



Center for AIDS Research

University of North Carolina at Chapel Hill

The mission of the CFAR is to provide a multidisciplinary environment that promotes basic, clinical, behavioral and translational research in the prevention, detection and treatment of HIV infection.

NEWS BRIEF:

- Alex Coutinho, MD, Executive Director of the Infectious Diseases Institute at Makerere University in Uganda, will be speaking on March 20, 2012 from 5:30 - 6:30 p.m. in the Blue Cross Blue Shield Auditorium on UNC Campus. The talk is entitled: "Scaling Up Best Practice: HIV Science in Action". Please register online by March 16 at https://secure.www.alumnicconnections.com/olc/pub/UNO/event/show/EventForm.jsp?form_id=122792
- The Global Health Challenge is a case competition that provides a venue for graduate and undergraduate students to work together to develop innovative solutions for a specified global health problem. Teams of four to six students will work through a real-life case scenario and develop succinct, strategic recommendations for improving a global health issue. Teams will present their recommendations to a distinguished panel of judges at the 3rd Annual Triangle Global Health Case Competition. For more info: <http://globalhealth.unc.edu/2012/03/register-now-for-the-2012-global-health-challenge/>
- It's time for the AIDS Walk and Ride! The event will take place on Saturday, May 5 on Fayetteville Street in downtown Raleigh. The ride begins at 7:30 a.m. and the walk begins at 3 p.m. Go online and register to walk, ride, or volunteer! For more info: www.aidswalkandride.org
- The AIDS 2012: XIX International AIDS Conference is coming to the United States! The conference will be held from 22 to 27 July 2012 in Washington, DC. For more information, visit: www.aids2012.org/

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- **Newsletter written/compiled by Danielle Strauss**
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The Elevated Burden of HIV/AIDS in the Southern United States

A guest article from the work of Susan Reif, Elena Wilson, & Kathryn Whetten

Our recent report, compiled by Duke University Center for Health Policy and Inequalities Research, explores the elevated burden of HIV/AIDS in the South, focusing on a number of targeted Southern states: Alabama, Florida, Georgia, North Carolina, South Carolina, Tennessee and East Texas. Data from the CDC expose a greater impact in Southern states in terms of the proportion of the population affected in the region as well as a disproportionate share of the overall number of individuals with HIV in the US.¹

There exists both a disproportionate burden in the South of new HIV infections, new AIDS diagnoses and HIV prevalence, the known number of individuals living with HIV. The rate of new HIV infections per 100,000 population was the highest in the Southern US, indicating that this region had the greatest proportion of residents testing positive for HIV in 2009.² Additionally, 8 of the 10 US states with the highest rates of new HIV infections were located in the South.² The same proportions are true for new AIDS cases, as the South accounted for nearly half (46%) of new AIDS diagnoses in 2009, and 8 of the 10 US states with the highest rates of new AIDS diagnoses were in the South.¹ HIV prevalence was also disproportionately represented in the South, as the region accounted for 43% of people living with HIV in 2008, while only containing 37% of the population in the US.³

The targeted states in particular have been affected by the HIV epidemic in recent years and share common characteristics such as overall poorer health, high poverty rates, and a cultural climate that likely contributes to the spread of HIV and poor health outcomes for those infected. The CDC HIV surveillance statistics for the targeted states are particularly striking.¹ The targeted states have the highest rates of new HIV infections compared to other regions of the country and to the rest of the Southern US.² Additionally, 35% of new HIV infections were in the targeted states, which contain only 22% of the US population.⁴ The targeted Southern states also lead the nation in new AIDS diagnosis rates as compared to other regions of the country.¹

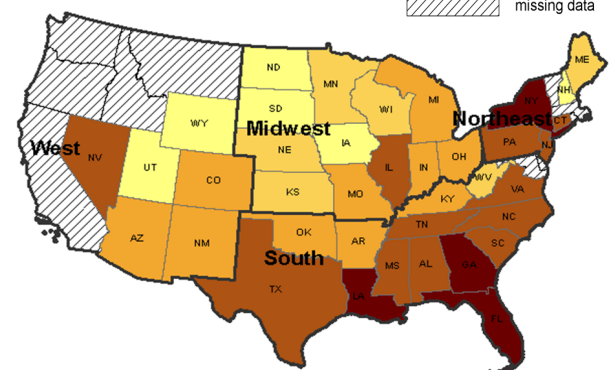
Data gathered by the CDC and other data sources indicate that the Southern US has the highest HIV-related death rates and the highest level of HIV morbidity. The Southern states account for 8 of the 10 states with the highest HIV death rates (deaths per 100,000 population) out of states that provide relevant data.⁵ When HIV case fatality rates were examined (defined as the number of HIV-related deaths among

those who are HIV-positive), results indicate that 8 of the 10 states with the highest case fatality rates were targeted Southern states.⁶ In addition, a study of morbidity among HIV-positive individuals found that individuals with HIV residing in the Southern US were significantly more likely to experience greater than one HIV-related medical event during the study period and were significantly less likely to have started antiretroviral therapy in comparison to individuals with HIV living in other geographic regions.⁷

There are a number of factors that may contribute to the impact of HIV in the South, including worse general health status, poverty, race and gender issues and cultural climate. In terms of general health status, the Southern US has some of the worst overall health rankings in the US, as 9 of the 10 states with the worst health ratings are in the South.⁸ In particular, the Southern region is also disproportionately affected by sexually transmitted diseases (STDs), which increase the likelihood of HIV transmission.⁹

Nine of the 10 states with the lowest median incomes are located in the South¹⁰ and 6 of the 10 states with the highest poverty levels are located in the South¹¹, which has been associated with lower levels of education and poor health. In the South, lower income communities have been associated with higher HIV case fatality.¹² High levels of poverty and disease also result in greater difficulty for Southern states to adequately respond to the health care and resource needs of their citizens. Examination of Medicaid spending for HIV care revealed that Southern states cover fewer individuals with HIV and pay less per individual with HIV than the national average, in addition to having the most restrictive Medicaid eligibility criteria and providing fewer Medicaid benefits than other regions in the country.¹³

New HIV Diagnosis Rate in 2009
(© Winston Gong)



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African Americans are disproportionately affected by HIV in the US in general and particularly in the South, where the majority of African Americans reside.¹⁴ A number of potential explanations for this phenomenon among African Americans have been identified, including a large proportion of African Americans with unstable housing and higher rates of incarceration among African Americans, HIV-related stigma issues, lack of trust in the government and health care systems and perceived racial discrimination in health care.¹⁵ The proportion of new HIV infections occurring among women is highest in the South and Northeast and African-American women are particularly affected in the South, as the majority of new HIV diagnoses (71%) among women in this region were among African-American women.¹⁶

The cultural conservatism in the South, particularly among the targeted states likely plays a role in perceptions and experiences of stigma among people living with HIV in this region.¹⁷ Stigma has been shown to have negative effects on preventive behaviors and health outcomes.¹⁸ HIV-related stigma has been found to be greater in rural areas, which also have additional challenges in addressing HIV due to prolonged travel to access care, lack of financial resources and insufficient supply of HIV care providers.¹⁹ The South has the highest number of individuals with HIV living in rural areas so these issues are particularly salient in this region.²⁰

HIV epidemiological and outcomes data clearly demonstrate a disproportionate effect of HIV disease in the Southern US. These effects are particularly acute among the targeted states, which also have disproportionate rates of other diseases and poverty. Characteristics such as high poverty levels, lack of adequate insurance, HIV-related stigma and the culture of conservatism in the South provide some explanation for the greater impact of HIV in this region.

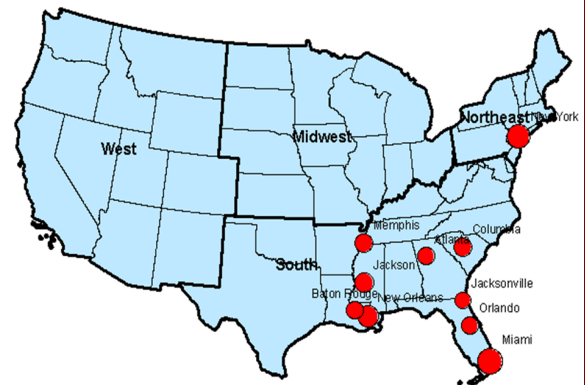
Dr. Susan Reif is a Research Associate at the Center for Health Policy and Inequalities Research at Duke University. She has a background in social work, particularly in Infectious Diseases, and health policy. She resides in Charlotte, NC, where the majority of her research is located. Her research has focused on HIV and mental health, HIV and substance use and HIV in the South.

Dr. Kathryn Whetten is the director of the Center for Health Policy & Inequalities Research, as well as Professor of Public Policy, Global Health, Nursing and Community and Family Medicine at Duke University. Her research interests include understanding of health-related issues for the poor, the disenfranchised and chronically ill; HIV/AIDS in the Deep South and in less wealthy countries.

Elena Wilson is a Project Coordinator at the Center for Health Policy and Inequalities Research at Duke University. She has a background in health behavior and health education and received her Master's in Public Health at UNC-CH. Her projects are mostly located in Charlotte, NC, where she resides. Her research interests include HIV and mental health, HIV and substance use and HIV in the South.

All three researchers have degrees from UNC-CH and have worked closely with the UNC and Duke Centers for AIDS Research. We are so grateful to have our alumni producing such important and relevant work!

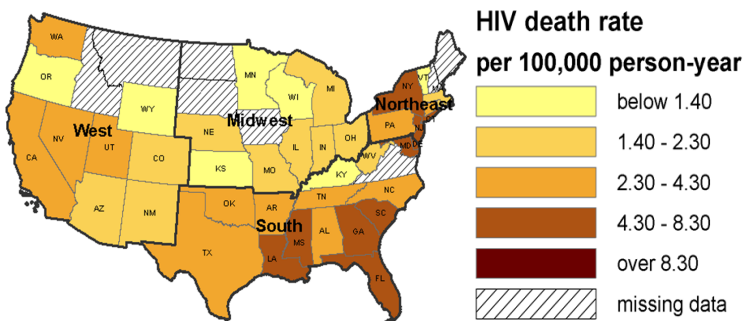
10 Cities with Highest HIV Prevalence in 2009 (© Winston Gong)



Top 10 cities in HIV prevalence (per 100,000 person)



HIV Death Rate in 2009 (© Winston Gong)



www.census.gov/popest/states/NST-ann-est.html. Accessed October, 2011.

⁵ Kaiser Family Foundation. Age-Adjusted Death Rate for HIV Disease, 2007. 2011; <http://www.statehealthfacts.org/comparemaptable.jsp?ind=527&cat=11>. Accessed October, 2011.

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⁸ United Health Foundation. American's Health Rankings. 2010; <http://www.americashealthrankings.org/measure/2010/Overall.aspx>.

⁹ Wasserheit J. Epidemiological synergy. Interelements between Human Immunodeficiency Virus infection and other sexually transmitted diseases. *Sexually Transmitted Diseases*. 1992;19(2):61-77.

¹⁰ Kaiser Family Foundation. Median Annual Household Income, 2007-2009. 2011; <http://www.statehealthfacts.org/comparemaptable.jsp?ind=15&cat=1>. Accessed November, 2011.

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¹³ Kaiser Family Foundation. Medicaid and HIV: A National Analysis. 2011; <http://www.kff.org/hivaids/upload/8218.pdf>. Accessed October, 2011.

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¹⁸ Whetten K, Reif S, Whetten K, Murphy-McMillan K. Trauma, Mental Health, Distrust, and Stigma Among HIV-Positive Persons: Implications for Effective Care. *Psychosomatic Medicine*. 2008;70:531-538.

¹⁹ Heckman T, Somlai A, Peters J, et al. Barriers to Care among Persons Living with HIV/AIDS in Urban and Rural Areas. *AIDS Care*. 1998;10:365-375.

²⁰ Centers for Disease Control and Prevention. HIV Surveillance in Urban and Nonurban areas. 2010; <http://www.cdc.gov/hiv/topics/surveillance/resources/slides/urban-nonurban/slides/urban-nonurban.pdf>. Accessed November, 2011.

You can find the full report at: http://globalhealth.duke.edu/news/2011/Research_Report_Final_Version216version.pdf
The organization that sponsored the study is the Ford Foundation for the Southern HIV/AIDS Strategy Initiative. Their website is: <http://southernaidsstrategy.org/>

¹ Centers for Disease Control and Prevention. HIV Surveillance Report, 2009. 2011; <http://www.cdc.gov/hiv/surveillance/resources/reports/2009report/>.

² Center for Disease Control and Prevention. HIV Surveillance Report 2009, Table 19. 2011; <http://www.cdc.gov/hiv/surveillance/resources/reports/2009report/>. Accessed November, 2011.

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⁴ U.S. Census Bureau PD. Table 1, Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1 2009. 2009; <http://>