentage is calculated as the percentage of all deaths in 2000.

[b] Rates per 100,000 persons in racial/ethnic subgroups.

Table 17. Persons living with AIDS, by race and sex, Louisiana, 2000

	Males		Females		Total	
Race	No.	%[a]	No.	%[a]	No.	%[a]
White, not Hispanic	1,960	34	197	3	2,157	38
Black, not Hispanic	2,410	42	961	17	3,371	59
Other	173	3	21	<1	194	3
Total	4,543	79	1,179	21	5,722	100

[a] Each percentage is calculated as the percentage of all persons living with AIDS in 2000.

In 2000, nearly 9 of every 100,000 persons statewide died of a cause related to HIV infection. The AIDS death rate among blacks was more than 7 times that among whites. More than half (57%) of all deaths due to HIV/AIDS were of black men. The death rate among black men was 6 times the rate among white men and more than twice that among black females. Rates were not calculated for other ethnic groups because of the small number of cases.

The greatest disparity in rates of persons living with AIDS and persons dying of AIDS is that between black men and white men. Although more than a third (34%) of persons living with AIDS in 2000 were white men, this group accounted for only 19% of deaths. In contrast, black men accounted for 42% of persons living with AIDS and 57% of AIDS deaths.

In 1999, the most recent year for which these data are available, HIV/AIDS was the 2nd leading cause of death in Louisiana among blacks aged 25–44 years. Statewide, HIV/AIDS was responsible for 13% of all deaths of blacks in this age group (Table 18). Nearly 3 times as many blacks aged 25–44, compared with whites in this age group, died of HIV/AIDS.

Table 18. Comparative ranking of 10 leading underlying causes of death of black persons and white persons aged 25–44 years, Louisiana, 1999

Cause of death	Rank	Deaths	%
White, not Hispanic			
Unintentional injury	1	373	25.3
Malignant neoplasm	2	215	14.6
Heart disease	3	199	13.5
Suicide	4	154	10.4
HIV/AIDS	***5***	***65***	***4.4***
Homicide	6	56	3.8
Chronic liver disease	7	39	2.6
Cerebrovascular disease	8	27	1.8
Diabetes mellitus	8	27	1.8
Congenital anomaly	10	17	1.2
Deaths of all causes (TOTAL)		1,475	100
Black, not Hispanic			
Heart disease	1	199	14.9
HIV/AIDS	***2***	***178***	***13.3***
Unintentional injury	3	175	13.1
Homicide	4	171	12.8
Malignant neoplasm	5	163	12.2
Cerebrovascular disease	6	42	3.1
Diabetes mellitus	6	42	3.1
Suicide	8	39	2.9
Chronic liver disease	9	31	2.3
Pneumonia and influenza	10	18	1.3
Deaths of all causes (TOTAL)		1,339	100

Source. State Center for Health Statistics, Louisiana Office of Public Health.

References

Fleming PL, Byers RH, Sweeney PA, Daniels D, Karon JM, Janssen RS. HIV prevalence in the United States, 2000. In: Program and abstracts of the 9th Conference on Retroviruses and Opportunistic Infections. February 18–24, 2002; Seattle, Washington. Abstract 11.

Question 3

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

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 high. To help community planning groups understand the differing risks for HIV infection in Louisiana, this section examines the trends and characteristics of populations that practice high-risk behaviors. The primary focus of this section is 3 high-risk populations: MSM, IDUs, and heterosexual adults. In addition, 2 populations of special interest are examined: perinatally exposed children and persons tested for HIV.

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 STD or teen pregnancy rates does not directly indicate that HIV exposure is increasing but may indicate an increase in unprotected sex.

Highlights

- In 2001, 81% of young MSM surveyed in HITS reported having had 4 or more sex partners during the past 12 months. Among all age groups, 54% of MSM reported having 4 or more sex partners.
- Behavioral surveys conducted among MSM indicate high rates of unprotected sex, despite the fact that many MSM are unaware of the HIV status of their casual sex partners.
- Among IDUs surveyed through HITS, 59% reported having shared needles always or some of the time. Needle sharing seems to be more common at younger ages; the age group 18–24 years comprises the largest proportion of IDUs who always share needles (19%) and the smallest proportion, who never share needles (14%).
- Among the 3 risk groups (IDUs, MSM, and heterosexual clients in STD clinics) surveyed in HITS, the rate for *never* using condoms during sex with a casual sex partner was highest for IDUs.
- Behavioral surveys indicate that approximately 40% of persons with 2 or more sex partners did not use a condom during their most recent sexual encounter, and condom use by high-risk populations surveyed through street outreach does not seem to differ from condom use by the general population. Of heterosexual clients in STD clinics, however, 14% of men and 17% of women reported *never* having used condoms during sex with their casual partners.
- Surveillance data indicate that the number of infants born annually to HIV-infected women has increased steadily as more women are living with HIV/AIDS. Currently, 59% of HIV-infected mothers had a diagnosis of HIV infection before they became pregnant. Although some of the pregnancies may represent informed choices by these women, others may represent continued unprotected sexual activity and the need for appropriate prevention interventions.
- In the general population, 36% of persons reported being tested for HIV during the past 12 months. Similarly, a behavioral survey of high-risk populations indicates that 45% were tested during the past year.

MEN WHO HAVE SEX WITH MEN (MSM)

Direct Measures of Risk Behavior

For MSM, the following measures of risk behavior are available in Louisiana to provide important information on factors that may affect the risk of acquiring or transmitting HIV infection:

- number of sex partners (Figure 16)
- condom use or unprotected sex (Figures 17 and 18)
- substance use

Both HITS and MOS (surveys conducted by prevention outreach workers at gay bars) provide information on the risk behaviors of MSM. HITS is an anonymous, cross-sectional survey of populations at high risk for HIV infection, including MSM, which was conducted in 3 cities in Louisiana (New Orleans, Baton Rouge, and Monroe) in 2001. Participants, recruited from gay bars, had to be at least 18 years of age, able to give informed consent, and residents of the state for at least 1 year. In addition, to be considered eligible for the MSM risk group, a man must have had sex with another man within the last 12 months. The MOS is a self-administered survey of MSM in gay bars, which was conducted during 1995–2000 by outreach workers from CBOs. The fact that the surveys were conducted in gay bars may limit their applicability to all MSM. However, these surveys do provide valuable information on risk behaviors in a population at high risk for HIV infection. (For a more detailed description of these surveys and their strengths and limitations, see Appendix A.)

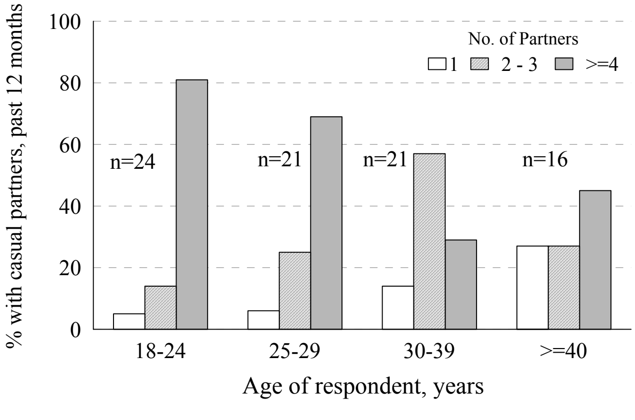
Number of Sex Partners

According to both surveys, most of the men interviewed had 3 or more sex partners during the last 12 months (HITS, 54% had 4 or more; MOS, 57% had 3 or more). Of the men interviewed in HITS, 75% reported having had at least 1 casual (i.e., non-primary) sex partner during the last 12 months. Younger MSM tended to have higher numbers of casual sex partners, and the number of casual partners decreased with age (HITS) (Figure 16).

Figure 16

Casual Sexual Partners Among Men Who Have Sex with Men

Louisiana HIV Testing Survey, 2001



In addition, 45% of the men with at least 1 casual sex partner during the last 12 months were unaware of the HIV status of their most recent partners (HITS). Lastly, according to the MOS, 15% of the men had both male and female sex partners, which means that risk behaviors in the MSM population may also affect the levels of heterosexual transmission.

Condom Use or Unprotected Sex

Both surveys describe high proportions of men who engage in unprotected sex (Figures 17 and 18). A large proportion of men throughout the state reported having had unprotected receptive anal sex during the past 30 days. Since 1997, a larger proportion of men surveyed in New Orleans, compared with men elsewhere in the state, have reported unprotected sex. The rates of unprotected anal sex may have stabilized in recent years in all areas of the state.

Figure 17

Unprotected Receptive Anal Sex During Past 30 Days, Louisiana

MSM Outreach Survey, 1995-2000

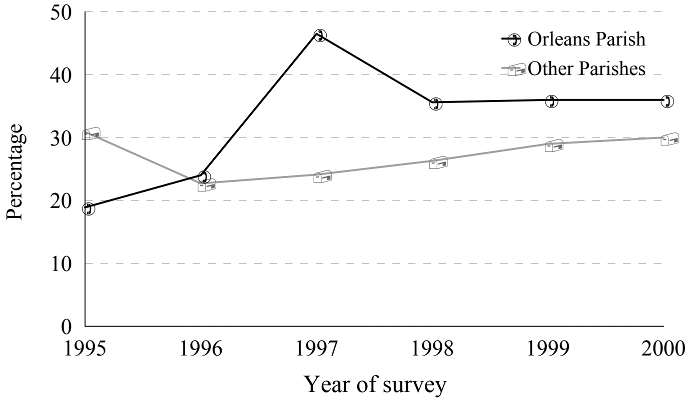
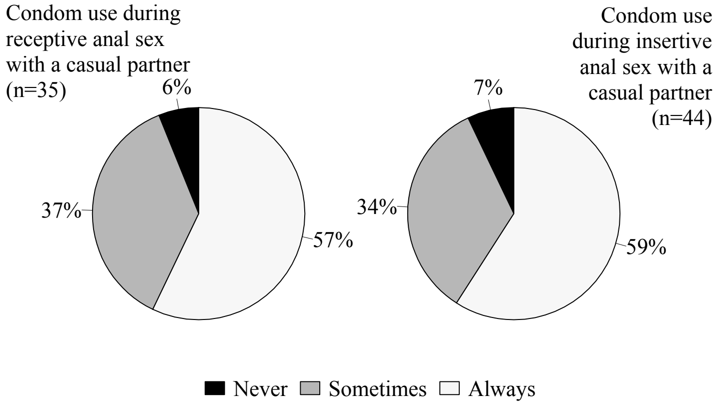


Figure 18

Condom Use Among MSM in Gay Bars

Louisiana HIV Testing Survey, 2001



In HITS, nearly half of the men surveyed did not always use condoms with their casual sex partners (43%, sometimes or never during receptive anal sex; 41%, sometimes or never during insertive anal sex). In MOS, 32% of the men reported having engaged in unprotected receptive anal sex during the past 30 days; 34% had engaged in unprotected insertive anal sex. Although a large proportion of MSM in HITS reported always using a condom during sex with casual partners, 6% to 7% reported never using condoms.

Substance Use

Of the men interviewed in HITS, 59% reported having ever used drugs to get high and having used drugs during the past year. Nearly 1 in 5 (18%) reported having traded money or drugs for sex during the past 12 months.

In HITS, 13% of the men reported having ever injected drugs. Of those, 45% (6% of the total) had injected drugs during the past year. (Note: These results are consistent with surveillance data, which show similar levels of injection drug use among MSM: 9% among MSM whose HIV infection was diagnosed in 2001; 16% among MSM living with HIV infection.)

Indirect Measures of Risk Behavior

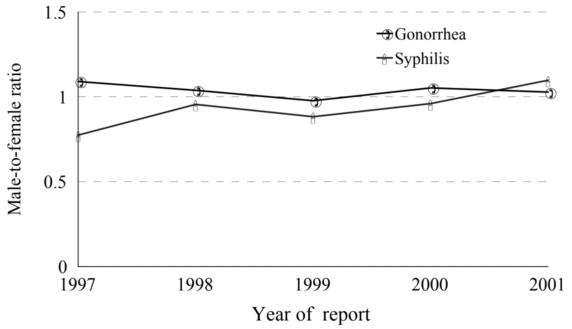
Among MSM, STD surveillance data may provide information about the potential occurrence of high-risk behavior.

One indirect measure that can indicate increasing rates of infections among MSM is the male-to-female ratio of gonorrhea or syphilis in a particular area. In Louisiana, during 1997–2001, the male-to-female ratio of gonorrhea remained stable (Figure 19). The ratio was approximately 1.0 each year (i.e., each year the same number of men and women were reported to have gonorrhea). These data do not indicate an increasing trend in gonorrhea among MSM. The male-to-female ratio of early syphilis increased slightly, from 0.8 in 1997 to 1.1 in 2001 (Figure 19). This increase, although relatively small, may be an early sign of a trend toward more cases of syphilis among MSM.

Figure 19

Trends in Male-to- Female Ratios of STDs

Louisiana, 1997-2001



INJECTION DRUG USERS (IDUS)

Direct Measures of Risk Behavior

Among IDUs, the following measures of risk behavior are available in Louisiana to provide important information on factors that may affect risk of acquiring or transmitting HIV infection:

- injection or other substance use (Figures 20 and 21)
- sharing of needles (Figure 22)
- exchange of money or drugs for sex
- number of sex partners (Figure 23)
- frequency of condom use or unprotected sex (Figure 24)

HITS, NHSDA, and YRBSS provide information on risk behavior related to substance use. HITS is an anonymous, cross-sectional survey of populations at high risk for HIV infection, including IDUs, which was conducted in 3 cities in Louisiana (New Orleans, Baton Rouge, and Monroe) in 2001. Eligible IDUs were recruited from street locations. They had to be at least 18 years of age, able to give informed consent, and residents of the state for at least 1 year. In addition, to be considered eligible for the IDU risk group, a person had to report injection drug use within the past 12 months. NHSDA is an annual nationwide survey designed to collect data on substance abuse patterns and behaviors in the U.S. population aged 12 or older. Youth are oversampled to ensure precise estimates of substance abuse among younger persons. YRBSS is a self-administered questionnaire given to a representative sample of students in grades 9–12 at the state and local levels. In Louisiana, the survey is administered both at the state level and in Orleans Parish public schools; however, only the survey administered to Orleans Parish high school students includes questions related to sexual behavior. Because this survey is administered in school, students at highest risk, who may be more likely to be absent from school or to drop out, may be underrepresented in this survey; students in upper grades are more likely not to be in school. (For a more detailed description of each survey and its strengths and limitations, see Appendix A.)

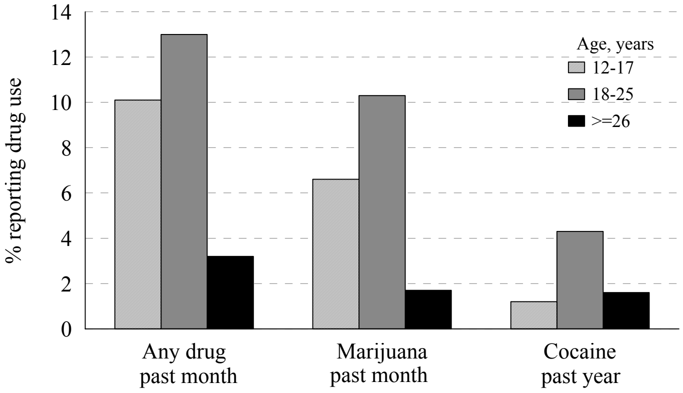
Injection or Other Substance Use

Among the general population in Louisiana interviewed in NHSDA, 5% of persons aged 12 years or older reported having used an illicit drug at least once during the past month. Illicit drugs included marijuana/hashish, cocaine, inhalants, hallucinogens, heroin, and any other prescription-type psychotherapeutic drug used nonmedically. Regardless of the type of illicit drug, drug use was highest among persons 18–25 years of age: 13% reported that they had used illicit drugs during the past month (Figure 20). Reported drug

Figure 20

Substance Use by Age Group, Louisiana

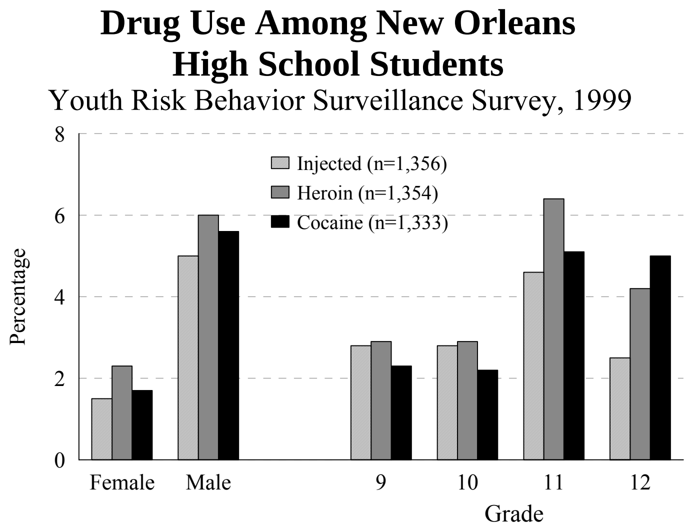
National Household Survey of Drug Abuse, 1999



use was highest in the younger age groups (12–17 and 18–25 years); however, relative to overall drug use, cocaine use seems to be higher in the older age group (≥26 years) than in the age group 12–17 years.

The New Orleans YRBS provides additional insight into drug use among high school students (Figure 21). Although the 1999 NHSDA reported that 10% of persons in Louisiana aged 12–17 had used an illicit drug in the past month, the New Orleans YRBSS for that same year reported that 3% had ever *injected* an illicit drug. Experience with injection drugs was higher among male students than among female students. In addition, 4% of students had used heroin at least once, and 4% had used cocaine (any form). More students reported having used heroin, compared with any injected drug or cocaine, at least once.

Figure 21



Drug Use Among New Orleans High School Students

Youth Risk Behavior Surveillance Survey, 1999

Drug use seems to increase according to grade level, with the exception of the 12th grade. However, it is important to keep in mind that one limitation of YRBS is that it is administered in school. Because the students at highest risk may be more likely to be absent from school or to drop out, they may be underrepresented, especially among upper grades.

Because injection drug use during the past year was an eligibility requirement for this risk group in HITS, all the participants had injected drugs during the past year. Heroin was the drug most commonly injected (87% of participants [data not shown]). Next was heroin and cocaine together (speedballs; reported by 61%), followed by cocaine (reported by 65%). Of the participants, 22% had injected amphetamines.

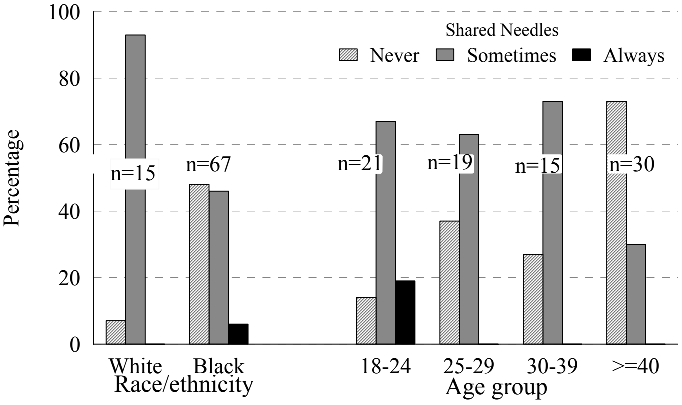
Sharing of Needles

In HITS, 59% of IDUs reported having shared needles always or some of the time. Needle-sharing among whites than among blacks (Figure 22). It also seems to be more common in the younger age groups: the largest proportion who always shared (19%) were persons aged 18–24; the smallest proportion who never shared (14%) were also in this age group. Note that these results are limited by small sample sizes.

Figure 22

Needle Sharing Among Injection Drug Users

Louisiana HIV Testing Survey, 2001



Exchange of Money or Drugs for Sex

Of the IDUs interviewed in HITS, nearly half (44%) reported having exchanged money or drugs for sex during the past 12 months (data not shown).

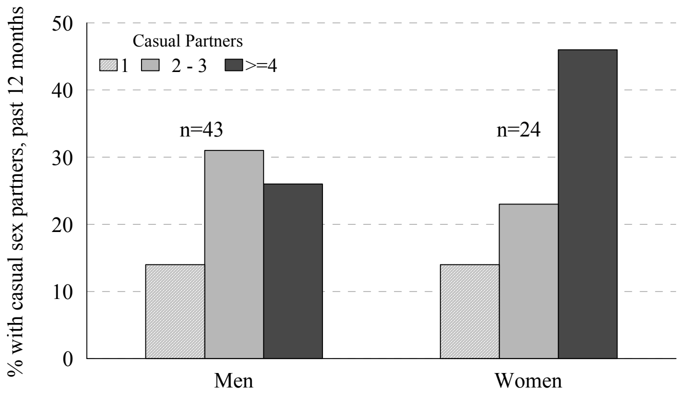
Number of Sex Partners

Of the IDUs interviewed in HITS, 83% of the men and 77% of the women reported that they had been sexually active (heterosexual sex) during the last 12 months. More than half of the sexually active persons had had 2 or more sex partners during the past 12 months (62% of women; 56% of men). Four or more sex partners were reported by 39% of the women and 35% of the men. Of the sexually active IDUs, 83% of the women and 72% of the men reported having had at least 1 casual sex partner (Figure 23). Of those with at least 1 casual sex partner, 61% of the males and 50% of the females reported not knowing the HIV status of their most recent sex partner. These results, too, are limited by small sample sizes.

Figure 23

Casual Sexual Partners of Injection Drug Users

Louisiana HIV Testing Survey, 2001



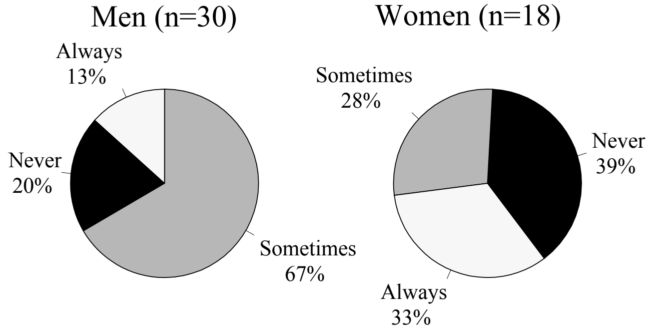
Frequency of Condom Use or Unprotected Sex

Most IDUs in HITS did not always use condoms with their casual sex partners (Figure 24). Sometimes or never using condoms was reported by 87% of the men and 67% of the women. Of the 3 risk groups surveyed in HITS (MSM, IDUs, heterosexual clients at STD clinics), the largest proportions of those who *never* used condoms during sex with a casual partner were IDUs (39% of women; 20% of men). Again, small sample sizes are a limitation.

Figure 24

Condom Use by Injection Drug Users with Casual Sex Partners

Louisiana HIV Testing Survey, 2001



Indirect Measures of Risk Behavior

DAWN and TEDS provide information about the potential occurrence of behaviors related to injection drug use. DAWN is an ongoing national drug abuse surveillance system that monitors visits to hospital emergency departments and deaths attributable to drug abuse, which are reviewed by medical examiners and coroners. In addition, DAWN provides population-based estimates for selected metropolitan areas, such as New Orleans. DAWN estimates for New Orleans provide indicators of current and emerging trends in drug abuse in the city. To be reported to DAWN, a person must be aged 6–97 and show evidence, during an emergency department visit, of intentional abuse or misuse of a drug (intentional abuse includes drug abuse, drug dependence, recreational use, or suicide attempt).

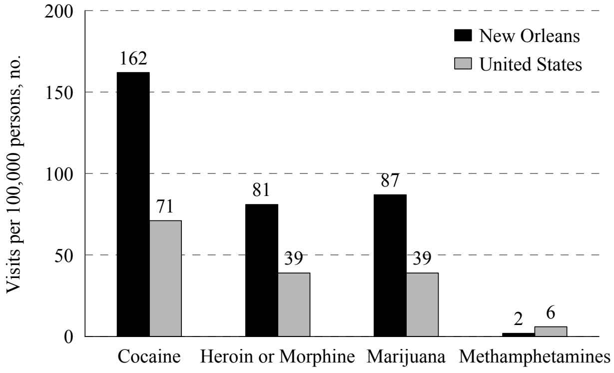
TEDS, which is maintained by SAMHSA, offers another way to indirectly measure the prevalence of injection drug use in Louisiana. For this survey, admissions data for substance abuse treatment are compiled from facilities that receive state and federal funding. Because TEDS is an admission-based system, the admissions may represent multiple admissions of a person within a calendar year. (For more detailed descriptions of DAWN and TEDS, see Appendix A.)

In New Orleans, population-based estimates of drug-related emergency visits during 2000 were higher than national estimates for cocaine, heroin/morphine, and marijuana (Figure 25). In 2000, DAWN reported 162 cocaine-related

Figure 25

Drug Related Emergency Department Visits

Drug Abuse Warning Network, 2000



visits per 100,000 population, 81 heroin or morphine visits per 100,000 population, and 87 marijuana visits per 100,000 population. Compared with 20 other metropolitan areas participating in DAWN, New Orleans ranked 8th for cocaine-related visits and 9th for heroin-related visits.

With the exception of methamphetamine, the rates of visits related to "club drugs" (drugs associated with "raves" and dance clubs) in New Orleans were higher than national estimates. In 2000, the rates of emergency department visits for these drugs in New Orleans ranged from 5.6 for gamma-hydroxybutyrate (GHB), 3.6 for Ecstasy (MDMA), 2.8 for LSD, 2.2 for methamphetamine, to less than 1 per 100,000 for ketamine and Rohypnol (national estimates: 2.0 for GHB, 2.0 for MDMA, 2 for LSD, 5 for methamphetamine, <1 per 100,000 for ketamine and Rohypnol).

In 2001, there were 21,005 substance abuse admissions in Louisiana, of which 21.9% were related to smoking cocaine, 4% to cocaine through another route, and 2% to heroin use. Of the admissions due to smoking cocaine, 62% were among persons 26–40 years of age (Figure 26). Men accounted for two thirds of these admissions.

Heroin-related treatment admissions reported through TEDS were primarily among men (78%). The age distribution of persons admitted for heroin use (Figure 27) was younger than that of persons admitted for cocaine treatment. For example, 38% of heroin admissions were among persons aged 18–25 years compared with only 9% of admissions related to smoking cocaine.

Figure 26

Cocaine (Smoked) Treatment Admissions by Age Group, Louisiana (n=4,608)

Treatment Episode Data Set, 2001

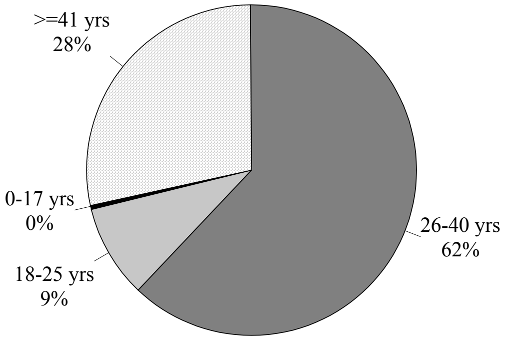
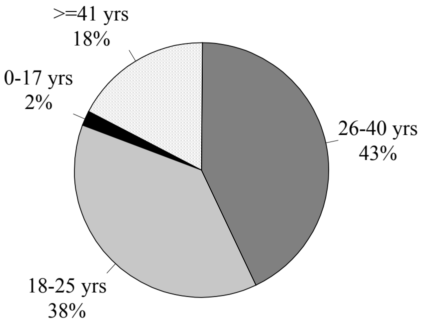


Figure 27

Heroin-related Treatment Admissions by Age Group, Louisiana (n=428)

Treatment Episode Data Set, 2001



HETEROSEXUAL POPULATIONS

Direct Measures of Risk Behavior

Among heterosexuals, the following measures of risk behavior are available in Louisiana to provide important information on factors that may affect the risk of acquiring or transmitting HIV infection:

- number of sex partners and frequency of condom use or unprotected sex (Tables 19 and 20 and Figures 29 and 30)
- substance use, including injection drug use (Figure 31)
- exchanging money or drugs for sex

HITS, BRFSS, SOS, and YRBSS provide information on risk behavior related to sexual activity in heterosexual populations. (For a more detailed description of these data sources, including strengths and limitations, see Appendix A.) HITS is an anonymous, cross-sectional survey of populations at high risk for HIV infection, including heterosexuals, that was conducted in 3 cities in Louisiana (New Orleans, Baton Rouge, and Monroe) in 2001. Eligible heterosexual adults, recruited in STD clinics, had to be at least 18 years of age, able to give informed consent, and residents of the state for at least 1 year. To be eligible for the heterosexual risk group, a person had to have come to the clinic because of a suspected STD, not have been treated for an STD during the past 90 days, not have been at the clinic because of referral or follow-up, and not have had homosexual sex within the past 12 months.

BRFSS is a state-based random-digit-dialed telephone survey that monitors behavioral risks among the general adult population. A sexual behavior module was added to this survey in 1994, 1995, 1996, 1998, and 2000. The questions in this module, which was for adults (aged 18–49), concerned number of sex partners, condom use, and treatment for STDs. Because BRFSS respondents were contacted by telephone, the data are not representative of households that do not have telephones. In addition, BRFSS surveys the general noninstitutionalized adult population in an area, not just the persons at highest risk for HIV/AIDS. This means that the extent of HIV behavioral risk information collected by the BRFSS questionnaire is limited and that inferences can be made only at the state level.

SOS is a self-administered survey conducted each year by CBOs at 3 sites where they actively conduct street outreach. These sites include areas with high rates of HIV/STDs, drug use, or other high-risk behavior. Respondents were asked about sex partners, history of condom use, drug use, HIV testing history, and exposure to prevention programs. These data represent persons at particularly high risk for HIV and are not generalizable to the general population in the local community.

The Youth Risk Behavioral Surveillance System (YRBSS) distributes a self-administered questionnaire to a representative sample of students in grades 9 through 12 at the state and local level. In Louisiana, the survey is administered at the state level and in Orleans Parish public schools; however, only the survey administered to Orleans Parish high school students includes questions related to sexual behavior. In 1999, the survey was conducted in the City of New Orleans school system to obtain information on health behavior and risk behaviors, including sexual behavior and drug-use behavior. Students in New Orleans schools were asked whether they had sexual intercourse during the past 3 months and whether they had sexual intercourse with 4 or more partners in their lifetime. Respondents who had sexual intercourse within the past 3 months were asked whether they had used a condom during the most recent intercourse and whether they had drunk alcohol or used drugs before the most recent intercourse. Because this survey is administered in school, students at highest risk may be underrepresented because they may be more likely to be absent from school or to drop out of school, especially those in upper grades.

Number of Sex Partners and Frequency of Condom Use or Unprotected Sex

In the general population surveyed by BRFSS, almost all (96%) persons who reported that they had been sexually active at any time during the past 5 years had been sexually active during the past 12 months. Overall, only 13% of the general population aged 18–49 had had 2 or more sex partners during the past year (Table 19). Larger proportions of males (17%), younger age groups (20% among persons aged 18–24), and blacks (19%) had 2 or more sex partners.

Table 19. Sexual risk behavior of persons aged 18–49 years in the general population, Behavioral Risk Factor Surveillance System, 2001

	≥2 Partners, %[a] (n = 862)	Condom use, %[b] (n = 117)
Overall	13	56
Sex		
Male	17	63
Female	10	45
Age group (yrs.)		
18-24	20	55
25-34	16	56
35-44	10	57
≥ 45	6	55
Race/ethnicity		
Black, not Hispanic	19	52
White, not Hispanic	10	56
Other	11	86

[a] All respondents, past 12 months.
[b] Respondents with ≥2 partners during past 12 months.

Overall, in BRFSS, 56% of persons with 2 or more partners during the past year had used a condom during their most recent sexual encounter. Condom use was lowest among women (45%) and blacks (52%); however, it did not differ much according to age group.

The percentages of condom use by persons with 2 or more sex partners were similar in BRFSS (56%) and SOS (58%) (Tables 19 and 20). However, females and youth in the SOS reported higher rates of condom use.

In general, high-risk heterosexual behavior (i.e., having 2 or more sex partners during the past 12 months) was nearly 5 times higher in SOS than in BRFSS (60% vs. 13%) (Tables 19 and 20). The differences between BRFSS and SOS in the proportions of groups that reported high-risk heterosexual behavior were greatest among whites (10% in BRFSS vs. 67% in SOS) and females (10% in BRFSS vs. 49% in SOS). Having multiple sex partners was only about 3 times more common among blacks surveyed in SOS than among blacks surveyed in BRFSS. These results indicate that in street outreach programs, specific groups would probably benefit more from specifically focused interventions.

In SOS, condom use among persons with 2 or more sex partners remained stable during 1997–2001 (data not shown).

Table 20. Sexual risk behavior in high-risk populations, Street Outreach Survey, 2001

	≥2 Partners,[a] % (n = 5,655)	Condom use, most recent sex,[b] % (n = 3,359)
Overall	60	58
Sex		
Male	69	61
Female	49	55
Age group (yrs.)		
≤ 19	63	65
20–24	64	57
25–29	68	59
30–34	58	51
≥ 35	47	49
Race/ethnicity		
Black, not Hispanic	59	60
White, not Hispanic	67	51

[a] All respondents, past 12 months.

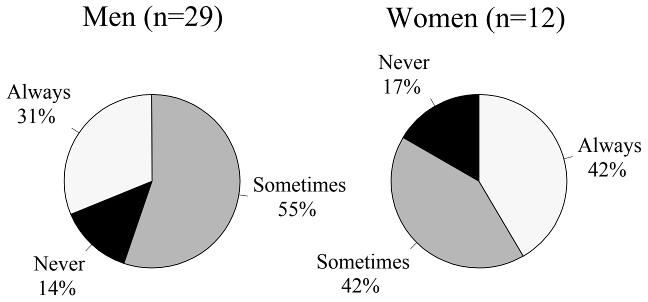
[b] Respondents with ≥2 partners during past 12 months.

The women interviewed in HITS (≥ 18 years of age, at STD clinics) seemed to be at greater risk of having had 2 or more sex partners during the past 12 months (67%), compared with those surveyed in SOS (49%). Similar proportions of men in both surveys reported having had 2 or more sex partners (HITS, 69%; SOS, 69%). Of persons in HITS, 17% of the women and 40% of the men had had *4 or more* sex partners during the past 12 months. (Data for these HITS results are not shown.)

Of the heterosexuals surveyed in HITS, 67% of the men and 43% of the women reported having had at least 1 casual sex partner during the past 12 months (data not shown). Of those with at least 1 casual sex partner, 20% of the men and 31% of the women reported not knowing the HIV status of their most recent sex partner (data not shown). Moreover, most of the persons interviewed indicated that they did not always use condoms with their casual sex partners (69% of men sometimes/never vs. 59% of women sometimes/never) (Figure 28). Of the STD clinic patients, 14% of men and 17% of women *never* used condoms during sex with their casual partners.

Figure 28
Condom Use with Casual Sex Partners Among Heterosexuals at STD Clinics

Louisiana HIV Testing Survey, 2001



Of New Orleans high school students, 24% reported in 1999 that they had had sexual intercourse with 4 or more persons in their lifetime, compared with 15% of high school students nationwide. Reports of 4 or more lifetime partners were 3.4 times higher among male students than among female students (Figure 29). The proportion who had had sexual intercourse with 4 or more partners increased with age, as shown in the linear increase by grade.

Although a higher proportion of New Orleans students (43%), compared with students nationwide (36%), reported having had sexual intercourse during the past 3 months (data not shown) more New Orleans students reported condom use during most recent intercourse (Figure 30). In 1999, more than 60% of female students and 75% of male students said they had used a condom during their most recent sexual intercourse. The largest proportion of condom users was 9th graders (81%); by 12th grade, the proportion declined to 59%. This decline was observed nationally as well.

Figure 29
Percentage of High School Students with 4 or More Lifetime Sex Partners

Youth Risk Behavior Surveillance Survey, 1999

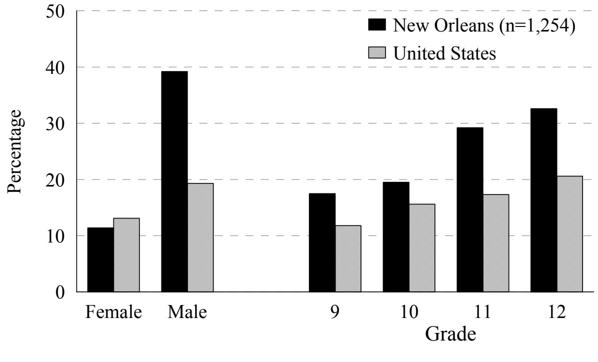
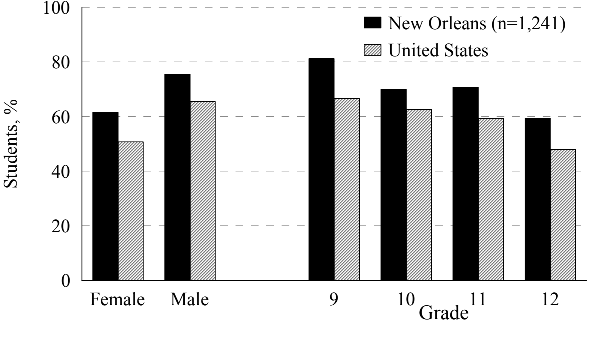


Figure 30
Condom Use During Most Recent Sex Among High School Students Having Sex During Past 3 Months

Youth Risk Behavior Surveillance Survey, 1999



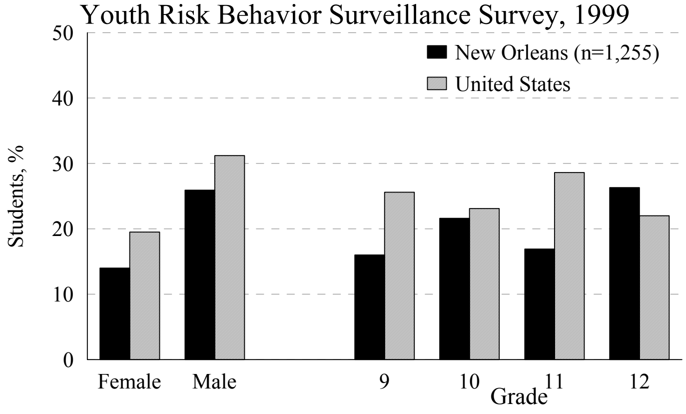
Substance Use

Of New Orleans students who had had sexual intercourse during the past 3 months, 20% reported having drunk alcohol or used drugs before their most recent sexual intercourse. A higher proportion of male students, compared with female students, said that they had drunk alcohol or used drugs before intercourse (26% vs. 14%); however, the proportions of male and female students who reported substance use were 5% lower than the proportions nationwide (Figure 31). The use of substances before sexual intercourse increased from 15% among 9th graders to 26.3% among 12th graders, but the increase did not follow a linear pattern. In addition, although alcohol and drug use were less common among New Orleans students in grades 9–11 compared with national percentages, the proportion of New Orleans 12th graders who reported substance use was larger compared with 12th graders nationwide.

Figure 31

Alcohol or Drug Use Before Most Recent Sex Among High School Students Having Sex During the Past 3 Months

Youth Risk Behavior Surveillance Survey, 1999



In the HITS study, 43% of respondents reported having ever used drugs to get high; nearly all (97%) also reported that they had used drugs during the past year. A small proportion (4%) reported having injected drugs. Of those with a history of injection drug use, only two thirds were considered current IDUs (i.e., persons who had injected drugs during the past year). Overall, 5% of the respondents reported having exchanged money or drugs for sex during the past 12 months.

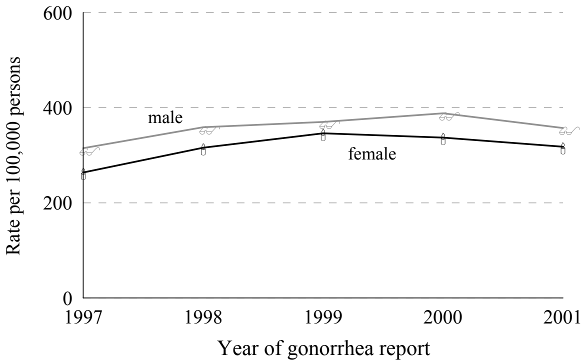
Indirect Measures of Risk Behavior

STD surveillance data and vital statistics data on pregnancy rates among teenagers provide information that may help to identify the potential occurrence of high-risk heterosexual behavior. Although increases in STD or teen pregnancy rates do not directly indicate that HIV exposure is increasing, these measures may indicate an increase in unprotected sex.

Figure 32

Trends in Gonorrhea Rates, by Sex

Louisiana, 1997-2001



Gonorrhea

During 1997–2001, gonorrhea rates for males were consistently higher than those for females (Figure 32). Rates for both males and females increased during that period. Although gonorrhea rates for blacks were approximately 25 times greater than those for whites, rates for both groups increased from 1997 through 2001 (Figure 33).

Gonorrhea rates were highest for persons aged 20–29 years, followed by persons aged 13–19 (Figure 34). In 2001, gonorrhea rates were highest in Region 7 (Shreveport), followed closely by Region 1 (New Orleans). Although gonorrhea rates in all regions generally decreased from 2000 to 2001, rates in the New Orleans region seem to be increasing (Figure 35).

Figure 33

Trends in Gonorrhea Rates, by Ethnicity

Louisiana, 1997-2001

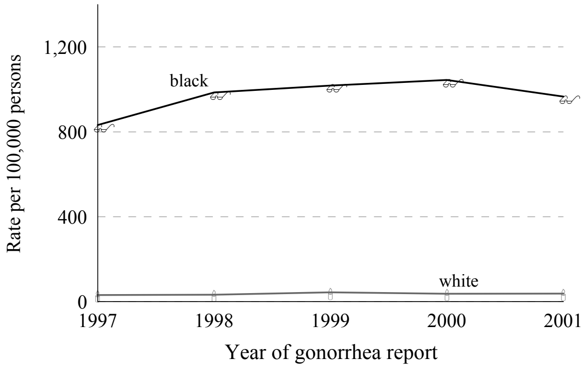


Figure 34

Trends in Gonorrhea Rates, by Age Group

Louisiana, 1997-2001

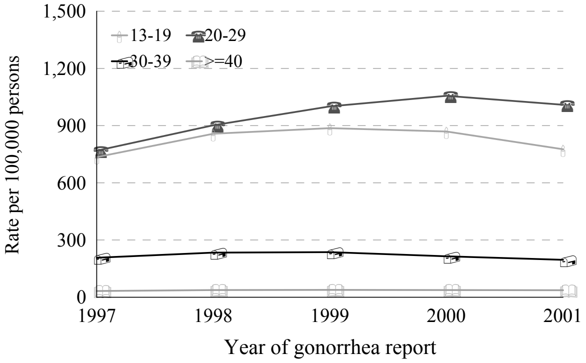
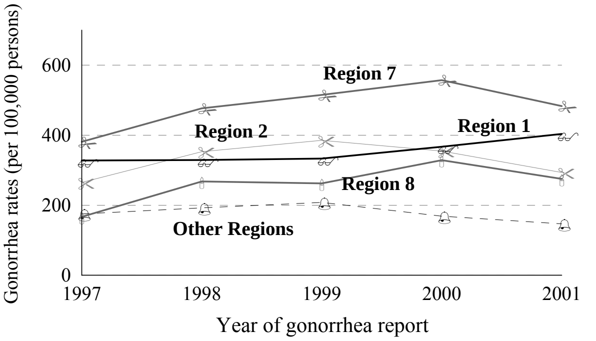


Figure 35

Trends in Gonorrhea Rates, by Public Health Region

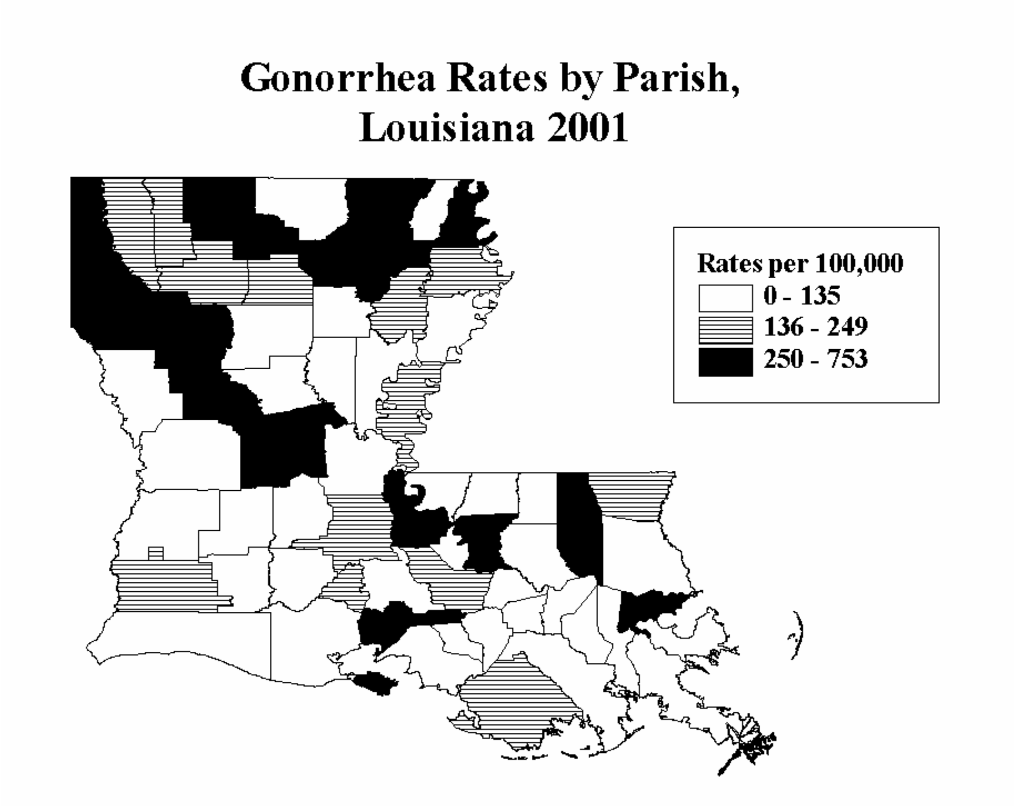
Louisiana, 1997-2001



In 2001, new cases of gonorrhea were diagnosed in every parish in the state: 16 parishes had more than 250 new gonorrhea cases per 100,000 persons in the parish (Figure 36).

The Shreveport region had the highest concentration of new gonorrhea cases: 5 of the 9 parishes had more than 250 new cases. Caddo Parish had the highest gonorrhea case rate of all parishes in the state (753 cases/100,000 persons), followed closely by Orleans Parish (715 cases/100,000 persons).

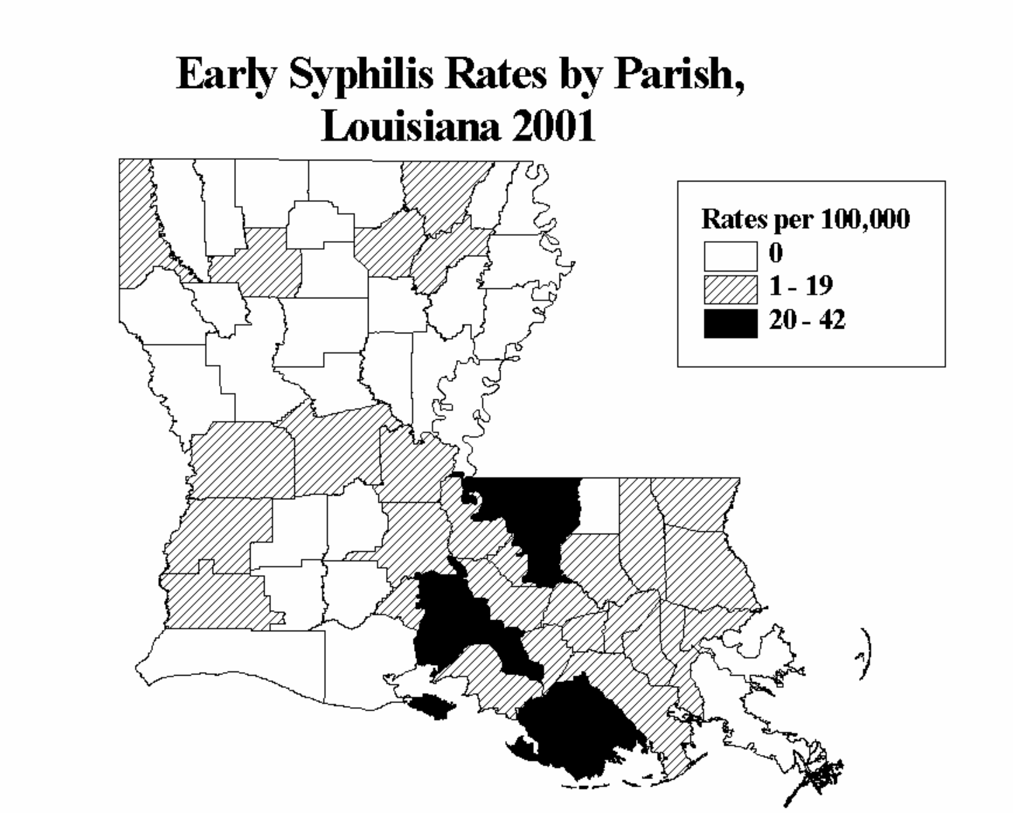
Figure 36



Syphilis

In 2001, a total of 367 persons statewide were reported with early syphilis (primary, secondary, or early latent), which represented a 17% decrease from the number of cases reported in 2000. Cases were reported in 33 of the 64 parishes and were concentrated in the southeastern part of the state. Seven parishes reported more than 20 cases of early syphilis per 100,000 residents (Figure 37).

Figure 37



During 1998–2001, the rates of primary and secondary syphilis were higher for males than for females (Figure 38). However, syphilis rates for males and females have decreased significantly since 1998. This decrease may be due in part to enhanced outreach, screening, and partner notification, which are part of Louisiana's CDC-funded Syphilis Elimination Project.

Figure 38

Trends in Syphilis Rates, by Sex

Louisiana, 1997-2001

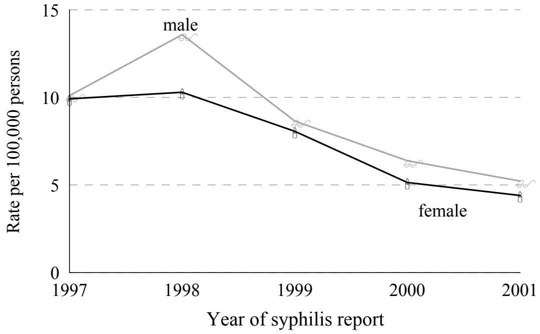
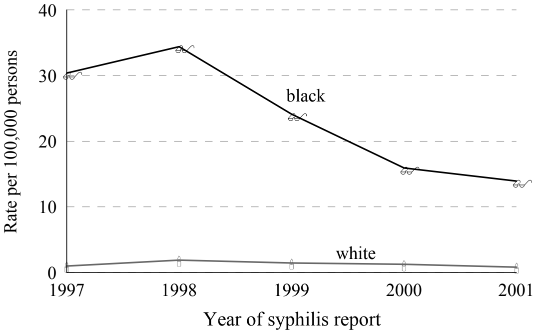


Figure 39

Trends in Syphilis Rates, by Ethnicity

Louisiana, 1997-2001



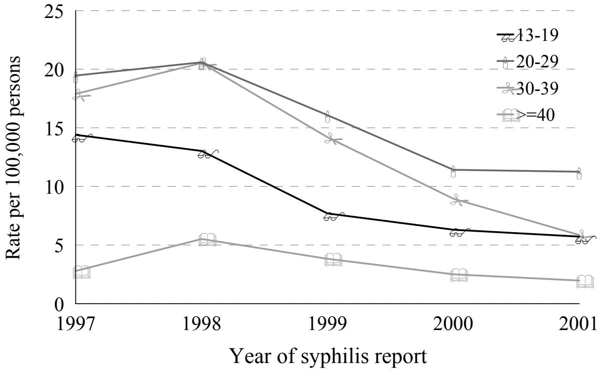
Historically, the rates of syphilis in Louisiana have been much higher for blacks than for whites; however, the disparity in rates has narrowed in recent years (Figure 39). In 1997, rates were 31 times higher for blacks than for whites. In 2001, rates were 17 times higher for blacks. Rates in both groups decreased during 1999–2001.

Syphilis rates were highest for persons aged 20–29 years and lowest for persons aged 40 or more. Rates for persons in all age groups decreased from 1998 through 2001 (Figure 40).

Figure 40

Trends in Syphilis Rates, by Age Group

Louisiana, 1997-2001



Pregnancy Rates for Teenagers

During 1996–2000, overall pregnancy rates for teenagers decreased 6% (data were not available for 2001). However, in 2000, the pregnancy rate of 62.5 per 1,000 in Louisiana was still well above the national rate of 48.5 per 1,000. The pregnancy rate has decreased more for white teenagers (8%) than for black teenagers (5%). Pregnancy rates for black teenagers continue to be twice as high as rates for white teenagers.

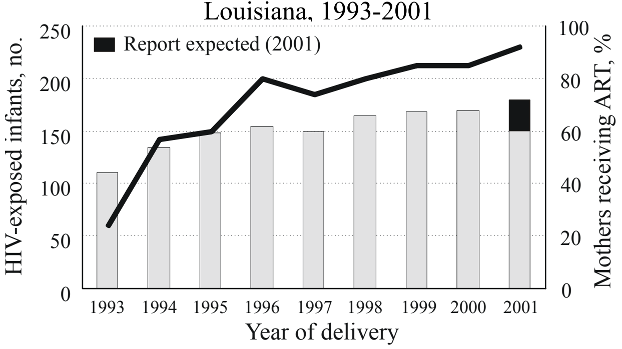
PERINATALLY EXPOSED INFANTS

As of December 31, 2001, an estimated 1,577 infants have been born in Louisiana to women with HIV. Of these infants, 16% were infected with HIV perinatally (i.e., through mother-to-child transmission). Each year, perinatal transmission accounts for most of the pediatric HIV cases in Louisiana. In 2001, perinatal transmission accounted for 100% of all HIV cases in children under the age of 13.

Figure 41

Antiretroviral Therapy (ART) During Pregnancy or Labor and Delivery

Louisiana, 1993-2001

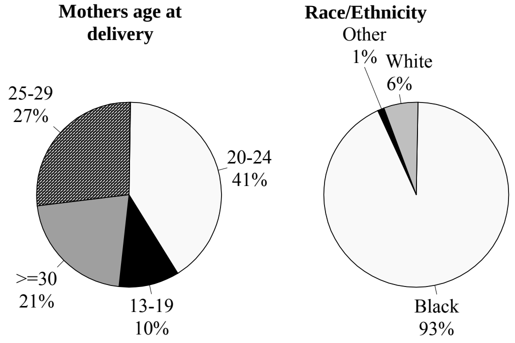


The number of infants born annually to HIV-infected mothers has steadily increased as more women are living with HIV/AIDS. In 2001, after delays in reporting were accounted for, approximately 184 HIV-exposed infants were born in Louisiana (Figure 41). Although the numbers of HIV-exposed infants has increased, perinatal transmission rates have decreased (See Figure 12); both of these trends have been due in large part to the increased use of antiretroviral therapy. In 2001, 94% of HIV-positive mothers had received antiretroviral therapy during pregnancy or during labor and delivery. (Note: This percentage may be an overestimate of antiretroviral use because not all cases of HIV exposure have been reported to the Office of Public Health. Cases not yet reported are more likely to be associated with unknown infection status at the time of delivery, hence, with the absence of antiretroviral medications for the mother.)

Figure 42

Infants Born to Mothers with HIV Infection, by Age and Race/Ethnicity (N=498)

Louisiana, 1999-2001



Nearly half (41%) of the women with HIV who gave birth in recent years have been 20–24 years of age (Figure 42). Almost all (93%) were black.

Among mothers whose mode of HIV exposure has been identified, most had contracted HIV infection through heterosexual activity; approximately 1 in 5 had contracted HIV through injection drug use (data not shown). HIV infection in nearly all mothers (96%) had been diagnosed before delivery, which maximizes the opportunities for antiretroviral intervention (Figure 43).

However, HIV infection had been diagnosed in 59% of the mothers before they became pregnant. Although some of these pregnancies may represent informed choices, others may represent continued unprotected sexual activity and the need for appropriate prevention interventions.

Geographically, most births to HIV-positive mothers occur in Regions 1 and 2 (the New Orleans and Baton Rouge regions); however, births to HIV-positive mothers have occurred in all parts of the state (Figure 44).

Figure 43

Infants Born to Mothers with HIV Infection, by Timing of Diagnosis for Mother (N=498)

Louisiana, 1999-2001

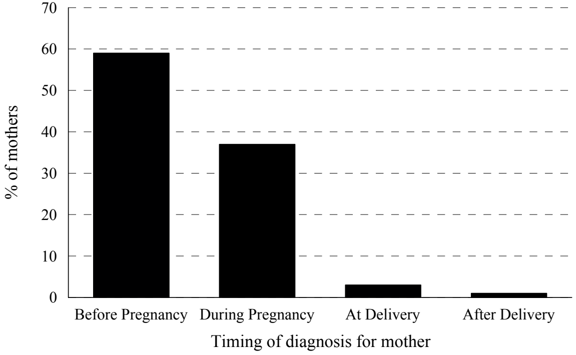


Figure 45 highlights HIV prevalence among black women who gave birth, as most HIV-exposed births (93%) occur in this population. Although Region II accounts for a smaller number of births to HIV-infected mothers than Region I (Figure 44), births to HIV-positive mothers in Region II made up a much higher proportion of all live births to black women than anywhere else in the state. In 2000, in the Baton Rouge region, approximately 1 in 63 black women aged 25–29 who gave birth had HIV infection.

Figure 44

Infants Born to Mothers with HIV Infection, by Region (N=655)

Louisiana, 1997-2000

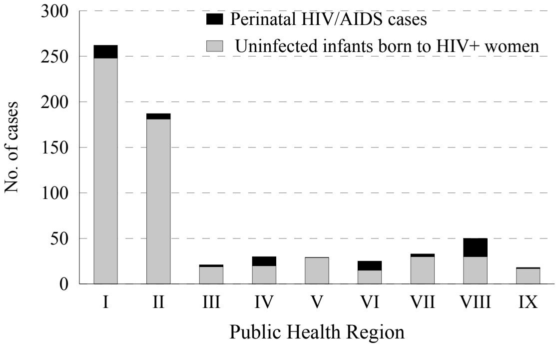
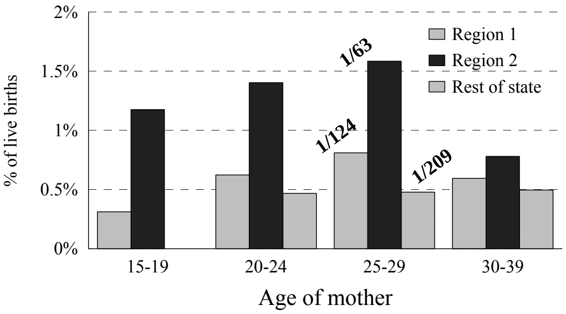


Figure 45

Percentage of Live Births to HIV-Infected Black Women

Louisiana, 2000



HIV TESTING

Data on HIV testing patterns provide information that is helpful in focusing HIV counseling and testing programs. The data may also be used to help identify potential gaps in HIV surveillance data, which represent only persons who have been tested for HIV infection. HIV testing data are available from surveys conducted in the general population (BRFSS) and in high-risk populations (HITS and SOS), and from publicly funded HIV counseling and testing sites.

Testing in the General Population (BRFSS)

Overall in 2001, less than half (46%) of the persons surveyed in BRFSS reported having ever been tested for HIV (Table 21). Persons who reported having had 2 or more sex partners during the past 12 months were more likely to have been tested for HIV than persons (particularly women) with only 1 partner.

Whites were less likely to have been tested than blacks or persons of other racial/ethnic groups.

In the age group 18–24 years, persons with 2 or more sex partners during the past 12 months were least likely to have been tested (only 37% had ever been tested). In contrast, among all persons in this age group (including those at lower risk), the reported rate of HIV testing during the past 12 months was higher than in the other age groups (48% had been tested). These data may indicate that HIV screening should be focused on persons aged 18–24.

Table 21. HIV testing in the general population, Behavioral Risk Factor Surveillance System, Louisiana, 2001

	Ever tested, %		Tested, past 12 months, %
	Total[a] (n = 5,011)	≥ 2 Partners[b] (n = 117)	Total[a] (n = 1,942)
Tested	46	59	36
Sex			
Male	45	49	34
Female	47	76	38
Age group (yrs.)			
18–24	49	37	48
25–34	62	70	41
35–44	47	67	30
≥ 45[a]	33	65	27
Race/ethnicity			
Black, not Hispanic	56	67	43
White, not Hispanic	41	50	31
Other	49	86	36

[a] Includes persons aged 18–64 years.

[b] Persons with ≥2 partners includes persons aged 18-49.

Among men surveyed in BRFSS, the most common reason for being tested was a routine checkup; among women, pregnancy was the most common reason (Table 22). Only 8% of persons reported that they had been tested to find out whether they were infected. Among persons aged 18–24 years, pregnancy was the most common reason for being tested; most persons in all other age groups were tested during a routine checkup. More blacks, compared with persons of other races/ethnicities, had been tested during a routine checkup.

Table 22. Six most commonly listed reasons for HIV testing, general population (n = 678), Behavioral Risk Factor Surveillance System, Louisiana, 2001

	Routine checkup, %	Pregnancy %	To learn HIV status, %	Job-related %	Hospitalization, %	Other %
Overall	30	18	8	7	7	7
Sex						
Male	35	1	8	9	6	9
Female	25	32	8	6	8	6
Age group (yrs.)						
18–24	30	36	10	4	1	6
25–34	26	22	9	8	4	9
35–44	25	9	6	7	11	4
≥ 45	41	0	6	10	15	9
Race						
Black, not Hispanic	39	19	10	7	4	7
White, not Hispanic	23	19	8	8	9	7
Other	28	11	5	9	3	12

Note. Percentages do not add to 100% because less commonly listed reasons are not included.

Most BRFSS respondents had been tested most recently at a private physician’s office or an HMO (43%) (Table 23). The second most common location was a hospital (23%). Responses did not differ by race, although slightly more blacks, compared with other racial groups, had been tested most recently at a hospital rather than at a physician’s office.

Table 23. Locations of HIV testing, general population (n = 670), Behavioral Risk Factor Surveillance System, Louisiana, 2001

	Private physician or HMO, %	Hospital or outpatient clinic,[a] %	Clinic or counseling & testing site,[b] %	Military site, %
Overall	43	23	17	6
Sex				
Male	40	22	13	12
Female	45	24	21	1
Age group (yrs.)				
18–24	40	18	31	4
25–34	45	21	18	7
35–44	36	28	10	8
≥ 45	50	29	5	4
Race/ethnicity				
Black, not Hispanic	36	28	25	4
White, not Hispanic	48	20	11	6
Other	43	22	12	13

Note. HMO, health maintenance organization.

[a] Includes emergency department.

[b] Includes health department or AIDS clinic, family planning clinic, STD clinic, community health clinic, and other public health clinic.

Testing in High-Risk Populations (HITS and SOS)

In 2001, HITS was conducted among persons at increased risk for HIV infection (IDUs, clients at STD clinics, and MSM) in New Orleans, Baton Rouge, and Monroe. More of the persons surveyed by HITS reported that they had been tested for HIV than had persons in the general population. More MSM (82%) indicated that they had been tested than had IDUs (55%) or heterosexual clients at STD clinics (60%) (Table 24). More female IDUs and heterosexuals said they had been tested than had male heterosexuals or IDUs. A higher proportion of white MSM reported that they had been tested than had black MSM. However, among IDUs, more blacks responded that they had been tested.

Table 24. Percentages of high-risk populations ever tested for HIV, HIV Testing Survey, Louisiana, 2001

	Men who have sex with men, % (n = 82)	Injection drug users (n = 85)	Heterosexual STD clients, % (n = 75)
Overall	82	55	60
Sex			
Male	82	52	51
Female	n/a	58	73
Race/ethnicity			
Black, not Hispanic	73	58	57
White, not Hispanic	86	43	100

Note. STD, sexually transmitted disease; n/a, not applicable.

Overall, 45% of high-risk persons surveyed in SOS reported that they had been tested for HIV during the past 12 months (Table 25), a percentage that is higher than that of the general population (36%) in the BRFSS survey. More of the women in SOS had been tested than had men. Testing rates were the same for whites and blacks.

Table 25. HIV testing of high-risk persons (n = 5,655), Street Outreach Survey, Louisiana, 2001

	Tested, past 12 months, %
Overall	45
Sex	
Male	43
Female	47
Race/ethnicity	
Black, not Hispanic	45
White, not Hispanic	45

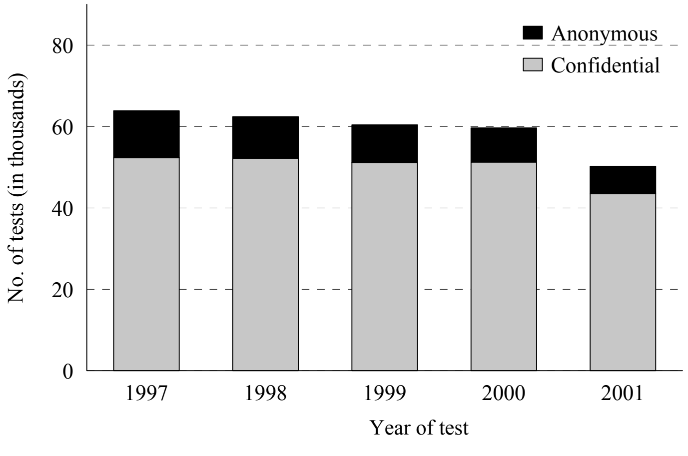
Testing at Publicly Funded Counseling and Testing Sites (Louisiana Counseling and Testing Program)

Currently, Louisiana has more than 150 organizations that provide publicly funded HIV counseling and testing services. These sites include Louisiana Department of Health and Hospitals clinic sites, including Office for Addictive Disorder clinics (drug treatment centers), Office of Public Health clinics (STD, family planning, prenatal and tuberculosis clinics); CBOs; community health centers; and mobile test sites. The number of HIV tests conducted each year at publicly funded counseling and testing sites decreased steadily, from a high of 63,849 tests in 1997 to 50,211 tests in 2001 (Figure 46). This decline in the number of tests may be due to diverse factors such as the implementation of risk-based testing criteria for clinic clients, decreases in funding, decreases in clinic census, and declines in STD rates.

Figure 46

Trends in HIV Counseling and Testing, by Type of Testing

Louisiana, 1997-2001



Louisiana Office of Public Health clinics offer both anonymous and confidential testing; however, most of the tests have been confidential. The proportion of tests that were anonymous decreased from 20% in 1997 to 13% in 2001. The characteristics of persons tested anonymously differ from those tested confidentially. Most of the persons who were tested anonymously were white or male. More of the persons who were tested confidentially were female or black. Also, more older persons were tested anonymously; more younger persons were tested confidentially. However, this pattern may be due to the fact that more of the younger persons seeking an HIV test are black or female, whereas more of the older persons may be white or male. More than three fourths of all anonymous tests in 2001 were performed in CBOs (51%) or drug treatment centers (26%).

Overall, in 2001, 57% of the tests were provided for females, 61% for blacks, and 35% for whites. Most of the tests were performed for persons aged 13–29 years (65%). Nearly half (44%) of the HIV tests were performed in STD clinics, and another 14% were performed in CBOs (Table 26). The demographic characteristics of the persons tested were relatively stable during 1997–2001.

Table 26. HIV Counseling and Testing data, by demographics and type of test, Louisiana, 2001

	Confidential		Anonymous		Total	
	No.	%	No.	%	No.	%
Sex						
Male	17,004	39	3,984	59	20,988	42
Female	26,471	61	2,384	35	28,855	57
Unknown	0	0	368	6	368	1
Race/ethnicity						
White, not Hispanic	14,084	32	3,515	52	17,599	35
Black, not Hispanic	27,943	64	2,544	38	30,487	61
Hispanic	828	2	134	2	962	2
Other	610	1	115	2	725	1
Age (yrs.)						
<5	47	<1	398	6	445	1
5–12	77	<1	19	<1	96	<1
13–19	10,480	24	596	9	11,076	22
20–29	19,550	45	2,269	34	21,819	43
30–39	7,416	17	1,768	26	9,184	18
40–49	4,180	10	1,212	18	5,392	11
≥ 50	1,724	4	473	7	2,197	4
Unknown	1	<1	1	<1	2	<1
Public health region						
I	11,097	26	2,522	37	13,619	27
II	4,992	11	996	15	5,988	12
III	3,492	8	715	11	4,207	8
IV	3,955	9	1,098	16	5,053	10
V	3,296	8	151	2	3,447	7
VI	3,120	7	81	1	3,201	6
VII	3,840	9	576	9	4,416	9
VIII	7,124	16	270	4	7,394	15
IX	2,559	6	327	5	2,886	6
Site						
STD clinic	21,329	49	875	13	22,204	44
Community-based organization	3,599	8	3,464	51	7,063	14
Family planning clinic	5,381	12	71	1	5,452	11
Drug treatment center	3,318	8	1,753	26	5,071	10
Prenatal, OB/GYN	4,855	11	65	1	4,920	10
TB clinic	2,443	6	44	1	2,487	5
Parish health clinic	828	2	76	1	904	2
Community health clinic	399	1	157	2	556	1
Field visit	381	1	155	2	536	1
Prison or jail	5	<1	0	0	5	<1
Other	937	2	76	1	1,013	2
Total	43,475	100	6,736	100	50,211	100

Section

2

RYAN WHITE HIV/AIDS CARE ACT SPECIAL QUESTIONS AND CONSIDERATIONS

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

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 Louisiana. The information was provided by HRSA-funded programs as well as supplemental studies that have been conducted to examine specific aspects of HIV care in Louisiana.

In 1990, Congress enacted the Ryan White CARE Act to provide funding for states, territories, and EMAs 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 to support 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

- Ryan White CARE Act Title II clientele reflected the population in Louisiana affected by the epidemic in 2001. Sex, race/ethnicity, and age of the CARE Act clientele were similar to those of persons reported to the Louisiana Office of Public Health HIV/AIDS Surveillance System.
- During 2001, Ryan White CARE Act Title II funds were used primarily to provide case management and medical care services to the 4,125 clients enrolled in the program.
- Through the Louisiana AIDS Drug Assistance Program (ADAP), 1,440 persons received antiretroviral therapy (ART) in June 2001. Most of these persons were male, black, 19 years of age or older, and at or below 200% of the poverty level.
- Results from the Survey of HIV Disease and Care illustrate the widespread prescribing of ART (86%) and highly active antiretroviral therapy (HAART) (64%) in 1998 among HIV patients in southeastern Louisiana. Prophylaxis for *Pneumocystis carinii* pneumonia (PCP) was prescribed less frequently (indicated on the medical charts of only 58% of eligible patients). Few differences were noted in the prescribing of ART, HAART, or PCP prophylaxis, with the exception of insurance status.
- The 2000 Adult/Adolescent Spectrum of HIV Disease (ASD) study reported that HAART was prescribed to 76% of patients and that the practice did not differ substantially by patient characteristics. Overall, PCP prophylaxis was prescribed for 76% of eligible patients, and prophylaxis for *Mycobacterium avium* complex (MAC) was prescribed for a similar proportion (70%). These medications were prescribed for larger proportions of black patients than for white or Hispanic patients.
- Analysis of HIV testing delays shows that some groups may not have had access to, or may not have used, available counseling and testing services early in the course of infection.

The purpose of Title II 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 2001, a total of 4,125 clients received services funded through the Ryan White Title II award; of these, 871 persons were new clients. During 2001, the distribution of Title II CARE Act clients by race/ethnicity, sex, and age was similar to the distribution of these characteristics among persons known to be living with HIV/AIDS in Louisiana at the end of 2001 (Table 27).

Table 27. Comparison of demographic characteristics of CARE Act Title II clients and persons living with HIV/AIDS, Louisiana, 2001

	CARE Act clients, % (N = 4,125)	Persons living with HIV/AIDS, % (N = 13,565)
Race/ethnicity[a]		
White, not Hispanic	25	32
Black, not Hispanic	64	64
Hispanic	1	3
Asian/Pacific Islander	<1	1
American Indian/ Alaskan Native	1	
More than 1 race	3	
Unknown	5	
Sex		
Male	66	72
Female	34	28
Age (yrs.)		
<13	2	1
14–19	1	1
20–44	68	71
≥ 45	30	27

[a]For an explanation of how racial/ethnic groups were combined, see p. 11.

Most of the visits of the 4,125 Louisiana Title II clients who received services during 2001 involved case management (n = 2,231), followed by medical care (n = 770). Louisiana is unique in that it provides annual funding to 10 regional public medical centers to provide care to uninsured, low-income, or indigent patients, including those living with HIV/AIDS. Therefore, CARE Act funds are used only to supplement primary medical care in areas where gaps in services have been identified (New Orleans, Baton Rouge, and Monroe). Few clients received substance abuse or mental health services (Table 28). In 2001, the average number of visits by Title II clients was highest for case management services (9 visits/client). Title II clients who sought dental care made an average of 3 visits related to dental care during 2001.

Table 28. Utilization of Ryan White Title II service, by type of service (N = 4,125), Louisiana, 2001

	Case management	Medical	Dental	Mental health	Substance abuse
Clients receiving service (no.)	2,231	770	467	39	13
Visits per client (average no.)	9.0	2.4	3.2	2.1	2.0

In addition to the services listed in Table 28, CARE Act funds were used to provide the following services to clients during 2001: food bank or home-delivered meals (n = 1,682 clients), emergency financial assistance (n = 1,389), transportation (n = 1,194), client advocacy (n = 816), home health care (n = 160), companion or buddy services (n = 134) and a variety of other support services (n = 1,131).

HIV MEDICAL CARE IN LOUISIANA

The prioritization and allocation of Ryan White Title II resources for HIV care require an understanding of the patterns of HIV medical care among persons living with HIV/AIDS, as well as persons already receiving care through Title II services. Monitoring the proportion of HIV-infected persons who receive recommended standards of care may help public health entities to explain differences in morbidity and mortality associated with HIV infection. Although the current HIV/AIDS surveillance system in Louisiana does not collect HIV medical care information, this information may be found in several supplemental surveillance projects that are supported by the CDC. Louisiana conducted one of the supplemental activities, SHDC, in 1998. In addition, the state has been conducting the ASD project, a survey that collects care-related data, since 1990.

AIDS Drug Assistance Program (ADAP)

Since 1987, Congress has appropriated funds to assist states in providing 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 Title II and became commonly known as ADAP. ADAP now provides FDA-approved HIV-related prescription drugs to 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, and private insurance.

In Louisiana, since June 2001, persons enrolled in ADAP have been able to receive the following classes of antiretroviral medications: nucleoside analogues, protease inhibitors, and non-nucleosides. According to the National ADAP Monitoring Project Survey, 1,440 clients were served in Louisiana during June 2001. Most Louisiana ADAP clients served during this month were male (69%), 19 years of age or older (100%), either non-Hispanic black (52%) or non-Hispanic white (48%), and lived at or below 200% of the poverty level (Table 29). Note, however, that the National ADAP Monitoring Project Survey data are based on only 1 month of data collection (June), and the characteristics of persons receiving ADAP-funded services during this month may differ from the characteristics of the persons receiving services during the year.

Table 29. Characteristics of patients enrolled in the AIDS Drug Assistance Program (N = 1,440), Louisiana, June 2001

	Patients, %
Sex	
Male	69
Female	31
Race/ethnicity	
Black, not Hispanic	52
White, not Hispanic	48
Age (yrs.)	
<13	0
13–19	0
≥20	100
Poverty level (%)	
<100	46
101–200	54

Source. National ADAP Monitoring Project, Annual Report, April 2002.

Survey of HIV Disease and Care (SHDC)

The SHDC is a cross-sectional, population-based review of medical records of HIV-infected persons who have been reported to the State of Louisiana. The data presented in this profile are from January 1, 1998 to December 31, 1998. In 1998, the project was in its pilot phase; consequently, records were reviewed only for persons who received medical care for their HIV disease at facilities located in the southeastern part of the state (Regions I, II, III, IV, and IX). Data from future years, however, will be applicable statewide. Because SHDC is a population-based review, inferences can be drawn regarding the level and the types of HIV care experienced by persons who receive care at facilities in southeastern Louisiana. (See Appendix A for details of the SHDC methods.)

Prescription of Antiretroviral Therapy

In 1998, of the persons who received care for their HIV disease at facilities located in southeastern Louisiana, 86% received prescriptions for ART and 64% received prescriptions for HAART from their health care provider (Table 30). For the purpose of this analysis, HAART was defined as two nucleoside analogue reverse transcriptase inhibitors (zidovudine + didanosine, zalcitabine or lamivudine or stavudine + didanosine or lamivudine) plus at least one protease inhibitor (amprenavir, indinavir, nelfinavir, ritonavir, saquinavir) or non-nucleoside analogue reverse transcriptase inhibitor (delaviridine, efavirenz, nevirapine).

Table 30. Prescription of antiretroviral therapy (ART) and highly active antiretroviral therapy (HAART) for HIV-infected patients, by sex, race/ethnicity, and insurance status, Survey of HIV Disease and Care, Louisiana, 1998

	Prescribed ART, %	Prescribed HAART, %
Sex		
Male	87	64
Female	85	66
Race/ethnicity		
White, not Hispanic	92	70
Black, not Hispanic	83	61
Insurance status		
Private	93	76
Public	87	54
No insurance	83	66

The prescribing of ART and HAART differed somewhat by race/ethnicity and by whether patients had private or public insurance. ART and HAART were prescribed for larger proportions of non-Hispanic whites than for non-Hispanic blacks. Because of small numbers, proportions are not shown for other racial/ethnic groups. ART was prescribed for most privately insured patients, and HAART was prescribed for more than three quarters of these patients. In contrast, in 1998, HAART was prescribed for only half of publicly insured patients and two thirds of patients without insurance. ART or HAART were prescribed for similar proportions of males and females.

Opportunistic Infections

PCP was the first opportunistic infection associated with HIV infection. According to the *U.S. Public Health Service/Infectious Diseases Society of America Guidelines for the Prevention of Opportunistic Infections in Persons Infected with Human Immunodeficiency Virus,* HIV-infected persons with CD4+ counts of < 200 cells/microliter should receive PCP prophylaxis; however, discontinuation is possible among persons taking HAART (CDC, 2002). As of 1998, according to SHDC data, PCP had been diagnosed for 6% of HIV-infected patients. PCP had been diagnosed for a larger proportion of males (8%) than females (1%) and for a larger proportion of white patients (9%) than black patients (3%) (Table 31).

Overall, PCP prophylaxis was prescribed for 58% of patients in New Orleans in 1998. It was prescribed for larger proportions of eligible patients who were female and black than for patients who were male and white (Table 31). The prescribing of PCP prophylaxis differed by insurance status: it was prescribed for nearly twice the proportion of patients who had no insurance, compared with the proportion of those who had private insurance coverage. The difference between patients with private insurance and those who received public assistance was smaller.

Table 31. Current prescription of prophylaxis for *Pneumocystis carinii* pneumonia in HIV-infected patients, by sex, race/ethnicity, and insurance status, Survey of HIV Disease and Care, Louisiana, 1998

	Patients, %
Sex	
Male	54
Female	67
Race/ethnicity	
White, not Hispanic	45
Black, not Hispanic	60
Insurance status	
Private	34
Public	63
No insurance	70

Before or during 1998, 62% of HIV-positive patients were tested for tuberculosis by the tuberculin skin test (TST) (data not shown). Differences in the proportions of patients tested, by sex and race/ethnicity, were small: men (63%) vs. women (58%); non-Hispanic whites (64%) vs. non-Hispanic blacks (59%).

Adult/Adolescent Spectrum of HIV Disease (ASD) Project

The ASD project is a supplemental surveillance project in which data on the clinical characteristics and medical care of HIV-infected persons are collected. ASD is an ongoing, longitudinal surveillance cohort study that describes the full spectrum and progression of HIV disease among HIV-infected persons who receive health care at a participating facility. Since 1990, HIV-infected patients receiving care at the Medical Center of Louisiana at New Orleans, as well as 2 community-based early intervention clinics, have been enrolled in ASD. In contrast to the information presented from SHDC, ASD results are not generalizeable to the HIV-infected population. However, ASD data may be used to examine trends in clinical characteristics and the provision of medical care over time. Results from the most recent year (2000) are presented to illustrate the level of care received among the Louisiana ASD cohort. (See Appendix A for additional details concerning the ASD methods.)

Antiretroviral Therapy

In 2000, HAART was prescribed for 76% of the patients eligible to receive it, according to public health guidelines published in 1999 (Department of Health and Human Services and Henry J. Kaiser Family Foundation, 1999) (Table 32). The prescribing of HAART differed by patients' sex: HAART was prescribed for more men (79%) than women (68%). Prescribing did not differ by race/ethnicity. Because of the small numbers of cases, proportions are not shown for Asian/Pacific Islanders or other races or persons of unknown race (total number includes these persons).

Table 32. Current prescription of highly active antiretroviral therapy (HAART) in HIV-infected patients, by sex and race/ethnicity, Adult/ Adolescent Spectrum of Disease Project (N = 1,695), New Orleans, 2000

	Patients, %
Sex	
Male	79
Female	68
Race/ethnicity	
White, not Hispanic	76
Black, not Hispanic	76
Hispanic	75

Opportunistic Infections

ASD collects information on prophylaxis for OIs such as PCP and MAC. Patients were considered eligible for primary PCP prophylaxis if they had a history of an AIDS-related opportunistic infection or a CD4+ count of <200 cells/microliter and if PCP had not been diagnosed previously. PCP prophylaxis was defined as the prescribed use of trimethoprim-sulfamethoxazole, dapsone, aerosolized pentamidine, or atovaquone, alone or in combination, before, or in the absence of, a diagnosis of PCP. Overall, PCP prophylaxis was prescribed for 76% of all eligible patients in 2000. It was prescribed for a slightly larger proportion of eligible patients who were male than for those who were female and for a larger proportion of patients who were non-Hispanic black than for those who were non-Hispanic white or Hispanic (Table 33).

Table 33. Prescription of prophylaxis for primary *Pneumocystis carinii* pneumonia in HIV-infected patients, by sex and race/ethnicity, Adult/Adolescent Spectrum of Disease Project (N = 945), New Orleans, 2000

	Patients, %
Sex	
Male	78
Female	71
Race/ethnicity	
White, not Hispanic	69
Black, not Hispanic	80
Hispanic	69

Primary MAC prophylaxis was prescribed for 70% of eligible patients (i.e., CD4+ count of <50 cells/microliter and no prior diagnosis of MAC). This therapy was prescribed for similar proportions of male and female patients (Table 34) and for a larger proportion of black patients (75%) than for white (59%) or Hispanic (43%) patients.

Table 34. Prescription of prophylaxis for *Mycobacterium avium* complex in HIV-infected patients, by sex and race/ethnicity, Adult/Adolescent Spectrum of Disease Project (N = 449), New Orleans, 2000

	Patients, %
Sex	
Male	70
Female	72
Race/ethnicity	
White, not Hispanic	59
Black, not Hispanic	75
Hispanic	43

HIV Testing Delays

With the current availability of antiretroviral medications, which have often been successful in treating HIV-infected persons, it is important that people be tested early for HIV so that they can benefit from these advances in treatment. However, a significant number of people are not tested until they are immunosuppressed or sick. Of the persons who had a positive result from a confidential HIV test during 1996–2000 and were reported to the state's HIV/AIDS Surveillance Program, one third had an AIDS diagnosis within 3 months of their first positive HIV test result. Table 35 shows the time between a person's first positive confidential test and AIDS diagnosis, by demographic and risk characteristics. These data should be interpreted cautiously,

Table 35. Proportions of persons with AIDS diagnosis, by time between first positive HIV test result and AIDS diagnosis (N = 6,956), Louisiana, 1996–2000

	AIDS diagnosis, %		
	At time of first HIV+ test result	≤ 3 Months[a]	≤ 12 Months[b]
Overall	22	32	37
Gender			
Male	25	36	41
Female	15	23	27
Race			
White, not Hispanic	27	38	41
Black, not Hispanic	20	30	35
Exposure category			
Male-to-male sex	30	43	48
Injection drug use	24	37	44
Male-to-male sex and injection drug use	19	34	38
Heterosexual contact	17	27	32
Other	24	34	35
Unspecified	18	26	30
Age (yrs.)			
0–14	10	15	16
15–24	7	12	14
25–34	21	31	36
35–44	26	39	45
≥ 45	31	43	48
Public health region			
I	23	33	38
II	17	28	34
III	29	39	42
IV	19	30	34
V	27	37	39
VI	16	28	33
VII	23	36	39
VIII	22	34	40
IX	29	38	43

[a] Includes persons given AIDS diagnosis at time of first positive test result.

[b] Includes persons given AIDS diagnosis within 3 months of, or at time of, the first positive HIV test result.

however, because a person may have been tested earlier, but anonymously. In groups with higher rates of anonymous testing (e.g., white males), these data may overestimate the true proportion of persons who are tested late.

Among persons who were tested confidentially during 1996–2000, men were tested later than women, and white persons were tested later than black persons. For groups in which larger proportions were tested anonymously, these estimates of HIV testing delays are likely to overestimate the proportion who enter care late. Moreover, estimates of late testing and delayed access to care seem to be inconsistent with other surveillance data (not shown) that indicate that the greatest declines in new AIDS cases and AIDS-related mortality have occurred among whites and men.

Reference

Department of Health and Human Services and Henry J. Kaiser Family Foundation. Guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents, May 5, 1999. Available at: http//www.hivatis.org.

Question 2

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

Efforts to measure unmet need among persons with HIV infection are under way in Louisiana. The Louisiana Office of Public Health HIV/AIDS Program has developed several strategies for identifying persons who know their status but who are not receiving primary medical care. The first project focuses on enumerating the persons who are reported as HIV infected, currently living in Louisiana, and receiving routine medical care versus those who are not receiving care. The second project is a statewide needs assessment survey, for which the most recent data were collected in 2000.

Highlights

- Of the persons living with HIV who completed the 2000 Statewide Needs Assessment and reported primary care as a need, 19% said that they needed more primary care than was available. An additional 5% reported that their need for primary medical care was not being met at all.
- Of the respondents who reported having taken protease inhibitors during the past 6 months (n=924), most said that they took them "always" as prescribed (60%) or "most of the time" as prescribed (31%). Of the respondents who were not taking combination therapy (n=233), most reported that the medications had not been prescribed (52%) or that they had not been able to tolerate the side effects (21%).

MEASURING UNMET NEED BY USING LABORATORY DATA

Louisiana's Sanitary Code requires that laboratories report all test results indicative of HIV infection in persons residing in Louisiana (i.e., tests ordered by facilities operating in Louisiana). Once the test results have been reported to the HIV/AIDS Surveillance Program, the results can be linked to records in the HIV/AIDS case registry, which defines the population of persons living with HIV in Louisiana. Consequently, for a specified time, 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, however, assumes that laboratory reporting is complete. Reporting is complete only if all laboratories that perform tests for HIV care facilities in Louisiana report their results to the HIV/AIDS Surveillance Program; completeness of reporting is currently being evaluated (described in the following).

A preliminary analysis of the laboratory information is being conducted to determine what proportion of persons living with HIV during 2001 sought care for HIV infection from the health care system. This analysis will detect additional issues or biases that may affect the analysis of unmet need. Later analyses will identify factors associated with accessing care and will investigate issues such as patterns of care utilization (e.g., continuity of care in the same facility, changing facilities of care) and remaining in care. An additional analysis will generate estimates of unmet need based upon a probability method that is being developed for HRSA by the University of California, San Francisco. The estimates of unmet need generated by each method will be compared to describe their differences, to assess the validity of the assumptions upon which the methods are based, and to examine their potential biases.

A comprehensive evaluation of the completeness of laboratory-based reporting is being conducted. Surveillance staff used HARS and CAREWare to generate a master list of medical facilities and health care providers in Louisiana that have cared for HIV-infected persons in the past. Each provider has been contacted by a surveillance epidemiologist to ascertain which labs the facility uses to perform HIV-related tests, as well as to determine the staff's knowledge of HIV reporting laws in Louisiana and the facility's history of reporting HIV/AIDS cases. The completed questionnaires will be analyzed to identify any laboratories not yet reporting in order to enlist them for future reporting and to describe potential biases in the estimates of unmet need.

RYAN WHITE STATEWIDE NEEDS ASSESSMENT SURVEY

A statewide needs assessment survey is conducted statewide in Louisiana every 2 years. The 2000–2001 survey was completed by more than 1,400 persons; this number represented more than 10% of the persons reported as living with HIV/AIDS in Louisiana. Information from the 2000–2001 survey provided insight into whether persons were seeking medical care, how often, and where. Additional information was collected on persons' available income and health insurance to pay for these services, extent of knowledge of their medical condition, extent of knowledge of available services and treatments, and strengths and barriers encountered when they attempted to obtain medical care. Another survey will be conducted during 2002: data on persons who indicate that they have received neither medical care nor a laboratory test (CD4 cell count or measurement of viral load) in more than 6 months will undergo additional in-depth analysis. The information gathered through the 2002 survey will provide a better understanding of persons who are not receiving care, as well as some of the potential barriers to care.

Service Needs/Availability

In the 2000-2001 Statewide Needs Assessment, respondents were asked to report their need for 26 different services during the past 6 months. Respondents indicated whether they needed the service and received it, received the service but needed more than was available, needed the service but could not get it, or did not need the service. Primary medical care was rated the most needed service: 91% of the respondents reported a need for this type of care.

Although 95% of these persons received some primary medical care during the past 6 months, nearly one fifth of patients (19%) said that they needed more than was available. An additional 5% reported that their need for primary medical care had not been met at all (Figure 47). Respondents reported that the reasons they did not receive adequate care included rescheduling difficulties, inadequate medical staffing, difficulty in accessing acute care at their local HIV/AIDS clinic, and transportation problems. Of the persons who received primary medical care, most (90%) reported they obtained primary care services at a public medical center (Figure 48).

Figure 47

Need for Primary Medical Care Services (n=1,366)

Ryan White Needs Assessment, Louisiana, 2000-2001

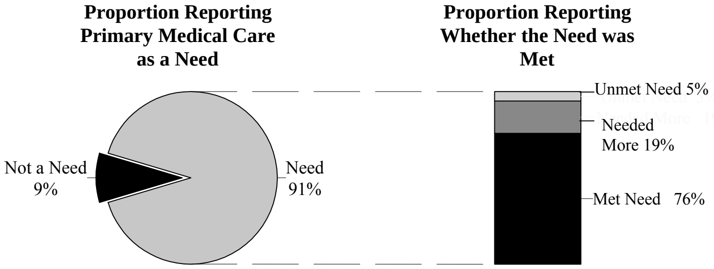
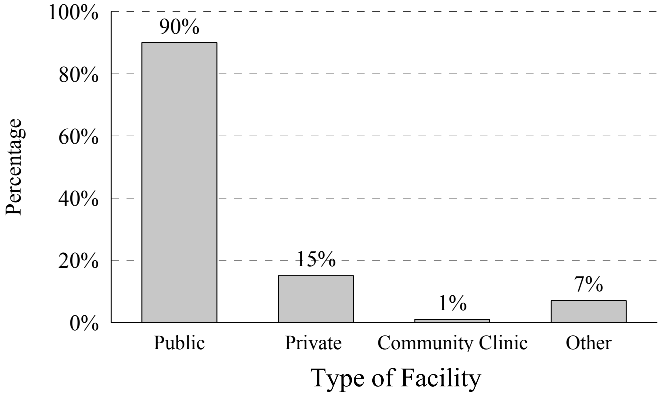


Figure 48

Receipt of Primary Care by HIV-Infected Persons (n=1,151), by Type of Facility

Ryan White Needs Assessment, Louisiana, 2000-2001



Note: Percentages do not sum to 100% because respondents were asked to report all primary care providers.

In addition to primary medical care, the following services were rated as the most needed by respondents: medications (78%), dental care (61%), case management (56%), and food bank or vouchers (53%). Some of these service needs were not met as well as others. Of all services, the highest level of unmet need was for dental services (17%).

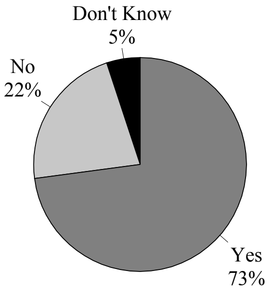
Antiretroviral Therapy (ART)

Of the respondents, 73% reported that they had received a prescription for combination therapy medications during the past 6 months (Figure 49). Of those who reported taking protease inhibitors (n = 924), most indicated that they took the medications "always" as prescribed (60%) or "most of the time" as prescribed (31%) (Figure 50).

Figure 49

Combination Therapy in Past 6 Months (n=1,348 patients)

Ryan White Needs Assessment, Louisiana, 2000-2001

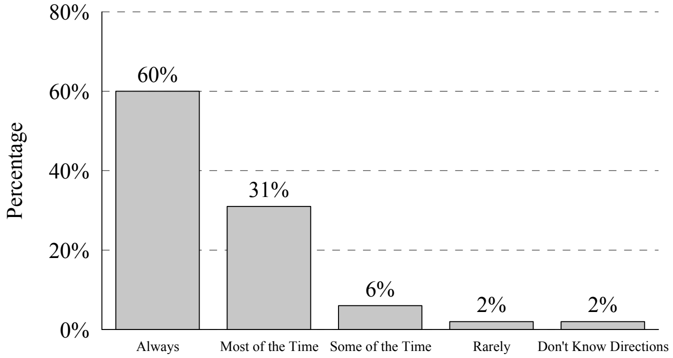


Of the respondents who were not taking combination therapy (n = 233), most reported that the medications had not been prescribed (52%) or that they had not been able to tolerate the side effects (21%). Only 1% throughout the state reported that they had not been able to fill prescriptions (either combination therapy or other therapy). Most respondents (69%) said they got medications from an HIV/AIDS clinic in a public medical center.

Figure 50

Adherence to Directions for Combination Therapy (n=924 patients)

Ryan White Needs Assessment, Louisiana, 2000-2001



APPENDIX A: DATA SOURCES

- Core HIV/AIDS Surveillance
- Supplemental HIV/AIDS Surveillance Projects
- Behavioral Surveys
- STD Surveillance
- HIV Counseling and Testing Data
- Substance Abuse Data
- Vital Statistics Data
- Population Data
- Ryan White CARE Act Data

Core HIV/AIDS Surveillance

AIDS Surveillance

Overview: AIDS is a reportable condition in all states and territories. Since 1993, all states and territories base their reporting practices on the 1993 CDC case definition for AIDS surveillance. The AIDS Surveillance system was established to monitor incidence of the disease and the demographic profile of AIDS cases; describe the modes of HIV transmission among persons with AIDS; guide the development and implementation of public health intervention and prevention programs; and to assist in the evaluation of the efficacy of public health interventions. AIDS surveillance data are also used to allocate resources for Titles I and II of the Ryan White CARE Act.

State and local health departments actively solicit disease reports from health care providers and laboratories. Standardized case report forms are used to collect sociodemographic information, mode of exposure, laboratory and clinical information, vital status, and referrals for treatment or services

Population: All persons who meet the 1993 CDC AIDS surveillance case definition

Strengths: This is the only source of AIDS information that is available in all areas (states). The data reflect the effect of AIDS on communities and trends of the epidemic in communities. AIDS surveillance has been determined to be >85% complete. The data include all demographic groups (age, race/ethnicity, sex).

Limitations: Because of the prolonged and variable period from infection to the development of AIDS, trends in AIDS surveillance do not represent recent HIV infections. Asymptomatic HIV-infected persons are also not represented by AIDS case data. In addition, incomplete HIV or CD4+ T-cell testing may interfere with the completeness of reporting. Further, the widespread use of HAART complicates the interpretation of AIDS case surveillance data and the estimation of the HIV/AIDS epidemic in an area. Newly reported AIDS cases may reflect treatment failures or the failure of the health care system to halt the progression of HIV infection to AIDS. AIDS cases represent late-stage HIV infections.

HIV Surveillance

Overview: Since the human immunodeficiency virus was identified and a test for HIV was licensed, CDC and other professional organizations have recommended the reporting of HIV infections to local health authorities as an integral part of AIDS surveillance activities. As part of ongoing, active HIV surveillance, state and local health departments educate providers on their reporting responsibilities, establish active surveillance sites, and establish liaisons with laboratories that perform HIV testing of samples. Moreover, HIV/AIDS surveillance programs routinely evaluate the completeness of HIV reporting and conduct follow-up on HIV cases that are of epidemiologic importance.

Population: All persons who test positive for the human immunodeficiency virus (HIV)

Strengths: HIV surveillance data represent more recent infections, compared with AIDS surveillance data. Previous evaluations have estimated that HIV infection reporting in Louisiana is >85% complete for persons who have tested positive for HIV. Consequently, HIV surveillance provides a minimum estimate of the number of persons known to be HIV infected and reported to the health department, identifies emerging patterns of transmission, and can be used to detect trends in HIV infections among populations of particular interest (e.g., children, adolescents, or women) that may not be evident from AIDS surveillance. Additionally, HIV surveillance provides a basis for establishing and evaluating linkages to the provision of prevention and early intervention services and can be used to anticipate unmet needs for HIV care.

Limitations: HIV surveillance data may underestimate the level of recently infected persons because some infected persons either do not know they are infected or have not sought testing. Persons who have tested positive at an anonymous test site and have not sought medical care, where they would be confidentially tested, are not included in HIV surveillance statistics. HIV surveillance data represent infections in jurisdictions where reporting laws for HIV are in place. HIV reporting laws differ by jurisdiction; therefore, consultation with local surveillance staff is advised on how to interpret local HIV surveillance data. Furthermore, reporting of behavioral risk information may not be complete.

Enhanced Perinatal Surveillance

Overview: Perinatal HIV/AIDs surveillance is the ongoing and systematic collection of information on HIV-infected pregnant mothers and perinatally exposed and HIV-infected children. Extensive medical record abstractions are conducted for all HIV-exposed children and their mothers, and the children are followed up until their infection status is determined. These data address the prevention of perinatal transmission, including prenatal care, HIV counseling and testing during pregnancy, and the use of zidovudine or other antiretroviral medications for pregnant mothers and neonates. The data also address questions regarding treatment issues for HIV-infected women and their children.

Population: All HIV-exposed children and their mothers

Strengths: Enhanced perinatal surveillance data provide perinatal-specific information that can be used to examine patterns in HIV testing and in the use of zidovudine in clinical practice, as well as to identify barriers to the implementation of Public Health Services guidelines. Perinatal surveillance data may also be used to help ascertain mother-infant pairs by matching data in the HIV/AIDS registry to the state birth registry each year.

Limitations: Perinatal data may underestimate the number of mother-infant pairs because some pregnant women may not know they are HIV infected and others may not have been tested for HIV. Perinatal data includes only those women who have had a positive confidential HIV test result. HIV-exposed infants must be followed up until sufficient laboratory information is available, so infants who are lost to follow-up cannot be classified as infected or not infected.

Supplemental HIV/AIDS Surveillance Projects

Adult/Adolescent Spectrum of HIV Disease (ASD)

Overview: The Adult/Adolescent Spectrum of Disease (ASD) project is an ongoing, longitudinal surveillance cohort study that describes the full spectrum and progression of HIV disease, including severe illness and death. Information on AIDS-defining conditions, other illnesses and symptoms, treatments, and lab parameters are abstracted from medical records onto a standardized form. In addition, gynecologic information (e.g., Pap smear, cervical cytology) is collected for women. Data are collected for the 12 months preceding ascertainment and re-abstractions are done every 6 months until the patient dies or is lost to follow-up.

Population: ASD participants must be ≥ 13 years, have a diagnosis of HIV infection, and receive health care at a participating facility in the funded area. In each funded area, facilities serving HIV-infected persons (clinics, hospitals, neighborhood health centers, private medical practices, and emergency departments) are selected to participate as project sites. At each project site, all HIV-infected women and persons belonging to a racial/ethnic minority group are included.

Strengths: ASD data describe the spectrum of HIV disease that is documented in the medical chart. Data have been available since January 1990. ASD data are useful for assessing the prescription of prophylactic and antiretroviral treatment over time and for assessing the level of AIDS-defining conditions for case definition purposes. As of December 2001, more than 50,000 persons had been included in the ASD project.

Limitations: ASD data describe morbidity among persons who received medical care for HIV infection at a participating site (i.e., not population-based). The morbidity information on the medical chart may not be complete. Gynecologic information may be underreported because this information may appear elsewhere (e.g., women may have been cared for by gynecologists rather than HIV specialists). ASD data rely on the thoroughness of diagnostic testing and recording.

HIV Testing Survey (HITS)

Overview: HITS assesses HIV testing patterns among persons at high risk for HIV, evaluates reasons for seeking or avoiding testing, and examines knowledge of state policies for HIV surveillance. In addition, HITS collects behavioral risk information from persons at high risk for infection. The data can also be used to evaluate the representativeness of HIV surveillance data by determining the characteristics of persons who delay testing, are tested anonymously, or are not tested at all.

HITS is an anonymous, cross-sectional survey of populations at high risk for HIV infection. The core populations include MSM, IDUs, and heterosexual adults. To recruit HITS participants, the study is conducted in several cities in a state (generally) at 3 venues: gay bars, street locations in areas of heavy drug use, and STD clinics. At a minimum, 100 persons in each population group are interviewed; thus, states have a minimum sample of 300 persons. Persons who are not tested or who report that they are HIV-positive are interviewed.

In 2001, HITS was conducted in New Orleans (Orleans Parish), Baton Rouge (East Baton Rouge Parish), and Monroe. The sample of 300 persons was distributed among these 3 areas: 50 persons in each population group in New Orleans, 40 in Baton Rouge, and 10 in Monroe.

Population: Regardless of the venue, persons who are at least 18 years of age, able to give informed consent, and have been a resident of the state for at least 1 year are eligible for a HITS interview. In addition, behavioral criteria apply to each risk group: men at MSM venues are eligible if they have had sex with a man within the past 12 months; injection drug users must have injected drugs within the past 12 months; and high-risk heterosexual clients at an STD clinic are eligible if they are at the clinic because of a suspected STD, have not been treated during the past 90 days, are not at the clinic because of referral or follow-up, and have not had homosexual sex within the past 12 months.

Strengths: HITS collects public health information from groups at high risk for HIV; the information includes HIV testing attitudes, history and behaviors, as well as knowledge of testing and risk behaviors.

Limitations: HITS is a cross-sectional survey and relies on a convenience sample for participation. Information collected is self-reported and may be subject to recall bias. Further, HITS data may not represent the entire high-risk population of an area. For example, in Louisiana, information on MSM was collected in only 3 areas of the state (New Orleans, Baton Rouge, and Monroe) and therefore may be limited in its representativeness. Furthermore, data on MSM were collected only in gay bars; MSM who frequent gay bars may not be representative of the entire population of MSM.

Survey of HIV Disease and Care (SHDC)

Overview: SHDC, a cross-sectional review of medical records of HIV-infected persons reported to HARS, was developed to obtain population-based estimates of the clinical characteristics of persons receiving medical care for HIV infection. SHDC collects demographic and clinical information, including the proportions of patients receiving therapy recommended by current treatment guidelines and of those who receive preventive services. Information in the medical records of sampled patients are reviewed for the preceding 12 months and documented on a standardized abstraction form.

Population: Health care providers who have reported an HIV-infected person(s) to HARS are eligible for sampling. Among sampled providers, a listing of their HIV-infected patients is prepared and then sampled systematically with a random start. Women and racial/ethnic minorities are oversampled.

Strengths: SHDC is designed to collect data from a representative sample of patients receiving HIV care so that population-based estimates of the proportion of HIV-infected persons receiving recommended standards of care can be made. Women and members of racial/ethnic minority groups are oversampled to ensure that population-based estimates in these populations are valid. SHDC extracts information from a variety of record sources in order to obtain information on the prescription of HIV antiretroviral therapies, receipt of medical care and social services, and laboratory testing history. Data from SHDC are used to estimate the proportion of persons who received appropriate standards of care for their HIV disease.

Limitations: SHDC is a cross-sectional review, and medical records are the source of the data. Estimates of care cannot be assessed over time, and the quality of the data obtained is dependent on the completeness of documentation in the patient's medical record. SHDC's sampling frame is patients who have sought medical care; therefore, population-based inferences about HIV-infected persons who are not in care cannot be made. Although SHDC collects some behavioral information, self-reported adherence to therapies documented in the medical chart may not be known. In addition, data from SHDC may underestimate the amount and type of medical care a patient received if the patient received medical care from more than 1 provider. For example, gynecologic care may be underreported because women may seek this care from a provider who is not an HIV specialist.

Behavioral Surveys

MSM Outreach Survey (MOS)

Overview: During 1995–2000, outreach surveys were conducted across Louisiana at bars that serve MSM. The survey was a 1-page, self-administered questionnaire distributed by outreach workers from local CBOs. Each CBO surveyed 50 to 150 MSM twice per year at 1 to 2 bars where they conducted outreach activities. Every person at the bar was approached. However, if the bar was very busy, workers chose a representative sample of persons at the bar (e.g., they approached every third person who entered the bar). Respondents were asked about sex partners, history of condom use, history of receptive and insertive anal sex, and HIV status.

Population: MSM men who attend bars that serve gay and bisexual men

Strengths: Data on HIV-related behaviors among MSM are very limited. The MOS is one of the only sources of statewide behavioral data for MSM. Because the survey was conducted every year for 6 years, trends in risk behaviors can be analyzed. Information collected from the MOS is useful for planning prevention strategies for MSM.

Limitations: MOS data are self-reported; thus, the information may be subject to recall bias. Because these data were collected in bars, the data are representative only of MSM who go to gay bars and cannot be generalized to all MSM.

Street Outreach Survey (SOS)

Overview: SOS has been administered by CBOs in every region of the state since 1995. The survey was a 1-page, self-administered questionnaire distributed each quarter by outreach workers at 3 sites where they actively conducted street outreach activities. These sites were in neighborhoods with 1 or more of the following characteristics: high rates of HIV/STDs, high levels of drug use, exchange of sex for money or drugs, or "crack" houses. Questionnaires were collected between 3:00 p.m. and 8:00 p.m. at outdoor locations (i.e., street corners, bus stops, public housing developments, and locations outside convenience stores and apartment complexes). The survey was generally conducted at the same sites each quarter. Every person at the site was approached, but a representative sample of persons was selected if the site was very busy (e.g., every third person was approached). Respondents were asked about sex partners, history of condom use, drug use, HIV testing history, and exposure to prevention programs.

Population: High-risk persons in neighborhoods where street outreach activities are actively conducted

Strengths: This survey provides data on the sexual and drug-use behaviors of persons at particularly high risk for HIV. These persons are likely to be missed by other survey approaches (e.g., BRFSS telephone survey). Because the survey is conducted every year, trends in risk behaviors can be analyzed. Data from the SOS may be used to help plan prevention strategies for persons at high risk for HIV and STDs. The data can also be used to determine the extent to which persons have been exposed to prevention activities and to monitor and evaluate state and local prevention programs.

Limitations: SOS data are self-reported; thus, the information may be subject to recall bias. These data represent persons at particularly high risk for HIV and are not generalizable to the general population in the local community.

*Behavioral Risk Factor Surveillance System (BRFS*S)

Overview: The BRFSS is a state-based random-digit-dialed telephone survey of adults that monitors state-level prevalence of the major behavioral risks associated with premature morbidity and mortality. Each month, a sample of households is contacted, and 1 person in the household who is 18 years or older is randomly selected for an interview. Multiple attempts are made to contact the sampled household. A Spanish translation of the interview is available. Respondents to the BRFSS questionnaire are asked a variety of questions about their personal health behaviors and health experiences. A sexual behavior module was added to this survey in 1994, 1995, 1996, 1998, and 2000.

The questions in this module, for adults (aged 18-49), concerned number of sex partners, condom use, and treatment for STDs.

Population: All noninstitutionalized adults, 18 years and older, who reside in a household with a telephone

Strengths: Data from the BRFSS survey are population-based; thus, estimates about testing attitudes and practices can be generalized to the adult population of a state. Information collected from the BRFSS survey may be useful for planning community-wide education programs.

Limitations: BRFSS data are self-reported; thus, the information may be subject to recall bias. Because BRFSS respondents are contacted by telephone, the data are not representative of households that do not have telephones. In addition, BRFSS data are representative of the general noninstitutionalized adult population in an area, not just persons at highest risk for HIV/AIDS. The extent of HIV behavioral risk information collected by the BRFSS questionnaire is limited, and inferences can be made only at the state level.

Youth Risk Behavior Surveillance System (YRBSS)

Overview: The YRBSS was established to monitor 6 high-risk behaviors that contribute to the leading causes of mortality, morbidity, and social problems among youth and young adults in the United States. YRBSS was developed to collect data that are comparable nationally, statewide, and locally. It is a self-administered questionnaire that is given to a representative sample of students in grades 9 through 12 at the state and local levels. In Louisiana, the survey is administered at the state level and in Orleans Parish public schools. However, only the survey administered to Orleans Parish high school students includes questions related to sexual behavior. The Orleans Parish Youth Risk Behavior Survey (YRBS) collects information on 6 categories of behaviors; sexual behaviors that contribute to unintended pregnancy and STDs, including HIV, constitute 1 category. Questions are also asked about exposure to HIV prevention education materials, sexual activity (age at initiation of sexual activity, number of partners, condom use, past drug or alcohol use), contraceptive use, and pregnancy history.

Population: A representative sample of students in grades 9 through 12 at the state and local level

Strengths: In New Orleans, YRBSS samples adolescents in public schools and is population-based. The YRBS questionnaire is administered to students anonymously during school. Repeated attempts are made to contact students who are not in attendance. Inferences from YRBSS estimates can be drawn about behaviors and attitudes of adolescents in school, which makes the information useful for developing community-wide prevention programs aimed at younger persons. YRBSS uses a standardized questionnaire so that comparisons can be made across participating jurisdictions. Jurisdictions have the option of asking specific questions to meet local needs.

Limitations: The YRBSS project relies upon self-reported information; therefore, reporting of sensitive behavioral information may not be accurate (may be underreported or overreported). Also, because the YRBSS questionnaire is administered in school, the data are representative only of students and cannot be generalized to all youth. For example, students at highest risk, who may be more likely to be absent from school or to drop out of school, may be underrepresented in this survey, especially among upper grades. The questionnaire does not include questions about homosexual or bisexual behavior.

STD Surveillance

STD Case Reporting

Overview: The Louisiana Office of Public Health STD Control Program conducts statewide surveillance to determine sexually transmitted disease (STD) incidence and to monitor trends. It also conducts partner counseling and makes referrals for examination and treatment in order to reduce the spread of STDs. In Louisiana, chancroid, chlamydia, gonorrhea, lymphogranuloma venereum, and syphilis are reportable STDs.

Population: All persons with an infection that meets the CDC surveillance case definition for the infection and who are reported to local health department

Strengths: STD surveillance data (e.g., data on rectal gonorrhea) can serve as a surrogate marker for unsafe sexual practices and demonstrate the prevalence of, or changes in, a specific behavior. STD data are widely available at the state and local level. Because of shorter incubation time periods between exposure and infection, STDs can serve as a marker of recent unsafe sexual behavior. In addition, certain STDs (e.g., ulcerative STDs) can facilitate the transmission or the acquisition of HIV infection. Finally, changes in trends of STDs may indicate changes in community sexual norms, such as unprotected sex.

Limitations: STDs are reportable, but state requirements for reporting differ. The reporting of STDs from private-sector providers may be less complete. Although STD risk behaviors result from unsafe sexual behavior, they do not necessarily correlate with HIV risk.

HIV Counseling and Testing Data

Counseling and Testing System (CTS)

Overview: The Louisiana Office of Public Health provides funds for the HIV CTS at more than 150 sites in Louisiana. These sites include CBOs, drug treatment centers, and STD, prenatal, family planning, and TB clinics. The CTS collects information on counseling and testing services delivered, as well as the characteristics of clients receiving the services. The characteristics include demographics, insurance, risk information, and testing information (data, testing history, test result). However, no personal identifying information is collected. All sites offer both anonymous and confidential testing. However, 84% of persons that were tested in 2000 were tested confidentially.

Population: All clients who receive confidential or anonymous HIV testing services at a counseling and testing site funded through a CDC cooperative agreement

Strengths: CTS provides standardized data, available at the local level, on clients who are tested for HIV. The data may offer insights into HIV infection rates in an area's high-risk population. The CTS testing data may also highlight the effect of prevention programs focused on specific populations.

Limitations: CTS collects test-based, rather than person-based data. Information is collected only from persons who seek counseling and testing services or agree to be tested after consultation with a counselor at a testing site. Therefore, estimation of HIV statewide seroprevalence is not possible with CTS data because the clients self-select for testing. However, at sites where testing is universal, persons who are HIV-positive may reflect the prevalence in that population. Because a person can repeatedly seek testing, it is not possible to distinguish persons who have been tested multiple times; however, a variable called previous HIV test on the client abstract form allows prior testing to be quantified. Because the CTS gathers data on HIV testing or program activities, changes in testing patterns may reflect changing program priorities rather than the testing patterns of individuals.

Substance Abuse Data

Treatment Episode Data Set (TEDS)

Overview: TEDS is a national data set maintained by the Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA). Data are obtained annually on more than 1.5 million records of treatment admissions for substance abuse. TEDS comprises data that are routinely collected by states to help monitor their individual substance abuse treatment programs. TEDS collects information on client demographics, information about the number of prior treatments, the usual route of administration for each problem substance, frequency of use, age at first use, and services provided. Facilities that report TEDS data usually receive state funding for the provision of substance abuse treatment.

Population: Persons admitted to substance abuse treatment facilities that report to TEDS

Strengths: Although TEDS does not represent the total demand for substance abuse treatment, it does include a significant proportion of all admissions to substance abuse treatment. It includes admissions that constitute a burden on public funds.

Limitations: TEDS is based on records of admissions and does not represent individuals. Because of this, a person admitted to treatment twice within the same calendar year would be counted as 2 admissions. Also, because most states cannot identify persons who have been assigned a unique identifier at the state level to protect their confidentiality, TEDS is unable to follow individual clients through a sequence of treatment episodes. TEDS does not represent the total substance abuse treatment burden or the prevalence of substance abuse in the general population.

Drug Abuse Warning Network (DAWN)

Overview: DAWN is an ongoing, national data system that collects information on drug-related deaths from the offices of participating medical examiners. Data are also collected on drug-related visits to hospital emergency departments from a nationally representative sample of short-stay general hospitals throughout the coterminous United States. Emergency department estimates are produced for 21 large metropolitan areas and for the nation. Drug-related death data are collected in more than 40 metropolitan areas.

DAWN was established to provide national, state, and local areas with data for program planning and policy development; to identify substances associated with drug abuse deaths; to monitor drug abuse patterns and trends; to detect new drugs of abuse; and to assess adverse health outcomes associated with drug abuse

Population: Persons who died at 6–97 years of age and whose death was drug induced or drug related. Also, the decedent must have used the substance because of dependence, to commit suicide, or to achieve psychic effects.

Strengths: DAWN provides ongoing data on the patterns of drug-induced and drug-related deaths from a large number of areas in the United States. Standardized data collection and data management procedures are used to ensure the accuracy of DAWN data. Because of concerns about the accuracy of the data, the methods were revised and new protocol modifications were implemented in 2001.

Limitations: Participation in DAWN is voluntary; thus, counts of drug-abuse deaths do not represent the entire service area if participation is not universal. DAWN collects only information about drug-abuse episodes that have resulted in a death classified as a drug-induced or drug-related death. Finally, because DAWN relies on death-investigation case files for reporting, drugs may be underreported (if not reported) or drug information may not be specific (if drug name is recorded differently).

National Household Survey of Drug Abuse (NHSDA)

Overview: The NHSDA is an ongoing source of statistical information on the use of illicit drugs by the US civilian population aged 12 or older. The survey collects data by administering questionnaires to a representative sample of the population. Face-to-face computer-assisted interviews are conducted at the respondent’s residence. Information obtained by the NHSDA questionnaire includes use of cocaine, receipt of treatment for illicit drugs, and need for treatment because of illicit drug use during the past year; use of alcohol, tobacco, or marijuana during the past month; and perceived risk for binge drinking, marijuana use, or smoking.

The NHSDA uses a 50-state sampling design; for the 8 states with the largest populations, the sampling design provides a sample large enough to support direct state estimates. For the 42 remaining states and the District of Columbia, small-area estimation techniques are used to calculate state estimates. Youths and young adults are oversampled so that each state's sample is approximately equally distributed among 3 age groups: 12–17 years, 18–25 years, and 26 years or older.

Population: Noninstitutionalized civilian US population aged 12 years or older

Strengths: NHSDA is a national, standardized survey of drug-use behaviors among the general population. To increase the level of honest reporting, information has been collected since 1999 by using a combination of computer-assisted interviewing methods. This provides respondents with a more private and confidential means of responding to questions about substance use and other sensitive behaviors.

Limitations: Direct state-level estimates are available for only 8 states; other states must rely on statistical estimates. NHSDA estimates represent behaviors in the general population; thus, the survey may underestimate the level of substance use in the population at highest risk for HIV infection. Further, data from the NHSDA are self - reported and are subject to recall bias, which may result in the underreporting of a sensitive behavior.

Vital Statistics Data

Birth Data

Overview: The National Center for Health Statistics (NCHS) receives information on births and deaths in the United States through a program of voluntary cooperation with state government agencies (e.g., state departments of health, state offices of vital statistics) called the Vital Statistics Cooperative Program. States use a standard form (U.S. Standard Certificate of Live Birth) to collect birth data and report this information annually to NCHS. The birth certificate form collects demographic information on the newborn and the parents, insurance, prenatal care, prenatal risk factors, maternal morbidity, mode of delivery, pregnancy history, and clinical characteristics of the newborn.

Population: All live births in Louisiana

Strengths: Vital records contain data on all births in an area. Because reporting is approximately 100% complete, inferences can be made about the population of live births in a service area. The revised birth certificate collects additional information on maternal insurance status, smoking, and morbidity, which may be useful for allocating prevention resources.

Limitations: Birth certificate data are often not complete for data that are obtained from patient medical records (e.g., smoking history, morbidity).

Death Data

Overview: NCHS receives information on births and deaths through a program of voluntary cooperation with state government agencies (i.e., state departments of health, state offices of vital statistics) called the Vital Statistics Cooperative Program. A standard certificate of death is used to record death information on each decedent. A death certificate bears demographic information about the decedent, the underlying cause of death (using an *ICD-10* code [*International Classification of Diseases,* 10th rev.]), and contributions of selected factors to the death (e.g., smoking, accident, or injury).

Population: All deaths that occur in Louisiana

Strengths: The reporting of deaths in Louisiana is universal and 100% complete. The data are widely available and can be used to determine the effect of deaths related to HIV infection in a service area. Standardized procedures are used nationwide to collect death certificate data.

Limitations: Deaths resulting from, or whose underlying cause was, HIV infection may be underreported on death certificates. Clinical information related to HIV or AIDS may be missing. Death records are not available as promptly as AIDS case reports are.

Population Data

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

Overview: The Census Bureau collects and provides timely information about the people and the 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 living at or below the poverty level. Tables and maps of census data are available for all geographic areas to the block level. Summaries of the most requested information for states and counties are provided, as are analytical reports on population change, race, age, family structure, and apportionment.

Population: U.S. population

Strengths: A wide range of online statistical data on the U.S. population is available in different formats (e.g., tables, maps). State- and county-specific data are easily accessible. Links to other Web sites with census information are provided.

Limitations: The downloading of some large files may require a significant amount of time.

Louisiana State Census Data Center

Overview: This data center is administered by the State of Louisiana. The Web site for the center (http://www.state.la.us/census) includes current population estimates and projections; socioeconomic, income, and poverty status information; demographic profiles and rankings; and geographic units from which census data are obtained (parishes, cities, and metropolitan areas). Parish population trends are also provided.

Population: Louisiana population

Strengths: A wide range of online statistical data on the Louisiana population are available in different formats (e.g., tables, maps). Links to local affiliates of the state census data center and to other Web sites with census information are provided.

Limitations: The downloading of some large files may require a significant amount of time.

Ryan White CARE Act Data

Title I and II Statewide HIV/AIDS Needs Report

Overview: Every 2 years, Ryan White Title I and Title II programs administer a detailed survey to persons living with HIV/AIDS in Louisiana. The purposes of the survey are to gain a greater understanding of the current level of HIV/AIDS service needs and to provide insight into consumers' perceptions of the availability and quality of HIV/AIDS services throughout the state. Representatives and consumers from Titles I and II jointly developed the methods and the instrument for the statewide needs assessment. The 2000–2001 survey included a variety of demographic questions (residence, age, race, gender, income levels and sources, and type of health insurance coverage), as well as questions about HIV-related primary care, illness severity, and experiences with combination therapy. Respondents were also asked specific questions about housing, transportation, child care, drug or alcohol abuse, and needs and opinions regarding various medical and social services. Each region in the state received a predetermined number of surveys according to the response goal (a minimum of 10% of persons known to be living with HIV/AIDS in a given region).

Population: Persons living with HIV/AIDS who agreed to complete the needs assessment survey. The sample population was weighted heavily toward persons who were in care (potential respondents were encountered in primary care clinics, social service agencies, community health centers, Medicaid enrollment centers, substance abuse or mental health treatment facilities, homeless or transitional shelters, and local jails). Most of the participants received services through the Ryan White–funded service delivery system, although some sought services at Veteran's Administration hospitals only, private clinics, or other private providers.

Strengths: The needs assessment is a valuable tool for understanding consumers' perceptions of care in Louisiana. The survey instrument is flexible and can be modified to accommodate new questions as services and care recommendations change.

Limitations: The survey was administered only to persons who visited one of the care sites during the 8 weeks in which the survey was administered. Respondents also had to be willing to participate in the survey. Persons who were not in care during that time, not in care at all, or who were unwilling or unable to complete the questionnaire were not surveyed. Thus, the survey provides a measure of the needs of persons who were receiving some type of care but does not adequately address the needs of those who were not seeking care at all. Because the survey also deals with perceptions of care, many of the responses are qualitative and cannot be generalized to the statewide population.

Ryan White Title I CAREWare

Overview: Since 1993, the HIV/AIDS Program of the Louisiana Office of Public Health has collected data on persons served through Louisiana Ryan White Title I funding. Until 1999, data for Consortia-funded services were collected through the DOS-based ToolBox data collection system provided by the HIV/AIDS Bureau (HAB) of the Health Resources and Services Administration (HRSA). This data collection system was not designed to obtain information about persons who received pharmaceuticals through the state-administered AIDS Drug Assistance Program. In 1996, the HIV/AIDS Program contracted with a local computer programmer to design and implement a comparable data system for persons receiving funds through ADAP. In late 1999, the ToolBox data collection system became obsolete because of "Y2K" noncompliance. The ADAP data collection system was then expanded into a more comprehensive database that was named Louisiana CAREWare.

This database includes key information on all persons receiving assistance through any of the programs funded by Ryan White Title II as well as through programs funded by State Formula HOPWA. Such programs include Health Insurance Continuation, Home-Based Care, Consortia-funded Services (e.g., case management, transportation and medication assistance, child care, mental health therapy counseling); pharmaceuticals provided through ADAP; State Direct Services (legal services, 3 primary care contracts and a copayment and deductible assistance program); and limited emergency rent, mortgage and utility payments. Information collected from service providers throughout the state includes basic demographic and risk information on each of the clients, eligibility verification data (current address, current income, HIV/AIDS diagnosis, Louisiana Medicaid number), the type of services received, the date and quantity of services received, the cost of these services, and other pertinent information (history of substance abuse or mental health treatment, veteran status and, for women, current pregnancy status). The data collected are used by the HIV/AIDS Program staff to perform monthly service delivery and fiscal monitoring activities, conduct an annual disparity analysis, track regional utilization trends for quality assurance purposes, and to meet the HAB/HRSA requirements set forth in the Annual Administrative Report and in the new CADR. It is also the expectation of the HIV/AIDS Program that providers use these data internally to consistently assess and reassess their agency's performance.

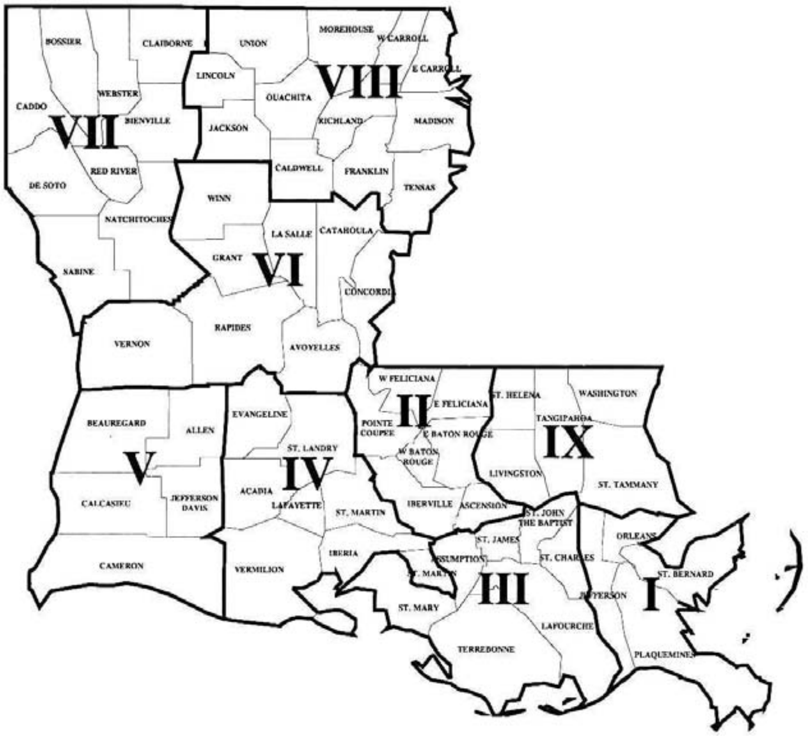
Population: All HIV-infected persons receiving services funded by Ryan White Title II. To be eligible for Ryan White Title II services, a person must be living with HIV/AIDS, be a resident of Louisiana, and have an income that is equal to or less than 200% of the current year's federal poverty level The only exception is the Health Insurance Continuation Program, for which financial eligibility may be as high as 300% of the federal poverty level.

Strengths: CAREWare is a comprehensive database that includes key fields of information on all persons receiving Ryan White Title II services. The CAREWare database is an important tool for monitoring which Ryan White resources are being used, how often, and by whom. CAREWare is now the model data collection system provided to grantees free of charge by the HIV/AIDS Bureau at HRSA. It has been modified specifically for the HIV/AIDS Program. Louisiana CAREWare also provides opportunities to review information on comorbidity and to track the changing needs of the client population from year to year. The program is able to eliminate duplicate records of clients in a particular service or service area and can also eliminate duplicate records of clients of all services and in all geographic regions. This provides a more accurate picture of how many people seek care through services provided by Ryan White Title II.

Limitations: The Louisiana CAREWare data are provided or downloaded monthly; therefore, it is not a “real time,” or Web-based, data collection system. In addition, the customized fields established for Louisiana CAREWare make future versions of this database provided by HAB/HRSA incompatible with the system the HIV/AIDS Program has developed. The data in Louisiana CAREWare also cannot be generalized to all HIV-infected persons living in the state because it collects data only on persons who (1) know their HIV serostatus, (2) are not eligible for health coverage through private insurance or Louisiana Medicaid, (3) are currently seeking care and treatment services through Ryan White Title II–funded providers, and (4) are financially eligible to receive services. Historically, the population data in the Louisiana CAREWare database have comprised approximately 30% of persons known to be living with HIV/AIDS in the state.

APPENDIX B: MAP OF LOUISIANA

Geographic Guide to Louisiana Public Health Regions and Metro Statistical Areas (MSA)



Public Health Regions

I New Orleans
- Jefferson
- Orleans
- Plaquemines
- St. Bernard

II Baton Rouge
- Ascension
- Iberville
- E. Baton Rouge
- W. Baton Rouge
- Pointe Coupee
- East Feliciana
- West Feliciana

III Houma
- Assumption
- Lafourche
- St. Charles
- St. John the Baptist
- St. James
- St. Mary
- Terrebonne

IV Lafayette
- Acadia
- Evangeline
- Iberia
- Lafayette
- St. Landry
- St. Martin
- Vermilion

V Lake Charles
- Allen
- Beauregard
- Jefferson Davis
- Calcasieu
- Cameron

VI Alexandria
- Avoyelles
- Catahoula
- Concordia
- Grant
- Lasalle
- Rapides
- Vernon
- Winn

VII Shreveport
- Bienville
- Bossier
- Caddo
- Claiborne
- Desoto
- Natchitoches
- Red River
- Sabine
- Webster

VIII Monroe
- Caldwell
- East Carroll
- West Carroll
- Franklin
- Jackson
- Lincoln
- Madison
- Morehouse
- Ouachita
- Richland
- Tensas
- Union

IX Hammond/Slidell
- Livingston
- St. Helena
- St. Tammany
- Tangipahoa
- Washington

Urban Parishes (MSAs)

New Orleans
- *Jefferson*
- *Orleans*
- *St. Tammany*
- *St. John the Baptist*
- *Plaquemines*
- *St. Bernard*
- *St. James*
- *St. Charles*

Baton Rouge
- *E. Baton Rouge*
- *W. Baton Rouge*
- *Ascension*
- *Livingston*

Houma/Thibodaux
- *Lafourche*
- *Terrebonne*

Lafayette
- *Acadia*
- *St. Martin*
- *Lafayette*
- *St. Landry*

Shreveport
- *Bossier*
- *Caddo*
- *Webster*

Lake Charles
- *Calcasieu*

Alexandria
- *Rapides*

Monroe
- *Ouachita*

GLOSSARY

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 $CD4^+$ count of less than 200 cells/microliter or a $CD4^+$ 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.

ASD (Adult/Adolescent Spectrum of Disease): Study funded by the CDC and conducted in Louisiana since 1990. (For additional details on the study's purpose and methods, see Appendix A.)

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 Louisiana.

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 ¾, 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 interventions, 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.

HITS (HIV Testing Survey): Study funded by the CDC and conducted in Louisiana in 2001. (For additional details on the study's purpose and methods, see Appendix A.)

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.

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 ratio. For example, in the fraction ¾, 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, which means that an HIV-infected person receives a diagnosis of AIDS after the development of 1 of them.

parish: A civil division of the state of Louisiana corresponding to a county in other states.

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 word 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 given 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 ratio 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 ¾ 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 Louisiana, 86% of HIV cases and 87% of AIDS cases are reported to the HIV/AIDS Surveillance Program within 6 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. Consequently, data for recent periods are adjusted to account for the anticipated number of cases diagnosed, but not yet reported. For AIDS cases, the HIV/AIDS Reporting System (HARS) was used to generate reporting delay fractions. For HIV cases, multiple years of data were reviewed to calculate the estimated percentage of cases in persons reported within specified periods (e.g., 1 year, 2 years) after the diagnosis of HIV infection. The estimates were then adjusted upward to account for the reporting delay.

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 numbers 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 Projects 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.

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 Louisiana, 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.

ABBREVIATIONS

ADAP	AIDS Drug Assistance Program
ART	antiretroviral therapy
ASD	Adult/Adolescent Spectrum of Disease
BRFSS	Behavioral Risk Factor Surveillance System
CADR	CARE Act Data Report
CBO	community-based organization
CDC	Centers for Disease Control and Prevention
CTS	Counseling and Testing System
DAWN	Drug Abuse Warning Network
HAART	highly active antiretroviral therapy
HARS	HIV/AIDS Reporting System
HITS	HIV Testing Survey
HOPWA	Housing Opportunities for People with AIDS
HRSA	Health Resources and Services Administration
IDU	injection drug user
MAC	*Mycobacterium avium* complex
MOS	MSM Outreach Survey
MSA	metropolitan statistical area
MSM	men who have sex with men
NHSDA	National Household Survey of Drug Abuse
OMB 15	Office of Management and Budget Directive 15
PCP	*Pneumocystis carinii* pneumonia
SAMHSA	Substance Abuse and Mental Health Services Administration
SHDC	Survey of HIV Disease and Care
SOS	Street Outreach Survey
STD	sexually transmitted disease
TB	tuberculosis
TEDS	Treatment Episode Data Set
YRBSS	Youth Risk Behavior Surveillance System
ZDV	zidovudine