



Adverse Childhood Experiences and HIV Risk Behaviors among Chicago Men Who Have Sex With Men

Summary

Adverse Childhood Experiences (ACEs), including psychological, physical, and sexual abuse, as well as family dysfunction, have been linked to a range of adverse health outcomes. The Chicago Department of Public Health examined ACEs in a sample of men who have sex with men (MSM), the only risk group in which new HIV infections have been increasing steadily since the early 1990s. Seventy-eight percent (78%) of Chicago MSM surveyed reported at least one adverse childhood experience and 32% reported four or more. Chicago MSM who had high levels of ACE were twice as likely to have unprotected sex with a casual partner, and were twice as likely to report being afraid to find out their current HIV status.

Background

While gay, bisexual, and other men who have sex with men (MSM) represent only about 4% of the US population, they are most severely affected by HIV, and are the only risk group in which new HIV infections have been increasing steadily since the early 1990s.¹ In 2009, MSM accounted for well over half (677 or 62%) of all new HIV infections in Chicago, with Blacks, who only make up 36% of the Chicago population, accounting for 50% of the new MSM HIV diagnoses.² At the end of 2009, more than half (11,593 or 57%) of all people living with HIV in Chicago were MSM. Since the beginning of the HIV/AIDS epidemic, MSM have consistently represented the largest percentage of persons diagnosed with HIV or AIDS and persons with an AIDS diagnosis who have died.

Many of the current approaches to HIV prevention are focused on individual behavioral risk factors. However, evidence suggests that programs which comprehensively address health where people grow up, live, work, learn, and play can have greater impact on health outcomes at the population level than programs utilizing interventions aimed solely



Figure 1. Adverse Childhood Experiences Pyramid
Taken from: <http://www.cdc.gov/ace/pyramid.htm>

at individual behavior change. It is urgent that HIV prevention addresses these underlying factors, referred to as social determinants of health, including poverty, household factors, unequal access to health care, incarceration, lack of education, stigma, homophobia, sexism, and racism.

Adverse childhood experiences (ACEs) are social determinants of health that include psychological, physical, or sexual abuse, as well as family dysfunction (e.g., an incarcerated, mentally ill, or substance-abusing family member; domestic violence; or absence of a parent because of divorce or separation). Having ACEs has been associated with a range of adverse health outcomes in adulthood, including substance abuse, depression, cardiovascular disease, diabetes, cancer, and premature mortality (Figure 1). The lingering effects of adverse childhood experiences can influence many of the factors that have been used to explain risk behaviors associated with HIV acquisition, including substance use, depression, denial, low self-efficacy, and low self-esteem. However, little is known about ACEs and their direct link to HIV



acquisition or risky sexual behavior among men who have sex with men (MSM)*.³

Analysis of ACEs Among Chicago MSM

To examine whether a history of ACEs was common in a randomly selected population-based sample of MSM, the Chicago Department of Public Health analyzed information from the 2008 National HIV Behavioral Surveillance System in Chicago (NHBS-Chicago).⁴

NHBS is a national, ongoing surveillance system that collects cross-sectional data in 21 US cities among populations at high risk for acquiring HIV, including MSM, injection-drug users, and heterosexuals-at-high-risk. In Chicago, this system is known as Project CHAT. For the MSM cycle conducted in Chicago during 2008, adult men were sampled systematically from randomly selected venues where MSM congregate (e.g., bars/dance clubs, athletic leagues, professional groups, hobby/special interest organizations, public sex environments, gay pride events, retail stores, and street locations). Data collection took place from August through December 2008. Men attending venues were randomly approached to undergo eligibility screening. Men eligible for the survey were aged ≥ 18 years and residents of the Chicago metropolitan statistical area. Using a standardized questionnaire, men were interviewed about their sexual and drug-use behaviors, HIV-testing behavior, and use of HIV-prevention services. Participants were also asked questions about adverse childhood experiences through a 10-item questionnaire developed by the researchers at the CDC.⁵

The ACE questionnaire included in the 2008 NHBS MSM survey asked about experiences encountered prior to the age of 18 and consisted of up to 21 questions that yielded three categories of childhood abuse (psychological, sexual, and physical abuse) and seven categories of household dysfunction (inadequate care, lack of emotional support, household mental illness, household substance abuse, domestic violence, parental separation/divorce, and incarcerated family members). ACE scores range from 0 to 10. An ACE score of 4 or higher indicated a high level of childhood abuse or household dysfunction. For a comparison group, we compared Chicago MSM ACE rates to those collected as part of a 2009 national CDC Behav-

ioral Risk Factor Surveillance System (BRFSS) survey among 9,474 men in the US general population.

Description of the Sample

In Chicago, 570 men were sampled from 57 different venues. Of these 570 participants, the mean age was 32 years (range: 18-70 years); 27% were Black, 44% were White, 22% Hispanic, 3% Asian/Pacific Islander, and 3% reported Multi-racial or Other. Overall, respondents in the sample were relatively evenly distributed by annual household income. Twenty-seven percent (27%) of respondents had annual incomes between \$0 and \$19,999, 37% had annual incomes between \$20,000 and \$49,999, and 34% of respondents had incomes over \$50,000. The majority (77%) of respondents in the sample were high-school graduates or higher. Each of Chicago's zip codes was represented by at least one survey participant. There were 3 geographical areas of the city that represented the largest concentration of participants: 1) Lakeview/Uptown/Edgewater, 2) Auburn-Gresham, and 3) Logan Square/ West Town. Of the 524 MSM tested for HIV during the 2008 Chicago survey, 91 men (or 17%) tested HIV-positive.

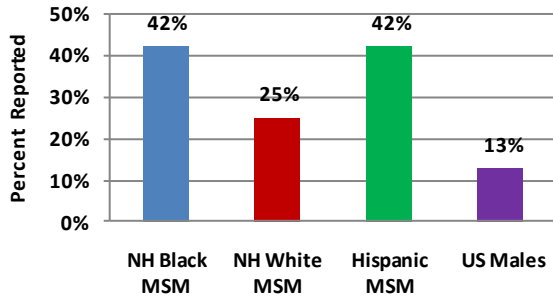
ACE Scores by Race, Ethnicity, Age, and HIV Status

On average, 2 ACEs per respondent were reported among the 570 Chicago MSM interviewed. Overall, the great majority (78%) of Chicago MSM reported at least one category of ACE compared to 59% in the national sample. Twenty-two percent (22%) of MSM in Chicago reported 0 ACEs, while 32% reported 4 or more ACEs. Nationally, 41% of men reported no ACEs, while 13% reported 4 or more ACEs. In Chicago, racial disparities in ACEs were observed, as shown in Figure 2. Overall, 42% of Black and Hispanic MSM reported 4 or more ACEs compared to 25% of White MSM. Forty-two percent (42%) of MSM younger than 25 reported 4 or more ACEs compared to 29% of those 25 years and older. HIV-positive MSM reported 1.5 times more ACEs than HIV-negative MSM and 50% of HIV+ MSM had ACE scores indicative of high levels of childhood abuse or household dysfunction.

*The term men who have sex with men (MSM) is used in national surveillance systems. It indicates behaviors that transmit HIV infection, rather than how individuals self-identify in terms of their sexuality.



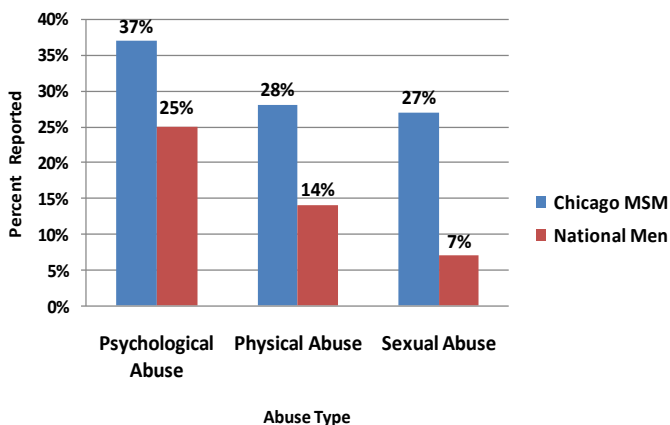
Figure 2. Racial Disparities in High Level ACE Scores among Chicago MSM



Types of Abuse and Household Dysfunction Reported

By all categories, prevalence of abuse and/or household dysfunction was higher among Chicago MSM than among men in the national sample. As displayed in Figure 3, among Chicago MSM, 37% reported psychological abuse (25% males nationally), 28% reported physical abuse (14% males nationally) and 27% reported sexual abuse (7% males nationally). Within household dysfunction categories, divorced/separated parents was reported by 33% of Chicago MSM (compared to 27% nationally). Having a household member in prison was reported by 17% of Chicago MSM (compared with 8% men nationally), a mentally ill household member, by 25% among Chicago MSM (compared with 17% nationally) or substance abuse present in household, by 33% among Chicago MSM (compared to 28% nationally). Overall, 21% of Chicago MSM reported witnessing domestic violence in their household (compared to 16% men nationally).

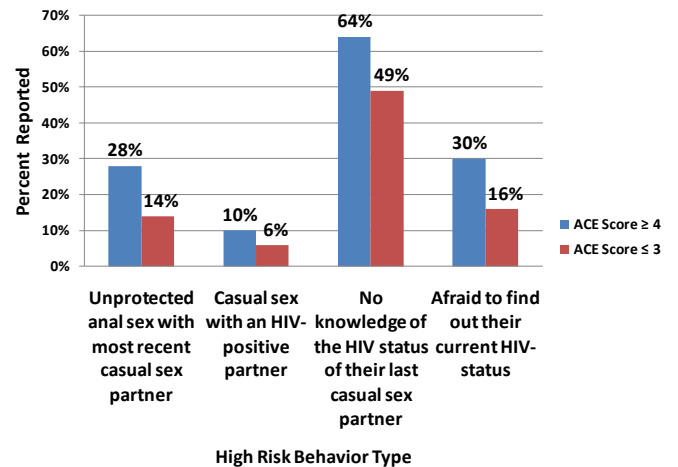
Figure 3. Prevalence of Abuse Among Chicago MSM Compared to BRFSS Men National Sample



ACE, Sexual Behavior, and Knowledge of HIV Status

ACEs were found to be significantly associated with high risk sexual behavior in the Chicago sample of MSM (Figure 4). Adjusting for age, race, and HIV-status, among MSM with high levels of childhood abuse or household dysfunction, 28% reported unprotected anal sex with their most recent casual male sex partner (compared to 14% of those with 3 or less ACEs). Ten percent (10%) reported casual sex with an HIV-positive partner (compared to 6% of lower ACEs), and overall, 64% reported not knowing the HIV status of their last casual sex partner (compared to 49% among lower ACEs). Among those who reported not knowing their current HIV status, 30% of those with high-level ACEs reported being afraid to find out their current HIV-status (compared to 16% of those with lower level ACEs).

Figure 4. High Risk Sexual Behaviors Associated with High ACE score



Limitations

Both Chicago and national data were self-reported. Additionally, caution should be taken when making comparisons using national data as the populations differed by composition and were not Chicago-based. Finally, local data may not be representative or generalizable to the overall MSM population in Chicago.



What Do These Results Mean?







Results described above suggest an association between ACEs and HIV risk, underscoring the urgent need for additional efforts to reduce and prevent child maltreatment and family dysfunction and strengthen parents' ability to guard against their child's exposure to critical adverse events. Likewise, there is a need to intervene with persons affected by ACEs as early as possible. While work has been done to disseminate ACE research findings, there is currently a deficit of screening tools and interventions used by health care providers to identify and address ACEs. Certainly, further research and policy guidance at the national level is needed. Locally, efforts to inform primary care, mental health, and public health professionals about the health implications of ACE should continue and be expanded. Agencies should consider enhancing HIV prevention interventions by incorporating treatment components designed to address the specific mental health concerns of MSM resulting from a history of childhood abuse and/or household dysfunction or disruption. Where the treatment needs of this population extend beyond the competencies of the traditional HIV provider community, service partnerships with trauma-trained mental health professionals should be explored along with plans to build the capacity of the existing providers over time.

References:

1. Centers for Disease Control and Prevention. CDC Fact Sheet: HIV and AIDS among Gay and Bisexual Men. Atlanta, GA; September 2011.
2. Chicago Department of Public Health. STI/HIV Surveillance Report, 2011. Chicago, IL: City of Chicago; November 2011.
3. Anda RF, Butchart A, Felitti VJ, Brown DW. Building a framework for global surveillance of the public health implications of adverse childhood experiences. *AM J Prev Med.* 2010 July;39(1):93-8.
4. Centers for Disease Control and Prevention. Adverse Childhood Experiences Reported by Adults — Five States, 2009. *MMWR* 2010;59(No. 49): 1609 - 1613.
5. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *AM J Prev Med.* 1998;14:245-258.

Suggested Citation: Prachand, Nik. Adverse Childhood Experiences and HIV Risk Behaviors Among Men Who Have Sex with Men. *Healthy Chicago* 2011; December, 1-2.

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