Raising Sexual Minority Youths' Health Levels by Incorporating Resiliencies Into Health Promotion Efforts

Myriad health inequities that sexual minority youths (SMYs) experience have been documented over the past several decades. Evidence demonstrates that these are not a result of intrinsic characteristics; rather, they result from high levels of adversity that SMYs experience. Despite the pervasive marginalization that SMYs face, there is also evidence of great resilience within this population. It seems likely that if a culture of marginalization produces health inequities in SMYs, a culture of acceptance and integration can work to produce resiliencies.

We have described how promoting forms of acceptance and integration could work to promote resilient SMYs despite an overarching culture of marginalization.

Building on SMYs' resiliencies may potentiate the effectiveness of health promotion interventions to reduce health disparities within this population. (*Am J Public Health*. 2014;104: 206–210. doi:10.2105/AJPH. 2013.301546)

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OVER THE PAST SEVERAL DE-

cades, researchers and public health practitioners have documented myriad health inequities that sexual minority youths (SMYs) experience. SMYs are individuals who identify as lesbian, gay, or bisexual (LGB) or who are attracted to or engage in sexual behaviors with individuals of the same gender. Male and transgender SMYs disproportionately bear the burden of HIV. SMYs are also at increased risk for psychological distress, including depression, selfharm, and suicidality.2-8 SMYs experience higher rates of substance use and abuse^{9,10} and violence victimization than do their heterosexual peers.¹¹⁻¹³ Health inequities experienced during childhood or adolescence are irrefutably harmful to the well-being of SMYs and have continuing deleterious effects as these individuals achieve adulthood.14-17

Research on SMYs' health inequities has progressed from exploratory work to methodologically rigorous population-based designs. This development parallels the progression toward achieving greater scientific rigor in the larger field of LGB health research, permitting stronger conclusions about their health inequities. To give an example of this process from the substance abuse field, a set of early studies reported rates of alcohol abuse among sexual minority adults that, if true, would be among the highest in the world. 18,19 However, by oversampling bar patrons and relying on convenience samples, these

studies had a high probability of selection bias. Later work, incorporating population-based sampling methods, found that although sexual minorities are unlikely to abuse alcohol at rates as high as previously thought, rates of substance abuse in this population are higher than those among heterosexuals.^{20–22} Initial studies with nonprobability samples have, despite their limitations, inspired the field of sexual minority health by providing a foundation of evidence for health inequities, thereby justifying the support of more rigorous research efforts to measure their extent.

The articles in this section represent a culmination of decadeslong documentation of SMYs' health inequities. The scientific rigor of these analyses from the population-based Youths Risk Behavior Surveillance System allows researchers to build on existing literature to make two strong assertions. First, SMYs experience numerous significant and lifethreatening health inequities. Second, the era in which descriptive studies of SMYs' health risks have had their greatest impact is drawing to a close. It is time to develop and test interventions to raise health levels. We have proposed a research agenda for developing resiliency-based interventions to achieve this goal.

CULTURAL PRODUCTION OF INEQUITIES

A strong body of evidence supports the conclusion that SMYs'

health inequities are not a result of intrinsic characteristics. Rather, they result from high levels of adversity that SMYs experience. 14,23 SMYs are more likely than are their peers to experience sexual and physical abuse and school-based assaults. 23 Sexual minority stress significantly affects both mental and physical health.

The environment many SMYs negotiate daily negatively affects multiple aspects of their physical, mental, and social health; effects extend into adulthood and are often amplified within multiply marginalized communities. For example, Millett demonstrates that disparate HIV incidence and prevalence rates among African American sexual minority individuals are associated not with increased behavioral disparities but with contextual environmental factors.24,25 The theory of syndemic production provides a framework to describe how SMYs' social and emotional development occurs within systems of socially sanctioned homophobic violence (e.g., sexual abuse, internalized homophobia, violence) and structural inequality (e.g., delimited citizenship), thereby predisposing individuals to vulnerability for psychosocial health problems as they mature (e.g., substance abuse, depression).14,26,27 This model demonstrates that health inequities development is a lifelong process initiated by the significant impact of early life experiences on wellbeing. The path toward sexual minority health inequities begins

with cultural marginalization and victimization at a young age, which can have measurable negative effects across the life course.

CULTURAL PRODUCTION OF RESILIENCE

Despite the pervasive marginalization that SMYs face and the health inequities that follow, there is also evidence of great resilience. Most investigations, including many of the studies contained in this issue, have found that SMYs experience substantially higher rates of negative health outcomes than do heterosexual youths. However, in the majority of these investigations, those suffering negative health outcomes are a minority of SMYs, suggesting that despite pervasive marginalization, many SMYs overcome adversity and demonstrate resilience by their relative well-being.

The origin of resilience is largely unknown. It does not appear to be solely an individual trait inherent in some and absent in others; rather, most useful definitions conceptualize resilience by two key factors: adaptation and process. First, resilience is positive adaptation in the face of adversity and risk. The experience of adversity is a crucial component. Resilience theory does not attempt to learn from those without risk exposure: that would not be generalizable to those most in need of interventions. Without adversity to overcome, there can be no resilience. Second, resilience is a process. Although resilience has been conceptualized as a trait, it appears, instead, to originate as a complex and fluid process that, like risk taking, is inflected by both heritable and environmental facets. This view maintains that persons are not born with fixed

resilience attributes and do not develop a singular skill conferring resilience for every adverse situation. Rather, individuals can learn and demonstrate an array of resiliencies over time, developing protective factors as needed.^{28–31}

It seems likely that if a culture of marginalization produces health inequities in SMYs, a culture of acceptance and integration can work to produce resiliencies.

SMYs' health inequities are not a result of a LGB status but of the hostile environment in which they exist. Creating a safe cultural context for maturing SMYs is likely a key factor in offsetting cultural marginalization and promoting resilience.

Acceptance and Integration of Self

Realizing one's sexuality, when that sexuality confers a minority status at best or is defined as deviant or caustic at worst, can be extremely isolating. However, integration of the self into a stable identity is a crucial component of healthy youths' development. 32,33 This is possible even when one's identity is situated outside dominant cultural expectations as long as it is accepted by and acceptable to the individual. When SMYs realize their otherness is a result of same-sex attractions, they are able to assign meaning to, and understand, this otherness. Selfacceptance of sexual minority status and integration of sexual identity into an overall self-concept are the first steps in combating the cultural onslaught that SMYs are likely to experience, and these steps count as forms of resilience in and of themselves.

Coming out to others can also expose SMYs to adversity. Few youths experience coming out without any rejection or marginalization. However, coming out confers access to a shared history and a subculture to which SMYs belong, even if they have not yet made any tangible connections to LGB communities. Research has shown that the length of time spent concealing one's sexuality is associated with persistent negative health outcomes, suggesting that swifter movement toward self-acceptance and coming out (when safe) would support resiliency development. 34-36

Youths who are able to comprehend and counteract the stigma they experience may be better positioned to adapt to it in ways that help them bypass longterm negative health effects of cultural marginalization. For instance, the ability to resolve internalized homophobia is associated with the avoidance of future health problems.³⁷ Pride has long been an individual protective factor that sexual minority communities promote. Youths who are able to adopt a proud stance toward their emerging sexual minority identity may have an easier time realizing and sharing this integral part of themselves.

To develop a self-concept that includes pride rather than shame, SMYs require access to cultural messages that promote positive stances. For example, the It Gets Better project (http://www. itgetsbetter.org) is an online video campaign designed to demonstrate to youths that despite their current desperation, life as a sexual minority adult can contain much promise and happiness. This Web site contains more than 50 000 videos, many made by influential people, which have been viewed more than five million times. Although this project has not yet been rigorously evaluated, it is promoting a cultural

shift in which heterosexuals (e.g., President Obama, professional sports teams) are aware of homophobia's impacts and moved to participate in their removal. This project is an example of a collective movement to promote self-acceptance and integration among SMYs that may reach the individual level. Thus it is also an example of how cultural change can promote resilience via community-based interventions.

Sexual Minority Communities

Acceptance and integration into sexual minority communities can also promote resiliency development among SMYs. In many circumstances, SMYs ostracized by mainstream culture will seek out sexual minority communities in person or virtually. Sexual minority community affiliations can provide mentorship, modeling of protective health behaviors, emotional support, safe space, and other assets and resources necessary for healthy development.

Despite the theory that integration into sexual minority communities is beneficial to youths, research has shown mixed results of its practice. For example, higher levels of connection to sexual minority communities are associated with substance use,38 smoking,39 and lower body satisfaction. 40 Conversely, connection to sexual minority communities has been associated with lower levels of internalized homophobia41 and lower rates of sexual risk among young men.42 There is evidence that SMYs who do not attach themselves to LGB communities suffer elevated health inequities. For instance, bisexuals, who report low community involvement, 43 feelings of invisibility,44 and stigma from LGB communities,45 face greater risk of bullying, victimization, family and school

disconnectedness, substance use, and transactional sex than do their gay and lesbian peers. This indicates that community building and attachment, by conferring social support and strengths associated with collective mobilization, may constitute important moderators of SMYs health inequities. 7,23,46,47

Although sexual minority communities may not be entirely safe for SMYs, there is evidence within these communities of natural resiliencies that demonstrate the ability to create safety in otherwise unsafe situations. Many LGB communities have demonstrated a rich history of adaptive responses, or positive deviance, which promotes resiliencies in the face of adversity. Positive deviance is individuals' use of strategies and practices in risky environments to avoid negative outcomes associated with risk exposures. 48,49 For example, gay and bisexual men have lately developed a set of sexual risk reduction practices—referred to as serosorting-to minimize HIV acquisition and transmission. 50,51 Some of the most marginalized SMY communities, for instance those comprising homeless or African American SMYs, have created complex fictive kin structures to substitute for missing biological families and ensure that physical and emotional needs are met. 51,52

Smaller, more localized community structures, such as school-based gay—straight alliances and support groups, have been shown to impart to SMYs strengths to offset cultural marginalization through empowerment, mentorship, and safe space provision. 53 Boosting safely structured youth programs within sexual minority communities may increase intervention opportunities and produce resiliencies needed to counterbalance adversarial exposure.

The Larger Culture

Perhaps the most important acceptance for SMYs is into heterosexual majority culture. Increased self-acceptance and integration into sexual minority communities can help promote the resiliencies necessary to offset or overcome the effects of not being fully accepted into mainstream culture. However, if sociocultural oppression and marginalization were diminished, the need for individual- and community-level intervention would be diminished. For example, Hatzenbueler et al. found that sexual minority individuals living in states instituting bans on same-sex marriage during the 2004 and 2005 election cycles had higher prevalence of psychiatric disorders than did heterosexuals in the same states and sexual minorities in states without such bans. 54 Although the effects of institutionalized discrimination on the mental health of youths is unknown, these effects may be even more pronounced among youths coming of age, as these bans reinforce cultural assumptions about the abnormality of sexual minorities.

SMYs often come to terms with their sexuality in isolation, within a culture that may deny them access to such basic rights as marriage, adoption, and protection against housing and employment discrimination. Within this context it is not surprising that SMYs may lack some of the life goals and visions for the future that contribute to a trajectory of health. When SMYs mature in a context of full citizenship, with access to the range of benefits and rights afforded to their heterosexual peers, there will no longer need to be reliance on innovative ways to offset the risks associated with social marginalization.

Rather, cultural acceptance and integration of SMYs into mainstream society will minimize the marginalization these youths experience, thereby minimizing resultant health inequities. Meanwhile, researchers must develop, implement, and evaluate interventions that increase acceptance of SMYs among communities-atlarge.

MOVING THE RESEARCH AGENDA FORWARD

We have reached the end of the era during which descriptive research was the most valuable approach to studying health among SMYs. By building on the important work already completed, we have the opportunity to proceed from descriptive riskbased research to intervention development that incorporates resiliencies. Incorporation of resiliencies into health promotion offers the opportunity to include lessons learned from SMYs who have been able to successfully negotiate adversarial experiences. Building on resiliencies described here, and other, yet-tobe-discovered resiliencies in youths, may extend the duration of intervention effects as SMYs continue to identify and access resiliencies applicable to multiple aspects of their lives.

Ample evidence shows that SMYs experience a spectrum of health inequities. These inequities result from maturing in a corrosive cultural environment. Although health vulnerabilities and inequities among SMYs have been described and important insights about pathways of risk development have been gained, current risk-based theoretical models are unable to comprehensively describe pathways to health. We have argued that cultural

movements that make it easier for youths to come out without fear of marginalization or violence victimization are central to promoting SMYs' health. Overreliance on theoretical models centering on risk and vulnerability-which produce interventions that address vulnerabilities among SMYs but permit them to remain in toxic cultural settings-impedes a fuller understanding of their health and illness. Incorporating strategies that SMYs have used to thrive in adversity may increase the potency of interventions. Thus, the most productive step researchers can take to move the field forward is to incorporate more comprehensive and holistic theories that include pathways of resiliencies and risks when designing healthpromoting interventions.

We must acknowledge that what we, as public health professionals, have been doing to-date has not sufficed to fully understand and intervene with SMYs. The theoretical work we have proposed will describe and characterize the wide breadth of SMYs' resiliencies, allowing us to better predict health trajectories and produce theoretical models as bases for intervention design. By testing the effects of interventions designed not only to address vulnerabilities among SMY but also to incorporate and support their many resiliencies, we will take an important step toward ameliorating the many health inequities described in this issue and toward raising levels of health among the young adults that they will soon become.

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Contributors

A. L. Herrick led the development of the article, including writing. All other authors contributed to the conceptualization of the commentary and reviewed the drafts.

References

- 1. Centers for Disease Control and Prevention. Sexual and reproductive health of persons aged 10–24 years—United States, 2002–2007. MMWR Surveill Summ. 2009;58(6):1–58.
- 2. Almeida J, Johnson RM, Corliss HL, Molnar BE, Azrael D. Emotional distress among LGBT youth: the influence of perceived discrimination based on sexual orientation. *J Youth Adolesc.* 2009;38 (7):1001–1014.
- 3. Birkett M, Espelage DL, Koenig B. LGB and questioning students in schools: the moderating effects of homophobic bullying and school climate on negative outcomes. *J Youth Adolesc.* 2009;38 (7):989–1000.
- 4. Bontempo DE, D'Augelli AR. Effects of at-school victimization and sexual orientation on lesbian, gay, or bisexual youths' health risk behavior. *J Adolesc Health*. 2002;30(5):364–374.
- 5. Garofalo R, Wolf RC, Kessel S, Palfrey SJ, DuRant RH. The association between health risk behaviors and sexual orientation among a school-based sample of adolescents. *Pediatrics*. 1998;101(5): 895–902.
- 6. Jiang Y, Perry DK, Hesser JE. Adolescent suicide and health risk behaviors: Rhode Island's 2007 Youth Risk Behavior Survey. *Am J Prev Med.* 2010;38(5): 551–555.
- 7. Russell ST, Joyner K. Adolescent sexual orientation and suicide risk: evidence from a national study. *Am J Public Health*. 2001;91(8):1276–1281.
- 8. Saewyc EM, Skay CL, Hynds P, et al. Suicidal ideation and attempts in North American school-based surveys: are bisexual youth at increasing risk? *J LGBT Health Res.* 2007;3(2):25–36.
- 9. Corliss HL, Rosario M, Wypij D, Wylie SA, Frazier AL, Austin SB. Sexual orientation and drug use in a longitudinal cohort study of U.S. adolescents. *Addict Behav.* 2010;35(5):517–521.
- 10. Marshal MP, Friedman MS, Stall R, Thompson AL. Individual trajectories of

- substance use in lesbian, gay and bisexual youth and heterosexual youth. *Addiction*. 2009:104(6):974–981.
- 11. Kosciw JG, Greytak EA, Diaz EM, Bartkiewicz MJ. The 2009 National School Climate Survey: The Experiences of Lesbian, Gay, Bisexual and Transgender Youth in Our Nation's Schools. New York, NY: Gay, Lesbian and Straight Education Network; 2010.
- 12. DuRant RH, Krowchuk DP, Sinal SH. Victimization, use of violence, and drug use at school among male adolescents who engage in same-sex sexual behavior. *J Pediatr.* 1998;133(1):113–118.
- 13. Faulkner AH, Cranston K. Correlates of same-sex sexual behavior in a random sample of Massachusetts high school students. *Am J Public Health.* 1998;88(2): 262–266.
- 14. Herrick AL, Lim SH, Plankey MW, et al. Adversity and syndemic production among men participating in the multicenter AIDS cohort study: a life-course approach. *Am J Public Health*. 2013;103 (1):79–85.
- 15. Mimiaga MJ, Noonan E, Donnell D, et al. Childhood sexual abuse is highly associated with HIV risk-taking behavior and infection among MSM in the EX-PLORE study. *J Acquir Immune Defic Syndr*. 2009;51(3):340–348.
- Rivers I. Recollections of bullying at school and their long-term implications for lesbians, gay men, and bisexuals. *Crisis*. 2004;25(4):169–175.
- Rivers I. The bullying of sexual minorities at school: its nature and longterm correlates. *Educ Child Psychol*. 2001;18(1):32–46.
- 18. Fifield LH, Latham JD. Alcoholism in the Gay Community: the Price of Alienation, Isolation, and Oppression. New York, NY: Gay Community Services Center; 1977.
- 19. Wilsnack SC, Hughes TL, Johnson TP, et al. Drinking and drinking-related problems among heterosexual and sexual minority women. *J Stud Alcohol Drugs*. 2008;69(1):129–139.
- 20. Stall R, Paul JP, Greenwood G, et al. Alcohol use, drug use and alcohol-related problems among men who have sex with men: the Urban Men's Health Study. *Addiction*, 2001;96(11):1589–1601.
- Cochran SD, Keenan C, Schober C, Mays VM. Estimates of alcohol use and clinical treatment needs among homosexually active men and women in the US population. J Consult Clin Psychol. 2000;68(6):1062–1071.
- 22. Stall R, Wiley J. A comparison of alcohol and drug use patterns of homosexual and heterosexual men: the San Francisco Men's Health Study. *Drug Alcohol Depend.* 1988;22(1–2): 63–73.

- 23. Friedman MS, Marshal MP, Guadamuz TE, et al. A meta-analysis of disparities in childhood sexual abuse, parental physical abuse, and peer victimization among sexual minority and sexual nonminority individuals. *Am J Public Health.* 2011;101(8):1481–1494.
- 24. Millett GA, Peterson JL, Wolitski RJ, Stall R. Greater risk for HIV infection of Black men who have sex with men: a critical literature review. *Am J Public Health*. 2006;96(6):1007–1019.
- 25. Millett GA, Peterson JL, Flores SA, et al. Comparisons of disparities and risks of HIV infection in Black and other men who have sex with men in Canada, UK, and USA: a meta-analysis. *Lancet.* 2012; 380(9839):341–348.
- 26. Stall R, Friedman M, Catania J. Interacting epidemics and gay men's health: a theory of syndemic production among urban gay men. In: Wolitski RJ, Stall R, Valdiserri RO, eds. *Unequal Opportunity: Health Disparities Affecting Gay and Bisexual Men in the United States*. New York, NY: Oxford University Press; 2008:251.
- 27. Dyer TP, Shoptaw S, Guadamuz TE, et al. Application of syndemic theory to Black men who have sex with men in the Multicenter AIDS Cohort Study. *J Urban Health*. 2012;89(4):697–708.
- 28. Garmezy N. Resilience in children's adaptation to negative life events and stressed environments. *Pediatr Ann.* 1991;20(9):459–460, 463–466.
- 29. Luthar SS. Vulnerability and resilience: a study of high-risk adolescents. *Child Dev.* 1991;62(3):600–616.
- 30. Masten AS, Hubbard JJ, Gest SD, Tellegen A, Garmezy N, Ramirez M. Competence in the context of adversity: pathways to resilience and maladaptation from childhood to late adolescence. *Dev Psychopathol.* 1999;11(1):143–169.
- 31. Fergus S, Zimmerman MA. Adolescent resilience: a framework for understanding healthy development in the face of risk. *Annu Rev Public Health*. 2005;26: 399–419.
- Marcia JE. Identity in adolescence.
 In: Adelson J, ed. *Handbook of Adolescent Psychology*. New York, NY: Wiley;
 1980:9.
- 33. McCarn SR, Fassinger RE. Revisioning sexual minority identity formation a new model of lesbian identity and its implications for counseling and research. *Couns Psychol.* 1996;24(3): 508–534
- 34. Pachankis JE. The psychological implications of concealing a stigma: a cognitive–affective–behavioral model. *Psychol Bull.* 2007;133(2):328–345.
- 35. Pachankis JE, Westmaas JL, Dougherty LR. The influence of sexual

- orientation and masculinity on young men's tobacco smoking. *J Consult Clin Psychol.* 2011;79(2):142–152.
- 36. Cole SW, Kemeny ME, Taylor SE, Visscher BR. Elevated physical health risk among gay men who conceal their homosexual identity. *Health Psychol*. 1996;15(4):243–251.
- 37. Herrick AL, Stall R, Chmiel JS, et al. It gets better: resolution of internalized homophobia over time and associations with positive health outcomes among MSM. *AIDS Behav.* 2013;17(4):1423–1430
- 38. Fernández MI, Bowen GS, Warren JC, et al. Crystal methamphetamine: a source of added sexual risk for Hispanic men who have sex with men? *Drug Alcohol Depend*. 2007;86(2–3):245–252
- 39. Holloway IW, Traube DE, Rice E, et al. Community and individual factors associated with cigarette smoking among young men who have sex with men. *J Res Adolesc.* 2012;22(2): 199–205.
- 40. Beren SE, Hayden HA, Wilfley DE, Grilo CM. The influence of sexual orientation on body dissatisfaction in adult men and women. *Int J Eat Disord*. 1996;20(2):135–141.
- 41. Herek GM, Cogan JC, Gillis JR, Glunt EK. Correlates of internalized homophobia in a community sample of lesbians and gay men. *J Gay Lesbian Med Assoc.* 1998;2(1):17–26.
- 42. Lelutiu-Weinberger C, Pachankis JE, Golub SA, Walker JNJ, Bamonte AJ, Parsons JT. Age cohort differences in the effects of gay-related stigma, anxiety and identification with the gay community on sexual risk and substance use. *AIDS Behav.* 2013;17(1): 340–349.
- 43. Dodge B, Schnarrs PW, Reece M, et al. Community involvement among behaviourally bisexual men in the Midwestern USA: experiences and perceptions across communities. *Cult Health Sex.* 2012;14(9):1095–1110.
- 44. Ross LE, Dobinson C, Eady A. Perceived determinants of mental health for bisexual people: a qualitative examination. *Am J Public Health*. 2010;100 (3):496–502.
- 45. Ochs R. Biphobia: it goes more than two ways. In: Firestein BA, ed. *Bisexuality: The Psychology and Politics of an Invisible Minority.* Thousand Oaks, CA: Sage; 1996:217–239.
- 46. Pathela P, Schillinger JA. Sexual behaviors and sexual violence: adolescents with opposite-, same-, or both-sex partners. *Pediatrics*. 2010;126(5): 879–886.

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- 47. Saewyc EM, Homma Y, Skay CL, Bearinger LH, Resnick MD, Reis E. Protective factors in the lives of bisexual adolescents in North America. *Am J Public Health*. 2009;99(1):110–117.
- 48. Berggren WL, Wray JD. Positive deviant behavior and nutrition education. *Food Nutr Bull.* 2002;23(4, suppl): 9–10.
- 49. Marsh DR, Schroeder DG, Dearden KA, Sternin J, Sternin M. The power of positive deviance. *BMJ*. 2004;329 (7475):1177–1179.
- 50. Eaton LA, Kalichman SC, O'Connell DA, Karchner WD. A strategy for selecting sexual partners believed to pose little/no risks for HIV: serosorting and its implications for HIV transmission. *AIDS Care.* 2009;21(10): 1279–1288.
- 51. Truong HM, Kellogg T, Klausner JD, et al. Increases in sexually transmitted infections and sexual risk behaviour without a concurrent increase in HIV incidence among men who have sex with men in San Francisco: a suggestion of HIV serosorting? Sex Transm Infect. 2006;82(6):461–466.
- 52. Murrill CS, Liu K, Guilin V, et al. HIV prevalence and associated risk behaviors in New York City's House Ball community. *Am J Public Health.* 2008;98(6): 1074–1080.
- 53. Poteat VP, Sinclair KO, DiGiovanni CD, Koenig BW, Russell ST. Gay-straight alliances are associated with student health: a multischool comparison of LGBTQ and heterosexual youth. *J Res Adolesc.* 2012;23(2): 319–330.
- 54. Hatzenbuehler ML, McLaughlin KA, Keyes KM, Hasin DS. The impact of institutional discrimination on psychiatric disorders in lesbian, gay, and bisexual populations: a prospective study. *Am J Public Health*. 2010;100(3): 452–459.