HIV and STDs in Guilford County:
A Comprehensive Guide for a Way Forward

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Executive Summary

Background

Americans do not hear much about domestic HIV/AIDS and other sexually transmitted diseases (STDs) anymore. Media attention and advocacy efforts have dwindled. Federal funding for domestic HIV/STD services has decreased or remained stable while funds for international efforts have increased dramatically. All the while, the number of people affected by HIV/STDs in the United States has continued to rise, with the heaviest burden falling on those who are the least likely to have a voice—impoverished and disenfranchised Americans.

HIV/AIDS and other STDs continue to exact a heavy toll on the citizens of Guilford County. The county has the 3rd highest number of people living with HIV/AIDS in North Carolina (N.C. Department of Health & Human Services, 2007) and rates of STDs that exceed state averages (Smith, Hill, Philips, & Starnes, 2008). Disparities in infections by race and ethnicity are even more pronounced in Guilford County than in the rest of the nation. For example, nearly 70% of new HIV/AIDS cases in 2007 were among non-Hispanic Black individuals (N.C. Department of Health & Human Services, 2008a). HIV/STD service providers in the community are concerned that the disease burden in the county will worsen due to recent federal funding restrictions, access to care limitations, and the economic downturn.

These diseases often have a devastating impact on the psychological, social, and physical health of infected individuals. However, the effects of HIV/STDs do not stop with those infected; the high economic and societal costs of HIV/STDs are shared by everyone. For example, estimates of the lifetime medical costs for an individual receiving treatment for HIV/AIDS range from $168,000- $195,000 (Holtgrave & Pinkerton, 1997; Hutchinson et al., 2006). Decreases in productivity due to HIV/AIDS also result in substantial costs to society (Hubben, Bishai, Pechlivanoglou, Cattelan, Grisetti, Facchin, & et al., 2008).

Paper Methodology

This paper provides Board Members of the Moses Cone-Wesley Long Community Health Foundation with a summary of HIV/STD prevention science, interventions and strategies used to address HIV/STDs, a comprehensive report on the impact of and community response to HIV/STDs in Guilford County, and recommendations for foundation action to reduce the impact
of these diseases on county residents. In order to create this document, we examined HIV/AIDS and STD epidemiological data at the national, state, and county levels. Extensive literature reviews were conducted on current HIV/STD prevention science, types of interventions, intervention efficacy and cost-effectiveness, HIV/STD service barriers, funding trends, and service integration. To understand the community perspective on HIV/STD service needs, two service provider focus groups and one consumer focus group were conducted by staff from the Center for Health Policy. Interviews with representatives from several local, state, and philanthropic organizations were also conducted to increase community input. Finally, findings from recently conducted local needs assessments were analyzed and incorporated into the paper.

Findings

Given the high economic and societal costs of HIV/STDs and the current treatment capacity limitations in Guilford County, efforts to prevent disease transmission are critically important. According to current HIV prevention science, HIV prevention efforts must combine behavioral, biomedical, and structural interventions in order to be effective (CDC, 2006a; Rotheram-Borus, Swendeman, & Chovnick, 2009). Behavioral interventions, which may be conducted at the individual, group, or community level, are designed to reduce HIV/STD risk behaviors. There is substantial evidence to support the efficacy of behavioral interventions in reducing HIV/STD risk behaviors among many different populations (CDC, 2006a; Crepaz et al., 2006; Lyles, C.M. et al., 2007; Noar, 2008). There are currently 57 behavioral interventions that are recognized as evidenced-based by the Centers for Disease Control and Prevention (CDC) (Academy for Educational Development, 2009b; CDC, 2006a). Many organizations across the United States, including several in Guilford County, use these evidenced-based programs in their efforts to reduce risk behaviors among the populations that they serve.

Biomedical interventions include HIV/STD prevention strategies that are based on the biological sciences and include HIV/STD testing and antiretroviral treatment (CDC, 2006a; Rotheram-Borus et al., 2009). Identification of HIV/STD cases through testing is necessary to prevent future disease transmission and to facilitate the entry of infected individuals into care and treatment (Kaiser Family Foundation, 2008a; Marks, Crepaz, Senterfitt, & Janssen, 2005).
Antiretroviral (ARV) treatment is an important component of HIV prevention because it can reduce HIV infectiousness among people living with HIV/AIDS (PLWHA). By decreasing the concentration of HIV in the body, ARV treatment reduces the likelihood that the virus is transmitted to others (Rotheram-Borus et al., 2009).

Structural interventions are intended to reduce HIV infection by addressing the structures, laws, or policies which may affect transmission risk or access to prevention, treatment, and care services (CDC, 2006a). Intervening at this level can help improve the availability, accessibility, and acceptability of HIV/STD prevention and care services (Blankenship, Friedman, Dworkin, & Mantell, 2006).

Currently, Guilford County has a dedicated and passionate group of prevention, treatment, and care providers who strive to meet the multifaceted needs of the county’s HIV/STD-infected population through collaboration and coordination of services. However, populations that need additional prevention services have been identified. These include youth, Hispanics, men who have sex with men, and individuals living with HIV/AIDS.

As the numbers of individuals infected with HIV and other STDs rise and the federal monies available for services decrease, there is an increased need for funding from philanthropic organizations to fill in the funding and service gaps.

Recommendations

Funding from MC-WLCHF is needed to address HIV/STDs in Guilford County. The following represent opportunities for MC-WLCHF to strengthen the community’s response to HIV/STDs and reduce the impact of these devastating diseases on the residents of Guilford County. Funding recommendations consider current funding and service availability, forthcoming funding changes, service gaps, and intervention efficacy and cost-effectiveness. Prevention programs that integrate behavioral, biomedical, and structural strategies are more likely to be successful in reducing HIV/STD transmission; therefore, recommendations for interventions at each level are included.

Behavioral Interventions

1. Expand HIV/STD prevention programming for high risk youth in Guilford County.
2. Evidenced-based group and community-level interventions should be implemented to address gaps in prevention services for the Hispanic population.

3. Community level interventions are recommended to meet the prevention needs of men who have sex with men (MSM).

4. Continue to support behavioral interventions for high risk populations including African American women and Hispanic youth.

5. Support a Comprehensive Risk Counseling and Services (CRCS) program for HIV-positive individuals who are at a high risk of transmitting HIV to others.

Biomedical Interventions

6. Expand HIV testing in the Hispanic community.

7. Support routine HIV testing in medical care settings.

8. Address access and adherence to antiretroviral medications as part of a CRCS program for people living with HIV/AIDS (PLWA) who are at a high risk transmitting the virus.

9. Increase funding for case management services for PLWA.

10. Continue to fund support services for PLWA including HIV support groups and Higher Ground, a day center for PLWA.

Structural Interventions

11. Support an HIV/STD advocacy group that includes service providers, consumers, and other community stakeholders.

12. Advocate at the state and local levels for comprehensive sexual education in the schools.

13. Advocate for the implementation of routine HIV testing in medical care settings.

Funding Distribution

14. Determine the strategy for funding allocation which creates the largest impact, is sustainable, and is consistent with the mission and vision of the MC-WLCHF.

Capacity Building and Evaluation

15. Provide capacity building services for agencies that lack experience in providing HIV/STD services.

16. Require funded agencies to evaluate intervention processes and outcomes.
Overview of HIV/STD Epidemiology

There are an estimated 1.1 million people living with HIV/AIDS (PLWHA) in the United States. Approximately 21% of these individuals do not know they are infected and may unknowingly infect others (CDC, 2008b). A recent study by the Centers for Disease Control and Prevention (CDC) revealed that more than 56,000 were newly infected with HIV during 2006, a number higher than previous estimates (Hall et al., 2008). Although the number of new infections has remained fairly stable for several years, these recent findings indicate that the epidemic is worse than previously recognized (CDC, 2008a).

Racial and ethnic minorities are disproportionately affected by HIV/AIDS. Of the number of individuals estimated to be living with HIV/AIDS at the end of 2006, 65% were non-White. Black, non-Hispanics are particularly hard-hit by the epidemic as they accounted for 46% of individuals living with HIV/AIDS (CDC, 2008b). Men continue to be the most affected by HIV/AIDS. Seventy-five percent of PLWHA were men while 25% were women (CDC, 2008b).

Transmission of HIV was greatest among men who have sex with men (MSM) (48%), followed by heterosexuals (28%) and intravenous drug users (IDU) (19%) (CDC, 2008b).

New medical treatment advances have improved health outcomes for many individuals with HIV. However, there are severe economic and social costs associated with each infection. The lifetime medical costs for an individual receiving treatment for HIV/AIDS are estimated to range from $168,000- $195,000 (Holtgrave & Pinkerton, 1997; Hutchinson et al., 2006). The high societal costs of HIV/AIDS are partially attributed to absences from work and loss of work productivity (Hubben, Bishai, Pechlivanoglou, Cattelan, Grisetti, Facchin, & et al., 2008). The lifetime cost of overall lost productivity due to illness is around $742,100 (Hutchinson et al., 2006).
Other sexually transmitted diseases (STDs) are also a major public health concern. Approximately 19 million new infections occur each year with gonorrhea, chlamydia, and syphilis reported most frequently (CDC, 2009). Disparities in infection exist across race and gender; African Americans and young minority women are disproportionately affected (CDC, 2009; Newman & Berman, 2008). STDs are also known to facilitate HIV transmission (Fleming & Wasserheit, 1999). It is estimated that individuals with an STD are two to five times more likely than uninfected individuals to acquire HIV infection if exposed (CDC, 2007a).

HIV/STD cases are not uniformly distributed across geographical regions in the United States. Currently, the South is estimated to have the greatest number of individuals living with AIDS (Kaiser Family Foundation, 2008b) and has experienced some of the highest AIDS death rates (Reif, S., Geonnotti, & Whetten, 2006). An estimated 33,000 individuals were living with HIV/AIDS in North Carolina in 2007. Compared to the nation, racial disparities in North Carolina are even more severe and there are a greater proportion of women living with HIV/AIDS. Additionally, the rate of new HIV infections in the state was 40% higher than the national rate (N.C. Department of Health & Human Services, 2008b). For an extensive discussion on HIV and STD epidemiology in the United States, North Carolina, and Guilford County, see Appendix A.

**STDs/HIV in Guilford County**

According to epidemiological data, thousands of people in Guilford County have been infected with a reportable STD. From 1997 to 2007, there were 18,669 cases of chlamydia, 13,775 cases of gonorrhea, and 1191 syphilis cases in Guilford County (N.C. Department of Health & Human Services HIV/STD Prevention and Care Branch, 2008). County chlamydia, gonorrhea, and syphilis rates are
significantly higher than North Carolina rates. While the overall incidence rates of chlamydia and gonorrhea in the state declined in recent years, the rate of incidence of these diseases spiked in Guilford County during the same time period (Smith et al., 2008). There are extreme racial disparities in STD infections in the county. For example, chlamydia, gonorrhea and syphilis rates are 10 times greater among non-White individuals. It is important to note that these data only describe a fraction of the county’s STD burden because data are not collected on some of the most common STDs such as the human papillomavirus (HPV) and herpes.

As the rates of STDs increase, one can expect the rate of HIV to rise as well (AIDS Alert, 2001). This is partially due to the biological role that STDs have in facilitating HIV transmission (AIDS Alert, 2001). An individual with an STD is 2 to 5 times more likely to contract HIV if exposed (CDC, 2007a). Increases in STD cases also indicate greater participation in unprotected sex, a primary risk for HIV transmission. Evidence of risky behaviors among residents of Guilford County is also found in other risk behavior data. According to the results of the Youth Risk Behavior Survey (YRBS), 17% of middle school children and 48% of high school students were sexually active in 2008. Of the high school students who were sexually active, around 80% used alcohol or drugs before sexual intercourse (Francisco, Cook, McElroy, & Wharton, 2009). Among those reporting sexual activity in Guilford County, only 36.7% of adolescents and 25.6% of adults reported condom use (Francisco et al., 2009; Guilford County Department of Public Health, 2005). These numbers fall well behind the Healthy People 2010 goal of 95% condom use.

At the end of 2007, there were 1,615 individuals living with HIV/AIDS in Guilford County, the 3rd highest number in the state (N.C. Department of Health & Human Services, 2007). The rate of newly reported HIV/AIDS cases in the county has remained above the North Carolina average since 1997 (N.C. Department of Health & Human Services HIV/STD Prevention and Care Branch, 2008). Between 2005 and 2007, the rate of newly reported infections increased from 27.7 to 36.7 per 100,000. The county ranked 9th out of 100 North Carolina counties in the average rate of newly reported HIV/AIDS infections during this time period (33.4 per 100,000) (N.C. Department of Health & Human Services, 2007).
Of the 166 newly reported cases of HIV/AIDS in 2007, 69.1% were among Black, non-Hispanics, 29.1% were among non-Hispanic Whites and 1.8% were classified as other races (including Hispanic). Men represented approximately 66% of newly reported cases while women represented 34%. Among the 60% of men who reported a risk category, 89% reported MSM (N.C. Department of Health & Human Services HIV/STD Prevention and Care Branch, 2008).

The impact of HIV and STDs in Guilford County extends well beyond infected individuals. The high economic and societal costs of HIV/STD infections are shared by everyone. For example, estimates of the lifetime medical costs for an individual receiving treatment for HIV/AIDS range from $168,000- $195,000 (Holtgrave & Pinkerton, 1997; Hutchinson et al., 2006). Decreases in productivity due to HIV/AIDS also result in substantial costs to society (Hubben, Bishai, Pechlivanoglou, Cattelan, Grisetti, Facchin, Compostella et al., 2008). Chlamydia and gonorrhea infection may lead to pelvic inflammatory disease, chronic pelvic pain, ectopic pregnancy, and infertility; therefore, the lifetime direct medical costs for treatment are high. Estimates for treating chlamydia and gonorrhea for 15-24 year olds are around $244 and $250 for women, respectively, and $20 and $53 for men (Chesson, Blandford, Gift, Tao, & Irwin, 2004).

**Factors Contributing to the Continuing HIV/AIDS Epidemic**

After reaching a peak in the early 1980s, the number of new HIV infections in the United States dropped precipitously until the early 1990s. Since that time, there have been no durable decreases in HIV incidence and the number of PLWHA continues to increase (Hall et al., 2008). The following will present factors which contribute to the growing epidemic in the United States with particular attention to the disproportionate impact on the South.

**America Has Gone Quiet on HIV/AIDS**

At the same time the CDC has recognized that the number of HIV infections is 40% higher than previously estimated (Hall et al., 2008), Americans are receiving less information about HIV/AIDS and seem to be less concerned about the epidemic (Altman, 2009). The percentage of Americans who have heard or read a lot about HIV/AIDS decreased from 34% in
2004 to 14% in 2009. Among African Americans, who are disproportionately affected by HIV, there was a decrease from 62% to 33%. In addition, the identification of HIV as the most urgent health problem facing the nation has declined dramatically since 1995 (Altman, 2009). These findings are particularly concerning because individuals who lack HIV/AIDS awareness or do not perceive the consequences of infection as severe are less likely to take actions to protect themselves.

Insufficient Funding

Although there have been no reductions in the number of new HIV infections in over a decade and the number of PLWHA is rising, federal funding to address HIV/AIDS domestically has decreased by 8% over the last three years (Kaiser Family Foundation, 2008c). Conversely, public and private funding for international HIV/AIDS programs has increased (FCAIDS, 2008; PEPFAR, 2009). Funding for HIV prevention is woefully inadequate. Of the federal funds available for domestic HIV/AIDS programs, only 4% is allocated to prevention (Kaiser Family Foundation, 2008c). Many contend that reductions in HIV infections are unlikely to occur unless additional funding is allocated to prevention. According to a renowned HIV economist, the CDC’s annual prevention budget would need to be increased from $800 million to $1.3 billion to reduce the number of new HIV infections by 50% (Sternberg, 2009).

The southern states are particularly challenged by insufficient funding for HIV/AIDS programs. In spite of having the highest concentration of people living with AIDS, the South only receives 20% of private funding for HIV/AIDS (FCAIDS, 2008) and ranks last in total federal funding (Southern AIDS Coalition, 2008). Appendix B describes public and private funding trends over time.

Individuals Living with HIV/AIDS

Because PLWHA are living longer with the disease and the number of new infections each year remains stable (Hall et al., 2008), the number of individuals who can potentially transmit HIV has increased. To further complicate matters, approximately 21%, or 231,000 of the 1.1 million PLWHA, do not know they are infected and may unknowingly infect others (CDC, 2008b).
Recent data show that those who are unaware of their infection are responsible for the majority of new sexually transmitted HIV infections (Marks, Crepaz, & Janssen, 2006). Transmission among those who are aware of their infection is lower because most individuals who test positive for HIV reduce their risk behaviors in order to decrease the likelihood of transmitting the virus (Marks et al., 2005).

The transmission of HIV is also partially attributable to PLWHA who are aware of their infection but still participate in risky behaviors. Although most individuals diagnosed with HIV reduce risk behaviors, some do not completely eliminate risks. Additionally, others may reduce risk behaviors initially, but are unable to sustain these changes over time (CDC, 2006a).

Treatment of HIV/AIDS with antiretroviral (ARV) medications can have a significant impact on the likelihood that an HIV-positive individual will transmit the virus to others. Successful treatment with ARVs reduces the concentration of the virus in the body which decreases the likelihood that an individual will transmit HIV to others (Rotheram-Borus et al., 2009). Although ARV treatment can help prevent further transmission, only 55% of PLWHA who were clinically eligible for ARV therapy were receiving it in 2003 (Kaiser Family Foundation, 2008b). Many who do receive ARV treatment struggle to maintain the extremely high rate of adherence necessary to achieve viral load reductions.

Factors Contributing to the Growing HIV/AIDS Epidemic in the Deep South

The South has the greatest number of people living with AIDS in the United States (Kaiser Family Foundation, 2008b). Closer examination of this region reveals far more dramatic increases in AIDS incidence among the Deep South states which include North Carolina, South Carolina, Georgia, Alabama, Louisiana, and Mississippi. Between 2000-2003, the number of
newly reported AIDS cases increased by 35.6% in the Deep South states while AIDS incidence increased only 4.0% in the other southern states and 5.2% nationally (excluding the Deep South states) (Reif, S. et al., 2006; Whetten & Reif, 2006).

There are many factors that likely contribute to the disproportionate increase of HIV/AIDS in the Deep South states. Higher levels of unemployment, poverty, and uninsured individuals in this region reduce access to prevention services and health care which may contribute to disease incidence. Poverty is also associated with increased drug use, which may directly or indirectly influence HIV transmission. Because of the high rates of poverty, tax revenues in the Deep South states are lower. Restricted tax revenues may limit state resources available for HIV prevention and care (Reif, S. et al., 2006; Whetten & Reif, 2006).

Other characteristics of the Deep South states make HIV prevention and care more challenging in this region. The Deep South has some of the highest STDs rates in the country (Reif, S. et al., 2006). An individual with a STD is two to five times more likely than an uninfected individual to acquire HIV infection if exposed (CDC, 2007a). Therefore, the elevated STD prevalence in the Deep South likely contributes to the sharp increase in HIV/AIDS in the region (Reif, S. et al., 2006; Southern AIDS Coalition, 2008).

A higher proportion of residents in the Deep South live in rural areas where there is less access to health care and other HIV/STD services. Rural-living individuals often must travel long distances to reach available services (Reif, S. et al., 2006; Whetten & Reif, 2006) and are less likely to have access to dependable transportation (Lichtenstein, Hook, & Sharma, 2005). In addition, the stigma associated with HIV/AIDS is particularly pronounced in rural areas (Heckman et al., 1998; Reif, S. et al., 2006; Reif, S, Golin, & Smith, 2005). Stigma may result in delays in seeking HIV care, medication non-adherence, or failure to seek care altogether (Golin, Isasi, Bontempi, & Eng, 2002; Heckman et al., 1998; Lichtenstein et al., 2005; Reif, S et al., 2005; Southern AIDS Coalition, 2008; Whetten-Goldstein & Nguyen, 2002). A study conducted in one Deep South state provided clear evidence of the persisting stigma surrounding diseases that are sexually transmitted. Among study participants, 50% reported that they would delay seeking care and 30% said they would not seek care at all if they had symptoms of an STD (Lichtenstein et al., 2005).
**Best Practices for HIV/STD Prevention**

In absence of a cure for HIV/AIDS, prevention efforts remain critically important in slowing the spread of the disease. According to the CDC and the Institute of Medicine, HIV/AIDS prevention efforts in the United States have achieved considerable success. The drastic reductions in new HIV infections that occurred during the mid-1990s are partially explained by prevention efforts that increased the safety of the blood supply, reduced perinatal transmission, changed sexual behavior among MSM, and reduced transmission among IDUs (CDC, 2006a; Institute of Medicine, 2001). Behavioral prevention interventions which reduce HIV risk behaviors among high risk populations have been developed and implemented (CDC, 2006a; Lyles, C.M. et al., 2007; Noar, 2008; Rotheram-Borus et al., 2009) and the availability of HIV testing has improved (CDC, 2006a). Prevention interventions have also proven to be cost effective. The cost to avert an HIV infection through prevention programming is considerably lower than the medical and societal costs of a lifetime of treatment for HIV (Cohen, Wu, & Farely, 2005; Holtgrave & Pinkerton, 1997). In spite of these successes, steady rates of new infections and rising numbers of PLWHA indicate unmet prevention needs (Hall et al., 2008).

**According to current HIV prevention science, HIV prevention efforts must combine behavioral, biomedical, and structural interventions in order to be effective** (CDC, 2006a; Rotheram-Borus et al., 2009).

**Behavioral Interventions**

Behavioral interventions, which may be conducted at the individual, group, or community level, are designed to reduce HIV/STD risk behaviors. There is substantial evidence to support the efficacy of behavioral interventions in reducing HIV/STD risk behaviors. The outcomes produced by efficacious interventions have included reductions in unprotected sex, number of sexual partners, new STD cases, injection drug use, and needle sharing and increases in condom use (Lyles, C.M. et al., 2007). Interventions that reduce risk behaviors among specific population groups, including young adults, MSM, heterosexual men and women, drug users, and PLWHA have been identified. Several interventions are designed specifically for use with African American or Hispanic individuals (CDC, 2006a; Crepaz et al., 2006; Lyles, C.M. et al., 2007; Noar, 2008). Risk reductions ranging from 25%-50% have been attributed to evidenced-
Based interventions (Rotheram-Borus et al., 2009). Research clearly shows that efficacious behavioral interventions reduce HIV risk behaviors among many different populations.

There is increasing support for the use of evidenced-based approaches in public health, including HIV prevention. The effort to identify behavioral interventions with scientific evidence of HIV risk reduction has been led by the CDC. The CDC has analyzed results from HIV behavioral interventions trials for over a decade. Through a systematic research synthesis process, the most efficacious behavioral interventions are identified (Lyles, C. M., Crepaz, Herbst, Kay, & Team, 2006). Those that meet strict scientific and outcome requirements are deemed evidenced-based. Currently, there are 57 interventions that are recognized as Evidenced-Based Behavioral Interventions (EBIs) by the CDC. Among these are programs designed for use with youth, heterosexual women, MSM, drug users, and PLWHA. Several focus specifically on risk reduction among African Americans and Hispanics (Lyles, C.M. et al., 2007). Information about these interventions can be found in the 2008 Compendium of Evidence-Based HIV Prevention Interventions available on the CDC’s website. To promote the national use of effective interventions in prevention programs, the CDC has developed curricula for 21 of these programs and offer facilitator trainings through its Diffusion of Effective Behavioral Intervention (DEBI) project (Academy for Educational Development, 2009b; CDC, 2006a). State and community HIV/STD program staff members can learn how to implement a specific DEBI intervention by participating in one of the facilitator trainings. As part of the training, staff members receive a packaged curriculum for the DEBI intervention, which includes a facilitator’s guide, other instruction materials, and evaluation tools. After receiving the facilitator training and the program curriculum, HIV/STD program staff members can begin implementing the DEBI program in their own communities. (Academy for Educational Development, 2009b, 2009c).

Many organizations across the United States use DEBI programs in their efforts to reduce risk behaviors among the populations that they serve, including several in Guilford County. Piedmont Health and Sickle Cell Agency (PHSSC), WOMEN INC., Nia Community Action Center (NIACAC), Triad Health Project, and the Church of the Holy Spirit have experience with DEBI implementation. DEBI programs that have been implemented in Guilford County include
Safety Counts, Community PROMISE (Peers Reaching Out and Modeling Intervention Strategies), SISTA (Sisters Informing Sisters on Topics about AIDS), RESPECT, RAPP (Real AIDS Prevention Project), and Many Men, Many Voices. For more information on each of the 21 DEBI programs, see Appendix G.

Because of strong scientific evidence of efficacy, EBIs and DEBI programs should be used to reduce HIV risk behavior among high risk populations with unmet prevention needs. When possible, DEBI programs should be given priority because of the availability of facilitator trainings, curriculum materials, and evaluation tools. EBIs/DEBI programs which intervene at the level most likely to meet the prevention goals identified for each population at risk should be selected. Individual, group, and community level interventions are discussed in greater detail in Appendix B.

**Biomedical Interventions**

Biomedical interventions include HIV/STD prevention strategies that are based on the biological sciences. Examples of biomedical interventions include HIV/STD testing, antiretroviral treatment, vaccine research, and microbicide research (CDC, 2006a; Rotheram-Borus et al., 2009). HIV testing and ARV treatment for PLWHA are important biomedical prevention interventions that can be addressed at the local level; therefore, they will be discussed in greater detail.

**HIV Testing**

Identification of HIV cases is necessary to prevent future HIV transmission and to facilitate the entry of infected individuals into care and treatment. Approximately 21% of those living with HIV/AIDS in the United States do not know they are infected and may unknowingly infect others (CDC, 2008b). Recent data show that HIV-positive individuals who are unaware of their infection are at least 3.5 times more likely to transmit HIV than those who know they are infected (Marks et al., 2006). Transmission among those with known infection is lower because most individuals who test positive for HIV reduce their risk behaviors in order to decrease the likelihood of transmission (Marks et al., 2005). Finally, it is critical to identify individuals as early in their infection as possible so they can be linked to medical care that may improve their quality of life and health outcomes (Kaiser Family Foundation, 2008a). HIV testing services are
particularly important in the Deep South, the region with the highest proportional increases in HIV/AIDS since 1990 (Whetten-Goldstein & Nguyen, 2002).

HIV testing is now offered at CDC-funded testing sites, STD clinics, health departments, hospitals, and private doctor’s offices. Non-traditional testing sites, which include universities, night clubs, churches, and schools, have been established as part of an effort to increase testing among high risk populations. Other strategies have included door-to-door testing and mobile testing vans. Expansion of testing outside of medical care settings has been possible because of advancements in testing technology such as the development of oral swab and finger prick tests. Another testing innovation has helped address the high rate of individuals who fail to return for test results from conventional HIV tests (estimated 10-50%) (Kaiser Family Foundation, 2008a). Rapid tests, which provide results in as little as 10 minutes, allow individuals to receive negative or provisional positive results in a single visit. As a result, ninety-five percent of rapid-tested individuals receive their results (CDC, 2006a).

In spite of efforts to expand HIV testing, the number of individuals with unknown HIV infection remains high. In an attempt to remove barriers to early diagnosis and treatment, the CDC released recommendations in 2006 for routine HIV screening in health-care settings for all adults, ages 13-64. The CDC suggests that screenings should be voluntary and opt-out, meaning that individuals are notified that the test will be conducted but consent is implied unless they decline the test. In contrast, opt-in testing requires that an individual consent specifically, many times in writing, to an HIV test (CDC, 2006b; Kaiser Family Foundation, 2008a). According to the CDC, HIV screenings conducted in healthcare settings should not require prevention counseling (CDC, 2006b).

Routine HIV testing could result in three to four-fold increases in the number of individuals tested for HIV in comparison to traditional physician-referred testing (Greenwald, Hall, & Skolnik, 2006). Further, approximately 50% of cases that would not be detected otherwise will be identified through routine testing (Greenwald, Rich, Bessega, Posner, & Maeda, 2006). Several studies have found that rapid testing using a routine testing strategy is highly cost-effective even in low HIV prevalence areas (Paltiel et al., 2005; Sanders et al., 2008; Walensky, R., Freedberg, Weinstein, & Paltiel, 2007). The evidence that routine testing in
medical care settings will be effective in identifying undiagnosed HIV infection has resulted in support for the CDC recommendations (Rotheram-Borus, Leibowitz, & Etzel, 2006). There is also support for opt-out routine HIV testing among the general public. A recent survey found that 65% of Americans supported opt-out routine HIV testing. Only 27% believed that written consent should be required for HIV testing (Kaiser Family Foundation, 2006).

Most cities that have implemented routine testing are located in large urban hospitals, often in emergency departments and inpatient wards (CDC, 2007b; Walensky, R. P., Losina, Steger-Craven, & Freedberg, 2002). Although findings from these locations are important, a similar intervention implemented in a health care setting in Guilford County may result in different outcomes. Findings from studies conducted in similar communities allow for a more accurate prediction of HIV screening effectiveness in Guilford County. One example is a pilot study conducted by Weis and colleagues (2009) which was designed to understand the effectiveness of routine HIV screening in low HIV prevalence areas with smaller healthcare facilities, smaller cities, and more rural communities in the South. Routine HIV screening was offered to all individuals over the age of 13 who used one of the 3 participating community health centers during the study period. There were 985 individuals eligible for screening with 574 (58%) of them completing the test. Those who opted out of testing were most likely to report that they did not have any HIV risks. The health centers served both rural and urban sites so their testing acceptance rates were compared. Acceptance rates were significantly different between urban (62%) and rural (47%) sites yet acceptance rates in all 3 study locations were still higher than rates reported from large urban sites (CDC, 2007b). It is also worth noting that 58% of individuals who were tested through the screening program had not been previously tested for HIV/AIDS. The researchers concluded that the study results provide support for the implementation of routine HIV screening in small healthcare facilities, smaller cities, and more rural communities in the South (Weis et al., 2009).

**Antiretroviral Treatment**

Antiretroviral (ARV) treatment is an important component of HIV prevention because it can reduce HIV infectiousness among PLWHA. By decreasing the concentration of HIV in the body, ARV treatment reduces the likelihood that the virus is transmitted to others (Rotheram-
Borus et al., 2009). To achieve these benefits, strict adherence to treatment regimens is necessary (Mannheimer, Friedland, Matts, Child, & Chesney, 2002). However, many PLWHA have difficulties achieving and maintaining such high levels of adherence. Implementing interventions that help PLWHA improve adherence may help reduce further transmission of HIV (Rotheram-Borus et al., 2009).

**Structural Interventions**

Structural interventions are intended to reduce HIV infection by addressing the structures, laws, or policies which may affect transmission risk or access to prevention, treatment, and care services (CDC, 2006a). Intervening at this level can help improve the availability, accessibility, and acceptability of HIV/STD prevention and care services (Blankenship et al., 2006). Structural interventions may address the availability of products associated with HIV risk behaviors such as alcohol, condoms, and clean needles. Policies or laws related to HIV/STD education in churches and schools may be the focus of structural interventions (Bloom & Cohen, 2007). Because the effectiveness of HIV/STD prevention efforts is tied to policy and funding decisions about behavioral and biomedical interventions (Padian, Buve, Balks, Serwadda, & Cates, 2008), structural interventions are an important component of comprehensive HIV/STD prevention programs (Sumartojo, Doll, Holtgrave, Gayle, & Merson, 2000). In addition to efficacy literature on prevention and treatment interventions, a summary of the cost effectiveness of these interventions can found in Appendix F.

**Philanthropic Response to HIV/STDs**

Although the CDC has recognized that the number of HIV infections is 40% higher than previously estimated (Hall et al., 2008), Americans are receiving less information about HIV/AIDS and seem to be less concerned about the epidemic (Altman, 2009). Additionally, there is less federal funding available for domestic HIV/AIDS efforts. While the U.S government has increased international funding, the FY 2009 budget request shows that domestic funding will have decreased by 8% over the last three years (Kaiser Family Foundation, 2008c). Most of domestic public expenditures for HIV/AIDS in the FY 2009 budget request are for care and treatment, roughly 68% of the domestic share (Kaiser Family Foundation, 2008c). This
represents a 6% increase from a year ago. Conversely, domestic spending on prevention will account for only 4% of all HIV/AIDS funding, roughly the same as year before (Kaiser Family Foundation, 2008c).

The downward trend in public outlays for HIV prevention, treatment, and care emphasizes the role private money can play in shoring up needed funds for services. Philanthropic organizations have clearly helped to fill gaps in services resulting from decreasing federal funding. Although private foundations have made notable contributions for treatment and care services, the commitment to reduce HIV transmission through funding for prevention is particularly evident. In contrast to only 4% of federal funds (Kaiser Family Foundation, 2008c), 27% of private funds went toward prevention services in 2007 (Funders Concerned About AIDS (FCAIDS), 2008).

Private Funding in Guilford County

As a way to address the HIV/STD epidemic in Guilford County, the Moses Cone-Wesley Long Community Health Foundation has provided funding to the Guilford Community AIDS Partnership (GCAP) to support HIV prevention, treatment and care efforts in the county. GCAP has been responsible for granting out these funds to local ASOs and other non-AIDS specific organizations to provide HIV/STD services in the community (GCAP, 2009). In past years, MC-WLCHF funds for re-granting have been matched by the National AIDS Fund and the Elton John Foundation. In 2008, this resulted in a total re-granting budget of $225,000. Contributions for GCAP operational costs included $65,000 from MC-WLCHF and $10,000 from the National AIDS Fund and the Elton John Foundation. The total contribution to GCAP through this partnership was $300,000. Recently, the National AIDS Fund and the Elton John Foundation reorganized their funding structure to support state level partnerships of private foundations. This will result in a reallocation of funds away from GCAP and Guilford County and heightens the importance of continued philanthropic support from MC-WLCHF for HIV prevention, treatment, and care efforts in the area.

Other current circumstances in Guilford County suggest that private funding for HIV/STD services will be even more essential in the near future. Federal legislation changes have resulted in an increasing emphasis on medical care for PLWHA (see Appendix D for detailed
By 2010, 75% of client service funding will be restricted to core medical services while only 25% will be available for other support services (Kaiser Family Foundation, 2009). The new requirements will require a decrease in funding for support services from 49% to 25% in Guilford County (N.C. Department of Health & Human Services, 2009). This is a major concern among Guilford County service providers because support services are often needed to help PLWHA enter and remain in medical care. Regional needs assessments and provider focus groups have highlighted the consistent concern around reductions in funding for support services (Central Carolina Health Network, 2008). In general, federal restrictions do not allow organizations the flexibility required to meet the needs of the population they serve (Avery, Falcon, Mainwaring, Perkins, & Strauss, 2008). This makes private funding even more important for HIV/STD service providers in Guilford County.

The current economic situation is also a major cause of concern among HIV/AIDS service providers. Many other community agencies that provide support services for PLWHA will likely face budget constraints as a result of the economic crisis. This will reduce the availability of support services in the wider community at the same time that funding for support services from federal sources decreases.

**Philanthropic Responses to HIV/STDs in Other Communities**

As the number of individuals with HIV and other STDs grow and the federal monies available for services decline, there is an even greater need for philanthropic organizations to fill in the funding and service gaps. As noted by a representative of the Kate B. Reynolds Charitable Trust (KBR), ASOs are typically underfunded and lack the resources to meet the multifaceted needs of the HIV-positive population. Private philanthropies in North Carolina and across the nation are instrumental in filling the gaps in prevention, treatment, and care (Kate B. Reynolds Charitable Trust, 2009).

The ways that private foundations have supported HIV/STD efforts have varied. The National AIDS Fund currently supports state-level partnerships of private foundations that provide funding for HIV/AIDS services. Through a recent expansion of these efforts, the National AIDS Fund has partnered with The Duke Endowment, North Carolina Health and Wellness Trust Fund, Kate B. Reynolds Charitable Trust, and Blue Cross and Blue Shield of North
Carolina Foundation to create the North Carolina Community AIDS Fund (NC-CAF). To broaden the resources available to address the HIV epidemic in North Carolina, the organizations combine financial resources, which are matched by the National AIDS Fund. NC-CAF grants funds to programs across the state to implement effective HIV prevention and care interventions for high priority populations. NC-CAF also provides capacity building opportunities and technical assistance for organizations providing prevention and care services.

According to a representative from the Health and Wellness Trust Fund, partnering with other foundations through NC-CAF allows organizations to address community needs that are outside the expertise of their foundation (N.C. Health and Wellness Trust Fund, 2009). Some of the participating philanthropies are funding HIV/AIDS services for the first time. Officials from these agencies have noted that partnering with other funders through NC-CAF has offered them an opportunity to take a leading role in addressing HIV/AIDS in the state (Kate B. Reynolds Charitable Trust, 2009).

In addition to private partnerships, some philanthropies leverage their resources with public funds as a way to best address HIV in their region. The AIDS Funding Collaborative (AFC) in Cleveland, Ohio is a private/public partnership in which five private organizations (George Gund Foundation, the Cleveland Foundation, Mt. Sinai Health Care Foundation, Saint Luke’s Foundation of Cleveland, and United Way of Greater Cleveland) partner with three public organizations (Alcohol & Drug Addiction Services Board of Cuyahoga County, The City of Cleveland, Cuyahoga County Board of County Commissioners) to make grants to local ASOs. The AFC annually assesses funding gaps in the community and determines which strategies can be used to best address the epidemic. The AFC offers a continuum of grants which can focus on specific populations, areas of unmet needs, short term immediate assistance, capacity building projects, and strategic efforts to address targeted areas (Center for Community Solutions, 2009). Since its founding in 1994, the AFC has invested $6.5 million in local ASOs and HIV/AIDS – related issues (Funders Concerned About AIDS (FCAIDS), 2008).

Another strategy used by private foundations to address community HIV/STD needs has involved partnering with state government branches responsible for HIV/STD services. Funding from the private foundation is used to enhance the services provided by the state government.
While the Kate B. Reynolds (KBR) Charitable Trust has chosen to partner with private organizations to combat HIV/AIDS through NC-CAF, they also are in the second year of a three contract with the state HIV Prevention and Care Branch. KBR committed $1.5 million dollars to the North Carolina Department of Public Health to conduct screening and testing at non-traditional sites over a three year period. KBR chose to fund non-traditional testing sites to increase testing among high risk populations like MSM and the homeless who are often not reached through traditional sites. The State was chosen to receive this funding because of the existing infrastructure and resources for providing testing at non-traditional sites (Kate B. Reynolds Charitable Trust, 2009).

As previously mentioned, PLWHA often struggle to meet basic needs. Support services play an important role in helping PLWHA enter and remain in medical care. As such, some philanthropic organizations provide funding to agencies and programs not specifically linked to the HIV-positive population. For instance, the San Francisco Foundation focuses on a myriad of issues involving community health, capacity building, education, and social justice. In an effort to promote their Community Health Program, the San Francisco Foundation has provided funding to community organizations to offer culturally and linguistically appropriate HIV/AIDS prevention services for Latinos in Alameda County, California. One of their community development grants funds affordable housing services for the homeless population, including individuals with HIV/AIDS. The Foundation also supports mental health services, advocacy and public policy for vulnerable populations like immigrants and the homeless (The San Francisco Foundation, 2009).

**Guilford County HIV/STD Prevention, Treatment, and Care Services**

Guilford County is fortunate to have group of dedicated and passionate service providers who are committed to serving the needs of those infected with HIV/STDs. These service providers have collaborated with each other and with other community service providers to most effectively meet the multifaceted needs of this vulnerable population given limited resources. In spite of the high level of commitment and the hard work of providers,
county HIV/STD cases are increasing and the system of care is severely strained. The following will identify available HIV/STD services and service gaps in Guilford County.

**HIV/STD Prevention Services**

By partnering and leveraging resources, the Guilford County Health Department (GCHD) and other AIDS Service Organizations (ASOs) attempt to meet the HIV/STD prevention needs in Guilford County. GCHD works together with the Triad Health Project and Nia Community Action Center (NIACAC) to provide HIV and STD education classes on nights and weekends in non-traditional settings. These partnering agencies also provide outreach services for homeless and street populations.

To reach individuals attending college, GCHD offers regular education and testing opportunities at all of Guilford County’s college campuses. The GCHD also targets the Hispanic population in what is called an Intensive Community Outreach effort. The department has a Spanish speaking team that provides outreach, education, and HIV testing in trailer park neighborhoods, which are heavily Latino. In the last quarter, GCHD tested over 1700 individuals through outreach and educational events (Guilford County Department of Public Health, 2009).

NIACAC reaches out to the homeless, IDU, and commercial sex worker populations by holding community events and late-night outreach. NIACAC also implements RAPP, a community-level DEBI program designed to reduce risk behaviors among women. To reach the MSM population, THP partners with the GCHD to do outreach at night clubs for gay, lesbian, bisexual, and transgender individuals (GLBT). THP also conducts outreach to the GLBT community by posting prevention messages in Internet chat room sites. To reach high risk youth, THP works with One Step Further to provide education and testing to juveniles who have gone through the court system (Nia Community Action Center, 2008; Triad Health Project, 2009). WOMEN INC. utilizes DEBI programs such as RESPECT and SISTA to address HIV prevention needs in Guilford County.

Piedmont Health and Sickle Cell Agency (PHSSC), a minority health community-based organization, implements a number of programs that attempt to reach at-risk African Americans and substance abusers in Guilford and surrounding counties. Their project, SCOPE, provides outreach, education, and testing for IDUs, commercial sex workers, homeless
individuals, and African American women. As part of SCOPE, DEBI programs such as Safety Counts, Community PROMISE, and SISTA have been implemented. PHSSC collaborates with other service providers to recruit individuals from the targeted populations to participate in these interventions. In 2008, PHSSC offered prevention services to 8,675 people in Guilford County and the surrounding area (Piedmont Health Service and Sickle Cell Agency, 2008).

**Gaps in HIV/STD Prevention Services**

Despite provider efforts to meet prevention needs, community needs assessments and provider focus groups and interviews revealed a number of high risk groups that require additional prevention support. These groups include youth, MSM, Hispanics and inmates/post-incarcerated (Central Carolina Health Network, 2008).

A need for increased education and HIV prevention services for youth was identified in needs assessments and by participants of provider focus groups conducted by Center for Health Policy staff (Avery et al., 2008; Central Carolina Health Network, 2008). The high rates of STDs among youth in Guilford County provide further support for the expansion of youth prevention services. In 2007, 30% of new chlamydia cases in 2007 were among youth between the ages 13 and 19 (Guilford County Department of Public Health, 2008). This is dramatically higher than the Healthy People 2010 Goal of 4% (Guilford County Department of Public Health, 2005). In one focus group, providers lamented the inadequate HIV/STD education and prevention services available in schools. Several participants indicated a need for comprehensive sex education in the schools.

Compared to outreach efforts for substance users, homeless, and African American women, there is little in the way of robust prevention efforts for MSM in Guilford County. As mentioned previously, the GCHD and THP conduct outreach in night clubs and Internet chat rooms for MSM. In addition, the Church of the Holy Spirit has received funding from GCAP to implement Many Men, Many Voices, a group-level DEBI program for MSM. However, additional efforts are needed to meet the prevention needs of this often difficult to reach population.

Interviews with service providers highlighted the unmet prevention needs of the Hispanic community. An official at GCHD described the need for an increase in prevention
efforts for the Latino community, and noted that Latinos are underreported in HIV incidence rates because of social and cultural barriers to testing (Guilford County Department of Public Health, 2009).

**HIV/STD Treatment Services**

The Moses Cone Infectious Disease Clinic provides most of the direct medical care for PLWHA in Guilford County. This outpatient clinic provides treatment and medical case management to individuals with HIV/AIDS and other infectious diseases. Two smaller HIV/AIDS treatment providers are HealthServe and Community Health Clinic of High Point. HealthServe, a community clinic in Greensboro under the Moses Cone Health System, which provides medical care to indigenous populations, also offers HIV/AIDS treatment and medical case management. The Community Health Clinic of High Point provides medical care for uninsured low-income persons ages 18-64. It has a monthly HIV/AIDS clinic and offers HIV testing as well. Individuals with HIV in Guilford County are also seen in infectious disease clinics outside of the county, like Wake Forest Baptist Hospital, Duke, and UNC. The Guilford County Health Department provides same day appointments for individuals with sexually transmitted infections.

**HIV/STD Care and Support Services**

There are a number of organizations that provide support services for PLWHA in Guilford County. These support services include transportation to clinic appointments, substance abuse and mental health counseling, case management, and housing services. The Triad Health Project (THP) serves over 500 individuals each year, providing case management and referrals to substance abuse and mental health counseling. Triad Health Project also does testing in non-traditional sites, and links individuals who tested positive to medical care and treatment. Higher Ground, a day center for PLWHA run by THP, offers a supportive environment and community for an otherwise alienated population. WOMEN INC. provides support group opportunities for women with HIV/AIDS. The Guilford Center, Guilford County’s Local Management Entity for county level mental health services, offers emergency counseling and provides low income individuals and families with options for services in the community. Substance abuse services are also offered at the Guilford Center. Family Service of the
Piedmont, a community based non-profit organization, also provides a wide range of mental health services for individuals in Guilford County.

Support services that are not specifically HIV/AIDS focused are nonetheless commonly used by PLWHA. Open Door Ministry of High Point offers shelter for homeless men, as well as substance abuse services and case management. In the same way, Leslie House offers emergency shelter for single women, many of whom are HIV positive. These shelters partner with other HIV/AIDS organizations, like NIACAC and THP, to provide testing, education, and case management services for their clients twice a month (Open Door Ministry, 2009; Triad Health Project, 2009; Leslie House, 2009).

Other agencies that do not provide direct services but have important roles in coordination and funding of services are Guilford Community AIDS Partnership (GCAP) and Central Carolina Health Network (CCHN). GCAP has built partnerships among organizations and individuals to raise awareness of HIV/AIDS and has helped to coordinate prevention and care efforts in Guilford County. As mentioned above, GCAP has also acted as a funding source for local agencies that provide HIV/AIDS prevention and care. Since its inception in 1991, GCAP has awarded over $1.7 million for HIV/AIDS programs (Guilford County AIDS Partnership (GCAP), 2009).

The Central Carolina Health Network (CCHN) has worked to develop, coordinate, and broker HIV care services for PLWHA since 1992. The CCHN is currently the primary recipient of regional Ryan White Care funds. This agency coordinates with and funds primary care providers and non-profit agencies that provide care and support for individuals with HIV/AIDS in the region. Seventy-five percent of the $916,000 in Ryan White and HOPWA funds for HIV/AIDS services in Guilford County are managed by CCHN (Central Carolina Health Network, 2009).

**Gaps in HIV Treatment and Care Services**

Currently, the Moses Cone ID clinic has reached maximum capacity and is unable to treat additional HIV/AIDS clients. Providers claim that ID clinics in High Point and Greensboro are “busting at the seams.” Some providers suggest that these conditions reflect an underlying inadequacy of the service delivery model. As one provider noted, the health system in Guilford County was not designed to handle an epidemic. As mandatory testing and outreach efforts
find more individuals with HIV/AIDS, treatment providers will continue to struggle to find ways to increase their capacity.

PLWHA often face multiple obstacles to treatment and care services. Through needs assessments and focus groups, providers and PLWHA have identified some of the greatest barriers to treatment and care for PLWHA in Guilford County. Inequitable distribution of services, transportation, mental health and substance abuse, and stigma significantly influence the ability of PLWHA in Guilford County to access and maintain HIV/AIDS treatment (Avery et al., 2008; Central Carolina Health Network, 2008). Case management services can help clients address these issues and often increase treatment utilization and adherence. Because treatment can decrease the likelihood that an HIV-positive individual will transmit the virus to others, case management is an essential HIV prevention strategy. Although case management services are offered in Guilford County, there is a need for additional support because of increasing case loads. See Appendix E for information about approaches to treatment and care and barriers to these services.

**Recommendations for MC-WLCHF Action on HIV/STDs in Guilford County**

Funding from MC-WLCHF is needed to address HIV/STDs in Guilford County. The following represent opportunities for MC-WLCHF to strengthen the community’s response to HIV/STDs and to reduce the impact of these devastating diseases on the residents of Guilford County.

Recommendations for future funding consider current funding and service availability, service gaps, future funding changes, and intervention effectiveness. These recommendations are intended to build on the strengths of the HIV/AIDS service provider community in Guilford County. There are many strong and dedicated organizations and providers that are capable of implementing many of the recommended strategies, but additional funding is needed.

Because prevention programs that integrate behavioral, biomedical, and structural strategies are more likely to be successful in reducing HIV/STD transmission, recommendations for interventions at each level are included. The recommendations are numbered, but this does not reflect an order of priority.
Behavioral Interventions

1. **Expand HIV/STD prevention programming for high risk youth in Guilford County.**
   According to HIV/STD providers in Guilford County, there are not enough prevention services available for youth. The need for additional services is also supported by the high STD rates among youth in the county. Evidenced-based community or group-level interventions which have proven to reduce HIV risk behaviors among youth should be implemented. An EBI or DEBI should be selected that best matches the needs of the specific youth population. Focus on Youth with imPACT is a recommended DEBI designed to reduce the risk of HIV and other STDS among African American youth. This 8 session community-level intervention provides youth with the knowledge and skills they need to reduce HIV/STD risk behaviors. There is also one session to help parents improve communication and parental monitoring skills (Academy for Educational Development, 2009d).

2. **Evidenced-based group and community-level interventions should be implemented to address gaps in prevention services for the Hispanic population.**
   According to needs assessment and focus group findings, the prevention needs of the Hispanic community in Guilford County are not fully met (Central Carolina Health Network, 2008). There are significant cultural and linguistic challenges associated with expanding services for this population. Collaboration with agencies that already provide services to the Hispanic community will help address some of these challenges. An example of a group-level DEBI program designed to increase condom use among Latino men and women is VOCES (VOICES) (Academy for Educational Development, 2009g).

3. **Interventions at the community level are recommended to meet the prevention needs of men who have sex with men (MSM).**
   Transmission of HIV/AIDS is still greatest among MSM (CDC, 2008b) and the number of HIV-positive men reporting MSM as a risk factor in North Carolina has increased in the past few years (N.C. Department of Health & Human Services, 2008b). Identifying and recruiting MSM for participation in HIV/STD programming can be difficult because many men are reluctant to disclose information about same sex behaviors. Community-level
interventions are more likely to be successful among MSM because they rely on individuals within the community to disseminate prevention messages. Community-level interventions for MSM that have been selected as DEBI programs include Mpowerment and Popular Opinion Leader. (Academy for Educational Development, 2009e, 2009f). The prevention needs of African American MSM and White MSM often differ; therefore, separate programs should be implemented for each of these groups.

4. **Continue to support behavioral interventions for high risk populations including African American women and Hispanic youth.**

There are several programs currently funded through GCAP that address the prevention needs of high risk populations. Evidence from existing interventions should be assessed for effectiveness. If evidence for effectiveness is lacking, the adoption of EBIs or DEBI programs should be encouraged. The extensive facilitator trainings available for DEBI programs and the experience of several GCAP-funded agencies with implementation of EBIs/DEBIs should minimize the challenges associated with this transition.

5. **Support a Comprehensive Risk Counseling and Services (CRCS) program for HIV-positive individuals who are at a high risk of transmitting HIV to others.**

CRCS provides intensive, client-centered risk reduction counseling and helps to address material or psychological needs that impede risk reduction. An example of a DEBI program that might be used for CRCS is CLEAR, Choosing Life: Empowerment! Action! Results!, an 18 session, 27 hour intervention provided licensed therapist or clinical social worker who uses cognitive behavioral techniques to facilitate changes in risk behavior (Academy for Educational Development, 2009a).

**Biomedical Interventions**

6. **Expand HIV testing in the Hispanic community.**

According to the Guilford County Health Department, HIV/AIDS cases among Hispanics in Guilford County are likely underestimated because of unidentified cases among this population (Guilford County Department of Public Health, 2009). Expansion of the Intensive Community Outreach approach for testing among Latinos is recommended to identify these cases.
7. **Support routine HIV testing in medical care settings.**

   The number of individuals with unknown HIV infection remains high (CDC, 2008b). Individuals who are unaware of their infection are at least 3.5 times more likely to transmit HIV than those who know they are HIV-positive (Marks et al., 2006). Routine testing in medical care settings will reduce the number of undiagnosed HIV infections. An estimated 50% of otherwise undetected HIV/AIDS cases can be identified through routine testing (Greenwald, Rich et al., 2006).

8. **Address access and adherence to ARVs as part of a CRCS program for PLWHA who are at a high risk transmitting the virus.**

   Successful treatment of HIV/AIDS with antiretroviral medications can reduce HIV infectiousness and HIV transmission. Therefore, increasing ARV treatment and adherence to these medications is an important component of prevention efforts.

9. **Increase funding for case management services for PLWHA.**

   Case management helps individuals address barriers to medical care, including ARV treatment. However, case managers in Guilford County are experiencing higher case loads which make it difficult for them to address the needs of each client.

10. **Continue to fund support services for PLWHA including HIV support groups and Higher Ground.**

    Social support is related to quality of life and adherence to ARV medications among PLWHA (Alfonso, Geller, Bermbach, Drummond, & Montaner, 2006; Edwards, 2006; Swindells et al., 1999). Programs that help PLWHA meet their social support needs may help improve health outcomes and reduce future transmission of HIV.

**Structural Interventions**

11. **Support an HIV/STD advocacy group that includes service providers, consumers, and other community stakeholders.**

    The number of people living with HIV/STDs continues to increase, yet attention to these issues among the general public and policymakers has waned. At the same time, the amount of funding to address these problems domestically has decreased. Advocacy
efforts are needed to return the attention of the public and of policymakers to the issue of HIV/STDs.

12. **Advocate at the state and local levels for comprehensive sexual education in the schools.**

Numerous studies have shown that abstinence-only sexual education do not reduce age of first intercourse, number of sexual partners, pregnancy rates, or STD rates among youth. Efforts to ensure that comprehensive sexual education, which has shown evidence of effectiveness in improving youth sexual health outcomes, is available in local schools should be undertaken (Hampton, 2008).

13. **Advocate for the implementation of routine HIV testing in medical care settings.**

Research shows that routine HIV testing in medical care settings will reduce the number of unidentified HIV infections (Greenwald, Rich et al., 2006) in a cost-effective manner (Paltiel et al., 2005; Sanders et al., 2008; Walensky, R. et al., 2007). However, concerns about the costs of routine testing have limited implementation (Rotheram-Borus et al., 2009).

**Funding Distribution**

14. **Determine the strategy for funding allocation which creates the largest impact, is sustainable, and is consistent with the mission and vision of the MC-WLCHF.**

Private foundations have supported HIV/STD efforts in many different ways. Consideration of different approaches will allow MC-WLCHF to determine the strategy most closely aligned with the mission and vision of the foundation.

**Capacity Building and Evaluation**

15. **Provide capacity building services for agencies that lack experience in providing HIV/STD services.**

Existing community agencies with little or no experience providing HIV/STD prevention services may have the best access to high risk populations. Improving the capacity of these agencies will increase the likelihood of successful program implementation and improve the community’s capacity for service provision.
16. Require funded agencies to evaluate intervention processes and outcomes.

All funded interventions should be evaluated for effectiveness. A satisfactory plan for evaluation should be a requirement for intervention funding.

**Measuring Success**

The ultimate goal of the recommended HIV/STD efforts is to reduce the transmission of these diseases in Guilford County. Epidemiological data from the state and county health departments can be monitored for changes in HIV/STD infection trends. However, these data should be interpreted as measures of HIV prevention success with tremendous caution. Many factors contribute to county HIV/STD infections; therefore, it is difficult to isolate the effect of prevention efforts on these outcomes.

Evaluation of intervention outcomes can provide important evidence of prevention effectiveness. Factors that influence participation in risky behaviors include HIV/STD knowledge, attitudes, behavior change motivation, and risk reduction skills. Behavioral prevention interventions address these factors in order to reduce risk behaviors. Decreases in high risk behaviors as the result of behavioral interventions are an important measurement of success. Changes in HIV/STD knowledge, attitudes, behavior change motivation, and risk reduction skills also indicate a degree of intervention success. Instruments that measure these changes should be administered to intervention participants. Development of appropriate data collection instruments is simplified with DEBI programs because an evaluation manual is included as part of each curriculum.

Other indicators of success include the number of HIV tests conducted and HIV-positive individuals identified through testing in the Hispanic community and through routine testing in health care settings. For PLWHA receiving CRCS, case management, or other support services, quality of life and access and adherence to ARVs should be monitored. Improvements in or maintenance of quality of life and adherence outcomes among PLWHA indicate progress toward prevention goals. The formation of an advocacy group will also be an indicator of success. Advocacy activities and the results of these efforts should be recorded.
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