

Alabama and HIV/AIDS

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Executive Summary

The epidemiologic and demographic profile of the HIV/AIDS epidemic in Alabama is rapidly changing. Although Alabama has been designated a moderate morbidity state, new infections are increasingly concentrated in specific vulnerable populations—African Americans, women, and rural populations. Between 2001 and 2006, over 70% of all HIV/AIDS diagnoses were among African Americans. Despite accounting for a small number of the HIV/AIDS total diagnoses in Alabama, Latinos have the second highest case rate (25 per 100,000). Women of color, particularly young African American women, are at increasing risk through high-risk heterosexual sex. Although the proportion of all Alabama women diagnosed with HIV/AIDS has remained approximately 30%, by 2006, African American women accounted for 78% of cases among women.

The HIV/AIDS epidemic in Alabama, as with most states in the Deep South, has both pronounced rural and urban characteristics that give rise to distinct risk profiles, challenges to surveillance, and patterns of access to care. Delayed initiation of and/or inconsistent adherence to treatment is pervasive in both urban and rural areas. Patterns in health care utilization across socioeconomic and racial/ethnic groups indicate disparities are ongoing and pervasive in both rural and urban settings. The geographic dispersion of the rural population may be further contributing to suboptimal access to care, even after positive HIV serostatus is known.

While male-to-male sex continues to be the highest risk behavior for all racial/ethnic groups—approximately half of HIV/AIDS diagnoses in Alabama—high risk heterosexual sex is estimated to account for one-third of total new diagnoses and over 80% of new female diagnoses in 2006. Equally concerning is the ongoing, and in some groups increasing, incidence rates among the younger population. The most dramatic increase among youth newly diagnosed was for African American males—between 2001 and 2005, African American males experienced an 89% increase in diagnoses of HIV/AIDS among those aged 13-24. Although these figures may be a result of more effective surveillance rather than emergent trends, they signal areas of critical need in prevention and care. Taken together, the combined risk to women of color through heterosexual sex, a continuing high diagnosis rate among younger black women and a dramatic increase among young black men could indicate a trend toward transmission among teenagers and a critical deficiency in effective prevention programming.

Opportunities for focused HIV interventions and support services by philanthropic organizations are extensive. This report presents several prominent areas of need and provides an overview of supporting evidence. The recommendations that follow are not intended to be a complete list of need; rather they represent several areas in critical need of novel or enhanced programming.

Recommendations include:

- Tailoring specific prevention efforts to the 8 counties that account for the greatest number of cumulative HIV/AIDS diagnoses;
- Increasing early detection of HIV infection and reduce delayed access to treatment;
- Developing culturally and gender-specific programming is paramount;
- Targeted prevention programming tailored to each risk group that includes empowerment and stabilization of marginalized communities;

- Increasing HIV/AIDS surveillance, prevention, and care services for migrant workers;
- Facilitating access to confidential mental health services and integrating mental health services with HIV care, particularly in rural communities;
- Linking existing rural and urban services and facilitating housing, employment, and health care for migrating residents.

Section I:

Background/Introduction

Alabama is one of the 16 states and the District of Columbia defined by the U.S. Census Bureau as Southern (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, Virginia, West Virginia, South Carolina, Tennessee, and Texas). Within this group, 6 states constitute the Deep South (Alabama, Georgia, Louisiana, Mississippi, North Carolina and South Carolina). Historically, these states are characterized by their economic dependence on cotton production and the promotion of slavery and resistance to its dismantling. The legacy of slavery, mass migration, segregation, loss of a highly agrarian economy, and the geographically dispersed population have contributed to the unique public health characteristics of the region. In the 21st century, the states in the Deep South have similar demographic, health, and epidemiological profiles due to the persistent influence of these historical factors.

As of 2005, Alabama had 4,501,740 residents, of which 29% live in non-metropolitan areas. Alabama, Louisiana, and Mississippi are the three poorest states in the country. The U.S Census 2000 data indicate that the median household income was \$33,433, with Alabama ranking 44th nationally among states for per capita income(1). Twenty-two percent of Alabama residents live beneath the Federal Poverty Level (FPL) and 44% of the population are low income (<200% of FPL)(2).¹ The African American community bears a significantly higher burden of poverty—43% of Alabama residents living below FPL are African American. African Americans represent approximately 12% of the overall U.S. population, while in Alabama they represent 26% of the population.

A clear understanding of the unique social and epidemiological challenges to HIV/AIDS prevention and care in Alabama and the Deep South requires consideration of the larger framework of public health in the region. The overall health profiles of states in the Deep South are alarming. The health profile of each state is measured annually by the United Health Foundation. The report combines individual measures from four health determinants², with

¹ Persons in poverty are defined as those who make less than 100% of the Federal Poverty Level (FPL). The federal poverty level for a family of three in the 48 contiguous States and D.C. was \$15,067 in 2004 and \$15,577 in 2005.

² 1. *Personal behaviors* include the everyday decisions we make that affect our personal health. It includes habits and practices we develop as individuals and families that have an effect on our personal health and on our utilization of health resources; 2. *Community environment* reflects the reality that the daily conditions in which we live our lives have a great effect on achieving optimal individual health; 3. *Public and health policies* are indicative of the availability of resources and the extent of reach of public and health programs into the general population; 4. *Clinical care* reflects the quality, appropriateness and cost of the care we receive at doctors' offices, clinics and hospitals.

resultant health outcomes, and produces a comprehensive view of the health of a state. Based on the 2006 report, 5 of the 6 states in the Deep South were among the 10 worst health profiles in the Nation—Louisiana ranking 50th, Mississippi ranking 49th, South Carolina ranking 48th, Georgia ranking 42nd, and Alabama ranking 45th in overall population health(3).

Other specific data indicate poor general public health. Alabama ranks 10th nationally in the teen birth rate at 52.4/1,000 population (4 of the 10 highest teen birth rates are in the Deep South). In the United States, Alabama has the second highest preterm birth rate (16.1%), the fourth highest low birth weight rate (10.4%), and the sixth highest infant mortality rate (9.1 per 1,000 population). The figures increase dramatically for Alabama's African-American residents—21.3% preterm birth rate; 15.1% low birth weight, and 14.1 per 1,000 population infant mortality rate(4). Infant morbidity and mortality are comparably high throughout the Deep South.

HIV/AIDS Epidemiology

The epidemiological character of the HIV/AIDS is closely related to general population health indicators. By 2003, all of the states within the Deep South were among the 15 with the highest HIV death rates, with Alabama having a death rate 4.3 per 100,000 population. As of 2005, Alabama had an 11.4 per 100,000 incidence rate of reported AIDS cases(5). By the end of 2005, the total number of persons living with AIDS in Alabama was 3,173. The combined number of Alabama persons living with HIV/AIDS (PLWHA) in 2005 was 8,252(6). Although the highest transmission risk continues to be male-to-male sexual contact, high-risk heterosexual transmission accounts for the second highest risk category. Non-injection drug and alcohol use continue to have an indirect impact on HIV transmission by facilitating higher risk behavior, yet HIV acquisition by intravenous drug use—the third highest risk among Alabama residents—is diminishing. Increasingly, the epidemic is concentrated among African Americans and in rural areas.

African Americans³ shoulder a disproportionately high burden of HIV/AIDS in Alabama. Of the 518 new Alabama AIDS cases in 2005, 71% were among African Americans (26% of the population). The proportion of new AIDS diagnoses for the African Americans population in Alabama (71%) far outpaced the national average for African Americans which in 2005 was 48%. Of the 3,173 Alabama residents living with AIDS, African Americans accounted for 63.7%, compared to whites and Hispanics at 33.4% and 2.3%, respectively. In 2006, African Americans accounted for 70% of the 917 combined HIV/AIDS diagnoses for Alabama. The 2006 case HIV/AIDS rate for African Americans in Alabama was 55.1 per 100,000 population, followed by 25.1 per 100,000 for Hispanics, and 8.1 per 100,000 for whites(7).

The Alabama HIV/AIDS epidemic continues to have a particularly severe impact on African American females. In 2006, African American females accounted for 22% (200/971) of the new HIV/AIDS diagnosis and 78% (200/281) of diagnoses among all females in Alabama. The number of new HIV/AIDS cases diagnosed among African American females has exceeded those among white males for 8 consecutive years(7).

³ “African American” and “Black” are used interchangeably throughout this document.

Transmission Risk

The highest HIV transmission risk category for Alabama residents continues to be men who have sex with men (MSM), accounting for 52% of all HIV/AIDS diagnosis in 2006. The second and third highest risk behaviors are high-risk heterosexual sex and intravenous drug use (IDU), accounting for 36% and 10% of new cases, respectively. Risk behavior differs significantly by gender and across racial groups. For white females, the highest risk behavior was high-risk heterosexual sex (66%) followed by IDU (28%). African American females had a significantly higher risk of HIV infection from high-risk heterosexual sex—91% of all reported HIV/AIDS diagnoses in 2005. African American and white males also had different risk profiles. While the majority of newly diagnosed infections in 2006 remain attributable to MSM for both black (64%) and white males (82%), significant differences exist in high-risk heterosexual behavior. In 2005, high-risk heterosexual sex accounted for 23% of the newly reported HIV/AIDS diagnoses among African Americans, but only 5% of reported cases among white males.

**HIV/AIDS Diagnosis by Gender and Re-categorized Exposure, Alabama, 2006(7)

Exposure category	Males		Females		Total	
	No.	% ^a	No.	% ^a	No.	% ^a
Male-to-male sexual activity	475	75	-	-	475	52
Injection drug use	54	8	41	15	95	10
Male-to-male and injection drug use	12	2	-	-	12	1
Heterosexual contact	94	15	235	84	329	36
Total	636	100	281	100	917	100

^aCalculated as the percentage of all cases diagnosed during this period. Percentages do not add up to 100 due to rounding

**Table taken from: HIV/AIDS Surveillance, HIV Incidence, and HIV Prevalence Studies: Annual Progress Report; January 1-December 31, 2006. Alabama Department of Public Health, Bureau of Communicable Disease, Division of HIV/AIDS Prevention Control.

Alabama PLWHA are aging

In Alabama, surveillance of HIV/AIDS diagnoses by age is stratified into six groups: <13; 13-24; 25-34; 35-44; 44-49; 50+. From 2001 through 2005, the 35-44 age group has consistently accounted for the highest diagnosis rate—approximately one-third of all diagnoses. For this same period, the 25-34 age group accounted for approximately 25-30% of diagnoses.

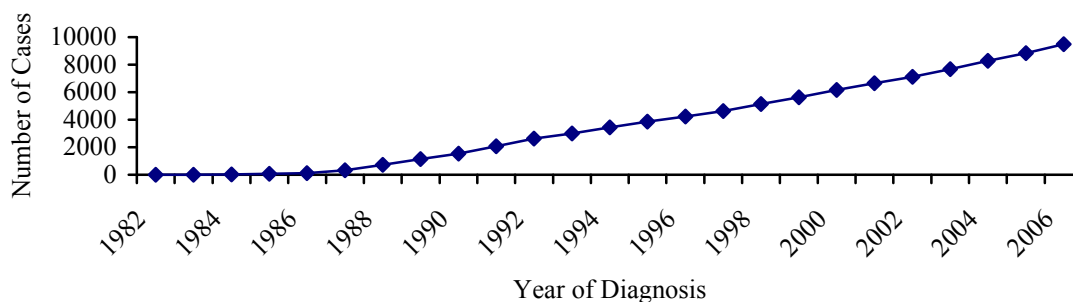
**Age Group	2001		2002		2003		2004		2005	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Age <13	3	<1	7	<1	5	<1	0	0	2	<1
Age 13-24	89	11	87	11	113	13	109	12	118	14
Age 25-34	233	30	227	29	215	25	260	29	215	25
Age 35-44	251	32	268	34	304	36	276	31	282	33
Age 45-49	90	12	112	14	106	12	92	10	100	12
Age 50+	110	14	93	12	113	13	152	17	132	16
Total	776	100	794	100	856	100	889	100	849	100

**Table taken from: HIV/AIDS Surveillance, HIV Incidence, and HIV Prevalence Studies: Annual Progress Report; January 1-December 31, 2006. Alabama Department of Public Health, Bureau of Communicable Disease, Division of HIV/AIDS Prevention Control.

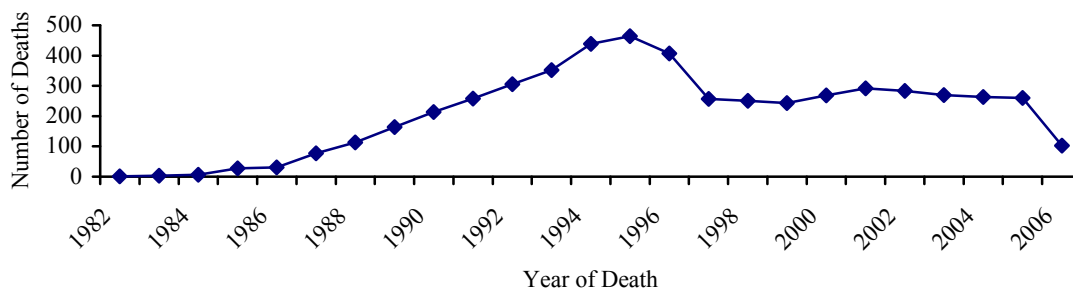
The most dramatic increase in diagnoses of HIV/AIDS among youth was in African American males; from 2001-2005 this group experienced an 89% increase for the age group 13-24.

Although the overall distribution among age groups has remained stable, the number of Alabama residents living with HIV or AIDS has steadily increased, while the death rate dropped by approximately 60% since its high in 1995. By the end of 2005, 8,446 residents were known to be living with HIV, of which 3,173 had progressed to AIDS(5). The steady increase in HIV/AIDS prevalence is likely a result of the introduction of highly active antiretroviral therapy (HAART). Although survival rates vary by sub-population, as a group, residents of Alabama living with HIV/AIDS are living longer. By 2003, 40% of prevalent HIV/AIDS cases are in the 35-44 age group, followed by 21% who are ≥ 50 years. While the population-level increased survival time is a positive indicator of effective treatment and increased coverage of care, the ageing of the Alabama HIV/AIDS population will have a dramatic impact on the state's ability to provide care.

****Prevalent HIV/AIDS by Year of Diagnosis, Alabama 1982 - 2006**



****HIV/AIDS Cases by Year of Death, Alabama 1982 - 2006**



**Table taken from: HIV/AIDS Surveillance, HIV Incidence, and HIV Prevalence Studies: Annual Progress Report; January 1-December 31, 2006. Alabama Department of Public Health, Bureau of Communicable Disease, Division of HIV/AIDS Prevention Control.

****HIV/AIDS Cases, by Age Group and Gender, Alabama 2006**

Age group (yrs)	Males		Female		Total	
	No.	Rate ^a	No.	Rate ^a	No.	Rate ^a
0-12	0	0	1	<1	1	<1
13-24	104	26.4	43	11.1	147	18.8
25-34	162	54.9	90	29.6	252	42.1
35-44	195	59.4	81	23.7	276	41.2
45-49	72	43.9	35	20.2	107	31.7
50+	103	16.8	31	4.1	134	9.7
Total	636	29.6	281	12.2	917	20.6

^aRates per 100,000.

**Table taken from: HIV/AIDS Surveillance, HIV Incidence, and HIV Prevalence Studies: Annual Progress Report; January 1-December 31, 2006. Alabama Department of Public Health, Bureau of Communicable Disease, Division of HIV/AIDS Prevention Control.

Section II: Care Issues

Delayed Access to Care

Routine and continuous access to HIV care promotes a range of positive health outcomes, including the early diagnosis and treatment of other health conditions that may accelerate disease progression or increase transmission rates. Routine health care and the initiation of antiretroviral therapy at the appropriate stages of HIV infection have been demonstrated to have significant impact on individual and public health outcomes. Early provision of ART has been shown to significantly slow disease progression, avert opportunistic infections, increased survival rates, and lower the cost of treatment(8-10). Lower HIV viral load has also been demonstrated to reduce transmission rates(11).

In Alabama and throughout the Deep South, delayed access to treatment and suboptimal frequency of care are pervasive. Poverty and low-income status may be one explanation for delayed access to care as they are predictors of late diagnosis of HIV/AIDS(12). Krawczyk et. al noted that of the HIV-positive patients attending their clinic in Birmingham, 34.1% delayed care for more than one year and 17.7% delayed care for more than 5 years after an initial HIV diagnosis was made(13). Young men and young African Americans were at a greater risk for delayed care than young females and young whites.

In 2005, 849 Alabama residents were newly diagnosed with HIV/AIDS. Of those diagnosed, only 381 (45%) had multiple care visits that included CD4+ T-cell counts and viral load measurements in that year(6). Current federal guidelines recommend patients have their CD4+

T-cell counts measured every 3 to 6 months, and viral load levels measured every 3 to 4 months while on stable antiretroviral therapy(14). This would require a minimum of 3 visits annually. Less than half of newly diagnosed Alabama residents received care in compliance with these guidelines.

Many people with HIV are not diagnosed until a late stage of infection. In 2005, of the 413 newly diagnosed AIDS cases, 118 (29%) received their AIDS diagnosis at the same time of their initial Western blot, and 204 (49%) of newly diagnosed AIDS cases received their first Western blot during the same year(6). In 2006, 49% (214) of the 438 persons diagnosed with AIDS received their diagnosis within the first year after being diagnosed with AIDS(7). Similarly, the University of Alabama at Birmingham Outpatient Clinic for HIV/AIDS reported that 53.6% of the patients presenting with AIDS between 1996 and 2004 were diagnosed with HIV in the year preceding care(13). These figures indicate a high number of individuals being concurrently diagnosed with HIV and AIDS, suggesting a critical failure in early detection and a large percentage of PLWHA that will not benefit from early ART intervention.

Lack of care, late diagnosis of HIV or concurrent diagnosis with AIDS has numerous detrimental outcomes. Patients are less likely to receive health benefits from early debut of antiretrovirals, they are more likely to experience a rapid progression to avoidable morbidities and mortality, and missed opportunities to provide HAART and manage co-infection with other STIs increase the likelihood of transmission (15). Undiagnosed or under-managed HIV presents significant public health concerns, and the considerably higher cost of advanced stage treatment (including the impact on an individual's employment and family which is particularly a concern in the rural South where patients and family may have to travel long distances to an appropriate care facility) is a serious fiscal concern for the state.

Sexually Transmitted Infections

Genital ulcer disease and other inflammatory STIs increase the risk for HIV transmission(15, 16). Alabama ranks 4th among states for gonorrhea rates (182.3 per 100,000), 28th for *Chlamydia* (295.8 per 100,000), and 9th for primary and secondary syphilis (3.7 per 100,000) (17). Rates of STIs may be indicators of high-risk sexual behavior, which could lead to increased transmission of HIV. Monitoring STI trends among PLWHA and among those at high risk for HIV infection could provide information pertinent to the development of HIV risk reduction, prevention, and care interventions. The CDC currently recommends clinician screening of HIV-infected persons for HIV transmission risks, which including patient interview and laboratory screening for STIs.

Mental Health for HIV Populations

Nationally, approximately half of HIV-infected patients are afflicted with mental illness(18). Several studies have demonstrated that unmanaged mental illness in HIV-positive individuals is positively correlated with a range of risks including not seeking out care, poor adherence to antiretrovirals, and a more rapid progression to AIDS (19-21). Little data exists on the management of mental health and utilization of services by persons living with HIV in rural areas. The available HIV Cost and Services Utilization Study (HCSUS) information on mental health and HIV-positive individuals in the South suggests a lower likelihood of health service utilization in comparison to other regions in the United States(22). In one of the few studies characterizing mental health service utilization by HIV-positive individuals in rural and urban

areas of the Deep South, Reif and colleagues conducted a 4-year longitudinal study on a cohort recruited from tertiary infectious disease (ID) clinics in North Carolina, South Carolina and Alabama(23). The study was consistent with existing data on mental illness among the general population. The degree of psychological distress among HIV-positive individuals in rural and urban areas in the Deep South is similar, suggesting an equal distribution of people suffering from mental illness in rural and urban areas. Rural participants were less likely to seek mental health services, and those that did reported fewer visits. This utilization pattern is likely attributable to the limited access to mental health care in rural areas⁴, a shortage of mental health professionals, and possible stigma associated with confidentiality when seeking services among rural populations. Furthermore, existing research suggests that many rural residents prefer treatment that integrates social, mental and physical health as opposed to treatment that is conspicuously psychiatric in nature(24, 25).

Section III: Population

Geographical Dispersion of Population

Alabama consists of 67 counties, seven of which (Baldwin, Houston, Jefferson, Madison, Mobile, Montgomery, and Tuscaloosa) account for 65% of HIV/AIDS cases diagnosed from 1999-2003(26). Based on the 2000 U.S. Census, 45% of the state population is considered rural. Persons living with HIV/AIDS who remain in rural areas often must travel considerable distances to medical centers for care(27). Rief et al conducted a study at outpatient infectious disease clinics in Alabama, North Carolina, and South Carolina characterizing HIV-infected adults and their utilization of mental health services and noted that the average distance traveled to receive HIV care was 46 miles(23). The University of Alabama at Birmingham outpatient HIV/AIDS clinic reports that 33.7% of patients traveled 50 miles or more to receive HIV care(13). The distance of travel to receive appropriate care for HIV/AIDS may be a significant barrier to access. Increasing distance from place of residence to clinic where care is provided is predictive of less frequent access to HIV outpatient services(28). Extended travel distances to receive HIV care may introduce additional barriers that include lost wages for extended time away from work, childcare costs, and coordination of reliable transportation. The need for extended travel may make compliance with federally recommended frequency for care and monitoring of HIV patients difficult, and may facilitate the use of suboptimal treatment regimens (due to decreased ability to detect treatment failure) and poor ARV adherence.

Migration Patterns

Migration patterns of persons living with HIV/AIDS in Alabama and the South remain an important consideration in transmission and care. While several reports from the early 1990s suggested that, following HIV diagnosis, people tended to migrate from urban to nonurban areas (29), currently available evidence suggest that migration patterns in the South following HIV diagnosis are more complex.

In-migration of PLWHA to Alabama appears to be less pronounced than once believed. A longitudinal study conducted among a sample of PLWHA in Alabama and Mississippi reported that approximately 80% of participants were residents of either state at the time of HIV diagnosis, and less than one-third (29.7%) moved after being diagnosed(30). Of participants that

⁴ It is noteworthy that the median travel distance to ID clinics for participants in this study was 46 miles.

migrated after HIV diagnosis, less than 25% in-migrated from states other than Alabama or Mississippi.

Participants that migrated post HIV-diagnosis were overwhelmingly male (82.3%) and a greater proportion were white males (54.0%) as compared to other racial groups. African Americans in nonurban locales are less likely to move after HIV diagnosis than the white population. This data is consistent with previous studies that reported African Americans with HIV were less likely to migrate than other racial groups(29). Although many factors may contribute to the limited mobility of African Americans, several studies have demonstrated that socioeconomic factors—disparities in employment, income, housing discrimination, residential segregation—are salient(31).

Returning to family and community of childhood/adolescence has been widely described as a motivation for migration of PLWHA from large urban settings to smaller towns and rural settings, and also for the growing HIV prevalence in the rural South(32). Agee et al highlight that the “Coming Home” model is not the only migratory pattern. The majority of Alabama and Mississippi study participants that migrated and were rural area residents at the time of HIV diagnosis moved to larger locales(30). The motivation for migration among rural residents diagnosed with HIV may include confidentiality, desire for anonymity, or lack of medical care(29, 33).

Latino Migrant Laborers

Between 1990 and 2000 the number of Latino migrants to Alabama, Arkansas, Georgia, North Carolina, South Carolina, and Tennessee increased by more than 300%(34). As a group, these states experienced approximately a 349% increase in Latino employment (as compared to 49% nationwide). Alabama has experienced a 208% growth in the Latino population from 1999-2000, growing from 24,629 to 75,830(35).⁵ Many factors contribute to this migration pattern, including saturation of Latino employment markets in states that have a long history of Latino immigration (Arizona, California, and Texas) and more vigilant enforcement by the Immigration and Naturalization Services in these states. The more stringent enforcement of border crossing laws across the U.S.-Mexico border may encourage undocumented persons to remain in the U.S. for longer periods, shifting the employment-seeking patterns from temporary/seasonal to perennial. The jobs occupied by these in-migrators are both in rural (agricultural) and urban areas (construction, manufacturing, and service). Furthermore, the post-Hurricane Katrina rebuilding effort has rapidly accelerated the in-flow of Latino workers. Latinos, particularly migrant workers, in the rapid growth states of the South are more likely to be male, young, foreign born, more likely to have traveled to the United States unaccompanied by women, and live in communities where men outnumber women from 2-4:1(34). These factors may encourage concurrent sexual relationships and higher risk behavior.

Nationally, Latinos represent 14% of the population, but accounted for 20% of the new AIDS diagnoses in 2004. Nationally, MSM exposure accounts for 59% of HIV infections among Latinos, followed by 19% IDU, and 17% heterosexual sex. For Latina females, 73% of exposures were attributed to heterosexual contact, and 23% to IDU(5). It is important to note that HIV/AIDS surveillance systems do not provide comprehensive information pertaining to

⁵ These numbers may not fully capture the extent of the population increase.

migrants--so the reported rates may be underestimating actual prevalence. A growing body of indirect evidence is providing some scope of the risk to migrant workers in the South. Mexican states that have larger cyclical movement of migrant men between Mexico and areas of U.S. are experiencing patterns of HIV infection linked to migration of men to and from the U.S. – 1/3 of all Mexican AIDS cases are in states that report the highest number of migrants to the U.S.(36).

Limited data exist on the risk factors associated with migrant workers in the South. Two studies on a syphilis outbreak in Decatur, Alabama suggest that frequency of interaction with sex workers may be an important factor in disease transmission(37). This study illustrates the mechanism by which migrant workers may become a bridge population between a Southern U.S. core-transmitting population (sex workers) and the migrants' female sex partners in Mexico. Other studies in the South suggest that migrants that are unaccompanied by female partners or family are more likely to have sex with sex workers (for both single and married men)(38). Parrado et al report that duration of residence predicted migrant men workers' utilization patterns of sex workers—migrant workers remaining in the US for longer periods were less likely to utilize sex workers. The circumstances and nature of sexual contacts between male Latino migrants in the South and sex workers is not comprehensive as existing public health surveillance does not capture their health patterns.

Sexual Networks

Analysis of the social context in which sexual networking patterns emerge among communities of high HIV and STI incidence and prevalence provides critical insight regarding disease transmission and diffusion, as well as opportunities for structuring prevention interventions. In Alabama, where heterosexual transmission is the second highest mode of transmission for the entire population and the highest risk for African American women, understanding sexual networks is critical. Sexual networks may also be important in HIV and STI surveillance and prevention strategies among migrant laborers, particularly those that leave family and/or spouse in their home country. Several studies have demonstrated that the prevalence of concurrent relationships, dense sexual networks, and bridging between the general population and high-risk subgroups may be driving the HIV epidemic in the South(39).

Among African American women in the South, a number of social factors may be contributing to concurrent, higher risk relationships. The social and economic pressures on African Americans in the Southern United States affect individual sexual behaviors, community sexual networks, and resultant transmission of STIs. High incarceration rates of black men and women, for example, have a dramatic destabilizing effect on existing relationships. Incarceration may diminish the ability to establish stable partnerships, thereby increasing the likelihood of higher risk concurrent relationships. This is particularly true in the South, where incarceration rates are higher than any other region in the United States. Low male/female ratios (resulting from incarceration, death, drug addiction, and migration) are also likely to promote concurrency and may increase the likelihood of bridging to males from higher risk groups. Poverty reduces the pool of eligible black men and destabilize marriages(40). Residential segregation concentrates poverty, increases risk of socioeconomic failure, increases exposure to violence and drugs, and also limits partner choice—affecting the local sexual networks that emerge from these communities(41).

Section IV: Public Health Care Funding

Medicaid

Medicaid is the nation's public health program for low-income Americans, and finances medical care for over 55 million people. It is the largest source of financing for HIV/AIDS care in the nation, with over half of all adults and 90% of children with AIDS enrolled in the program.

As of 2006, 21% of Alabama's total population and 39.8% of those under age 21 were eligible for Medicaid(42). Medicaid funds are a combination of federal and state contributions. The federal contribution is based on a state's per capita income; because Alabama's per capita income is relatively low, the federal matching funds are one of the highest in the nation. In 2005, the federal/state matching ratio was approximately \$70 federal/\$30 State – the 8th highest matching ratio in the United States. Total Medicaid revenue for 2005 was \$4,066,840,500, consisting of \$2,871,447,220 federal funds and \$1,195,393,280 state funds. Although Alabama has one of the highest federal matches, expenditures on program administration are low—approximately 2%.

Evaluating Medicaid payment expenditures by eligible group provides a useful way to evaluate utilization patterns. The blind and disabled are 18.2% of the eligible population and account for 44.2% of the payments. Those aged ≥ 65 constitute 4.2% of those eligible and account for 23.4% of payments. Low-income (<133% of federal poverty level) pregnant women and children constitute 43.8% of those eligible and account for 23.4% of payments. The distribution of payments by gender (36% males, 64% females) is proportional to eligible males (36%) and females (64%). The distribution of payments by race is not proportional. For all racial/ethnic groups other than African Americans and whites, the eligible percentage is approximately proportional to the group payments. The eligible white population is 48%, but payments to the group account for 56.6%; for African Americans 48.1 percent are eligible, but payments amount to 39.1% of expenditures. The disparity between payments to eligible African Americans and whites may be an indicator of lack of information regarding the utilization of Medicaid benefits among African Americans.

Ryan White/ADAP 2006 Ryan White Funding

Title I Eligible Metropolitan Area: \$0

Alabama has no Eligible Metropolitan Areas, those with cumulative total of more than 2,000 reported AIDS cases over most recent 5-year period.

Title II:

Base:	\$3,797,718
ADAP:	\$7,901,465
Minority AIDS Initiative:	\$71,621*
Emerging Communities:	\$211,283
Total:	\$11,982,087

**Now a component of Part F under the Ryan White HIV/AIDS Treatment Modernization Act of 2006*

Title III: \$5,488,793

Funds core medical services (Early Intervention Services) 75% and limited capacity building 25%.

Title IV: \$0

Funds public and private organizations directly to provide family-centered and community-based services to children, youth, and women living with HIV and their families.

Dental Health & Human Services Health Resources & Services Admin: \$28,571

Special Projects of National Significance (SPNS): \$300,000*

**Now a component of Part F under the Ryan White HIV/AIDS Treatment Modernization Act of 2006*

AIDS Drug Assistance Program (ADAP)

The AIDS Drug Assistance Programs (ADAPs) represent the nation's prescription drug safety net for persons living with HIV/AIDS, providing HIV/AIDS-related medications to the uninsured and underinsured. The CARE Act prohibits the use of its funds for services that would otherwise be covered under any state compensation program, insurance policy, or federal or state health benefits program.

Nationally, ADAP funding has grown at a rate of approximately \$100 million annually. Although no additional funding was included in "Revised Continuing Appropriations Resolution, 2007" passed by the House, the Title II base (Part B of the CARE act) which allows states to utilize Title II base funds for ADAP expenditures, received an increase of \$75 million. The National Alliance of State and Territorial AIDS Directors (NASTAD) estimates that the national need for ADAP exceeds 2006 funding levels by \$197 million. Historically, states have used waiting lists, enrollment caps, formulary reduction, and other cost-containment measures to address funding shortages.

Alabama ADAP Eligibility

Alabama residents are eligible for ADAP if they are at or beneath 250% of federal poverty level for households. Currently, the FPL by number of persons in a household are as follows—one: \$10,210; two: \$13,690; three: \$17,170; four: \$24,130. Alabama uses a capped enrollment strategy for cost containment.

Alabama ADAP Waiting List

From July 2002 to February 2006, Alabama had a waiting list for each of the 26 surveyed periods. The average number of people on the Alabama ADAP waiting list during these periods was 200. Alabama was one of 12 ADAPs that reported having waiting lists in 10 or more of the 26 surveyed periods and was the only state that reported having a waiting list in place for all 26 periods surveyed. Alabama had the second highest average number of people on ADAP waiting lists (200) during the survey period; North Carolina had the highest average (337).

By March 1, 2007, Alabama had no eligible residents on a waiting list. The dramatic reversal is a largely a result of coordination between ADAP and the new Medicare Part D ARV allowances which took affect January 2007.

Alabama ADAP Formulary

Alabama covers all 25 FDA-approved antiretrovirals on their formulary, including enfuvirtide (Fuzeon), the only currently approved HIV fusion inhibitor. Eight of the 29 medications for opportunistic infections that are highly recommended by the Public Health Service/Infectious Diseases Society for people with HIV/AIDS are also covered.

Recommendations

1. Tailor specific prevention efforts to 8 counties that account for the greatest number of cumulative HIV/AIDS diagnoses through December 2006.

These counties comprise Baldwin (356), Houston (364), Jefferson (4,263), Limestone (167), Madison (688), Mobile (2,381), Montgomery (1,746), and Tuscaloosa (411). Particular attention should be focused on Jefferson, Mobile, and Montgomery counties, which together account for 57% of total cumulative HIV/AIDS cases diagnosed. The behavioral risk factors for each of these 3 counties may vary, as their geographic location, urbanization, population density within the county, percent of population living at or below the federal poverty level, and racial composition vary dramatically.

2. Increase HIV/AIDS surveillance, prevention, and care services for migrant workers.

The prevalence of HIV/AIDS and relative risk among migrant workers, particularly those of Latino/a decent is unknown. Most available data on the Latino population is based on Alabama residents, not on migrant workers that may be residents of other states or undocumented. The rapid increase in the Latino population, particularly among young single Latino males in rural areas, is outpacing the state's ability to capture the epidemiology of the population. It is particularly complicated because surveillance and access to health care are already suboptimal in many of the rural areas. Language and cultural barriers may further reduce access to available care, and for undocumented workers, concern regarding resident status will likely present unique hurdles to reaching the population. Data available from the *Hispanic Health Profile Alabama 2003* report indicates that almost 60% of Alabama Hispanics have an ethnic origin from Mexico(43). Other reports suggest HIV/AIDS prevalence is growing in the Mexican states that have the highest number of persons migrating to and from the United States for work. Novel collaborations between HIV/AIDS service organizations in the United States and Mexico may contribute greatly to monitoring incidence/prevalence and the social determinants that give rise to them.

3. Develop targeted prevention programs.

Risk factors for HIV transmission in Alabama are increasingly stratified by race/ethnicity. Although MSM transmission risk is highest among all racial groups, heterosexual transmission accounts for the majority of infections among African American women and a large proportion of infections among African American men. As the epidemic increasingly

concentrates among African Americans and in rural communities, campaigns that target risk groups within these populations urgently need to be developed. Programs that target the MSM community, urban populations, and intravenous drug users will not comprehensively address all risk groups, and may in fact alienate some of the largest and emergent risk groups (African American females, migrant workers, high-risk heterosexuals, rural populations). While programs targeting historically at-risk groups should be maintained, there is an urgent need for surveillance and programming that addresses these emergent groups.

4. Increase early detection of HIV infection and reduce delayed access to treatment.

Delayed access to care is a significant problem in Alabama. Development of interventions that increase a population's understanding of their specific risks, connecting individuals with testing services, and facilitating the optimal frequency of care for HIV-positive individuals (particularly rural populations) would assist in reducing delayed access to care. Rural populations should be prioritized, as suboptimal access to testing and care are often related to long travel distance to access appropriate services.

5. Culturally and gender-specific programming is paramount: Enlist local expertise to more precisely target high-risk populations.

A preponderance of evidence demonstrates the pervasiveness of racial, ethnic, and socioeconomic stratification across health care access and outcomes among Alabama residents. With regard to HIV transmission, the relative weight of high-risk behaviors differs substantially across racial/ethnic groups. Substantial differences exist in risk behaviors between the African American and white population, which is even more pronounced when factoring in gender. Yet programming that only accounts for race/ethnicity may not be sufficient, as the profile of risk behavior for women and men are dramatically different. New interventions should be developed that account for both race and gender. Consideration should be given to development of programs that are guided and innovated by people within high risk groups in order to maximize relevance of interventions. Ideally programming of this nature will have multiple desired outcomes – not only the creation of truly culturally and gender specific programs, but also the stabilization and empowerment of traditionally marginalized communities.

6. Increase access to confidential mental health services, particularly in rural communities.

Unmanaged mental illness in HIV-positive individuals is positively correlated with a range of risks, including not seeking care, poor adherence to antiretrovirals, and a more rapid progression to AIDS. Rural populations are less likely to access mental health services than are urban populations. Barriers to utilization of mental health services by rural populations include perception of reduced risk, concerns regarding confidentiality of local services, distance to appropriate services in urban areas, and cost. Furthermore, mental health services and HIV/AIDS services are often not integrated—HIV/AIDS health care workers may have incomplete knowledge of mental health services and mental health case workers may have incomplete HIV/AIDS. Cross training of mental health and HIV/AIDS case workers should be promoted. Interventions that reduce barriers to mental health service utilization and access for rural populations are needed.

7. HIV/AIDS services are needed that link rural and urban areas.

Migration patterns after HIV diagnosis are complex. Of those that move after HIV status is known, rural populations may move to larger towns or cities and urban populations may move to less populated areas. After HIV-positive status is known, African Americans are less likely to move than are whites. Increasing linkages between urban and rural HIV/AIDS service organizations could assist those who migrate in their transition. Optimally, transition services would link those who migrate to health care, employment, and stable housing prior to their move.

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