

# Policies and politics that promote HIV infection in the Southern United States

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The South has the highest rates of HIV infection, HIV-related mortality, and many other adverse health outcomes in the United States. A number of social, structural, and policy factors drive the poorer health and HIV status of Southerners relative to other Americans. The South's worse health partly reflects its larger proportion of African Americans, who experience disadvantages in health in all US regions, due to poverty and racial discrimination. But after adjustment for race/ethnicity, HIV case-fatality rates for nearly all Southern states are double those of the state with the lowest rate. Challenges to HIV prevention and care in the region include its large rural population combined with a shortage of providers with expertise in HIV treatment, lingering distrust of the healthcare system, homophobia, and stigma toward people with HIV infection. Moreover, government policies, facilitated by restrictions on voting, often reduce access to HIV prevention and care through Medicaid, antiretroviral drugs, sex education, and syringe exchange programs. Many Southern states have pursued – and continue to pursue – policies that impede earlier detection and treatment. These policies directly and indirectly fuel the increased HIV incidence, morbidity, and mortality that characterize the region and arguably represent a human rights violation.

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The United States is characterized by geographic disparities in health, including HIV infection. These disparities are greatest with respect to the South, a heterogeneous region that comprises 17 states and Washington, DC, and is home to 37% of the nation's population [1]. The South's worse health outcomes are not restricted to HIV infection. The region has the highest rates of chlamydia, gonorrhea, and syphilis [2]; obesity [3], age-adjusted all-cause mortality [4], and mortality due to heart disease, diabetes and cancer [3].

A number of key social, structural, and policy factors drive the poorer health and HIV status of Southerners [5,6]. The South is the poorest of the nation's four regions, with the highest percentage of people living in poverty areas and the lowest median household incomes [7]. Southerners are less likely to have health insurance [8] – a reality that heightens the salience of the current debate concerning increases in healthcare coverage through Medicaid expansion and implementation of The Affordable Care Act. This article reviews the epidemiology of

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HIV infection in the South and key laws and policies that contribute to its HIV patterns.

## Epidemiology

The South's contribution to US AIDS cases rose from second lowest in 1981 (15.8%) to highest (44.6%) by 2010 [9]. Almost twice as many adults and adolescents were diagnosed with AIDS in the South in 2010 as in the Northeast, the region with the second highest number of reported AIDS cases [10]. Among both men and women, and in all types of populations (urban, suburban, and rural), the South experienced the highest HIV infection rates in 2010 [9]; 8 of the 10 states with the highest rates were in the South [10]. Moreover, rates of new HIV diagnoses among people aged 13–29 years were highest in the South [9], suggesting that its epidemic is the fastest growing.

Racial disparities in HIV infection observed in the United States as a whole also prevail in the South. Indeed, the region's increased HIV case burden relates in part to its larger African American population. Racial disparities in HIV infection are due to complex factors along with decreased access to medical care and increased rates of sexually transmitted infections, which facilitate HIV transmission. Macroeconomic and social contextual factors, including neighborhood poverty, racial discrimination, and disproportionate incarceration of Black men, increase the spread of HIV among African Americans. These determinants are all prevalent in the South, where they alter sexual networks and promote HIV transmission [11,12].

In the South, as in the rest of the nation, HIV disproportionately affects men who have sex with men (MSM). It is estimated that overall 1 in 14 MSM in the region are living with HIV – compared to 1 in 496 heterosexual men (relative risk 36.1) – and HIV rates among Black MSM are at least four times those among White MSM [13]. The rate of new diagnoses among Black women is more than 14 times that of White women [9].

## HIV and other health outcomes are worse in the South

The South has the highest age-standardized HIV mortality rates (based on general population denominators) [14] and the highest age-standardized HIV case-fatality rates (death rates among people with HIV), which reflect healthcare and other services for people with HIV [14]. Even after adjustment for age, calendar year, race/ethnicity, and sex, the case-fatality rates for all Southern states examined, except Virginia, were twice as high as for Colorado, the state with the lowest rate [14]. A cohort study of more than 2000 North Americans diagnosed

with acute and recent HIV infection during the HAART era revealed that both White and non-White Southerners were significantly more likely to have at least one HIV-related event than either Whites or non-Whites from all other regions [15], consistent with Southerners' significantly lower likelihood of beginning antiretroviral therapy.

Better access to health insurance and healthcare are associated with better performance on standard healthcare quality indicators (e.g. adults with a usual source of care, hospitalized patients' receipt of recommended care for acute myocardial infarction and pneumonia) [16]. But many Southern states score lower on both access and quality of care. Notably, in states ranking low on multiple indicators of health equity, even people who are higher-income, insured, and nonminority tend to have lower quality of care [16].

## The South faces unique challenges

The Southern AIDS Coalition, a consortium of public health practitioners, notes various challenges to HIV prevention and treatment in the South [17]. Large portions of the South are suburban or rural [18], requiring many patients to travel long distances for care. The region suffers from a shortage of providers, especially those with expertise in treatment of HIV infection; expert providers yield better health outcomes [19]. Healthcare infrastructure is poor in some areas, with limited sexually transmitted infection (STI) and HIV treatment services. Past and ongoing inequities have bred distrust of the healthcare system. Many areas are marked by 'aggressive homophobia' and stigma toward people with HIV infection. The region's large influx of Latino immigrants has been greeted in some areas by anti-immigrant policies and legislative initiatives that decrease immigrants' access to HIV prevention and treatment [17]. These and other factors help delay diagnosis of HIV infection and decrease linkage to treatment that could decrease risks of mortality and onward transmission of HIV.

## Laws and policies affect HIV prevention and care

Several key policies and laws that affect HIV prevention and treatment vary among states throughout the nation [20]. Low-income people who lack private health insurance and meet certain conditions may qualify for Medicaid, the federal and state insurance program. But Medicaid income eligibility criteria are more restrictive in the South – and dramatically so in Arkansas, Louisiana, and Alabama [21]. People with HIV infection must also

meet a disability requirement. Even for those who qualify, benefits tend to be lower in some Southern states [22].

Uninsured HIV-infected persons not eligible for Medicaid may qualify for assistance from the AIDS Drug Assistance Program (ADAP), created through the Ryan White Act to make available antiretrovirals and other essential drugs for uninsured/under-insured people with incomes above the Medicaid cut-off. Each state administers its own ADAP and largely determines eligibility standards and benefits. Many Southern states contribute less than the national average of 16% of the state's ADAP funding; some contribute nothing [23]. During the recent recession, rising unemployment simultaneously reduced tax revenues and increased demand for ADAP. In response, many states cut benefits and capped enrollment, leaving several thousand people waiting for antiretroviral therapy. In 2011, at the height of the crisis, more than 90% of the 9298 people on waiting lists lived in Southern states [24]. Delayed therapy can be expected to increase morbidity, mortality, and HIV transmission to others [25].

Although the South has high rates of teen sexual activity and the highest rates of HIV, STIs, and teen pregnancy [26], many students do not receive comprehensive, evidence-based HIV and sex education [20]. Five of the 10 states (Arkansas, Florida, Louisiana, Texas, and Virginia) require neither sex education nor HIV education [27]. African Americans in a focus group study in rural North Carolina consistently identified public schools' sex education policies and practices as major barriers in preventing HIV infection among youth in their communities [28]. Despite the US Supreme Court's 2003 ruling that antisodomy laws are unconstitutional [29], at least six Southern states ([30–35]) still outlaw sodomy, possibly hindering interventions that prevent HIV transmission through anal intercourse.

Data on syringe exchange programs are incomplete, but compared to the rest of the nation, Southern states are less likely to have such programs [36], whose effectiveness in decreasing HIV and hepatitis C virus (HCV) transmission has been well documented both in and outside the United States [37–39].

## Response to healthcare reform

The scope and potential impact of The Affordable Care Act make it the single biggest structural intervention for HIV prevention and care in the United States because it would give healthcare coverage to so many currently uninsured and underinsured people. Nevertheless, Florida and 24 other states, including eight in the South, brought suit challenging the Act's constitutionality. The US Supreme Court's ruling on The Affordable Care Act allowed states to opt out of the Medicaid expansion provision. Consequently, the number of currently

uncovered people who will receive Medicaid hinges on the decisions of each state's governor and legislature. Although the federal government would pay the entire cost of insuring new Medicaid recipients for the first 3 years and 90% thereafter, a number of states – including many in the South – still refuse to expand their Medicaid coverage [40–47].

State Medicaid expansion has been associated with decreased rates of delayed care and significant reductions in mortality – especially among nonwhites and residents of poorer counties, the populations most affected by HIV [48]. A recent analysis of 14 states that opted out of Medicaid expansion revealed that 3.6 million fewer people would be insured, federal 'transfer payments to those states could decrease by \$8.4 billion, and state spending on uncompensated care could increase by \$1 billion in 2016, compared to what would be expected if all states participated in the expansion' [49]. These states' refusal to expand Medicaid has been projected to result in the loss of 19 000 more lives than if these states were to expand Medicaid [49].

These laws and policies broadly impact HIV prevention and care, and because they are typically the province of elected officials, voting rights can affect HIV outcomes. One well studied voting rights policy is felon disenfranchisement. A number of the states with the most restrictive felon voting laws are in the South. In three Southern states (Florida, Kentucky, and Virginia) more than 20% of African Americans were disenfranchised as of 2010 [50]. Sociologists have demonstrated, using conservative assumptions, that in recent years felon disenfranchisement has played a decisive role in US Senate elections and at least one Republican presidential victory [51,52]. Researchers have noted that felon disenfranchisement could result in 'inequitable public policies that differentially allocate resources for health' [53].

Moreover, during 2013 alone a number of states, including many in the South, introduced laws that could conceivably change the composition of the electorate, such as redistricting, purging voter rolls, reducing early voting, restricting voter registration drives, requiring proof of citizenship to vote, and requiring a government-issued photo identification to cast a ballot. Many analysts maintain that almost all of these policies will decrease voting by African Americans and Hispanics, the populations most affected by HIV and other health disparities.

In conclusion, the HIV epidemic in the Southern United States illustrates the inextricable linkage of social, political, and biological processes [54]. Poverty and deficits in the health system infrastructure contribute to the South's HIV epidemic, but these and other determinants themselves reflect entrenched political and policy choices that are not in the best interests of public health.

Many Southern states have pursued – and continue to pursue – policies that directly and indirectly fuel the increased HIV incidence and related morbidity and mortality that characterize the region. Policies that impede earlier detection and treatment will inevitably facilitate further spread of HIV and arguably compromise human rights. The profoundly adverse impact of these policies mandates their urgent revision.

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## References

- Mackun PJ, Wilson S. Population distribution and change: 2000 to 2010. In 2010 census briefs. Washington, D.C.: United States Bureau of the Census; 2011.
- Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2011. Atlanta, Georgia: US Department of Health & Human Services; 2012.
- Kaiser Family Foundation State Health Facts. Health status. Washington, D.C.: Kaiser Family Foundation; 2013. <http://kff.org/state-category/health-status/>. [Accessed 13 June 2013]
- Minino AM, Murphy SL. **Death in the United States, 2010.** *NCHS Data Brief* 2012;1–8No. 99.
- Adimora AA, Schoenbach VJ, Doherty IA. **HIV and African Americans in the southern United States: sexual networks and social context.** *Sex Transm Dis* 2006; **33**:S39–S45.
- Reif SS, Whetten K, Wilson ER, McAllaster C, Pence BW, Legrand S, et al. **HIV/AIDS in the southern USA: a disproportionate epidemic.** *AIDS Care* 2014; **26**:351–359.
- DeNavas-Walt C, Proctor BD, Smith JC, Bureau USC. Current Population Reports, P60-243. In Income, poverty, and health insurance coverage in the United States: 2011. Washington, DC: United States Government Printing Office; 2012.
- Kaiser Family Foundation State Health Facts. Health insurance coverage of the total population. Washington, D.C.: Kaiser Family Foundation; 2013. <http://www.statehealthfacts.org/>. [Accessed 25 March 2013]
- Prejean J, Tang T, Irene Hall H. **HIV Diagnoses and prevalence in the southern region of the United States, 2007–2010.** *J Commun Health* 2013; **38**:414–426.
- Centers for Disease Control and Prevention. HIV surveillance report. In Diagnoses of HIV infection among adults and adolescents, by sex and transmission category, 2010: 46 states and 5 U.S. dependent areas. Atlanta, Georgia: US Department of Health and Human Services. 2012. pp. 1–79.
- Adimora AA, Schoenbach VJ. **Social context, sexual networks, and racial disparities in rates of sexually transmitted infections.** *J Infect Dis* 2005; **191** (Suppl 1):S115–S122.
- Adimora AA, Schoenbach VJ. **Contextual factors and the black-white disparity in heterosexual HIV transmission.** *Epidemiology* 2002; **13**:707–712.
- Lieb S, Prejean J, Thompson DR, Fallon SJ, Cooper H, Gates GJ, et al. **HIV prevalence rates among men who have sex with men in the southern United States: population-based estimates by race/ethnicity.** *AIDS Behav* 2011; **15**:596–606.
- Hanna DB, Selik RM, Tang T, Gange SJ. **Disparities among US states in HIV-related mortality in persons with HIV infection, 2001–2007.** *AIDS* 2012; **26**:95–103.
- Meditz AL, MaWhinney S, Allshouse A, Feser W, Markowitz M, Little S, et al. **Sex, race, and geographic region influence clinical outcomes following primary HIV-1 infection.** *J Infect Dis* 2011; **203**:442–451.
- Cantor JC, Belloff D, Schoen C, How SKH, McCarthy D. *Aiming higher: results from a state scorecard on health system performance.* New York, NY: The Commonwealth Fund; 2007.
- Southern AIDS Coalition. Southern states manifesto: update 2012 policy brief and recommendations. Birmingham, AL: Southern AIDS Coalition; 2012.
- United States Bureau of the Census. Growth in Urban Population Outpaces Rest of Nation. In Census bureau reports. Washington, D.C.; 2012.
- Kitahata MM, Koepsell TD, Deyo RA, Maxwell CL, Dodge WT, Wagner EH. **Physicians' experience with the acquired immunodeficiency syndrome as a factor in patients' survival.** *N Engl J Med* 1996; **334**:701–706.
- Human Rights Watch. Southern exposure: human rights and HIV in the southern United States. New York, NY; 2010. pp. 1–23.
- Heberlein M, Brooks T, Alker J, Artiga S, Stephens J. *Getting into gear for 2014: findings from a 50-state survey of eligibility, enrollment, renewal, and cost-sharing policies in Medicaid and CHIP, 2012–2013.* Washington DC: Georgetown Center for Children and Families, Kaiser Commission on Medicaid and the Uninsured: The Henry J. Kaiser Family Foundation; 2013.
- Kates J. Medicaid and HIV: a national analysis. Washington, D.C.: The Kaiser Family Foundation; 2011.
- National Alliance of State & Territorial AIDS Directors (NASTAD), Lefert A, McCloskey E, Pund B. National ADAP monitoring project: annual report, module one. Washington, D.C.: National Alliance of State and Territorial AIDS Directors; 2013.
- National Alliance of State & Territorial AIDS Directors (NASTAD). ADAP watch. Washington, D.C.: National Alliance of State and Territorial AIDS Directors; 2011.
- Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, et al. **Prevention of HIV-1 infection with early antiretroviral therapy.** *N Engl J Med* 2011; **365**:493–505.
- Centers for Disease Control and Prevention. **Youth risk behavior surveillance: United States, 2009.** *MMWR Morb Mortal Wkly Rep* 2010; **59**:1–141.
- Guttmacher Institute. Sex and STD/HIV education, state policies in brief. Washington, D.C.: Guttmacher Institute; 2012. [http://www.guttmacher.org/statecenter/spibs/spib\\_SE.pdf](http://www.guttmacher.org/statecenter/spibs/spib_SE.pdf). [Accessed 25 March 2013]
- Lloyd SW, Ferguson YO, Corbie-Smith G, Ellison A, Blumenthal C, Council BJ, et al. **The role of public schools in HIV prevention: perspectives from African Americans in the rural south.** *AIDS Educ Prev* 2012; **24**:41–53.
- Lawrence v. Texas*, 539 U.S. 558 (2003).
- Miss. Code Ann. § 97-29-59 2012.
- Ala. Code § 13a-6-65 1977.
- S.C. Code 16-15-60 (1962).
- Fla. Stat. Ann. § 800.02 1917.
- N.C. Gen. Stat. Ann. § 14-177 1994.
- Okl. Stat. Ann. tit. 12A § 21-886 2007.
- The Foundation for AIDS Research (AMFAR). Syringe Exchange Program in the United States 2011. Washington, D.C.; 2012.

37. Dutta A, Wirtz AL, Baral S, Beyrer C, Cleghorn FR. **Key harm reduction interventions and their impact on the reduction of risky behavior and HIV incidence among people who inject drugs in low-income and middle-income countries.** *Curr Opin HIV AIDS* 2012; **7**:362–368.
38. Vlahov D, Junge B. **The role of needle exchange programs in HIV prevention.** *Public Health Rep* 1998; **113 (Suppl 1)**:75–80.
39. Gibson DR, Flynn NM, Perales D. **Effectiveness of syringe exchange programs in reducing HIV risk behavior and HIV seroconversion among injecting drug users.** *AIDS* 2001; **15**:1329–1341.
40. Barrow B. Jindal takes stage in GOP initiative against health law. In *The Times-Picayune*. Baton Rouge, Louisiana: Advance Publications; 2012.
41. Cornatzer M. McCrory says state not ready for Medicaid expansion. In *News and observer*. Raleigh, North Carolina; 2013. 12 February 2013 <http://www.newsobserver.com/2013/02/12/2673891/mccrory-says-state-not-ready-for.html#storylink=cpy> [Accessed 25 March 2013]
42. Beyerle D. Bentley: no insurance exchange, Medicaid expansion. In *The Gadsden times*. Montgomery, Alabama; 2012. 13 November 2012 <http://www.gadsdentimes.com/article/20121113/NEWS/121119936/1067?Title=Bentley-No-insurance-exchange-Medicaid-expansion-> [Accessed 25 March 2013]
43. Garrett R. Texas GOP leaders still resist federal healthcare law: others try to expand coverage. In *Dallas morning news*. Austin, Texas; 2012. 11 November 2012 <http://www.dallasnews.com/news/politics/headlines/20121111-texas-gop-leaders-still-resist-federal-health-care-law-others-try-to-expand-coverage.ece> [Accessed 25 March 2013]
44. Greene W. Fallin rejects healthcare exchange, Medicaid expansion. In *Tulsa world*. Tulsa, Oklahoma; 2012. November 19, 2012 [http://www.tulsaworld.com/news/article.aspx?subjectid=297&articleid=20121119\\_297\\_0\\_GovMar868704&allcom=1](http://www.tulsaworld.com/news/article.aspx?subjectid=297&articleid=20121119_297_0_GovMar868704&allcom=1) [Accessed 25 March 2013]
45. Holleman J. With election over, SC healthcare debate takes new tone. In *The state*. Columbia, South Carolina; 2012. 9 November 2012 <http://www.thestate.com/2012/11/09/2512806/with-election-over-sc-healthcare.html#.UKE6W4YWInU#story-link=cpy> [Accessed 25 March 2013]
46. Salter S. State's annual Medicaid battle is different this session. In *Clarion ledger*. Jackson, Mississippi; 2013. 12 March 2012 <http://www.clarionledger.com/article/20130313/OPINION/303130010/State-s-annual-Medicaid-battle-different-session> [Accessed 25 March 2013]
47. Wingfield K. Deal: no Medicaid expansion for Georgia. In *Atlanta journal constitution*. Atlanta, Georgia; 2012. 28 August 2012 <http://blogs.ajc.com/kyle-wingfield/2012/08/28/deal-no-medicare-expansion-for-georgia/> [Accessed 25 March 2013]
48. Sommers BD, Baicker K, Epstein AM. **Mortality and access to care among adults after state Medicaid expansions.** *N Engl J Med* 2012; **367**:1025–1034.
49. Price CC, Eibner C. **For States that opt out of medicaid expansion: 3.6 million fewer insured and \$8.4 billion less in federal payments.** *Health Affairs* 2013; **32**:1030–1036.
50. Uggen C, Shannon S, Manza J. State-level estimates of felon disenfranchisement in the United States, 2010. Washington, D.C.: The Sentencing Project; 2012.
51. Uggen C, Manza J. **Democratic contraction? Political consequences of felon disenfranchisement in the United States.** *Am Sociol Rev* 2002; **67**:777–803.
52. Manza J, Uggen C. **Punishment and democracy: disenfranchisement of nonincarcerated felons in the United States.** *Perspect Politics* 2004; **2**:491–505.
53. Purtle J. **Felon disenfranchisement in the United States: a health equity perspective.** *Am J Public Health* 2013; **103**:632–637.
54. Krieger N. **Theories for social epidemiology in the 21st century: an ecosocial perspective.** *Int J Epidemiol* 2001; **30**:668–677.