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Experiences of Stigma in American Men Who Have Sex With Men Pre and Post Federal Same
Sex Marriage Legalization

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Abstract

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By Emilia Grill

Background: Most research related to men who have sex with men (MSM) and stigma has focused on the impact of stigma on health outcomes. Little is known about the effect of policies like same sex marriage legalization on stigma experienced by MSM.

Objective: The objective of this analysis is to determine how experiences of stigma have changed for American MSM from 2013 to 2019, focused on the impact of federal same-sex marriage legalization in 2015.

Methods: Data were obtained from the 2013, 2016, 2017, 2018, and 2019 cycles of the American Men's Internet Survey (AMIS). Respondents who answered at least one of six stigma questions were included. Stigma questions were combined to create a composite stigma variable, and the prevalence of stigma was calculated for each year. Log binomial regression was used to examine the effect of several exposures on experiences of stigma and to calculate adjusted prevalence ratios and 95% confidence intervals.

Results: Pre and post legalization, experience of stigma was reported by approximately half of participants. The most common form of stigma was verbal harassment (20.9 – 40.2%), followed by unfair treatment at work/school and worse service (12.5 – 17.7%), then assault and healthcare stigma (2.4 – 4.7%). Between 14.7% and 16.7% of participants disagreed or strongly disagreed their community is tolerant of gays and bisexuals. Composite stigma decreased in 2016 (46.6%) and 2017 (44.1%) compared to 2013 (48.0%), but increased substantially in 2018 (50.4%) and 2019 (52.3%). Post same sex marriage legalization, experiences of stigma decreased by 5% (adjusted prevalence ratio [aPR] = 1.05, 95% CI 1.02, 10.9) compared to pre legalization, after adjusting for age, sexuality, race/ethnicity, region, and state same sex marriage.

Conclusions: Stigma based on sexual identity remained common over time as roughly half of MSM have at least one stigmatizing experience per year. While there was only a small decrease in stigma following legalization of same sex marriage, MSM and other members of the LGBTQ community continue to be affected by changes in legislation. Given the negative mental and physical health impacts of stigma, there is a need to fully understand the impact of policy to further mitigate stigma.

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Introduction

Stigma and discrimination against men who have sex with men (MSM) have occurred in the United States for many years, and despite progress, continue to occur and impact the daily lives of gay and bisexual men. One framework for conceptualizing stigma separates experiences of stigma into four categories: enacted stigma (e.g. discrimination and harassment), anticipated stigma (eg. the expectation of enacted stigma based on past experiences), internalized stigma (e.g. feelings of shame about one's own identity), and finally structural stigma (e.g. laws that prevent same-sex couples from getting married) [1]. Research indicates that stigma is an important target for improving health in MSM, and institutions at various levels have recognized the need to address and reduce stigma [2, 3, 4].

There is a large body of research related to the effects of stigma on health outcomes including mental health, care-seeking, and HIV prevention and treatment. One study showed that among urban MSM, enacted stigma in the form of sexuality-based discrimination was associated with increased HIV acquisition and transmission risk through condomless anal intercourse (CAI) with a partner of discordant or unknown HIV status [5]. Another study found that discrimination, verbal harassment, and physical assault were associated with HIV risk behaviors occurring at least once in the 12 months prior to the study, specifically: CAI with a male partner, CAI with a male partner of discordant or unknown HIV status, four or more male partners, and exchange sex [6]. In a study of people living with HIV in Florida, enacted stigma in health care settings was associated with nonadherence to antiretroviral treatment and lack of viral suppression [7].

Associations have also been found between HIV-related stigma and the experience of anxiety and depression symptoms in MSM, which would likely have health consequences as well as leading to an overall worse well-being and quality of life [8]. A qualitative study of anal sex stigma in MSM found that experiences of enacted, anticipated, and internalized stigma lead to concealment of sexual identity, behavior and concerns, and ultimately decreased care-seeking [9]. There have also been many studies that establish the psychological and social impacts of denial of marriage rights and the legalization of marriage for same sex couples. These include adolescent suicide rates [10], psychological differences in stress response [11], acceptance and social inclusion [12], and mental health [13].

In order to address and reduce stigma, we must better understand what impact policy can have on the experiences and expectations of stigma for MSM. Prior to 2013, a handful of states had legalized same-sex marriage, beginning with Massachusetts in 2003. In 2013 and 2014, several other states implemented similar legislation. In 2015, the Supreme Court decision *Obergefell v Hodges* legalized the right for same-sex couples to marry in all 50 states. The Pew Research Center has found that the percentage of respondents in the U.S. who say homosexuality should be accepted by society has risen from 51% in 2002 to 72% in 2019, and that the percentage of respondents who favor legal same-sex marriage has increased from 31% in 2004 to 61% in 2019 [14,15]. This shows that public opinion of homosexuality and marriage legalization has improved over the past two decades. Similar results are seen in a study examining state-by-state differences in implicit and explicit anti-gay bias over time [16]. They found that in states where same sex marriage was legalized, bias was already decreasing, but that it decreased at a

greater rate following the policy change. However, in states that did not have any independent marriage legalization, bias increased following federal marriage legalization in 2015.

Aside from the study by Ofosu et al. [16], much of the existing research focuses on health outcomes rather than changes in stigma and bias. There is little known about how broader structural changes affect stigma experienced and reported by MSM as part of their day to day lives. Additional research of that relationship will help further understanding of if and how policies and institutional changes can act as an intervention to reduce experiences of stigma. The American Men's Internet Survey (AMIS) provides a large, diverse, national sample, and although it is cross sectional, the annual administration of this survey allows trends to be observed over time.

The aim of this analysis is to determine how experiences of stigma have changed for American MSM from 2013 to 2019, with a focus on the impact of national same-sex marriage legalization in 2015. Previous findings on experiences of stigma from AMIS data showed that prevalence of sexual behavior stigma mostly did not vary by region of the United States, and that there were some differences by urbanicity, race, and age [17]. We hypothesize that experiences of stigma will decrease over time and that a sharper decline will be seen following same-sex marriage legalization in 2015, though this effect may be delayed. We also anticipate that similar patterns to those found in past analyses could be present, and that race, age, and urbanicity may be important covariates.

Methods

Data were obtained from the 2013, 2016, 2017, 2018, and 2019 cycles of the American Men's Internet Survey (AMIS). AMIS recruitment and survey methods have been described previously [18]. Briefly, for each recruitment cycle, MSM were recruited through ads on a variety of social networking websites and applications. To be eligible, participants had to be 15 years of age or older (except for the 2013 cycle, where the age limit was 18), identify as male, reside in the United States, and report that they had oral or anal sex with a male at least once in the past. MSM who met these criteria and provided consent were taken to the online survey immediately. The survey questions differed in each cycle; the survey instrument and reports for each year can be found on the AMIS website emoryamis.org.

AMIS survey cycles included in this analysis were chosen based on the stigma questions asked during that cycle. These cycles included six identical questions about enacted and anticipated stigma (Textbox 1). Any participants who did not answer at least one of these six questions were excluded from this analysis ($n = 306$, 0.7%). Participants were categorized based on the survey year into two exposure groups – before same sex marriage was legalized in 2015 and after same sex marriage was legalized. Pre-legalization included the 2013 cycle and post-legalization included the 2016-2019 cycles. In order to examine the effect of stigma, a composite dichotomous stigma variable was created from the selected questions. For the first five questions asking about experiences of enacted stigma in the past 12 months, if a participant answered “yes” to at least one question, they were categorized as having experienced stigma. For the question regarding community tolerance of gays and bisexuals,

those with responses of “disagree” and “strongly disagree” were categorized as having experienced stigma. Participants were categorized as not having experienced stigma only if they answered no to all enacted stigma questions and answered that they neither agree nor disagree, agree, or strongly agree that their community is tolerant of gays and bisexuals.

Textbox 1. AMIS stigma questions in the 2013, 2016, 2017, 2018, and 2019 cycles.

In the past 12 months, have any of the following things happened to you because someone knew or assumed you were attracted to men?

1. You were called names or insulted
2. You received poorer services than other people in restaurants, stores, other businesses or agencies
3. You were treated unfairly at work or school
4. You were denied or given lower quality healthcare
5. You were physically attacked or injured

Response options: yes/no/prefer not to answer/don't know/does not apply

6. How much do you agree or disagree with the following statement? Most people in my area are tolerant of gays and bisexuals.

Reponse options: strongly agree/agree/neither agree nor disagree/strongly disagree/prefer not to answer/don't know

By the end of 2013, 17 states had independently legalized same sex marriage - California, Connecticut, Delaware, Hawaii, Iowa, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, New Mexico, New York, Rhode Island, Vermont, and Washington [19]. This list of states was used to investigate if existing state same sex marriage legalization was an important covariate to the relationship between stigma and federal same sex marriage legalization. Other covariates considered included census region, age category, sexuality, race, and whether states had existing same sex marriage legalization by the end of 2013. Descriptive statistics (frequencies, percentages) were used to describe the distribution of these

characteristics between and within groups. In bivariate analyses, chi-square tests were used to identify whether participant characteristics differed significantly among those who did or did not experience stigma, both pre and post same sex marriage legalization. Finally log binomial regression was used to obtain adjusted prevalence ratios and 95% confidence intervals for each covariate of interest, controlling for all others listed.

Results

Respondents from the 2013, 2016, 2017, 2018, and 2019 AMIS cycles were included in this analysis, with a total of 43,659 observations. Each cycle contributes approximately 23% of the observations, with the exception of 2013, which contributed less (7.5%) because stigma questions were only presented to a subset of AMIS 2013 participants. Participant characteristics are summarized in Table 1. Briefly, in the 2013 cycle, nearly half of participants were age 40 or older. In the 2016 -2019 cycles, the 15-24 age group and 40+ age group were roughly even (35%). Across all cycles, most respondents identified as homosexual or gay (> 76%), White (> 68%), from a state that had not legalized same sex marriage by 2013 (> 59%), and from the South (> 38%).

Experience of stigma was reported by approximately half of the participants, both pre and post same sex marriage legalization. Figure 1 shows the distribution of individual stigma variables and composite stigma across the years. All forms of enacted stigma varied over time to some degree. Verbal harassment was the most common, and was lowest at 29.9% in 2017 and highest at 40.2% in 2019. Unfair treatment at work/school and worse service were experienced

by similar percentages of participants each year, varying from about 12.5% to 17.7%. Physical assault and healthcare related stigma were the least common and only experienced by about 2.4% to 4.7% of respondents each year. Between 14.7% and 16.7% of participants each year responded that they disagreed or strongly disagreed their community is tolerant of gays and bisexuals. Composite stigma decreased in 2016 (46.6%) and 2017 (44.1%) compared to 2013 (48.0%), but then increased substantially in 2018 (50.4%), ultimately reaching a high in 2019 (52.3%).

Bivariate analyses using chi-square tests showed significant associations of all covariates (age group, sexuality, race, state same sex marriage, and region) within and between stigma groups, across all cycles (Table 1). Pre same sex marriage legalization, respondents aged 40 years and older had the highest prevalence of stigma (40.8%), but post legalization respondents aged 15-24 years had the highest prevalence of stigma (42.7%). Respondents who identified as homosexual or gay, White, and from the South had the highest experience of stigma in each category, across cycles. The percentage of respondents from states that did not legalize same sex marriage by 2013 increased post federal legalization (pre: 59.6%, post: 64.1%). However, the difference between the percentage of those who did and did not experience stigma decreased, from 10.8% pre legalization to 6.8% post legalization.

Post same sex marriage legalization, experiences of stigma decreased by 5% (adjusted prevalence ratio [aPR] = 1.05, 95% CI 1.02, 10.9) compared to pre same sex marriage legalization, after adjusting for age category, sexual identity, race/ethnicity, region, and state

same sex marriage (Table 2). Additionally, younger participants reported more stigma compared to older participants in a dose response fashion with more stigma reported for each younger group. Those ages 15-24 were 62% more likely to report stigma than those over the age of 40 (aPR = 1.62, 95% CI 1.57, 1.65). Compared to participants who were heterosexual or straight, those who were homosexual or gay were 69% more likely to report stigma (aPR = 1.69, 95% CI 1.47, 1.96). Furthermore, participants who identified their sexuality as “other”, an option only offered in post legalization cycles, were 84% more likely to report stigma (aPR = 1.84, 95% CI 1.56, 2.18). Asian/Native Hawaiian/Other Pacific Islander participants were least likely to report stigma (aPR = 0.74, 95% CI 0.69, 0.80) and American Indian/Alaska Native participants were most likely to report stigma (aPR = 1.16, 95% CI 1.04, 1.28) compared to White participants. Respondents from the Northeast (aPR = 0.93, 95% CI 0.90, 0.97), Midwest (aPR = 0.96, 95% CI 0.94, 0.99), or West (aPR = 0.96, 95% CI 0.94, 0.99) were 4-7% less likely to report stigma than respondents from the South. Finally, compared to people who lived in a state that had legalized same sex marriage by 2013, those that lived in a state that had not legalized same sex marriage were 16% more likely to report stigma (aPR = 1.16, 95% CI 1.13, 1.18).

Discussion

In these analyses, we identified a similar prevalence of individual stigma measures across all cycles. Using a composite stigma measure, close to half of respondents experienced stigma each year. The 2017 cycle had the lowest composite stigma at 44%, after which it increased over the following years to a high of 52.3% in 2019. In cycles both pre legalization and post

legalization, covariates including age, race, sexuality, region, and state same sex marriage legalization were significantly associated with stigma. We found a small decrease in experiences of stigma post same sex marriage legalization compared to pre legalization, adjusting for these covariates.

AMIS is a cross-sectional survey that relies on self report. There is a potential that respondents have incorrectly reported their experience of stigma due to misremembering or avoidance of something painful or traumatizing that may have happened to them. Some measures, like to what degree participants believe people in their area are tolerant, and receiving worse service, may be more subjective than verbal or physical harassment. Beyond the eligibility criteria, those who take and complete the survey are those who have chosen to complete the survey - there is a possibility that people who have had more experiences of stigma may have greater desire to take part in a study like AMIS. Participants across the cycles included in this analysis are majority non-Hispanic White, identify as homosexual/gay or bisexual, and are from the South. Southern states continuously rank as having the fewest protective and/or most discriminatory sexuality related policies [20]. While progress has been made across the country in the past decade, the South has remained an area with greater structural stigma [21]. This may limit generalizability to all MSM in the United States.

Experiences of stigma can lead to negative mental and physical health outcomes and therefore it is important to understand the impact of legislative change to reduce these experiences.

There is evidence that changes in same sex marriage legalization in the United States and other

countries has resulted in positive outcomes - increased subjective well-being [22], reduction in adolescent suicide attempts [10], decrease in healthcare visits and care costs [23], and a reduction in depressive symptoms and sexual minority stress [24]. However, all of these benefits occur primarily within the individuals who were subject to the institutional stigma of bans on same sex marriage. The stigma examined in this analysis is reported by MSM but is enacted by others. So what is the effect of same sex marriage legalization on those people, and does it impact how often they enact stigma? Oforu et al. found that bias was already decreasing prior to legalization of same sex marriage in individual states, and decreasing nationally overall. However, when federal same sex marriage legalization occurred, people in states where there had not been pre-existing same sex marriage legalization experienced an increase in implicit and explicit anti-gay bias. There is a possibility, that while experiences of stigma decreased for some AMIS participants, for others it increased. However, the relationship between stigma and same sex marriage legalization was not affected by whether participants were from a state that had legalized same sex marriage and thus, this may not be the driving factor behind the magnitude of change.

One possible missing piece of this relationship over time is political climate and other law and policy changes that were occurring at the local and national level. In 2017, President Trump and his administration began their time in office by removing all references to LGBTQ people and their rights from the White House website. Over the course of his presidency, the Trump administration worked to remove several legal protections for LGBTQ individuals and appoint judges who were known to be hostile to LGBTQ rights [25]. This political environment may have

emboldened those with existing bias to enact stigma more frequently or in situations where they would not have before. The ability to draw a conclusion on the impact of the political climate on stigma is outside of the scope of this analysis, but same sex marriage legalization did not occur and does not continue absent of other influences. Given the focus on the relationship of policy and stigma and the timing of the trends, it is worth mentioning and worth further investigation.

Enacted stigma based on sexual identity appears to have remained common and steady over time as roughly half of MSM have at least one stigmatizing experience per year. While there was only a small decrease in stigma following legalization of same sex marriage, MSM and other members of the LGBTQ community continue to be affected by changes in legislation. Further research will be needed to examine not only how positive policy changes like the legalization of same-sex marriage can impact stigma and health outcomes, but also negative policy changes, like Florida's recent "Parental Rights in Education" bill, also called the "Don't Say Gay" bill. Understanding the connection between policy, societal change, and the behavior of individuals will further the ability to reduce stigma and improve health outcomes for the LGBTQ community.

Table 1. Characteristics of AMIS participants before and after same-sex marriage legalization, by experiences of stigma

	Before (2013)			<i>P</i> value ^c	After (2016-2019)			<i>P</i> value ^c
	Total n (%)	Experienced stigma prior to survey			Total n (%)	Experienced stigma prior to survey		
		No n (%)	Yes n (%)			No n (%)	Yes n (%)	
Total observations	3308	1719 (52.0)	1589 (48.0)		40351	20850 (51.7)	19501 (48.3)	
Age (yrs)				<0.001				<0.001
15-24	603 (18.2)	245 (14.3)	358 (22.5)		13858 (34.3)	5529 (26.5)	8329 (42.7)	
25-29	500 (15.1)	209 (12.2)	291 (18.3)		6055 (15.0)	3006 (14.4)	3049 (15.6)	
30-39	614 (18.6)	322 (18.7)	292 (18.3)		5971 (14.8)	3218 (15.4)	2753 (14.1)	
40+	1591 (48.1)	943 (54.9)	648 (40.8)		14467 (35.85)	9097 (43.6)	5370 (27.5)	
Sexual Identity				0.008				<0.001
Heterosexual or Straight	23 (0.7)	15 (0.9)	8 (0.5)		407 (1.1)	286 (1.4)	121 (0.6)	
Homosexual or Gay	2736 (84.1)	1390 (82.3)	1346 (86.1)		29788 (76.6)	14885 (74.3)	14903 (79.1)	
Bisexual	494 (15.2)	285 (16.9)	209 (13.4)		7982 (20.5)	4507 (22.5)	3475 (18.4)	
Other ^a					366 (0.9)	147 (0.7)	219 (1.2)	
Prefer not to say/don't know ^a					332 (0.9)	198 (1.0)	134 (0.9)	
Race/ethnicity				0.008				<0.001
American Indian/Alaska Native	19 (0.6)	7 (0.4)	12 (0.8)		232 (0.6)	101 (0.5)	131 (0.7)	
Asian/Native Hawaiian/Other Pacific Islander	67 (2.1)	42 (2.5)	25 (1.6)		1047 (2.6)	651 (3.2)	396 (2.1)	
Black	113 (3.5)	54 (3.2)	59 (3.8)		3583 (9.1)	2000 (9.8)	1538 (8.3)	
Hispanic/Latino	341 (10.5)	156 (9.2)	185 (11.9)		6024 (15.2)	2987 (14.6)	3037 (15.9)	
White	2592 (79.8)	1381 (81.6)	1211 (77.7)		26968 (68.1)	13995 (68.3)	12973 (67.9)	
Other/Multiracial	118 (3.6)	52 (3.1)	66 (4.2)		1738 (4.4)	759 (3.7)	979 (5.1)	
State Same Sex Marriage^b				<0.001				<0.001
None before federal legalization	1971 (59.6)	935 (54.4)	1036 (65.2)		25853 (64.1)	12674 (60.8)	13179 (67.6)	
State legalized before federal	1337 (40.4)	784 (45.6)	553 (34.8)		14498 (36.9)	8176 (39.2)	6322 (32.4)	

Table 1. Characteristics of AMIS participants before and after same-sex marriage legalization, by experiences of stigma, cont.

	Before (2013)				After (2016-2019)			
	Experienced stigma prior to survey			<i>P</i> value ^c	Experienced stigma prior to survey			<i>P</i> value ^c
	Total n (%)	No n (%)	Yes n (%)		Total n (%)	No n (%)	Yes n (%)	
Region				<0.001				<0.001
Northeast	649 (19.9)	383 (22.6)	266 (17.1)		7066 (17.5)	3948 (18.9)	3118 (16.0)	
Midwest	708 (21.7)	366 (21.6)	342 (21.9)		8103 (20.1)	4128 (19.8)	3975 (20.4)	
South	1113 (34.2)	509 (30.0)	604 (38.7)		16071 (39.8)	7938 (38.1)	8133 (41.7)	
West	782 (24.0)	436 (25.7)	346 (22.2)		9078 (22.5)	4819 (23.1)	4259 (21.8)	
U.S. dependent areas	4 (0.1)	3 (0.2)	1 (0.1)		33 (0.1)	17 (0.1)	16 (0.1)	

a. These response options were only offered in the 2016-2019 cycles

b. Are participants from a state that had independently legalized same sex marriage by the end of 2013

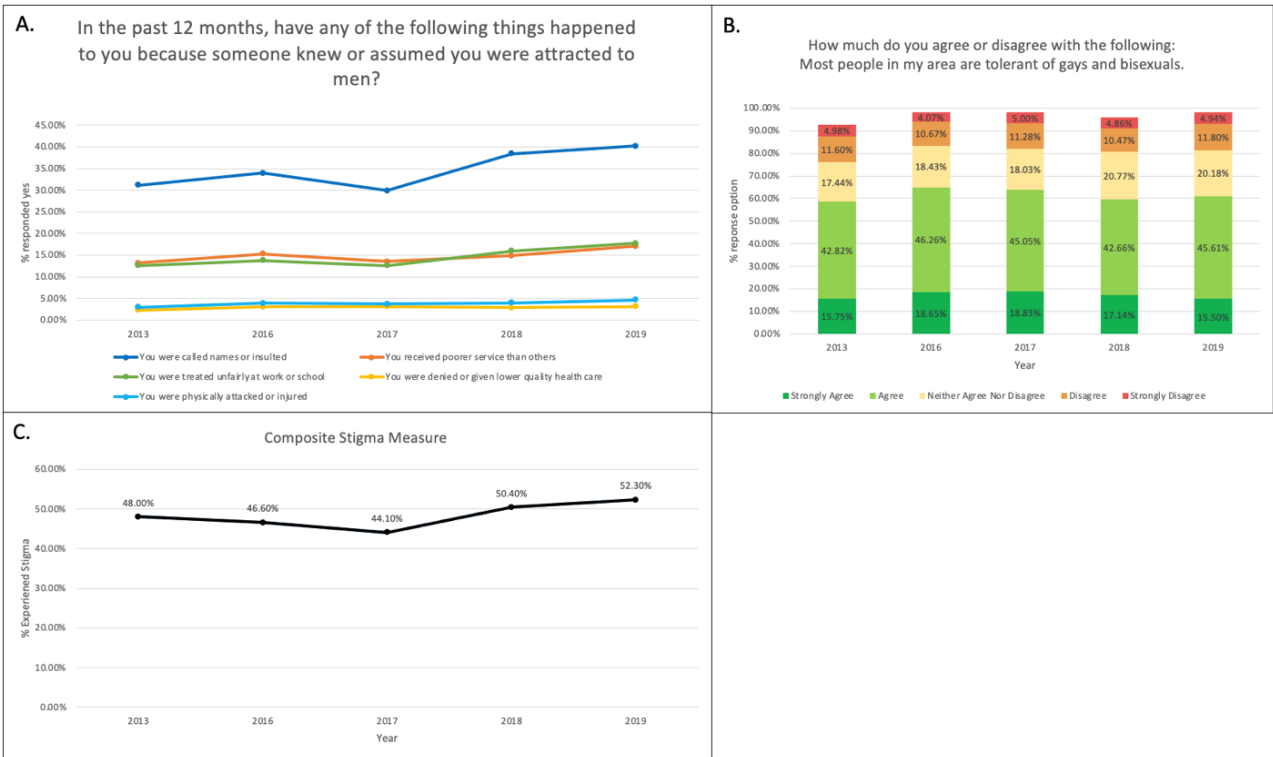
c. A chi-square test for the difference in characteristics between stigma categories

Table 2. Multivariate adjusted log binomial regression results

Exposure		Adjusted prevalence ratio (95% CI)	<i>P</i> value ^a
Same sex marriage legalization	Before (<2015)	1.05 (1.02, 1.09)	0.005
	After (>2015)	Reference	
Age category	15-24	1.62 (1.57, 1.65)	<0.0001
	25-29	1.36 (1.32, 1.41)	<0.0001
	30-39	1.24 (1.20, 1.28)	<0.0001
	40 and older	Reference	
Sexual identity	Homosexual or Gay	1.69 (1.47, 1.96)	<0.0001
	Bisexual	1.47 (1.28, 1.71)	<0.0001
	Other	1.84 (1.56, 2.18)	<0.0001
	Prefer not to say	1.21 (0.90, 1.62)	0.206
	Don't know	1.30 (1.05, 1.61)	0.018
	Heterosexual or Straight	Reference	
Race/ethnicity	American Indian/Alaska Native	1.16 (1.04, 1.28)	0.007
	Asian/Native Hawaiian/Other Pacific Islander	0.74 (0.69, 0.80)	<0.0001
	Black	0.93 (0.89, 0.96)	<0.0001
	Hispanic/Latino	0.95 (0.92, 0.97)	0.0002
	Other/Multiple	1.06 (1.02, 1.10)	0.007
	White	Reference	
Region	Northeast	0.93 (0.90, 0.97)	<0.0001
	Midwest	0.96 (0.94, 0.99)	0.007
	West	0.96 (0.94, 0.99)	0.012
	U.S. dependent areas	0.80 (0.56, 1.14)	0.220
	South	Reference	
State same sex marriage	None before federal legalization	1.16 (1.13, 1.18)	<0.0001
	State legalized before federal	Reference	

a. Wald chi-square *P* value

Figure 1. Graphs of individual stigma variables (A & B) and composite stigma variable (C) in each AMIS cycle.



References:

1. Herek, G. (2009). Sexual Stigma and Sexual Prejudice in the United States: A Conceptual Framework.
2. NASTAD and NCSD (2014). Addressing Stigma: A Blueprint for Improving HIV/STD Prevention and Care Outcomes for Black and Latino Gay Men.
3. Centers for Disease Control (2016). "Gay and Bisexual Men's Health: Stigma and Discrimination." 2021, from <https://www.cdc.gov/msmhealth/stigma-and-discrimination.htm>.
4. Beltran, S., et al. (2020). "Will We Get to Zero HIV Stigma in San Francisco?" AIDS Behav **24**(1): 5-7.
5. Frye, V., et al. (2015). "Sexual orientation- and race-based discrimination and sexual HIV risk behavior among urban MSM." AIDS Behav **19**(2): 257-269.
6. Balaji, A. B., et al. (2017). "Association Between Enacted Stigma and HIV-Related Risk Behavior Among MSM, National HIV Behavioral Surveillance System, 2011." AIDS Behav **21**(1): 227-237.
7. Algarin, A. B., et al. (2020). "Health Care-Specific Enacted HIV-Related Stigma's Association with Antiretroviral Therapy Adherence and Viral Suppression Among People Living with HIV in Florida." AIDS Patient Care STDS **34**(7): 316-326.
8. Algarin, A. B., et al. (2021). "Enacted HIV-Related Stigma's Association with Anxiety & Depression Among People Living with HIV (PLWH) in Florida." AIDS Behav **25**(1): 93-103.

9. Kutner, B. A., et al. (2021). "How Stigma Toward Anal Sexuality Promotes Concealment and Impedes Health-Seeking Behavior in the U.S. Among Cisgender Men Who Have Sex with Men." Arch Sex Behav **50**(4): 1651-1663.
10. Raifman, J., et al. (2017). "Difference-in-Differences Analysis of the Association Between State Same-Sex Marriage Policies and Adolescent Suicide Attempts." JAMA Pediatr **171**(4): 350-356.
11. Hatzenbuehler, M. L. and K. A. McLaughlin (2014). "Structural stigma and hypothalamic-pituitary-adrenocortical axis reactivity in lesbian, gay, and bisexual young adults." Ann Behav Med **47**(1): 39-47.
12. Ocobock, A. (2018). "Status or Access? The Impact of Marriage on Lesbian, Gay, Bisexual, and Queer Community Change." Journal of Marriage and Family **80**(2): 367-382.
13. Herdt, G. and Kertzner, R. (2006). "I do, but I can't: The impact of marriage denial on the mental health and sexual citizenship of lesbians and gay men in the United States." Sexuality Research and Social Policy Journal of NSRC(3): 33-49.
14. Pew Research Center (2019). "Majority of Public Favors Same-Sex Marriage, But Divisions Persist."
15. Poushter, J. and Kent, N. (2020). "The Global Divide on Homosexuality Persists." Pew Reserach Center.
16. Ofosu, E. K., et al. (2019). "Same-sex marriage legalization associated with reduced implicit and explicit antigay bias." Proc Natl Acad Sci U S A **116**(18): 8846-8851.

17. Stahlman, S., et al. (2016). "The Prevalence of Sexual Behavior Stigma Affecting Gay Men and Other Men Who Have Sex with Men Across Sub-Saharan Africa and in the United States." JMIR Public Health Surveill **2**(2): e35.
 18. Sanchez, T. H., et al. (2015). "The Annual American Men's Internet Survey of Behaviors of Men Who Have Sex With Men in the United States: Protocol and Key Indicators Report 2013." JMIR Public Health Surveill **1**(1): e3.
 19. Pew Research Center (2015). "Same-Sex Marriage, State by State."
 20. (2022). 2021 State Equality Index, The HRC Foundation.
 21. (2020). LGBTQ Policy Spotlight: Mapping LGBTQ Equality in the U.S. South, Movement Advancement Project.
 22. Boertien, D. and D. Vignoli (2019). "Legalizing Same-Sex Marriage Matters for the Subjective Well-being of Individuals in Same-Sex Unions." Demography **56**(6): 2109-2121.
 23. Hatzenbuehler, M. L., et al. (2012). "Effect of same-sex marriage laws on health care use and expenditures in sexual minority men: a quasi-natural experiment." Am J Public Health **102**(2): 285-291.
 24. Huang, Y.-T. and Liang Z. (2022). "SSPH+ | Effects of Same-Sex Marriage Legalization for Sexual Minority Men in Taiwan: Findings From a Prospective Study." Intl J Public Health **67**(1): 1604498.
- Cahill, S., et al. (2019). Trump Administration continued to advance discriminatory policies and practices against LGBT people and people living with HIV in 2018, The Fenway Institute.