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# Risk and Protective Factors Associated With Gay Neighborhood Residence

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## Abstract

Using a sample of 482 ethnically diverse current substance using men who have sex with men who reported recent unprotected anal intercourse, this study compared health risk behaviors—substance use and sexual HIV risk—and one health protective factor—prosocial activities—between men who live in a gay neighborhood and those who do not. Data are drawn from comprehensive health and social risk assessments administered in South Florida. In a multivariate logistic regression model, methamphetamine use, high rates of receptive unprotected anal intercourse, and lower levels of prosocial engagement were found to be risk factors associated with gay neighborhood residence. Compared with living elsewhere, gay neighborhood residence appeared to be protective against cocaine use and substance dependence. Implications of the findings for prevention interventions are discussed, as is the need for further research regarding decisions about neighborhood residence and how neighborhood risk and protective factors emerge and are sustained.

## Keywords

MSM, neighborhoods, substance use, sex risk, risk factors

## Introduction

The study of gay neighborhoods can be traced back to the 1970s, in which research reported that large cities frequently gave rise to social and cultural institutions that form the basis of homosexual communities, including gay ghettos (Harry, 1974; Harry & DeVall, 1978). The term gained popularity with sociologists during that time (Humphreys, 1972; Weinberg & Williams, 1974). Though analysis demonstrated that only three such neighborhoods met criteria for a ghetto, many major U.S. cities had gay neighborhoods at that time (Levine, 1979). Recent demographic evidence suggests that gay men who reside in urban areas are more likely to live in gay neighborhoods than men who live elsewhere (Carpiano, Kelly, Easterbrook, & Parsons, 2011). Though no specific definition of gay neighborhood exists, they are usually defined as visible places within the city that tend to have businesses, residences, and social life dominated by gay men (Levay & Nonas, 1995). Examples include New York City's Chelsea neighborhood and the Castro district in San Francisco.

Research has shown that neighborhood factors such as social capital (Perry, Williams, Wallerstein, & Waitzkin, 2008) and socioeconomic status (Weden, Carpiano, & Robert, 2008) influence individual men's health in general. With some notable exceptions (Binnie & Valentine,

1999; Carpiano et al., 2011; Egan et al., 2011; Frye et al., 2006; Frye et al., 2010; Green, 2008; Mills et al., 2001), few studies have examined health-related aspects of living in a gay neighborhood (Carpiano et al., 2011). This literature includes conflicting findings with regard to health risk and protective factors associated with gay neighborhood residence. Frye et al. (2010) found that residence in neighborhoods with high proportions of same-sex households to be protective regarding health. Other research suggests that although gay institutions, such as bars or dance clubs, serve as safe venues for sexual expression, socialization, and dissemination of information, that they also facilitate HIV risk behaviors such as drug use, unsafe sex, or the combination of drug use during sex (Green, 2003; Kelly, Carpiano, Easterbrook, & Parsons, 2012). The authors' prior research found that South Florida gay neighborhoods are particularly affected by "fast lane" subcultures, those in which drug use and sexual competitiveness are seen as normative among gay men (Kurtz, 2009). Furthermore, Cochran, Grella, and Mays (2012) recently reported that sexual minority

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populations, including men who have sex with men (MSM), appear to self-select to live in neighborhoods that are tolerant of substance abuse. Although Carpiano et al. (2011) reported evidence of a fast lane subculture in New York City and demonstrated risk factors for greater substance use there, these researchers also identified that these gay neighborhoods serve to promote health with protective factors such as public health information.

Building on these studies, we examine residence within and outside of an emergent gay neighborhood, using a framework of health protective and risk factors found in the resilience literature as a foundation (Garnezy, Masten, & Tellegen, 1984; Garnezy & Streitman, 1974; Rutter, 1987). Protective factors refer to assets or resources that aid an individual's ability to positively adapt to or overcome adversity (Kolar, 2011); and risk factors are measurable characteristics of an individual that predict a negative outcome (Wright & Masten, 2006). Using survey data from a large sample of ethnically diverse substance-using MSM, we compare substance use, sexual HIV risk, and prosocial activities, between men who live in the gay neighborhood and those who live outside of it. Higher amounts of substance use and sexual HIV risk behavior and lower amounts of prosocial activity involvement are conceptualized as health risk factors. Conversely, lower amounts of substance use and sexual HIV risk behavior and higher amounts of prosocial activity involvement are conceptualized as health protective factors. We also describe the implications of our findings for the prevention of substance abuse and HIV transmission.

## Method

Data in these analyses are drawn from baseline assessments of 482 MSM participating in a risk reduction intervention trial conducted in the Miami-Ft. Lauderdale Metropolitan Area. A total of 33 participants were not included in this analysis because of a lack of zip code or incomplete address information. The study is a randomized clinical trial testing the efficacy of a four-session small group discussion intervention compared with a single-session individual counseling condition, both of which are based on theories of resilience and psychological empowerment (Fergus & Zimmerman, 2005; Zimmerman, 1995). Participants were recruited into the study between November 2008 and October 2010. Multiple recruitment methods were employed, including direct outreach, participant referral, and Internet and print media. Eligible men were between the ages of 18 and 55 years; reported recent (past 90 days) unprotected anal intercourse (UAI) with a nonmonogamous partner(s); and met one or more of three substance use inclusion criteria: binge drinking (five or more drinks) or drug use, excluding marijuana, at least three times in the past month; or

using marijuana on 20 or more days in the past month. Research protocols were approved by the University of Delaware's (predecessor institution) and Nova Southeastern University's Institutional Review Boards.

## Site

The Miami-Ft. Lauderdale Metropolitan Area is a well-known migration destination for MSM, with the second highest ratio of same-sex households among large metropolitan areas in the nation (Smith & Gates, 2001). Miami reports the highest AIDS rates and HIV incidence in the United States (Centers for Disease Control and Prevention, 2009), and almost half (45%) of HIV-positive MSM in a recent Miami study were unaware of their infection (Centers for Disease Control and Prevention, 2010). Although initially centered in the South Beach neighborhood of Miami Beach, the gay subculture has dispersed more widely throughout the urban area over the last decade, assimilating into other neighborhoods (Rosser, West, & Weinmeyer, 2008). However, this is not true of the suburb of Wilton Manors, where residential concentrations of MSM have increased over the past decade, along with many highly visible gay social venues, businesses, and drug copping areas.

## Measures

The primary instrumentation for the interviews was the Global Appraisal of Individual Needs, which has eight core sections (demographics, substance use, physical health, risk behaviors, mental health, environment, legal involvement, and vocational attainment), with each containing questions on the recency of problems, breadth of symptoms, and recent health behavior frequencies in days or times (Dennis, 2006). This was supplemented with additional measures of sexual behaviors and social activities. Residence inside the gay neighborhood of Wilton Manors was determined based on a participant's zip code. This dichotomous variable was coded 1 if a participant reported living in one of the five zip codes comprising Wilton Manors and 0 if not.

Substance use measures included past 90-day frequency of use of each substance, including the nonmedical use of prescription medications. Substance dependence was assessed by the endorsement of three or more of seven *Diagnostic and Statistical Manual of Mental Disorders*, text revision (American Psychiatric Association, 2000) symptoms during the past year (e.g., needing more drug to get the same effect, experiencing withdrawal symptoms, being unable to quit or cut down).

An extensive battery of sexual behavior questions specific to MSM included counts of past 90-day receptive and insertive UAI times. Because study eligibility

criteria included UAI during the past 90 days, sexual risk behavior variables were dichotomized at the 75th percentile to divide the sample in to higher and lower risk subgroups. Additional questions asked if, during the past 90 days, a respondent had “used money or drugs to purchase or get sex” and whether he had “traded sex to get drugs, gifts, or money.”

Prosocial participation—the involvement in activities associated with organized groups that help individuals develop skills—has been shown to have moderating effects on neighborhood risk (Xue, Zimmerman, & Caldwell, 2007), sexual behavior (Miller, Sabo, Farrell, & Barnes, 1998; Ramirez-Valles, Zimmerman, & Newcomb, 1998), and drug and alcohol use (Elder, Leaver-Dunn, Wang, Nagy, & Green, 2000) among adolescents. For this study, we assessed, by past 90-day event counts, respondents’ participation in productive social settings, including group sports/leisure activities, class/educational activities, club activities, and volunteer activities.

### Data Analyses

All analyses were conducted using the IBM SPSS Statistics Version 19. Descriptive statistics were calculated for the variables of interest, including demographics, substance use, sexual behavior, and prosocial participation by gay neighborhood and nongay neighborhood residence. *P* values indicating differences between enclave and nonenclave populations were calculated using chi-square and *F* statistics. Because of the large MSM population and prominent “fast lane” gay subculture in South Florida (Kurtz, 2009), we hypothesized that residence in Wilton Manors would be associated with elevated health risk behaviors and lower levels of health protective factors compared with residents outside of the gay neighborhood. Bivariate logistic regression models were constructed to predict residence in the Wilton Manors gay neighborhood by health risk and protective factors. Those measures that exhibited significant associations in the bivariate models were included in a multivariate logistic regression model. The multivariate model includes controls for age and education. We did not, however, control for race/ethnicity because this measure is highly correlated with the demographics of the Wilton Manors and nonenclave residential areas (U.S. Census Bureau 2010a, 2010b).

### Results

Demographic, substance use, sexual behavior, and prosocial engagement characteristics are shown in Table 1, separately for nongay neighborhood and gay neighborhood residence. Men residing in Wilton Manors were slightly older, on average, than those residing elsewhere

(41.02 vs. 37.44,  $p < .000$ ). There were several racial/ethnic differences, with participants residing in Wilton Manors being less likely to be Hispanic (16.8% vs. 33.2%,  $p < .000$ ) or African American/Caribbean (9.6% vs. 28.4%,  $p < .000$ ), and more likely to be White (69.2% vs. 33.2%,  $p < .000$ ) than those not residing in Wilton Manors. Somewhat more participants residing in Wilton Manors reported a bachelor’s degree or higher education than those residing elsewhere (37.9% vs. 31.0%,  $p = .029$ ). There was no difference in HIV serostatus by residential location.

In terms of past 90-day substance use, there were no significant differences by residential location for binge drinking or the use of marijuana, ecstasy, methamphetamine, or the nonmedical use of prescription sedatives or opioids. Nongay neighborhood dwellers were more likely than those residing in Wilton Manors to be current users of powder cocaine (54.3% vs. 30.2%,  $p < .000$ ), crack cocaine (23.3% vs. 15.8%,  $p = .042$ ), and prescription opioids (26.6% vs. 20.1%  $p = .037$ ), but a larger proportion of gay neighborhood residents than nonresidents reported using amyl nitrites (poppers; 60.5% vs. 48.9%,  $p = .011$ ).

Regarding past 90-day sexual behaviors, there were no significant differences by residential location in numbers of total, insertive or receptive UAI times. More participants residing outside of the gay neighborhood reported buying sex during the past 90 days than those living inside of it (29.5% vs. 16.3%,  $p = .001$ ). Likewise, more nongay neighborhood dwellers reported trading or selling sex during the past 90 days than other men (28.1% vs. 15.3%,  $p = .001$ ).

Last, in terms of past 90-day prosocial engagement activities, men residing outside of the gay neighborhood reported, on average, more frequent participation in group sports/leisure activities than gay neighborhood dwellers (2.7 vs. 1.0 times,  $p = .005$ ). Similarly, men residing outside of Wilton Manors reported, on average, more frequent participation in classes/educational courses than those living inside the gay neighborhood (5.77 vs. 3.79 times,  $p = .001$ ). There were no differences by residential location for participation in club meetings or volunteer activities.

Results of the bivariate logistic regression model predicting residence in the gay neighborhood by health risk and protective factors are shown in Table 2. Past 90-day use of cocaine (odds ratio [OR] = 0.364, 95% confidence interval [CI] = 0.249, 0.533;  $p < .000$ ), crack cocaine (OR = 0.619, 95% CI = 0.388, 0.986;  $p = .043$ ), and prescription opioids (OR = 0.636, 95% CI = 0.414, 0.976;  $p = .038$ ), as well as substance dependence (OR = 0.47, 95% CI = 0.323, 0.684;  $p < .000$ ) were associated with lower odds of living in the gay neighborhood. Past 90-day use of amyl nitrites (OR = 1.605, 95% CI = 1.114, 2.313;  $p = .011$ )

**Table 1.** Baseline Characteristics of MSM by Neighborhood Residence (*N* = 482)

	Nonenclave ( <i>N</i> = 274)		Enclave ( <i>N</i> = 208)		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
Demographics					
Age <sup>a</sup>	37.44	(9.987)	41.02	(8.595)	.000
Race/ethnicity					
Hispanic	91	33.2%	35	16.8%	.000
African American/Caribbean	78	28.4%	20	9.6%	.000
White	91	33.2%	144	69.2%	.000
Other	14	5.1%	9	4.3%	.690
Education—16 years or more	85	31.0%	79	37.9%	.029
HIV-positive	129	47.0%	103	49.5%	.596
Substance use (past 90 days)					
Binge drinking	229	83.5%	162	77.8%	.114
Marijuana	188	68.6%	129	62.0%	.131
Cocaine (powder)	149	54.3%	63	30.2%	.000
Crack cocaine	64	23.3%	33	15.8%	.042
Ecstasy	50	18.2%	38	18.2%	.995
Methamphetamine	63	22.9%	64	30.7%	.055
Poppers	134	48.9%	126	60.5%	.011
Rx sedatives	102	37.2%	63	30.2%	.112
Rx opioids	78	26.6%	42	20.1%	.037
DSM-IV-TR substance dependence	192	70.0%	109	52.4%	.000
Sexual behaviors (past 90 days)					
UAI times <sup>a</sup>	21.86	(37.99)	23.06	(27.92)	.700
Insertive UAI times <sup>a</sup>	11.4	(23.31)	11.62	(19.41)	.922
Receptive UAI times <sup>a</sup>	10.46	(24.7)	11.45	(17.82)	.626
Buy sex	81	29.5%	34	16.3%	.001
Trade or sell sex	77	28.1%	32	15.3%	.001
Prosocial engagement (past 90 day times)					
Group sports/leisure activities <sup>a</sup>	2.70	(6.65)	1.00	(3.59)	.005
Class/educational activities <sup>a</sup>	5.77	(8.33)	3.79	(6.57)	.001
Club activities <sup>a</sup>	1.84	(4.93)	2.09	(4.10)	.536
Volunteer activities <sup>a</sup>	2.32	(4.95)	2.59	(5.46)	.583

Note. MSM = men who have sex with men; UAI = unprotected anal intercourse. *p* Values are calculated with chi-square and *F*-statistic tests.

a. Mean (standard deviation).

was associated with higher odds of living there. Men who lived in Wilton Manors had higher odds of using methamphetamine in the past 90 days, but this did not quite reach the .05 significance level (OR = 1.489, 95% CI = 0.991, 2.237; *p* = .056).

One sexual risk behavior, high (top quartile) frequency of receptive UAI (OR = 1.625, 95% CI = 1.083, 2.438; *p* = .019) was associated with higher odds of living in the gay neighborhood. However, buying sex in the past 90 days (OR = 0.466, 95% CI = 0.297, 0.73; *p* = .001) and trading or selling sex in the past 90 days (OR = 0.465, 95% CI = 0.294, 0.737; *p* = .001) were associated with lower odds of living there. Prosocial engagement measures of past 90-day sports/group leisure participation

(OR = 0.965, 95% CI = 0.941, 0.99; *p* = .006) and class/educational participation (OR = 0.935, 95% CI = 0.896, 0.976; *p* = .002) were associated with lower odds of living in the gay neighborhood, for each additional participation time.

Results of the multivariate logistic regression model predicting risk and protective factors for residing in the gay neighborhood are shown in Table 3. Methamphetamine was included in the model because of the abundance of literature describing methamphetamine use and its relationship to sexual risk behaviors among MSM (Green & Halkitis, 2006; Kurtz, 2009; Menza et al., 2010). Two substance use measures, recent cocaine use (OR = 0.408, 95% CI = 0.268, 0.623; *p* < .000) and substance

**Table 2.** Bivariate Logistic Regression Models Predicting Gay Neighborhood Residence ( $N = 482$ )

	$p$	Odds Ratio	95% Confidence Interval
Alcohol/drug use in the past 90 days			
Methamphetamine	.056	1.489	0.991, 2.237
Cocaine	.000	0.364	0.249, 0.533
Crack cocaine	.043	0.619	0.388, 0.986
Amyl Nitrates	.011	1.605	1.114, 2.313
Rx opioids	.038	0.636	0.414, 0.976
DSM-IV-TR substance dependence	.000	0.470	0.323, 0.684
Sexual risk behavior in the past 90 days			
Receptive UAI times (highest quartile)	.019	1.625	1.083, 2.438
Insertive UAI times (highest quartile)	.162	1.338	0.890, 2.012
Buy sex	.001	0.466	0.297, 0.73
Trade sex	.001	0.465	0.294, 0.737
Prosocial engagement (past 90 day times)			
Group sports/leisure activities	.006	0.965	0.941, 0.990
Class/educational activities	.002	0.935	0.896, 0.976
Club activities	.536	0.987	0.947, 1.029
Volunteer activities	.582	0.990	0.956, 1.025

Note. UAI = unprotected anal intercourse.

dependence (OR = 0.532, 95% CI = 0.346, 0.818;  $p = .004$ ), remained associated with lower odds of living in the gay neighborhood. Recent methamphetamine use, on the other hand, was associated with higher odds of living there (OR = 1.694, 95% CI = 1.062, 2.702;  $p = .027$ ).

The only sexual risk behavior that remained significant in the multivariate model was high frequency (top quartile) receptive UAI (OR = 1.691, 95% CI = 1.074, 2.663;  $p = .023$ ), which was associated with higher odds of living in the gay neighborhood. Two prosocial engagement measures also remained significant in the multivariate model. Higher frequencies of recent group sports/leisure participation (OR = 0.965, 95% CI = 0.939, 0.992;  $p = .011$ ) and class/educational participation (OR = 0.947, 95% CI = 0.905, 0.991;  $p = .019$ ) were associated with lower odds of living in the gay neighborhood, per event.

## Discussion

### Limitations

These results should be viewed within the context of several limitations. We acknowledge that travel between the Wilton Manors gay neighborhood and the wider metropolitan area is common. Local knowledge and informal

**Table 3.** Multivariate Logistic Regression Model Predicting Gay Neighborhood Residence ( $N = 482$ )

	$p$	Odds Ratio	95% Confidence Interval
Age	.014	1.030	1.006, 1.055
Education—16 years or more	.511	1.162	0.742, 1.822
Methamphetamine	.041	1.640	1.022, 2.631
Cocaine	.000	0.449	0.293, 0.690
Crack cocaine	.806	1.077	0.598, 1.938
Amyl nitrites	.102	1.413	0.934, 2.138
Rx opioids	.367	0.801	0.495, 1.297
Substance dependence	.016	0.581	0.374, 0.904
URAI highest quartile	.018	1.743	1.100, 2.761
Trade sex	.441	0.801	0.455, 1.409
Buy sex	.033	0.541	0.307, 0.953
Group sports/leisure activities	.075	0.959	0.915, 1.004
Class/educational activities	.016	0.965	0.937, 0.993
Club activities	.612	0.988	0.945, 1.034
Volunteer activities	.475	1.015	0.975, 1.057

conversations with study participants suggest that MSM pass in and out of the gay neighborhood to live, work, shop, and socialize. However, our survey instrument did not ascertain the extent to which any of these activities or the prosocial activities we measured occurred inside or outside of Wilton Manors. However, our data suggest that the gay neighborhood presents different protective and risk factors for MSM who choose to reside there, as opposed to men who choose to live elsewhere. These findings resonate with those of Cochran et al. (2012), who note that sexual minorities, such as MSM, may self-select neighborhoods that are perceived as more tolerant of drug use. It would appear likely that self-selection is a particularly salient characteristic of Wilton Manors, as this gay neighborhood has been emerging only since the late 1990s (Rothaus 2011). Moreover, we also noted in other research that MSM who recently migrated to South Florida and became involved in the “fast lane” subculture were at high risk for HIV seroconversion (Egan et al., 2011). We also note that all data are based on self-report, potentially leading to underreporting of socially undesirable behaviors. Given the high levels of substance use and sexual risk behaviors we found, however, underreporting of these and other stigmatized behaviors would appear to be uncommon. Furthermore, this study was not designed to examine neighborhood effects on health. Though our analysis shows correlation between

neighborhood and health risk behaviors, the lack of longitudinal data prevents us from making causal conclusions. Nevertheless, our recruitment procedures resulted in a sample of a wide age range and broadly inclusive of the racial/ethnic makeup of South Florida.

Finally, our ability to generalize the findings to other MSM is limited by the study eligibility requirements, including regular substance use and recent UAI. We acknowledge that our study did not include population-based samples and that the findings discussed below must be interpreted within the context of the high levels of health risks reported by all of the men who participated in the study. At the same time, the subsamples of men living inside and outside of the Wilton Manors neighborhood were large, diverse, and recruited using targeted sampling strategies that are traditionally employed among hidden populations, including sexual minorities and drug users, to achieve broad representation within defined eligibility criteria (Biernacki & Waldorf 1981; Watters & Biernacki 1989).

### *Main Findings*

We examined the relationship between participants' residence in the gay neighborhood of Wilton Manors and several health risk and protective factors. Contrasting from previous research that shows gay neighborhoods discourage sexual HIV risk behavior (Frye et al., 2010), our data indicate that—among our sample of high-risk men—living in the Wilton Manors neighborhood is associated with risk factors that contribute to HIV transmission. These include past 90-day methamphetamine use and high rates of receptive UAI. Previous studies have also shown the link between gay neighborhood residence and increased rates of methamphetamine use (Carpiano et al., 2011), and the connections between methamphetamine and sexual risk behavior in urban gay subcultures are well established (Green & Halkitis, 2006).

However, we identified lower cocaine use among men who live in the gay neighborhood, as well as lower rates of substance dependence compared with men who live elsewhere. Though the literature suggests that recreational drug use is a prominent part of the urban gay subculture in South Florida (Kurtz, 2008), our findings here indicate that this gay neighborhood may act as buffer against very heavy substance use and related dependence symptoms. Within the limited literature on risk and protective factors associated with gay neighborhood residence, the findings about lower levels of drug problems among gay neighborhood residents versus men living outside of it are novel. One explanation for the finding might be the differences in demographic characteristics of the gay neighborhood we studied compared to the Miami-Ft. Lauderdale Metropolitan Area in general.

Specifically, our study participants residing in the gay neighborhood were more likely to be White, have more education, and be somewhat older than other participants. It seems plausible that men living outside of the gay neighborhood may be more likely to exhibit severe substance use and dependence problems more typical of marginalized urban neighborhoods.

Our data also demonstrate lower odds of engaging in prosocial activities for residents of the gay neighborhood. Literature suggests that enclave communities contribute to risk exposure by isolating individuals from wider social resources and opportunities (Castro & Murray, 2010; Portes & Zhou, 1993). Oppositely, social interactions extending beyond enclave communities (Portes, 1998) and social involvement in events and activities (Hyypa & Maki, 2003) are indicators of resilient neighborhoods and overcoming risk exposure. Thus, our interpretation of these data is that lower involvement in prosocial activities among Wilton Manors residents is a potential risk factor for substance use and HIV transmission risk, especially in light of other research documenting the presence of sex and drug-focused “fast lane” subcultures in gay neighborhoods (Carpiano et al., 2011) and the particularly prominent profile of this phenomenon in South Florida (Kurtz, 2008, 2009).

### *Conclusion*

Our data confirm other research that suggests that residence within urban enclave neighborhoods of gay and bisexual men can actually become a barrier to larger social connections (Kurtz, 2009) and supports others' findings that men who are integrated into urban gay neighborhoods are often less integrated with other social institutions like family or the wider community (Palamar, Mukherjee, & Halkitis, 2008). Urban gay social settings may facilitate risk factors such as normative and increased alcohol and drug use (Kurtz, 2009) and also disrupt self-regulation of substance use (Bauermeister, 2007, 2008).

We also found protective factors associated with living in the gay neighborhood. We found lower levels of substance dependence and, in the bivariate models, lower odds of buying or selling sex. It has been suggested that gay neighborhoods act as a “safe space” for MSM to feel comfortable and to escape discrimination and social stigma, which is a potential reason for such protective factors as those we found (Carpiano et al., 2011). Many of our participants who live in the gay neighborhood expressed similar sentiments, stating that they feel free to be open about their sexuality in public there. In addition, many public health agencies and practitioners target gay neighborhoods such as Wilton Manors to reach the MSM population. A wealth of health information and even condoms are available in this

neighborhood in nearly all gay businesses, restaurants, and entertainment venues. The neighborhood is also home to a gay community center, public health information outreach, and support groups.

Our study suggests that future research should examine how men make decisions to move to a gay neighborhood versus other, more diverse locations, and how they experience living in different types of neighborhoods. Such research could provide important insights into how risk and protective factors associated with gay neighborhood residence emerge and are sustained. In turn, such studies could inform intervention approaches to reduce community risk and increase resilience. This study also points to the social space where gay neighborhood and nonneighborhood residing MSM meet as a potentially key locus for HIV transmission and other health risks. Given the differences in risk and protective factors we found for men living in the gay neighborhood compared with men living elsewhere, it seems likely that there may also be important differences in normative behaviors and communication styles across neighborhoods. Social and sexual interactions among MSM from different neighborhoods could affect health risk behaviors through misunderstandings, as well as differences in social status and peer pressure. This would seem to be especially true in large metropolitan areas with many culturally diverse neighborhoods like the Miami-Ft. Lauderdale Metropolitan Area.

### Authors' Note

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### References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (text revision). Washington, DC: Author.
- Bauermeister, J. A. (2007). It's all about "connecting." *Journal of Ethnicity in Substance Abuse*, 6(1), 109-129.
- Bauermeister, J. A. (2008). Latino gay men's drug functionality. *Journal of Ethnicity in Substance Abuse*, 7(1), 41-65.
- Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems and techniques of chain referral sampling. *Sociological Research & Methods*, 10, 141-163.
- Binnie, J., & Valentine, G. (1999). Geographies of sexuality: A review of progress. *Progress in Human Geography*, 23, 175-187.
- Carpiano, R. M., Kelly, B. C., Easterbrook, A., & Parsons, J. T. (2011). Community and drug use among gay men: The role of neighborhoods and networks. *Journal of Health and Social Behavior*, 52(1), 74-90.
- Castro, F. G., & Murray, K. E. (2010). Cultural adaptation and resilience: Controversies, issues, and emerging models. In J. W. Reich, A. J. Zautra, & J. S. Hall (Eds.), *Handbook of adult resilience* (pp. 375-403). New York, NY: Guilford.
- Centers for Disease Control and Prevention. (2009). *Table 17. Reported AIDS cases and annual rates (per 100,000 population) by metropolitan statistical area of residence, 2006, 2007, and cumulative: United States and Puerto Rico*. Retrieved from <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/2007report/table17.htm>
- Centers for Disease Control and Prevention. (2010). Prevalence and awareness of HIV infection among men who have sex with men: 21 cities, United States, 2008. *Morbidity and Mortality Weekly Report*, 15, 1201-1207.
- Cochran, S. D., Grella, C. E., & Mays, V. M. (2012). Do substance use norms and perceived drug availability mediate sexual orientation differences in patterns of substance use? Results from the California Quality of Life Survey II. *Journal of Studies on Alcohol and Drugs*, 73, 675-685.
- Dennis, M. L. (2006). *Global Appraisal of Individual Needs. Version 5.4*. Bloomington, IL: Chestnut Health Systems.
- Egan, J., Frye, V., Kurtz, S. P., Latkin, C., Chen, M., Tobin, K., . . . Koblin, B. A. (2011). Migration, neighborhoods, and networks: Approaches to understanding how urban environmental conditions affect syndemic adverse health outcomes among gay, bisexual and other men who have sex with men. *AIDS and Behavior*, 15, S35-S50.
- Elder, C., Leaver-Dunn, D., Wang, M. Q., Nagy, S., & Green, L. (2000). Organized group activity as a protective factor against adolescent substance use. *American Journal of Health Behavior*, 24, 108-113.
- Fergus, S., & Zimmerman, M. A. (2005). Adolescent resilience: A framework for understanding health development in the face of risk. *Annual Review of Public Health*, 26, 399-419.
- Frye, V., Koblin, B., Chin, J., Beard, J., Blaney, S., Halkitis, P., . . . Galea, S. (2010). Neighborhood-level correlates of consistent condom use among men who have sex with men: A multi-level analysis. *AIDS Behavior* 14, 974-985.
- Frye, V., Latka, M. H., Koblin, B., Halkitis, P. N., Putnam, S., Galea, S., & Vlahov, D. (2006). The urban environment and sexual risk behavior among men who have sex with men. *Journal of Urban Health*, 83, 308-324.

- Garnezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development*, 55(1), 97-111.
- Garnezy, N., & Streitman, S. (1974). Children at risk: The search for the antecedents of schizophrenia. Part I. Conceptual models and research methods. *Schizophrenia Bulletin*, 8, 14-90.
- Green, A. I. (2003). "Chem friendly": The institutional basis of "club-drug" use in a sample of urban gay men. *Deviant Behavior*, 24, 421-447.
- Green, A. I. (2008). Health and sexual status in an urban gay enclave: An application of the stress process model. *Journal of Health and Social Behavior*, 49, 436-451.
- Green, A. I., & Halkitis, P. N. (2006). Crystal methamphetamine and sexual sociality in an urban gay subculture: An elective affinity. *Culture, Health and Sexuality*, 8, 317-333.
- Harry, J. (1974). Urbanization and the gay life. *Journal of Sex Research*, 10, 238-247.
- Harry, J., & DeVall, W. (1978). Age and sexual culture among homosexually oriented males. *Archives of Sex Behavior*, 7, 199-209.
- Humphreys, L. (1972). *Out of the closets: The sociology of homosexual liberation*. Englewood Cliffs, NJ: Prentice-Hall.
- Hyypa, M. T., & Maki, J. (2003). Social participation and health in a community rich in stock of social capital. *Health Education Research*, 18, 770-779.
- Kelly, B. C., Carpiano, R. M., Easterbrook, A., & Parsons, J. T. (2012). Sex and the community: The implications of neighbourhoods and social networks for sexual risk behaviours among urban gay men. *Sociology of Health & Illness*, 34, 1085-1102. doi:10.1111/j.1467-9566.2011.01446.x
- Kolar, K. (2011). Resilience: Revisiting the concept and its utility for social research. *International Journal of Mental Health Addiction*, 9, 421-433.
- Kurtz, S. P. (2008). Arrest histories of high-risk gay and bisexual men in Miami: Unexpected additional evidence for syndemic theory. *Journal of Psychoactive Drugs*, 40, 513-521.
- Kurtz, S. P. (2009). Between Kansas and Oz: Drugs, sex, and the search for gay identity in the fast lane. In P. L. Hammack & B. J. Cohler (Eds.), *The story of sexual identity: Narrative perspectives on the gay and lesbian life course* (pp. 157-175). New York, NY: Oxford University Press.
- Levay, S., & Nonas, E. (1995). *City of friends: A portrait of the gay and lesbian community in America*. Cambridge: MIT Press.
- Levine, M. P. (1979). Gay Ghetto. *Journal of Homosexuality*, 4, 363-377.
- Menza, T. W., Jameson, D. R., Hughes, J. P., Colfax, G. N., Shoptaw, S., & Golden, M. R. (2010). Contingency management to reduce methamphetamine use and sexual risk among men who have sex with men: A randomized controlled trial. *BMC Public Health*, 10, 774.
- Miller, K. E., Sabo, D. F., Farrell, M. P., & Barnes, G. M. (1998). Athletic participation and sexual behavior in adolescents: The different worlds of boys and girls. *Journal of Health and Social Behavior*, 39, 108-123.
- Mills, T. C., Stall, R., Pollack, L., Paul, J. P., Binson, D., Canchola, J., & Catania, J. A. (2001). Health-related characteristics of men who have sex with men: A comparison of those living in "gay ghettos" with those living elsewhere. *American Journal of Public Health*, 91, 980-983.
- Palamar, J. J., Mukherjee, P. P., & Halkitis, P. N. (2008). A longitudinal investigation of powder cocaine use among club-drug using gay and bisexual men. *Journal of Studies on Alcohol and Drugs*, 69, 806-813.
- Perry, M., Williams, R. L., Wallerstein, N., & Waitzkin, H. (2008). Social capital and health care experiences among low-income individuals. *American Journal of Public Health*, 98, 330-336.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1-24.
- Portes, A., & Zhou, M. (1993). The new second generation: Segmented assimilation and its variants. *The Annals of the American Academy of Political and Social Science*, 530, 74-96.
- Ramirez-Valles, J., Zimmerman, M. A., & Newcomb, M. D. (1998). Sexual risk behavior among youth: Modeling the influence of prosocial activities and socioeconomic factors. *Journal of Health and Social Behavior*, 39, 237-253.
- Rosser, B. R., West, W., & Weinmeyer, R. (2008). Are gay communities dying or just in transition? Results from an international consultation examining structural change in gay communities. *AIDS Care*, 20, 588-595.
- Rothaus, S. (2011). The census confirms it: Wilton Manors is no. 2 national for most gay couples per 1,000. *Miami Herald*. Retrieved from <http://miamiherald.typepad.com/gaysouthflorida/2011/09/the-census-confirms-it-wilton-manors-is-one-of-the-united-states-gayest-places.html>
- Rutter, M. (1987). Parental mental disorder as a psychiatric risk factor. In J. Rolf, A. S. Masten, D. Cicchetti, K. H. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 181-214). New York, NY: Cambridge.
- Smith, D. M., & Gates, G. J. (2001, August 22). *Gay and lesbian families in the United States: Same-sex unmarried partner households: a preliminary analysis of 2000 United States Census data, a human rights campaign report*. Washington, DC: Human Rights Campaign.
- Watters, J. K., & Biernacki, P. (1989). Targeted sampling: Options for the study of hidden populations. *Social Problems*, 36, 416-430.
- Weden, M. M., Carpiano, R. M., & Robert, S. A. (2008). Subjective and objective neighborhood characteristics and adult health. *Social Science & Medicine*, 66, 1256-1270.

- Weinberg, M., & Williams, C. (1974). *Male homosexuals*. New York, NY: Oxford University Press.
- Wright, M. O., & Masten, A. S. (2006). Resilience processes in development. In S. Goldstein & R. Brooks (Eds.), *Handbook of resilience in children* (pp. 17-38). New York, NY: Springer.
- U.S. Census Bureau. (2010a). *Miami-Dade County, Florida*. Retrieved from <http://quickfacts.census.gov/qfd/states/12/12086.html>
- U.S. Census Bureau. (2010b). *State and county quick facts: Wilton Manors, Florida*. Retrieved from <http://quickfacts.census.gov/qfd/states/12/1278000.html>
- Xue, Y., Zimmerman, M. A., & Caldwell, C. H. (2007). Neighborhood residence and cigarette smoking among urban youths: The protective role of prosocial activities. *American Journal of Public Health, 97*, 1865-1872.
- Zimmerman, M. A. (1995). Psychological empowerment: Issues and illustrations. *American Journal of Community Psychology, 2*, 581-599.