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Unraveling Health Disparities Among Sexual and Gender Minorities: A Commentary on the Persistent Impact of Stigma

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ABSTRACT

LGBT (lesbian, gay, bisexual, and transgender) populations experience disparities in health outcomes, both physical and mental, compared to their heterosexual and cisgender peers. This commentary confronts the view held by some researchers that the disparate rates of mental health problems reported among LGBT populations are the consequences of pursuing a particular life trajectory, rather than resulting from the corrosive and persistent impact of stigma. Suggesting that mental health disparities among LGBT populations arise internally, de novo, when individuals express non-heterosexual and nonconforming gender identities ignores the vast body of evidence documenting the destructive impact of socially mediated stigma and systemic discrimination on health outcomes for a number of minorities, including sexual and gender minorities. Furthermore, such thinking is antithetical to widely accepted standards of health and wellbeing because it implies that LGBT persons should adopt and live out identities that contradict or deny their innermost feelings of self.

KEYWORDS

Sexual minorities; transgender; stigma; health disparities; discrimination

Over 70 years ago, the following definition of health was adopted as part of the preamble to the Constitution of the World Health Organization, and it has not changed since: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization, 1946). As reaffirmed by the United Nations Office of the High Commissioner for Human Rights (OHCHR), "the right to health is a fundamental part of our human rights and of our understanding of a life in dignity" (2008). With the advancement of biomedical sciences, many approaches to health improvement have, understandably, focused on preventing or improving disease outcomes. But, increasingly, we have come to recognize the critical role that social, economic, and other structural factors play in shaping health outcomes (Braveman, Egerter, & Mockenhaupt, 2011),



including the negative impact of population-level social disadvantage (Braveman, Kumanyika, et al., 2011).

Understanding the forces that foster—or inhibit—health requires that we confront the persistently disproportionate burden of disease, disability, and death that attends a number of minority groups (Centers for Disease Control and Prevention, 2013). While much of the earliest work on health disparities focused exclusively on differences related to race and ethnicity, especially among those living in poverty, more recently, other dimensions of identity, including sexual and gender identity, have been added to the critical mix of determinants that can influence health outcomes (Wolitski, Stall, & Valdiserri, 2008).

LGBT health disparities

Our national experience with the HIV/AIDS epidemic has brought to light the disproportionate burden of HIV disease among gay and other men who have sex with men (MSM) (Rosenberg, Grey, Sanchez, & Sullivan, 2016; Wejnert et al., 2016) and transgender women (Baral et al., 2013; Herbst et al., 2008). But HIV infection is by no means the only example of a health threat that is found to affect sexual and gender minorities in a disproportionate manner (Blosnich, Farmer, Lee, Silenzio, & Bowen, 2014; Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013; Gonzales, Przedworski, & Henning-Smith, 2016; Operario et al., 2015). A 2008 meta-analysis of 25 studies showed higher rates of depression, anxiety disorders and suicide attempts among persons who identified as lesbian, gay, or bisexual compared to those identifying as heterosexual (King et al., 2008). Researchers analyzing data from the 2004-2005 National Epidemiologic Survey on Alcohol and Related Conditions found higher odds of mood or anxiety disorders for respondents who identified as lesbian, gay, or bisexual compared to heterosexuals, noting different patterns for women, men, and specific sexual minority groups (Bostwick, Boyd, Hughes, & McCabe, 2010). And a number of studies have found "alarmingly high" rates of suicidal ideation and suicide attempts among transgender and non-gender-conforming persons (see Testa et al., 2017, p. 125).

Disparate rates of substance use have also been noted among LGBT populations. In 2013, data from the National Health Interview Survey documented higher rates of cigarette smoking and alcohol use among respondents who identified as gay or lesbian or bisexual compared to those who identified as "straight" (Ward, Dahlhamer, Galinsky, & Joestl, 2014). Even chronic diseases, such as asthma, have been reported at higher frequencies in gays, lesbians, and bisexuals, when compared to heterosexuals (Conron, Mimiaga, & Landers, 2010).

Mental health disparities among lesbian, gay, bisexual, and transgender youth are a particular concern, with repeated documentation of "elevated rates of emotional distress, symptoms related to mood and anxiety disorders, self-harm, suicidal ideation, and suicidal behavior when compared to heterosexual youth" (Russell & Fish, 2016, p. 470). Data on the average age at "coming out" (i.e., the age at which LGBT youth first reveal their sexual or gender identities to others) show increasingly younger ages when comparing today's youth to those of decades past (Russell & Fish, 2016). Psychologists have posited that today's LGBT youth are now more likely to come out during a developmental period "characterized by strong peer influence and opinion" and, as such, very likely to face peer victimization (Russell & Fish, 2016, p. 468). This assumption is supported by data from the 2015 Youth Risk Behavior Surveillance System (YRBSS), a national survey of over 15,000 American students enrolled in grades 9-12 (Kann et al., 2016). The survey revealed that students who self-identified as gay, lesbian, bisexual, or "not sure" were more likely, compared to heterosexual peers, to report being electronically bullied, bullied on school property, and having missed at least one day of school during the past 30 days because they felt unsafe (Kann et al., 2016). The YRBSS also reported other measures of violencerelated risk behaviors at a higher frequency among sexual minority students, including having seriously considered attempting suicide (Kann et al., 2016).

What accounts for LGBT health disparities?

Citing the "disproportionate rate of mental health problems" in the LGBT community, a 2016 "special report" published in the periodical The New Atlantis purported to offer readers "scientific insight" into the causes of these disparities (Mayer & McHugh, 2016, p. 4). In a narrative encompassing over 140 pages and several hundred references, the authors developed multiple recommendations in the domains of sexual orientation, gender identity and sexuality, mental health outcomes, and social stress. While the authors conceded that there was "limited" evidence supporting the role that stigma and discrimination can play in fostering poor mental health outcomes for non-heterosexual and transgender populations, they opined that social stressors and discrimination were not responsible for "a majority of the disparity," and they called for additional longitudinal studies before social stress models could become "a useful tool" in developing appropriate public health responses (Mayer & McHugh, 2016, pp. 8, 114), Instead, their strong pronouncements that neither gender identity nor sexual orientation are innate, along with their persistent subtext that self-acceptance of same-sex attraction and gender non-congruence are incompatible with healthy states of being, strongly suggest that these authors believe that mental health problems arising among LGBT persons result from the expression of their felt identities

and, thus, could be minimized if sexual and gender minorities adopted heterosexual identities and, in the case of gender non-congruent persons, identities consistent with their assigned sex at birth.

The following commentary does not propose to analyze theories of gender and sexual identity development, other than to assert that these processes are complex and multifactorial, involving genetic, hormonal, psychosocial, and other contributing factors (Bailey et al., 2016). However, as public health professionals, we are deeply concerned by Mayer and McHugh's minimization of the large, coherent, and consistent body of evidence documenting the role that stigma plays in population health disparities, including disparities seen among sexual and gender minorities. Embracing the definition of stigma as "the co-occurrence of labeling, stereotyping, separation, status loss, and discrimination in which power is exercised" (Hatzenbuehler, Phelan, & Link, 2013, p. 813), this commentary will rely heavily on Meyer's theory of minority stress as a construct for understanding mental health disparities among sexual and gender minorities-and as a potential framework for developing appropriate public health responses to reduce those disparities (2003). In the narrative that follows, evidence will be provided to support the following premise:

Stigma is a major determinant of mental health disparities among LGBT populations. Despite advances in recent years, sexual and gender minorities in the United States continue to experience stigma and discrimination based on their expressed identities. Whether experienced, perceived, or anticipated, stigma impacts a variety of processes, including availability of resources, social relationships, psychological and social responses-all of which can mediate health outcomes and result in health inequities. (see Braverman, Kumanyika, et al., 2011; Hatzenbuehler et al., 2013)

The current state of LGBT acceptance

Since 1977, the Gallup organization has been asking Americans questions related to their attitudes about gay and lesbian people (2016). Sixty-eight percent of Americans surveyed in 2015 thought that gay or lesbian relations between consenting adults should be legal, compared to 43% in 1977; in 2016, 60% of Americans surveyed thought that gay or lesbian relations were "morally acceptable" compared to 40% in 2001 (Gallup, 2016). Undoubtedly, attitudes have improved in recent years. Nonetheless, it is noteworthy that in both cited examples, approximately one third of persons surveyed continued to view gay or lesbian relations as illegal and/or "morally wrong."

A 2016 legal review of employment discrimination protections for LGBT persons found that only "nineteen states and the District of Columbia prohibit discrimination based on sexual orientation and gender identity for both public and private employment" (Altieri, Cho, & Issa, 2016, p. 264).

Evidence also suggests that sexual minorities may experience discrimination in housing. A 2011 assessment found that same-sex couples experience "less favorable treatment" than heterosexual couples in the online rental housing market (Friedman et al., 2013, p. iv).

Surveys of sexual and gender minorities provide further evidence of ongoing prejudice and discrimination. Results from a 2015 internet survey of 2590 American MSM revealed various types of self-reported stigma, with verbal harassment (56.7%), family gossip (50%), and "being scared to be in public" (31.8%) the most frequently reported items (Stahlman et al., 2016, p. 8). Although less frequent, family exclusion (31.1%), rejection by friends (28.2%), fear of seeking health care (27.4%), and being physically hurt (18.8%) were also reported (Stahlman et al., 2016). Respondents living in rural areas were more likely to report being afraid to seek health care, avoiding health care, and feeling as though the police refused to protect them (Stahlman et al., 2016). A smaller, community-based ethnographic study of 31 Black MSM from New York City revealed similar levels of mistrust and fear of social and public institutions (e.g., churches, schools, the police), pointing out the need for safe spaces where sexual minority men can meet to share information and support one another (Garcia et al., 2015).

Discrimination based on gender identity is also a common occurrence among transgender and gender non-conforming (TGNC) persons. In 2011, results from the first national survey of 6,450 TGNC persons found that nearly two thirds of respondents (63%) had experienced a serious act of discrimination such as eviction, job loss, denial of medical services, or physical or sexual assault (Grant et al., 2011).

Among the most distressing data documenting stigma directed toward sexual and gender minorities come from an examination of U.S. hate crime statistics, including homicides committed against persons based on their sexual orientation and/or expressed gender identity. Data collected by the Department of Justice's National Crime Victimization Survey and the Federal Bureau of Investigation's Uniform Crime Reports indicate that in 2012, 26% of reported hate crimes were related to gender and 13% to sexual orientation; the former category includes, but is not limited to, hate crimes committed against those who express a gender different from their natal sex (Wilson, 2014). The National Coalition of Anti-Violence Programs collated data on 1,253 reported incidents of hate violence directed against LGBT populations in 2015 (Waters, Jindasurat, & Wolfe, 2016). Data submitted by 13 organizations located in 12 states included 24 hate-related homicides, representing a 20% increase from 2014; 67% of the reported homicide victims were TGNC persons (Waters et al., 2016). And days following the Orlando gay nightclub shooting in June 2016, the New York Times, analyzing FBI data, reported that



LGBT persons are more likely to be the targets of hate crimes than any other minority group in the United States (Park & Mykhyalyshyn, 2016).

Why does stigma persist?

Although a detailed analysis of the roots of LGBT stigma is beyond the scope of this commentary, briefly highlighting the major wellsprings of negative societal attitudes toward LGBT persons provides a framework for identifying points of intervention. First, one must acknowledge that until relatively recently—in fact, within the lifetime of some readers—same-sex attraction and gender non-conformity were identified by leading medical and scientific organizations as mental disorders, abnormal states of being that were worthy of cure. For most of the 20th century, homosexuality was considered a disease—first, an endocrinological disorder and, later, a mental abnormality (Scully, 2004). Not until 1973 did the American Psychiatric Association remove the "diagnosis" of homosexuality from its Diagnostic and Statistical Manual (Drescher, 2015). Even today, a small subset of providers persist in their belief that same-sex attraction is a mental disorder that can be "repaired" through so-called conversion therapy (Alliance for Therapeutic Choice and Scientific Integrity, 2016). This, in spite of the fact that nearly every credible medical and health organization has gone on record in opposition to reparative therapy, asserting that same-sex attraction is not a mental disorder (Lambda Legal, 2016).

Historical parallels can also be found when considering health providers' appraisal of TGNC persons who, prior to 2013, were classified by the medical profession as suffering from a "gender identity disorder" (GID) (Drescher, 2010). This classification changed in 2013 when the American Psychiatric Association's Diagnostic and Statistical Manual (DSM) replaced the diagnosis of GID with "gender dysphoria," which emphasizes gender non-congruence rather than cross-gender identification (Moran, 2013). As of this writing, the World Health Organization's current International Classification of Disease, volume 10 (ICD 10), still lists gender identity disorders in the chapter on mental and behavioral disorders; however, it is anticipated that this designation will be removed and reclassified as gender incongruence in the next version of the ICD, i.e. the ICD-11, expected in 2018 (Robles et al., 2016).

Laws and policies are another potent source of structural stigma against LGBT persons. By any reckoning, the 2003 U.S. Supreme Court ruling in Lawrence v. Texas, which struck down state sodomy laws that criminalized consensual same-sex behavior, was a milestone in efforts to dismantle legally enshrined LGBT discrimination (Congressional Research Service 2005). Nevertheless, existing state laws or policies that remain mute on the subject of discrimination based on sexual or gender identity (see Altieri et al., 2016) serve as legal facilitators for ongoing LGBT discrimination, perpetuating stigma. Nor can one ignore the fact that many faith communities persist in equating homosexuality and gender nonconformity with sin. This mindset is most evident in the ongoing religious opposition to same-sex marriage (Van Der Toorn, Jost, Packer, Noorbaloochi, & Van Bavel, 2017)—in spite of the U.S. Supreme Court's legal recognition of these unions in 2015 (Liptak, 2015). One can also identify the influence of certain religious beliefs on the perpetuation of LGBT stigma in the example of laws and policies that allow persons to discriminate against LGBT citizens in the guise of "religious accommodation" (Melling, 2015).

Ongoing sources of LGBT stigma such as those described above can support a milieu where individual actors who perpetuate prejudice against sexual and gender minorities may be able to meet "important psychological needs" for themselves, including securing social acceptance, affirming core values, and avoiding anxiety and threats to self-esteem (Herek & McLemore, 2013, p. 326). A related construct that helps explain persistent stigma toward LGBT persons is the phenomenon of heteronormativity, "construed as a driving force underlying social pressures to conform to socially acceptable gender roles and sexual behaviors" (Habarth, 2015, p. 167). Working at multiple levels (i.e., institutional, interpersonal, and intrapsychic), this force underpins strict definitions of normality and health that are closely aligned with heterosexuality and strict conformity between gender and natal sex (Habarth, 2015). Those falling outside of these parameters, either because of non-heterosexual attraction and/or gender non-conformity, are thus viewed as aberrant.

Linking stigma to poor LGBT health outcomes

As stated earlier, efforts to rectify health disparities in the United States and elsewhere have resulted in a deeper awareness of the role that social determinants play in affecting health outcomes for a variety of populations (Braveman et al., 2011). These determinants may be part of the current environment of the population of concern or they may have exerted their influence in the past, "upstream" of the health outcome. Upstream social determinants of health are social and structural factors that help to shape health outcomes, often through long and complex causal pathways (Bharmal, Derose, Felician, & Weden, 2015).

Consistent with the awareness that distal events can shape proximal health outcomes, Meyer's theory of minority stress posits that stigma, prejudice, and discrimination, leveled against sexual minorities, creates a stressful and hostile social environment that can ultimately result in mental health problems (2003). An increasing body of evidence supports Meyer's proposed link between LGBT minority stress and poor health outcomes. Consider, for example, findings from a sample of 396 lesbian, gay, and bisexual persons living in New York City where researchers showed that subjects who reported an externally rated (i.e., rated by two independent external raters) prejudice event in the year prior were more than three times more likely to experience a physical health problem compared to those who had not experienced a prejudice event (Frost, Lehavot, & Meyer, 2015). Similar associations between stigma-related stress and poor mental health outcomes have been found within TGNC populations (Hendricks & Testa, 2012; Hughto, Reisner, & Pachankis, 2015). Data collected from an online survey of 816 TGNC adults revealed that over half of the respondents had reported "at least some" suicidal ideation within the past year and demonstrated that episodes of rejection, non-affirmation, and victimization were associated with reported suicidal ideation (Testa et al., 2017, p. 133).

Given their ability to act through a variety of complex pathways over long periods of time, social determinants of health, especially those exerting an upstream influence, are not easily investigated using traditional research methodologies (Bharmal, Derose, Felician, Weden 2015). When it comes to studying the effects of discrimination and prejudice on the health of sexual and gender minorities, logistical and ethical complexities largely preclude the use of the recognized "gold standard" of research: the randomized, controlled trial. As such, much of the evidence highlighting the connections between stigma and poor health comes from "natural experiments." A particularly rich source of evidence derives from retrospective studies that examine the relationship between parental support and subsequent health outcomes among sexual and gender minority youth.

Since most LGBT youth are born to heterosexual and gender conforming parents—whose attitudes about homosexuality and gender non-conformity are likely to reflect general societal norms and beliefs-acceptance of their children's differences is not a given. Understanding that youth depend on their parents to help them meet developmental demands and guide them in navigating various life challenges, parental acceptance—or rejection—in response to the disclosure of sexual or gender minority status can have a profound impact on the child's identity development and subsequent health (Katz-Wise, Rosario, & Tsappis, 2016). A population-based survey of 177 LGB adults from Massachusetts found that a history of parents' supportive reactions to sexual orientation disclosure was associated with better health (Rothman, Sullivan, Keyes, & Boehmer, 2012). Stated in the converse, LGB respondents who had experienced a lack of parental support after coming out reported higher levels of health risk behaviors and negative health conditions as adults, including current binge drinking, recent depression, and lifetime illicit drug use (Rothman et al., 2012). In California, a group of 224 White and Latino LGB young adults was surveyed to retrospectively assess parental and caregiver reactions to subjects' sexual minority orientation during adolescence and nine current health indicators (Ryan, Huebner, Diaz, & Sanchez,

2009). Compared with subjects reporting no or low levels of family rejection, those reporting high levels of family rejection during adolescence were 8.4 times more likely to report having attempted suicide, 5.9 times more likely to report high levels of depression, and 3.4 times more likely to use illegal drugs (Ryan et al., 2009).

Similar findings have been reported for gender minority youth. Sixty-six transgender adolescents presenting to a Los Angeles hospital to be evaluated for cross-sex hormone therapy completed a computer-assisted survey that collected demographic information and assessed depression, suicidality, parental support, and quality of life (Simons, Schrager, Clark, Belzer, & Olson, 2013). After researchers controlled for demographic variables, parental support was found to be significantly associated with higher life satisfaction, lower perceived burden, and fewer depressive symptoms (Simons et al., 2013). A community-based, national sample of 73 prepubescent transgender children (mean age 7.7 years), all of whom were supported by their families and had "socially transitioned" (i.e., adopted the gender of their identity, not their natal sex) were found to have rates of depression that were similar to non-transgender children of the same age and "only slightly elevated" rates of anxiety symptoms compared with population averages (Olson, Durwood, DeMeules, & McLaughlin, 2016, p. 5). Based on their findings, the authors concluded that familial support "may be associated with better mental health outcomes among transgender children" (Olson et al., 2016, p. 5). A much larger sample—an anonymous, online survey of 27,715 transgender American adults conducted in 2015—discovered that respondents who reported that their immediate families were supportive were less likely to relate a history of negative outcomes such as homelessness, attempting suicide, or experiencing serious psychological distress, compared to those whose immediate families were unsupportive (James et al., 2016). In another survey that included 380 transgendered Canadians, parental support for gender identity was associated with a statistically significant decrease in pastyear suicidal ideation (Bauer, Scheim, Pyne, Travers, & Hammond, 2015).

A potent causal pathway for stigma's impact on health occurs when negative societal attitudes about same-sex attraction and gender nonconformity become internalized, resulting in intrapsychic conflict. The phenomenon has been described for TGNC persons (internalized transphobia) (Hughto et al., 2015) as well as for lesbian, gay, and bisexual persons; the latter occurrence is frequently referred to as internalized homophobia (Meyer & Dean, 1998)—although some researchers employ the broader term of homonegativity to describe the phenomenon whereby LGB persons "internalize societal messages toward gender and sex, often unconsciously, as part of their self-image" (Berg, Munthe-Kaas, & Ross, 2016, p. 541).

Among LGB persons, internalized homophobia/homonegativity has been shown to be associated with greater relationship problems, both generally

and among couples (Frost & Meyer, 2009). And a meta-analysis of 31 studies of LGB persons showed that higher levels of internalized homophobia were associated with higher scores of internalizing mental health problems, based on measurement of the psychiatric symptomatology of depression and anxiety (Newcomb & Mustanski, 2010). Higher levels of minority stress, including internalized transphobia, were related to greater psychological distress in a sample of over 500 TGNC adults (Breslow et al., 2015). And a recent study involving a convenience sample of 65 TGNC adults found that internalized transphobic stigma had a significant negative impact on self-esteem, portending "far-reaching consequences for overall wellbeing" (Austin & Goodman, 2017, p. 835).

Convincing evidence exists showing that sexual and gender minorities who can overcome internalized stigma (i.e., those who demonstrate resilience) report healthier outcomes compared with peers who do not transcend internalized negativity. Consider, for example, data from a survey of 1,541 gay and bisexual men enrolled in a prospective study of the natural and treated histories of HIV infection (Herrick et al., 2013). A retrospective survey assessing life-course events showed that over two thirds of these men had experienced internalized homophobia during the period of time when they first realized they were attracted to other men. Results indicated that men who had resolved high levels of internalized homophobia were "much less likely to exhibit a particular set of psychosocial health problems," including psychological distress, high levels of life stress, sexual compulsivity, and intimate partner violence (Herrick et al., 2013, p. 1428). This association led investigators to posit that "men who are able to draw on resiliencies may be able to avoid the development of serious health problems," perhaps through mechanisms that facilitate identity acceptance and integration of sexual identity into interpersonal and other social relationships (Herrick et al., 2013, p. 1428).

Minimizing stigma as a strategy to improve LGBT health

The authors of *The New Atlantis* special report on sexuality and gender call for additional research to explain the disproportionate burden of mental health problems among LGBT populations, opining that "so far, studies have not been designed in such a way that could allow them to test conclusively the hypothesis that social stress accounts for the high rates of poor mental health outcomes in non-heterosexual populations" (Mayer & McHugh, 2016, p. 82).

Mayer and McHugh are not the first to call for additional research on LGBT health. In 2011, a committee of the Board on the Health of Select Populations, Institute of Medicine, recommended the development of a

comprehensive research agenda to advance understanding of LGBT health (Institute of Medicine, 2011). But, as noted above, studying the long-term consequences of social influences on LGBT health often entails ethical and logistical challenges. Further, strong cultural taboos against homosexuality and gender non-conformity, widespread throughout most of the 20th century, served to devalue and inhibit active research in this area. However, as previously stated, one can examine various natural experiments to find convincing evidence that policies, laws, and other interventions that minimize anti-LGBT stigma are strongly associated with improved health outcomes among LGBT persons.

In a 2015 position paper, the American College of Physicians asserted that laws and policies that "reinforce marginalization, discrimination, social stigma or rejection of LGBT persons" can affect their physical and mental health (Daniel & Butkus, 2015, p. 135). This position is supported by the work of Hatzenbuehler and his colleagues, who developed a composite index of state-level policies regarding sexual orientation (i.e., sexual orientation specified as a protected category in hate crime legislation and/or state policies banning public and private employment discrimination based on sexual orientation) and examined associations with psychiatric disorders among self-identified LGB state residents (Hatzenbuehler, Keyes, & Hasin, 2009). Interaction models demonstrated that there was a "substantial increase in the prevalence of multiple psychiatric disorders" among LGB persons who lived in states that did not extend specific legal protections to LGB citizens, compared to those living in states with protective policies (Hatzenbuehler et al., 2009, p. 2277). Work conducted prior to the U.S. Supreme Court's legalization of same-sex marriage in 2015 (Liptak, 2015) found "consistent increases" in rates of psychiatric disorders among LGB persons who lived in states with constitutional amendments banning gay marriage, compared to LGB persons who lived in states without these amendments (Hatzenbuehler, McLaughlin, Keyes, & Hasin, 2010, pp. 455-456). Nor are these associations limited to mental health outcomes. An online survey of 4,098 MSM, none of whom were infected with HIV, showed that MSM living in states with higher state levels of structural stigma (i.e., less state-level supportive environments for LGBT people, as determined by a validated composite index) were more likely to engage in high-risk sexual behaviors and to report being less comfortable discussing sexual behavior/HIV prevention matters with their primary care providers compared to men living in more supportive states (Oldenburg et al., 2015).

Reported associations between health outcomes for TGNC persons and state laws that are more, or less, supportive of gender non-conformity are not readily available. Nonetheless, evidence exists suggesting that changes in laws and policies that aim to prevent discrimination against TGNC persons in public accommodation settings could reasonably be expected to have a beneficial effect on their health. A 2013 study of social stressors and health among 452 adult TGNC persons living in Massachusetts revealed that nearly two thirds had experienced gender identity-based discrimination in public accommodations in the past year—this, after Massachusetts had passed a law providing protection against discrimination based on gender identity in employment, housing, credit, public education, and hate crimes (Reisner et al., 2015). Investigators reported that discrimination in public accommodations was a consistent statistical predictor of poor health for stressresponsive health indicators (Reisner et al., 2015). Of particular interest was the finding that discrimination in health care settings in the past 12 months was significantly associated with a positive screen for clinical depression in the past 7 days as well as subsequent postponement of both medical and preventive care (Reisner et al., 2015).

The experiences of sexual minority students in the United States provide further evidence endorsing the premise that efforts to confront stigma are crucial to ensuring LGBT health. Because sexual minority students are more likely to report bullying and violence-related risk behaviors (including having seriously considered attempting suicide) compared to their heterosexual peers (Kann et al., 2016), it follows that protective school environments could promote health and wellbeing among LGBT students (Hansen, 2007; Hatzenbuehler, Birkett, Van Wagenen, & Meyer, 2014). A 2013 study of 11th-grade public school students in Oregon considered whether LGB students had a lower risk of attempted suicide if they lived in counties where a greater proportion of school districts had adopted anti-bullying policies protective of sexual minority youth (Hatzenbuehler & Keyes, 2013). Of the 31,852 students in the sample, 1,413 identified as LGB; compared to their heterosexual peers, LGB youth were significantly more likely to have attempted suicide in the past 12 months (Hatzenbuehler & Keyes, 2013). Using information obtained from the state's Department of Education, researchers quantified the proportion of school districts in the 34 participating counties that had adopted anti-bullying policies inclusive of sexual orientation. They found that lesbian and gay students who lived in counties where fewer school districts had adopted inclusive anti-bullying policies were "2.25 times more likely to have attempted suicide in the past year compared to those living in counties where more districts had these policies" (Hatzenbuehler & Keyes, 2013, p. S21).

Policies that affirm sexual minorities, even when they do not focus specifically on school environments, may have a substantial influence on the health of sexual minority youth. Comparing students living in 32 states permitting same-sex marriage (before the 2015 U.S. Supreme Court nationwide ruling) to students who resided in 15 states without these policies, revealed a 7% relative reduction in the proportion of high school students attempting suicide; this association "was concentrated among students who



were sexual minorities" (Raifman, Moscoe, Austin, & McConnell, 2017, p. 350).

Among sexual minority adults, similar opportunities exist to study the health consequences of same-sex marriage laws. Prior to the 2015 U.S. Supreme Court's ruling on same-sex marriage (Liptak, 2015), a number of states—Massachusetts being the first—passed legislation legalizing same-sex marriage (Kail, Acosta, & Wright, 2015). Using 2010-2013 data from the U.S. Current Population Survey and data from an advocacy group that tracked state-level changes in marriage equality laws, investigators compared the selfassessed health status of people in same-sex marriages and cohabiting partnerships based on their state's recognition of gay marriage (Kail et al., 2015). Same-sex couples living in states with legally sanctioned marriage reported "higher levels of self-assessed health" compared to those living in states with antigay constitutional amendments (Kail et al., 2015, p. 1101).

Data from two waves (2001 to 2002 and 2004 to 2005) of a national survey of noninstitutionalized U.S. adults (i.e., the National Epidemiologic Survey on Alcohol and Related Conditions) compared changes in the rates of psychiatric disorders across four groups: LGB respondents who lived in states that had adopted legal bans on gay marriage in 2004 to 2005; LGB respondents living in states that had not adopted gay marriage bans; and heterorespondents, dichotomized by state, as described (Hatzenbuehler et al., 2010). Between wave 1 (2001-2002) and wave 2 (2004–2005), consistent increases in rates of psychiatric disorders were seen in LGB residents living in states that had banned gay marriage; with the exception of substance use disorders, such increases were not seen among LGB respondents living in states that had not banned gay marriage—nor were they seen among heterosexuals living in those states that had banned gay marriage between waves 1 and 2 (Hatzenbuehler et al., 2010).

A final example of the impact of same-sex marriage policies on LGB health outcomes can be found in the work of researchers who scrutinized changes in health care access among sexual minority men in Massachusetts before and after that state legalized same-sex marriage in November 2003 (Hatzenbuehler et al., 2012). Using prospective data collected from 1,211 sexual minority men being seen at a community-based health center, investigators identified statistically significant decreases in medical care visits, mental health care visits, and mental health care costs in the 12 months after same-sex marriage was legalized (Hatzenbuehler et al., 2012). Surprisingly, these findings were not limited to partnered men in the sample, suggesting to the authors of the study that the decreases in "status-based stressors" that occur when institutionalized forms of stigma are eliminated (i.e., same sex marriage is legally recognized) result in benefits to all sexual minorities—not just those who become married (Hatzenbuehler et al., 2012).



Conclusion

Mental health disparities among sexual and gender minorities arise in the context of widespread stigma, perpetuated by centuries of ignorance, and in an environment of institutionalized and legalized discrimination; they are not the de novo consequences of expressing non-heterosexual and nonconforming gender identities. Accepting this truth is critical to developing effective, evidence-based public health interventions to resolve these population inequities. Although there are gaps in our understanding of LGBT mental health disparities, we know with certainty that promoting and ensuring health for LGBT persons demands that we affirm their identities and actively address the systemic social disadvantages that fuel population-level health disparities. Moreover, addressing health disparities in the broader context of ethics and human rights will promote the comprehensive identification of the sources of discrimination that reinforce social disadvantage and vulnerability among LGBT persons (Braverman, Kumanyhika, et al., 2011).

While advances in LGBT health have occurred in recent decades, the disparities described in this commentary have not been eliminated (Meyer, 2016). Current national objectives to improve LGBT health recognize ongoing disparities and acknowledge that societal stigma and discrimination are consequential determinants of the poor health outcomes observed among LGBT persons (Office of Disease Prevention and Health Promotion, 2017). Along with protective changes in legislation and policy, we must also invest in longitudinal research and prospective observational studies to better understand the complex causal pathways through which stigma and "upstream" psychosocial factors can influence health outcomes throughout the life course of sexual and gender minorities (Austin et al., 2017). And as medical and public health professionals we must assiduously reject constructions of health that call for LGBT persons to adopt and live out identities that contradict or deny their innermost feelings of self (International Commission of Jurists, 2007).

Simply stated, improving LGBT health outcomes requires that we quell anti-LGBT stigma.

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