

## Structural Violence and Racial Disparity in HIV Transmission

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*Abstract:* Among women of color in the United States, infection with the human immunodeficiency virus (HIV) is rising. Most of the research on this topic, however, has focused on individual-level risk factors, which do not fully explain racial or ethnic differences in infection rates. This article uses structural violence as a conceptual framework to examine ecological-level risk factors leading to disparate rates of heterosexually transmitted HIV among women of color in Syracuse, New York. Three ecological pathways to disproportionate infection are discussed: community rates of infection, concurrent partnerships, and increased vulnerability. The discussion of the pathways considers the following macro-level risk factors: disproportionate incarceration rates of African American men, residential segregation, gang turf, constraints on access to sexually transmitted disease services, an African American sex ratio in which women outnumber men, social norms stigmatizing homosexuality, and commercial sales of douching products. The authors argue that health care providers and policy analysts must address ecological-level risk factors for HIV transmission in underserved communities.

*Key words:* HIV/AIDS, health disparities, African Americans, Latinos/Hispanics, sex ratios, health ecology, structural violence.

According to the Centers for Disease Control and Prevention,<sup>1</sup> human immunodeficiency virus (HIV) infections are rising dramatically among women of color in the United States, more quickly than among white women. Disparate HIV rates among African American women and Latinas, compared with

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their white counterparts, are one example of a pattern of inadequate health care and lower survival from a variety of medical conditions in poor and underserved communities.<sup>2,3</sup> A growing body of literature addresses racial and ethnic disparities in health and survival.<sup>4,5</sup> One of the shortcomings in this research is the overemphasis of individual-level risk factors combined with scant emphasis on macro-level factors.<sup>6,7</sup> Although individual-level risk factors are important, they only partially explain the disparities in health and survival among many racial and ethnic minority groups.<sup>8</sup>

Community health texts point to the trilogies of person-place-time and host-agent-environment to explain the transmission of diseases. However, place and environment often receive too little attention. Public health's predominant focus on individual lifestyle risk factors in health behavior largely ignores the institutional disadvantages constraining healthy behavior among different racial and ethnic groups.<sup>9</sup> This orientation, sometimes called *biomedical individualism*,<sup>10-12</sup> has influenced the questions that public health researchers ask and how studies are designed in order not to include ecological-level analyses in their research. Such limited attention to ecological factors in turn leads public health care providers and health policy analysts to focus too strongly on the individual and not strongly enough on the community.

## Structural Violence

Structural violence is a construct first discussed by Galtung,<sup>13</sup> and later described by Weigert<sup>14</sup> as "preventable harm or damage . . . where there is no actor committing the violence or where it is not meaningful to search for the actor(s); such violence emerges from the unequal distribution of power and resources or, in other words, is said to be built into the structure(s)" (p. 431). Structural violence encompasses institutional racism, disease-ridden environments, stigmatizing social norms, and barriers preventing underserved populations from getting adequate health care. A search for actors to blame for preventable harm often misses macro-level entities such as state and federal bureaucracies, health institutions, social environments, and social and health policies that form the context in which disproportionate illness and death occur.

Gorman<sup>15</sup> uses an ecological approach to explain how crack houses in New York and gay bathhouses in San Francisco served to amplify HIV risk in each area and consequently why HIV rates were higher among injection drug users on the East Coast but among gay men who have sex with men on the West Coast. Farmer<sup>16</sup> concludes that structural violence helps to explain the increase in HIV in Haiti. Wallace and Fullilove<sup>17</sup> report that HIV rates in the Bronx increased because of housing and community disruption following urban renewal. Aral<sup>18</sup> integrates social structure variables including health and public policies, environmental influences such as racial segregation, and individual-level behaviors such as number of sex partners and drug use behavior to explain changes in HIV infection rates.

In the remainder of this article, we draw on these groundbreaking ecological studies to analyze the mechanisms possibly leading to disproportionately higher rates of heterosexually transmitted HIV among women of color. This analysis uses data from Syracuse, New York, as a case study to describe ecological factors that influence increases in HIV transmission. These factors include the transmission of HIV and other sexually transmitted and bloodborne diseases in correctional facilities,

disproportionate incarceration of people of color, constrained sexual networks, limited sexually transmitted disease (STD) services, population demographics, homophobia, and the marketing of douching products. We suggest three pathways, which may later be tested, to account for the disproportionate degree to which heterosexual HIV transmission affects women in poor and underserved communities in the U.S. The pathways are Increased Community Rates of Infection, Concurrent Partnerships, and Increased Vulnerability to HIV.

### **Individual-Level Risk Factors for Heterosexual HIV Transmission by Race and Ethnicity**

For individual-level risks to give rise to wide disparities in heterosexual HIV infection in women, the prevalence of sexual risk-taking would have to differ significantly by race and ethnicity. To investigate this possibility, Susheela and Darroch<sup>19</sup> examined national longitudinal data by race and ethnicity to determine the ages at which adolescent females are sexually active. They conclude that within the 15- to 17-year-old age group, slightly over 25% more African American and Hispanic girls than non-Hispanic white girls are sexually active. By age 18, the differences narrow to 10% or less, with Hispanic women reporting less sexual activity than non-Hispanic white women.

Lane<sup>20</sup> investigated heterosexual relationships in a national sample of 13,570 teenage high-school students. The author found that more than 50% of the students reported two or more sexual partners during the previous 18 months, that the difference between non-Hispanic white and African American girls was only 2%, and fewer Hispanic girls than either non-Hispanic white or African American girls reported multiple partners.

Wyatt, Myers, Williams, and associates<sup>21</sup> interviewed 490 HIV-positive and HIV-negative non-Hispanic white, African American, and Latina women and found that race and ethnicity were not associated with HIV risk behavior. In three previous community-based studies, Wyatt<sup>22</sup> documented the reported sexual practices of non-Hispanic white and African American women in Southern California; non-Hispanic white women reported having had more partners and a higher proportion of oral, anal, and group sex than African American women and Latinas. These studies suggest only modest differences among racial/ethnic groups in women's sexual-risk behavior, with the largest difference being the age at which sexual activity begins; thus, they do not clearly explain why the HIV rates among women from different racial and ethnic groups are so different.

### **Macro-Level Risk Factors in Syracuse, New York**

**HIV/AIDS and STDs in Onondaga County.** Onondaga County is the tenth most populous county in New York State. Syracuse is the largest city in the county and is the fifth largest city in New York State. According to the 2000 Census, Onondaga County has 458,336 residents, with 146,435 living in the city of Syracuse. Non-Hispanic whites make up 84.7% of county residents, African Americans 9.4%, Latinos 2.4%, Asians 2.1%, and Native Americans 0.9%.<sup>23</sup> The majority of Onondaga County African Americans (87%) live in the city of Syracuse, where they constitute

**Table 1.****AIDS, HIV, AND STD DIAGNOSES BY RACE/ETHNICITY IN ONONDAGA COUNTY**

	Non-Hispanic		
	White	African American	Latino
Cumulative AIDS			
Actual cases ( <i>N</i> )	521	290	67
AIDS per 100,000 population	122.4	635.6	742.3
Cumulative AIDS cases in females, actual cases ( <i>N</i> )	62	88	15
AIDS diagnoses per 100,000 female population	30.6	384.5	267.6
Cumulative AIDS cases in females with risk factor of heterosexual contact, actual cases ( <i>N</i> )	59	44	9
HIV prevalence among pregnant women, 2000	0.09% (4 positive of 4,457 tested)	0.41% (4 positive of 983 tested)	0.61% (1 positive of 169 tested)
<i>Chlamydia</i> infections, 2000	233 (55/100,000)	378 (859/100,000)	Data not available
Gonorrhea infections, 2000	77 (18/100,000)	323 (734/100,000)	Data not available

Source: Onondaga County Health Department.

about 25.3% of the city's population. In this article, we examine macro-level factors in heterosexually transmitted HIV in Syracuse; however, in some cases only county-level data are available. Therefore, some of the analyses present data for all of Onondaga County, not Syracuse specifically.

Since 1996, the cumulative number of AIDS cases in Onondaga County has risen 51% among African Americans and Latinos, whereas for non-Hispanic whites the cumulative number of AIDS cases has risen 30%.<sup>24</sup> In Onondaga County, African American women have been diagnosed with AIDS at 12.5 times and Latinas at nearly 9 times the rate of non-Hispanic white women. Among pregnant women in Onondaga County, African American women and Latinas have HIV infection rates that are four or more times higher than the rates for non-Hispanic white pregnant women. Although, historically, more women of color in Onondaga County were infected with HIV because of injection drug use than because of other modes of transmission, heterosexual exposure is now the fastest-growing risk category among women of color. Moreover, the risk factors leading to these increased rates of heterosexual transmission among women of color are not well understood.

**Table 2.****THE INCIDENCE OF *CHLAMYDIA* AND GONORRHEA BY AGE IN ONONDAGA COUNTY IN YEAR 2000**

Age (in years)	Chlamydia		Gonorrhea	
	In Women <i>n</i> (%)	In Men <i>n</i> (%)	In Women <i>n</i> (%)	In Men <i>n</i> (%)
<15	36 (3.1)	6 (1.7)	10 (2.7)	6 (2.5)
15–19	527 (45.0)	94 (26.4)	129 (35.6)	50 (21.2)
20–24	408 (34.8)	146 (41.0)	118 (32.6)	110 (46.6)
25–29	127 (10.8)	68 (19.1)	42 (11.6)	41 (17.4)
>30	74 (6.3)	42 (11.8)	63 (17.4)	29 (12.3)
Total	1,172 (100.0)	356 (100.0)	362 (99.9)	236 (100.0)

Source: Onondaga County Health Department.

We can look at STD rates to get an idea of potential future trends of the HIV epidemic. *Chlamydia* is 15.6 times more prevalent among African Americans in Onondaga County than among white residents; gonorrhea is 40.8 times higher.<sup>25</sup> As Table 2 illustrates, STDs peak among teen females aged 15–19 years, for both *Chlamydia* and gonorrhea, suggesting that heterosexual HIV transmission among women of color is likely to affect young women greatly.

**HIV in correctional facilities.** Acquired immunodeficiency syndrome (AIDS) has become the second leading cause of death in U.S. prisons.<sup>25</sup> Health care services in prisons to care for those with HIV/AIDS have been described as inadequate.<sup>26</sup> Seroprevalence rates vary between correctional systems, but nationwide estimates are that the inmate population is at least five times more likely to be infected with HIV than the general population.<sup>27</sup> Inmates in the New York State system have the highest rate of HIV among inmates nationwide, with over 10% of the male and 20% of the female inmates infected. It is estimated that 20% to 26% of all people living with HIV in 1997 spent time as inmates that year.<sup>28</sup>

Substantial evidence suggests that many inmates become infected while incarcerated.<sup>29,30</sup> Only a few studies, however, have assessed the incidence of HIV seroconversion occurring in correctional facilities. In 1998, Brewer, Vlahof, Taylor, and colleagues calculated a rate of 4.15 HIV infections per 1,000 person-years in prison.<sup>31</sup> In 1990, the Center for Disease Control and Prevention conducted a study, which was not released to the public, on HIV seroconversion in the Illinois State Correction facility. The magazine *Mother Jones*, through a Freedom of Information Act obtained and published the results of this study. The results indicate a rate of 3 HIV seroconversions per 1,000 person-years, which is 10 times greater than the state non-inmate rate during that time period.<sup>32</sup> Studies of smaller, less-representative populations found seroconversion rates that were much higher; for

example, the rate of new HIV infections among 1,309 inmates in Illinois was 25 per 1,000 person-years of prison.<sup>33</sup> Not all studies on inmate populations, however, found evidence of elevated HIV seroconversion. Horsburgh, Jarvis, McArthur, and associates reported 1 infection per 604 prison-years (for a rate of 1.66 per 1,000 prison-years), but cautioned that the inmate could have seroconverted before being incarcerated.<sup>34</sup> HIV/AIDS testing in correctional facilities could be enhanced by changing the type of test used. Bauserman, Ward, and Eldred report that many African American men in their study of prison inmates in Maryland were willing to undergo HIV testing if the prison health officials used oral testing methods.<sup>35</sup>

The risk factors leading to the transmission of sexual and bloodborne infections occur frequently in correctional facilities. An estimated 7% to 12% of the inmates across several studies report being raped while incarcerated; inmates who had been raped reported that it occurred an average of nine times during their incarceration.<sup>36</sup> Moreover, prisoners have been found to trade sex for drugs or other items, or to engage in consensual/companionship sexual behavior, which is more often than not unprotected;<sup>37</sup> an estimated 90% of the sex in correctional facilities occurs without the use of condoms.<sup>38</sup> In fact, less than 1% of all jails and prisons in the U.S. allow inmates access to condoms.<sup>39</sup> The Federal Bureau of Prisons provides a conservative estimate of 30% of federal inmates engaging in homosexual activity while incarcerated. A case-control study of formerly incarcerated males reported that 23% of the men with HIV, and 9% of the men without HIV, claimed to have had anal sex while incarcerated.<sup>40</sup>

Injecting drugs and tattooing are also potential routes of HIV transmission among inmates. With respect to intravenous drug use, the Office of National Drug Control Policy concludes that roughly 25% of all inmates entering U.S. prisons have injected drugs, which puts them at risk for HIV as well as hepatitis B and C infection.<sup>41</sup> Some of these inmates continue to inject drugs while in prison, sharing syringes and drugs purchased on the underground prison market.<sup>42</sup> Tattooing, which a former Onondaga County inmate reported being performed with metal guitar strings, was reported by 48% of inmates in a CDC study.<sup>43</sup>

The HIV seroprevalence of inmates potentially affects the larger communities to which the inmates return when they are released from prison. Among HIV-infected African American women living in the South who had fewer than 10 lifetime sexual partners and could identify no high-risk behavior, one quarter reported that one of their last three sexual partners had been incarcerated for more than 24 hours.

**Disproportionate incarceration by race and ethnicity.** The disproportionate representation of African Americans in the criminal justice system has been well documented.<sup>44,45</sup> In New York State, African Americans make up 16% of the population but suffer 43% of arrests and make up 51% of people in state prisons.<sup>46</sup> In Onondaga County, African Americans make up 52% of all people sentenced to jail, and 61% of all people sentenced to state prison.<sup>47</sup>

**Constrained sexual networks.** Social or geographical isolation of human networks can result in the maintenance of elevated rates of sexually transmitted infections; socially isolated individuals choose partners from within their network and likely transmit infections among fellow members.<sup>48-50</sup> In Syracuse, substantial

*de facto* racial segregation concentrates the majority of African American residents in the near-west and near-south sides of the city. Racial prejudice severely limits upward mobility, thus promoting residential segregation, which in turn limits mate selection. Moreover, the prevalence of gangs, which threaten harm to people who enter a turf in which they do not reside, further limits the ability of teens and young adults to initiate relationships outside of a few narrowly defined neighborhoods.

**Limited STD services.** Fiscal constraints on STD services is another potential problem. There is only one public STD clinic in Onondaga County, which provides services only 11 hours per week.\* A survey conducted by this STD clinic found that patients often had to wait 7–10 days from the onset of symptoms before receiving effective treatment; many continued to have unprotected sex while waiting to be treated, thus exposing other people to STDs. Many of the patients reported that they went to local emergency departments seeking treatment and were given written prescriptions but could not afford the medication. Barriers to access for STD treatment greatly increase the likelihood of further STD transmission in the community. If an individual with an untreated STD is exposed to HIV, the risk of transmission of the virus is increased two-to five-fold; there is also evidence that expanding access to STD services may reduce the rate of heterosexual HIV seroconversion.<sup>51–53</sup>

**Population demographics.** The sex ratios of the non-Hispanic white and African American populations in Syracuse have been calculated using data from the 2000 census and are noted in Figure 1. There are substantially more African American women than African American men in Syracuse. Between the ages of 25 and 29, for example, for every 100 African American men there are 150 African American women. If African Americans had the same female-to-male sex ratio as their non-Hispanic white counterparts, there would be approximately 1,114 more African American men in Syracuse between the ages of 20 and 59 (an increase of 12%).

To explain the sex ratios in Syracuse, we looked at population change, which typically takes place through birth, death, and migration. With respect to birth rates, slightly more male babies than female babies are born each year in all populations; however, males in most age groups have higher death rates than females. Male life expectancy is about 7 years shorter than female life expectancy in most populations.<sup>54</sup> The African American and non-Hispanic white sex ratios in Syracuse do not differ greatly until age 20. With respect to premature male death rates, vital statistics records for Onondaga County indicate that, in 1999, 41% of African American male deaths occurred before age 54, compared with only 13.4% of non-Hispanic white male deaths. With respect to migration, we could find no evidence that African American men leave Syracuse with greater frequency than African American women for work, for school, to reside in other localities, or for military service. We conclude that the most frequent type of nonvoluntary migration away from Syracuse disproportionately affecting African American men is incarceration.

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\* The Onondaga County Health Department STD Clinic hours are as follows: Mondays, 9:00 AM to 10:30 AM and 1:00 PM to 3:00 PM; Tuesdays, 1:00 PM to 3:00 PM; Wednesdays, Closed; Thursdays, 12:30 PM to 4:30 PM; and Friday, 9:00 AM to 10:30 AM. The clinic is also open on Wednesdays from 9:00 AM to 11:00 AM and from 1:00 PM to 3:00 PM for HIV testing only.

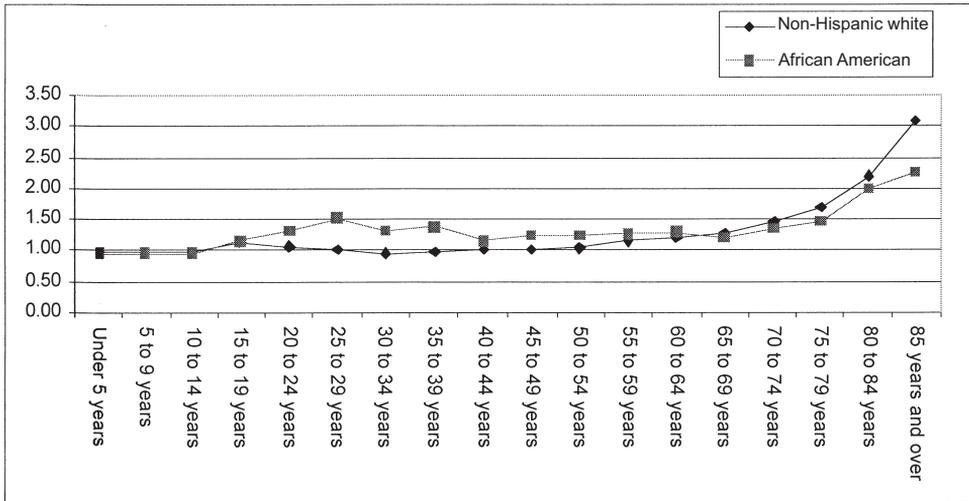


Figure 1. Sex ratio (women per men) by race, Syracuse, 2000 census

A low male-to-female sex ratio has been found to be associated with the presence of concurrent partnerships with different people by individuals. Anthropologists have long observed that a low male-to-female sex ratio was associated with polygyny<sup>55,56</sup> and demographers have found it to be associated with female-headed households.<sup>57</sup> Laumann, in a study of relationship patterns in different neighborhoods in Chicago, found that there being fewer men than women among African Americans was associated with men maintaining sexual partnerships with two or more women simultaneously.<sup>58</sup> A low male-to-female sex ratio may rob women of their bargaining power in relationships;<sup>59</sup> as men become scarcer, each relationship becomes harder to secure. Consequently, a woman in such an environment may accept conditions she would not agree to if her bargaining power were greater. A woman who is in a partnership in which her male partner has another female partner is not always aware of the situation and, if aware, is unlikely to approve. Adimora and her colleagues found that among over 10,000 women nationally, 21% of African Americans, 11% of non-Hispanic whites, 8% of Hispanics, and 6% of Asian American and Pacific Islanders were in partnerships in which one of the partners was concurrently in another partnership with someone else.<sup>60</sup>

**Homophobia.** In Syracuse, as in many other cities, homosexuality is stigmatized, particularly in communities of color. Because of this stigmatization, some men who have sex with men (MSM) hide their same-sex sexual encounters. African American colloquial terms for these hidden same-sex encounters include the *down low*, *DL*, and *sneaking*.<sup>61,62</sup> Men of color who have sex with men, especially those on the DL, may not self-identify as gay, homosexual, or bisexual, and therefore may miss being reached by safer-sex messages and other health education targeted to gay men.

Inasmuch as the down low experience is covert, accurate estimates of its prevalence are elusive. Knowledgeable community members believe the down low pattern to be rather common. As one African-American gay man in Syracuse

explained, “There are lots of guys on the DL in Syracuse . . . Just the other day I saw this man walking down the street with his lady, pushing a baby carriage. He looked right past me, even though he saw me, because he knew I had seen him at his boyfriend’s house the night before.” In their interviews with HIV-positive male clients, among whom most were African American and Latinos, Lehner and Chiasson found that 87% of the MSM also report having sex with women.<sup>63</sup>

Because of the double burdens of homophobia and racism, African American MSM in Chicago and Atlanta report that they feel marginalized by both the African American and the gay non-Hispanic white communities.<sup>64,66</sup> Churches in the African American and Latino communities, a great source of support for many people, may lead some men to sexual secrecy because of the disapproval these men perceive from clergy and other congregants.<sup>65,66</sup> In Syracuse there are a limited number of gay-identified social groups and advocacy organizations, and those that exist tend to be composed of self-identified gay, non-Hispanic white men, a make-up that leads many African American men to feel unwelcome.

Their sexual orientation hidden, men on the *DL* may be more likely to seek anonymous sex in semi-public places, such as public male bathrooms or parks, where condom use and other safer-sex recommendations are less likely to be observed. HIV outreach workers in Syracuse report that the police have prevented them from distributing condoms in public parks and have arrested men caught having sexual encounters.

**Vaginal douching.** Douching is a culturally specific behavior driven by social norms and marketing, which is practiced more frequently by women of color than others.<sup>68</sup> The market for commercial douching preparations is between \$120 and \$144 million per year.<sup>68</sup> Douching has been found to enhance the transmission of STDs and HIV.<sup>69</sup> Epidemiological studies have found vaginal douching to be associated with HIV infection.<sup>70–72</sup>

## The Ecological Context of HIV Infection in Syracuse, New York

We propose that there are three sets of ecological pathways that increase heterosexual transmission of HIV among women of color.

**Pathway 1: Increased community rates of infection.** The first ecological pathway that serves to increase rates of HIV infection in Syracuse’s communities of color includes community-level factors: Residential segregation, gangs, disproportionate incarceration, and limited STD clinic hours all serve to shrink the set of infection-free individuals from whom to choose intimate partners. Because gang members primarily enforce the neighborhood separation of adolescents and young adults, their presence affects younger individuals most. At the same time, the limited hours of the STD free clinic increases the likelihood that infected individuals will wait the longer to be treated, thus increasing the likelihood that infection will spread further in closed communities. Disproportionate incarceration both limits the number of individuals available as intimate partners and increases the proportion of infected individuals in the community because individuals who unknowingly become infected while in prison return to their home communities and may in turn infect their sexual partners.<sup>72</sup> Consequently, adolescents and young adults of color in

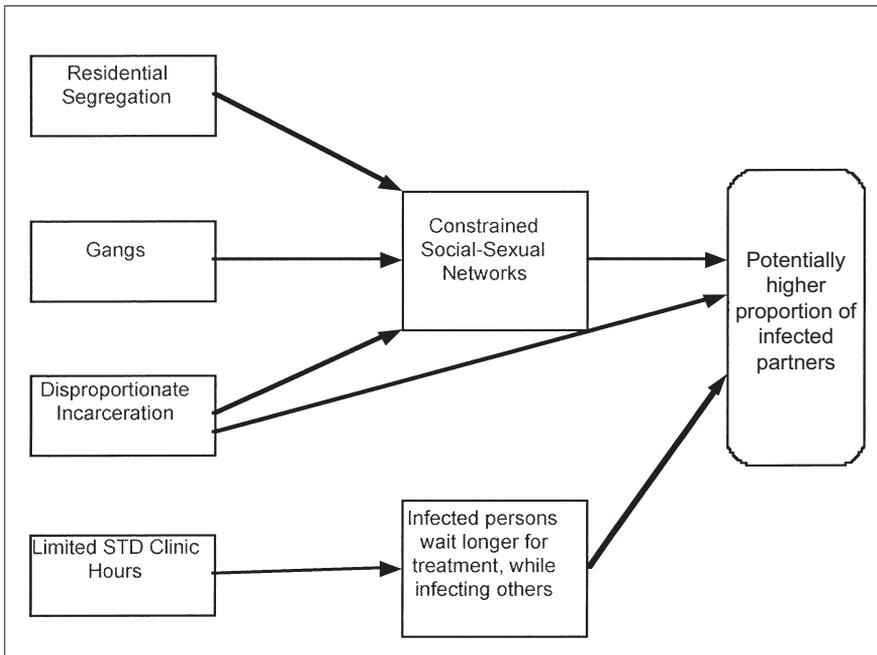


Figure 2. Pathway 1: Increased community rates of infection

Syracuse have a disproportionately small pool of potential partners from whom to choose compared with non-Hispanic white adolescents and young adults in Syracuse, and that pool consists of a larger number of potentially HIV-infected individuals.

**Pathway 2: Concurrent partnerships.** The second ecological pathway includes the relationship-level factors of concurrent partnerships in which one individual simultaneously maintains sexual relationships with two or more people. Two factors increase the likelihood of concurrent partnerships, a low male-to-female sex ratio and homophobia. Disproportionate incarceration and death rates have contributed to a low male-to-female sex ratio in which African American women outnumber African American men in Syracuse. This demographic situation robs women of much of their power to determine the types of relations to enter; most relevant is the fact that it diminishes their capacity to insist upon monogamous relationships. Social norms stigmatizing homosexuality in Onondaga County generally, and within the communities of color in Syracuse specifically, influence some MSM to maintain intimate partnerships with women, often without these women being aware of their own increased risk of becoming infected with an STD.

**Pathway 3: Increased vulnerability to HIV transmission.** The third ecological pathway represents how sexually transmitted infections and the use of vaginal douching products make it easier for a women to become infected with HIV. These biological factors that increase the likelihood of HIV transmission are indirectly promoted by barriers to access to STD treatment and a major industry promoting vaginal douching products.

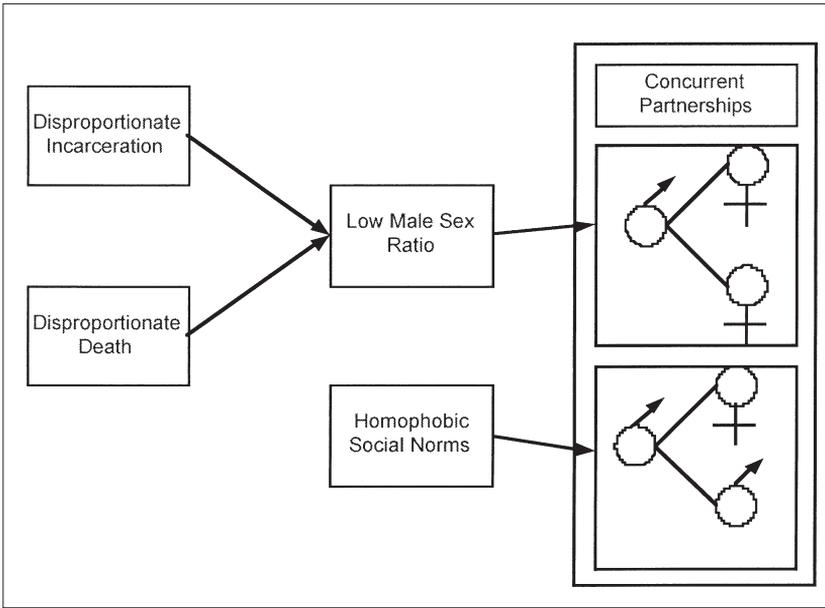


Figure 3. Pathway 2: Concurrent partnerships

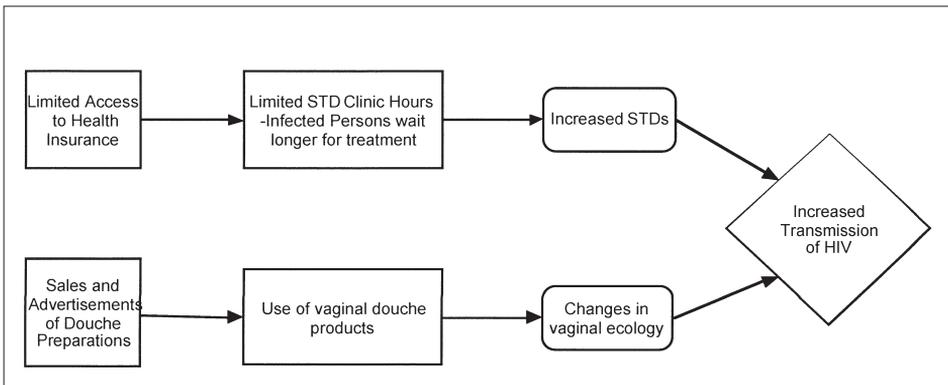


Figure 4. Pathway 3: Increased vulnerability to HIV

**Structural Violence and Increased Risk for HIV Transmission**

The cumulative effect of the three pathways is to create a context that greatly increases African American women’s exposure to HIV and heightens the risk of its transmission. This risk is the result of the institutional and sociostructural patterns that result from the ecological model described. African American women are at increased risk for heterosexual HIV transmission because of factors that result from unequal power and resources in society for which no single actor is culpable. In addition, these structural variables are not immediately obvious as risk factors; especially in research and policy contexts that privilege biomedical individualism, they are too easily discounted.

## Future Research and Policy Recommendations

Much of the research on HIV and the policies that have emanated from that research have focused on individual-level risk factors.<sup>1</sup> Although these factors play a role in the transmission of the virus, they do not fully explain the variance in HIV transmission among different racial and ethnic groups. Health and social policies related to HIV must focus more keenly on ecological variables, such as the community-level, relationship-level, and biological-level variables presented in this article. The preceding analysis uses structural violence as a conceptual framework to examine ecological risk factors leading to HIV disparities between women of color and other groups in Syracuse, New York. By considering variables at multiple levels, additional recommendations for future research and health care policy can be made.

First, policy analysts interested in community-level risk factors in the transmission of HIV should reexamine the underfunding of STD services. The impact of limited STD screening and treatment services may lead to increased HIV transmission, which may be much more costly to treat than to prevent. The lack of access to STD services disproportionately affects communities of color, because many individuals in these communities lack health care providers whom they see for ongoing care and lack health insurance to pay for such care.<sup>9,52</sup> Fiscal constraints have led to STD clinics being centralized within a county or municipal government area, and to such clinics having inadequate hours of service. Decentralization of public health care clinics or health care being provided by mobile screening teams, with increased hours of service, may help populations that have difficulty accessing care. Churches, synagogues, mosques, and other religious and civic centers that are sources of support to racial and ethnic minority groups can be called upon to encourage members to make use of such services and to help members become more aware of everyone's health care needs.<sup>73,74</sup> With sufficient funding, county jails, which are not under the auspices of the federal prison system and often are located near areas where HIV and other sexually transmitted diseases are increasing, could expand their HIV testing and counseling services and STD screening and treatment for inmates.<sup>75</sup> This approach may reduce the spread of STDs and HIV to other inmates, as well as in the community to which the inmate returns.<sup>52</sup>

Second, health policy analysts must examine the effects of disproportionate incarceration of people of color on their communities. Individuals who return to home communities after being incarcerated may unknowingly be infected with an STD or bloodborne disease.<sup>76</sup> Efforts to decrease the transmission of infection in correctional facilities are of great importance. The Prison Rape Elimination Act of 2003 is an important first step in reducing exposure to infection. Ensuring that inmates have full access to chemical dependency treatment is a second key issue. Education about the risk of transmission of bloodborne diseases via tattooing and shared injection equipment is also important. Condom distribution, which only occurs in six U.S. prisons at this time, would allow inmates greater control over their own STD prevention.

Third, to make visible a currently hidden risk factor for HIV transmission among women of color, we need to change the protocols in HIV testing and counseling

sites for assessing risk. The list of risk factors that are currently assessed were developed in an earlier phase of the HIV/AIDS epidemic and do not include partner incarceration. Adding questions about the history of incarceration among the woman's current and previous partners is a critical policy consideration.

Fourth, HIV services must become more culturally competent. HIV/STD service providers should work with community leaders and others in communities of color to better address the alarming growth of HIV/AIDS. Such collaborative work could enhance HIV prevention strategies, counseling and testing, and the treatment of people living with HIV/AIDS.

Service providers should also discuss the potential threats of douching to the health of women at risk of contracting an STD. Service providers and others must seek to increase public awareness that douching is a risk factor for HIV and STDs. Moreover, because douching is a major industry, commercially prepared douche products should carry a warning label advising consumers of this potential for harm.

## Summary

Growing racial and ethnic disparities in HIV transmission, particularly through heterosexual transmission to women, can be explained only partially by individual-level behaviors. It is clear that individual behaviors take place in social contexts where structural violence limits health-promoting behaviors. Empirical investigations of macro-level social and environmental factors must be undertaken.

Six ecological variables appear to exacerbate HIV transmission among women of color in Syracuse. First, African American incarceration rates are far higher than the incarceration rates of non-Hispanic whites; the behaviors that occur in correctional facilities may increase the rate of sexual and bloodborne infections for both the inmates and the populations to which they return. Second, *de facto* residential segregation, reinforced by gang turf, may serve to maintain elevated rates of STD infections in already plagued social and sexual networks. Third, limited access to STD services delays the timeliness of effective treatment, thus increasing the likelihood that additional individuals will be exposed to infection. Fourth, the sex ratio for African Americans, in which adult women significantly outnumber adult men, appears to result from African American males' premature death and disproportionate incarceration; these phenomena ultimately decrease women's bargaining power in forming relationships; the relevant effect is an increase in the number of women involved with a man who has two or more sexual partners simultaneously. Fifth, social norms stigmatizing homosexuality influence some MSM to hide their same-sex relationships, while maintaining sexual relationships with women. Men engaged in these covert same-sex encounters are not likely to use condoms. Sixth, douching, which is more prevalent among African American women than others, may enhance the transmission of HIV; douching is fostered by a major industry.

To address the disproportionately high rate of heterosexual HIV transmission among African American women adequately, policy and research must be multi-level in design, taking into account multiple levels of risk in crafting a coherent research model and in public health policy.<sup>77</sup>

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## Notes

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