

## ORIGINAL ARTICLE

# Health Care Access and Utilization by Transgender Populations: A United States Transgender Survey Study

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### Abstract

**Purpose:** There is little research examining disparities among subcategories of lesbian, gay, bisexual, transgender, and queer people who identify as transgender. The purpose of this study is to elucidate health disparities regarding access to and utilization of health care and experiences with discrimination within the transgender community.

**Methods:** The United States Transgender Survey (USTS) was conducted online between January and December of 2015. The survey included questions about health care access, utilization, and discrimination. Chi-squared tests were used to identify differences in demographic variables among transfeminine (TF), transmasculine (TM), and nonbinary (NB) participants. Logistic regression was used to analyze differences in health care access, utilization, and discrimination between the three groups.

**Results:** A total of 27,715 transgender-identifying people participated in the survey. TF and TM individuals were more likely to report postponement of health care utilization due to fear of discrimination and had experienced discrimination in the health care setting than NB respondents. NB respondents were more likely to delay care due to cost.

**Conclusions:** Results from this USTS analysis indicate the need for medical education, policy implementation, and intersectional research to establish health equity for transgender people.

**Keywords:** health disparities, transgender, access to care, nonbinary gender identity

### Introduction

Transgender is an umbrella term to describe individuals who do not identify with the sex and associated gender they were assigned at birth, whereas cisgender is used to describe individuals who identify with the sex and associated gender they were assigned at birth. Transgender people in the United States are subjected to stigma, discrimination, and marginalization.<sup>1</sup> People who identify as transgender can be segmented into subcategories determined by self-identification to identify health disparities within the community, including transmasculine (TM) (including trans men), transfeminine (TF) (including trans women), or nonbinary (NB).

Health disparities are population-specific differences in access to health care, quality and utilization of health care, and health outcomes. Public health research con-

ducted with lesbian, gay, bisexual, transgender, and queer (LGBTQ) populations shows health disparities when compared with the heterosexual, cisgender populations. These health disparities include reduced access to health care, delaying health care due to fear of discrimination, higher rates of negative health behaviors (e.g., smoking and binge drinking), and poorer health outcomes (e.g., higher rates of depression).<sup>2-4</sup> Reisner et al. collected data from transgender identifying and nontransgender adults in Massachusetts from 2001 to 2002. The cross sectional and nested analyses revealed that transgender patients in the sample were more likely to report experiences with social stress and suicidality.<sup>5</sup> LGBTQ patients experience discrimination leading to increased barriers to health care. A study entitled “Project Implicit” collected data from

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medical providers through online survey from 2006 to 2012.<sup>6</sup> The study found that heterosexual medical providers express both explicit and implicit bias against homosexual patients compared with heterosexual patients. Studies also find that implicit and explicit racial bias in medical providers leads to health inequity and subsequent health disparities resulting from decreased health care utilization.<sup>7</sup> The intersectionality of racism, sexism, homophobia, and transphobia in social and medical systems leads to worse health outcomes for marginalized populations.<sup>7-9</sup>

Using the National Transgender Discrimination Survey (NTDS) conducted in 2008, Cruz; Grant et al.; and Glick et al. identified barriers to health care and health disparities faced by transgender and gender-nonconforming people.<sup>1,10,11</sup> These studies revealed that over half of the study population reported postponing medical care due to fear of discrimination.<sup>1,10</sup> Transgender people were significantly more likely to delay seeking medical care due to provider's lack of knowledge about transgender health, further exacerbating other health disparities, including increased chronic illnesses and mental health issues.<sup>1,10</sup> TF individuals who reported experiencing any form of discrimination were significantly more likely to postpone seeking primary care.<sup>11</sup> Kosenko et al. collected data nationwide on transgender adults in 2010 through an online survey. Over 70% of respondents experienced stigma and adverse interactions with health care providers.<sup>12</sup> These results were confirmed by Meyer et al., Downing and Przedworski; and Gonzales and Henning-Smith who analyzed the CDC's Behavioral Risk Factor Surveillance Survey (BRFSS).<sup>13-15</sup> Su et al. surveyed people who self-identify as LGBT in Nebraska and segmented the data by gender identity. Transgender respondents were more likely to report discrimination, depression symptoms, suicidality, and risky health behaviors, such as daily smoking. Transgender-identifying respondents with low levels of self-acceptance were more likely to report experiences with depression, compared with non-transgender LGBT people with low levels of self-acceptance.<sup>16</sup>

To our knowledge, very little research has been conducted to compare access to and utilization of health care among the various communities within the U.S. transgender population. The objective of this study was to elucidate health disparities regarding access to and utilization of health care in the transgender community and experiences with discrimination to deter-

mine the need for public health interventions and to advocate for increasing medical education on LGBTQ health.

## Methods

The United States Transgender Survey (USTS) is the largest survey of transgender-identifying individuals in the United States ( $N=27,715$ ). The National Center for Transgender Equality (NCTE) administered the survey between January and December of 2015, which included individuals who identify as transgender and/or gender nonconforming, were age 18 and older, and were living in the United States, including the 50 states, Washington D.C., Puerto Rico, Guam, and the U.S. Virgin Islands. These surveys were marketed to LGBTQ+ centers around the country in an online format for computers and mobile devices. The survey had 32 sections on various topics related to health and quality of life. It was available in both English and Spanish. This study was a secondary analysis of the deidentified data and was conducted in 2019. An Institutional Review Board of the University of Nevada, Las Vegas granted exemption for this study.

## Quantitative variables

Participants were asked to identify their sex at birth: male or female. Participants were then asked to choose their current gender identity from a list, including six identifiers: Cross-dresser, Woman, Man, Trans woman (MTF), Trans man (FTM), NB/Genderqueer. The NCTE recoded the answer choices using these two questions to create a new gender variable with five identities listed: Cross-Dresser, Trans Women, Trans Men, Assigned Female at Birth (AFAB) NB, and Assigned Male at Birth (AMAB) NB. Participants who selected "Man" or "Trans man" and AFAB were further grouped into the Trans Men category. Participants who selected "Woman" or "Trans woman" and AMAB were further grouped into the Trans Women category. Participants who selected "Nonbinary/Genderqueer" and AFAB or AMAB were grouped into the AFAB NB and AMAB NB categories, respectively. People who selected "Cross-Dresser" and AFAB or AMAB were grouped into the Cross-Dresser category. For this analysis, the five gender categories were collapsed into three: trans-femme/TF, trans-masc/TM, and gender NB identities. Participants who selected "Cross-dresser" were excluded from analysis because "Cross-dresser" is a term that does not necessarily imply binary or NB identification. Demographic

characteristics were assessed within each of the three gender identities. These variables included: race/ethnicity, sexual orientation, individual income, employment status, citizenship, and age.

Health care access was determined by a series of questions associated with a person's proximity to health care services and experiences with barriers. Access variables included participants' health insurance statuses and access to doctors for trans-specific and routine health care. Health care utilization was determined by whether a participant had a medical check-up in the past year and by postponement of care. To determine the use of transgender-specific hormonal care, participants were asked if they had ever utilized hormone treatment and if they have, whether or not they are currently on any form of hormonal therapy for gender-affirming care.

To analyze health care discrimination, participants were asked 10 questions regarding different experiences with discrimination in a health care setting. The discrimination questions included topics such as provider respect, knowledge about gender-nonconforming identities and health care, experience with refusal of health care due to gender identity, unwanted questioning and abusive language from providers and health care professionals, and physical and sexual assault in a health care setting. The NCTE collapsed these variables into a single variable indicating whether or not a participant answered yes to any of the discrimination questions, and this variable was analyzed.

#### Weighting the data

The NCTE utilized convenience "snowball" sampling; therefore, the USTS dataset is not generalizable. The USTS sample is disproportionately white ( $N=21,980$ , 79%). Transgender individuals are likely to be in racial and ethnic minorities and in younger age brackets than the general population.<sup>13,14,17-19</sup> To adjust this dataset, the NCTE determined multiple weighting systems to distribute the demographics in a way that is more representative of the diversity in the transgender population in the United States. We chose the NCTE weighting system that utilized data from the 2014 American Community Survey (ACS) to adjust the frequencies of certain race and ethnicity, age, and educational attainment groups.

#### Statistical analysis

Data were analyzed using IBM SPSS Version 25. Chi-squared tests were used to determine if there were

any demographic differences between the three gender identity categories, and we used logistic regressions to determine the relationships between gender identity and health insurance status, existence of routine doctor, existence of a trans-specific doctor, and discrimination variables. Odds ratios were computed through logistic regressions and adjusted odds ratios through multiple logistic regressions, controlling for demographic variables, which were significantly different between groups ( $p < 0.05$ ). The reference category for logistic regression was TF because the category had the most representation in the weighted sample.

#### Results

Weighted demographic characteristics of the sample can be found in Table 1. TF comprised 52.2% of the participants, while TM and NB comprised 21.8% and 35%, respectively. The majority of the sample identified as White (64%) followed by Black/African American (18.8%) or Latino/Hispanic (15.2%).

Combined, participants across the three gender categories selected "Heterosexual/Straight" for their sexual orientation. The highest percentage of TFs selected "Gay/Lesbian/Same Gender Loving" (27.3%), TMs selected "Heterosexual/Straight" (32.5%), and NBs selected "Queer" (30.3%). Participants were mostly within the 25–44 age bracket while NB respondents were generally younger than TF and TM respondents. A majority of respondents had at least some college education. NB participants were more likely than TF or TM to have higher education. A majority (68%) of participants had an individual income below \$50,000. TF participants were more likely to have an income of \$50,000 or greater when compared with TM or NB. A majority of respondents were employed (85%), identified as Religious/Spiritual (69.4%), and were U.S. Citizens (96%).

In Table 2, health insurance access and utilization variables are outlined. A large majority of the sample had health insurance coverage (84.3%). When asked about their trans-specific health care providers' knowledge, participants in the TF and TM categories were most likely to report that their trans-related health care provider "Knows almost everything" about trans-specific care, 32.3% and 35.6%, respectively. For the same question regarding trans-related health care providers, 69.9% of NB respondents stated that they did not have a trans-related health care provider. Additionally, 29.5% of NB respondents answered that they did not have a routine health care

**Table 1. Weighted Demographic Characteristics of the Sample**

Variable	TF	TM	Nonbinary	Total	$\chi^2, p$
Race/ethnicity				Total	
White alone	67.7%	56.0%	64.0%	64.2%	
Black/African American alone	12.4%	18.1%	12.8%	13.8%	
Alaskan Native/American Indian alone	1.0%	0.9%	0.9%	1.0%	
Asian/Native Hawaiian, Pacific Islander alone	3.3%	2.8%	4.3%	3.4%	
Latino/Hispanic alone	13.9%	19.2%	14.1%	15.2%	
Biracial/multiracial/not listed	1.6%	2.6%	3.5%	2.2%	
Middle Eastern/North African alone	0.2%	0.3%	0.3%	0.2%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,675	<i>n</i> = 5699	<i>n</i> = 5008	<i>n</i> = 24,382	
Sexual orientation				Total	
Gay/lesbian/same gender Loving	27.3%	13.9%	9.8%	20.5%	<b>&lt;0.01</b>
Bisexual	20.6%	10.9%	9.3%	16.0%	
Asexual	7.0%	6.0%	12.6%	7.9%	
Pansexual	11.4%	14.8%	20.9%	14.2%	
Queer	2.9%	18.2%	30.3%	12.1%	
Heterosexual/straight	25.8%	32.5%	4.0%	22.9%	
Not listed	5.0%	3.8%	13.0%	6.3%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5700	<i>n</i> = 5007	<i>n</i> = 24,381	
Age				Total	
18–24	4.5%	17.0%	30.2%	12.7%	<b>&lt;0.01</b>
25–44	32.6%	54.6%	47.2%	40.7%	
45–64	44.6%	25.7%	14.5%	34.0%	
65+	18.2%	2.7%	8.1%	12.5%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,380	
Education level				Total	
Less than high school	16.9%	10.4%	9.6%	13.9%	<b>&lt;0.01</b>
High school (including GED)	30.2%	26.2%	21.8%	27.6%	
Some college	20.1%	25.1%	29.4%	23.2%	
Associate's degree	8.5%	8.4%	6.8%	8.1%	
Bachelor's degree	14.5%	17.2%	20.6%	16.4%	
Graduate or professional degree	9.7%	12.7%	11.9%	10.9%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5698	<i>n</i> = 5007	<i>n</i> = 24,379	
Individual income (\$)				Total	
No income	6.6%	8.7%	14.3%	8.7%	<b>&lt;0.01</b>
\$1 to 9999	19.6%	23.2%	30.2%	22.6%	
\$10,000 to 24,999	25.3%	28.1%	21.0%	25.1%	
\$25,000 to 49,999	21.3%	22.0%	15.4%	20.3%	
\$50,000 to 100,000	16.5%	12.8%	9.8%	14.2%	
\$100,000 or more	9.1%	4.0%	7.3%	7.5%	
Missing	1.6%	1.2%	2.0%	1.6%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5699	<i>n</i> = 5006	<i>n</i> = 24,379	
Employment				Total	
Employed	84.4%	87.1%	83.9%	85.0%	<b>&lt;0.01</b>
Unemployed	15.6%	12.9%	16.1%	15.0%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 9019	<i>n</i> = 4396	<i>n</i> = 3717	<i>n</i> = 17,132	
Religious				Total	
Religious/spiritual	70.9%	69.4%	65.2%	69.4%	<b>&lt;0.01</b>
Not religious/spiritual	28.6%	30.3%	34.7%	30.3%	
Missing	0.4%	0.2%	0.1%	0.3%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,380	
Citizenship				Total	
U.S. citizen	95.1%	97.8%	96.3%	96.0%	<b>&lt;0.01</b>
Documented resident	3.2%	1.9%	3.0%	2.8%	
Undocumented resident	1.7%	0.3%	0.7%	1.2%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,380	

Boldface indicates statistical significance.

NB, nonbinary; TF, transfeminine; TM, transmasculine.

**Table 2. Weighted Health Insurance and Health Care Access Variables**

Variable	TF	TM	NB	Total	$\chi^2, p$
Do you have health insurance?				Total	<b>0.002</b>
Yes	84.5%	85.1%	82.7%	84.3%	
No	15.2%	14.8%	17.0%	15.5%	
Missing	0.3%	0.1%	0.3%	0.3%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,675	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,381	
In the past year, have you gone to the doctor or health care provider?				Total	<b>&lt;0.01</b>
Yes	88.3%	89.9%	80.2%	87%	
No	11.4%	10.0%	19.6%	12.8%	
Missing	0.3%	0.1%	0.2%	0.2%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,380	
How much does your trans-related provider know about trans-care?				Total	<b>&lt;0.01</b>
Does not have a trans-related provider	24.5%	23.2%	69.9%	33.5%	
Knows almost everything	32.3%	35.6%	7.7%	28.0%	
Knows most things	17.4%	18.6%	5.2%	15.1%	
Knows some things	12.1%	13.1%	5.6%	11.0%	
Knows almost nothing	7.4%	5.4%	3.9%	6.2%	
I am not sure	6.2%	4.1%	7.1%	5.9%	
Missing	0.2%	0.1%	0.7%	0.3%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,380	
How much does your routine provider know about trans-care?				Total	<b>&lt;0.01</b>
Does not have a routine provider	19.9%	20.8%	29.5%	22.9%	
Knows almost everything	3.9%	2.8%	0.6%	2.8%	
Knows most things	7.8%	5.2%	2.2%	5.7%	
Knows some things	18.9%	17.1%	6.4%	14.8%	
Knows almost nothing	22.5%	24.0%	10.7%	19.4%	
I am not sure	26.6%	29.7%	50.4%	34.3%	
Missing	0.2%	2.1%	0.1%	0.2%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 6673	<i>n</i> = 2633	<i>n</i> = 3920	<i>n</i> = 13,215	

Boldface indicates statistical significance.

**Table 3. Weighted Health Care Discrimination Variables**

Variable	TF	TM	NB	Total	$\chi^2, p$
Have you had any experience with health care discrimination?				Total	<b>&lt;0.01</b>
Yes	31%	29.3%	18.6%	29.3%	
No	53.8%	53.2%	56.4%	54.2%	
Not asked	11.7%	10.1%	19.8%	13.0%	
Missing	3.5%	2.2%	5.2%	3.5%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,675	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,381	
In the past year, was there a time when you could not see a doctor due to cost?				Total	<b>&lt;0.01</b>
Yes	25.0%	34.8%	37.6%	29.9%	
No	74.0%	64.8%	61.2%	69.2%	
Missing	1.0%	0.4%	1.2%	0.9%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,675	<i>n</i> = 5699	<i>n</i> = 5007	<i>n</i> = 24,381	
In the past year, was there a time when you could not see a doctor due to possible mistreatment?				Total	<b>&lt;0.01</b>
Yes	20.4%	27.6%	18.3%	21.6%	
No	79.5%	72.3%	81.4%	78.2%	
Missing	0.1%	0.1%	0.3%	0.2%	
Total	100.0%	100.0%	100.0%	100.0%	
	<i>n</i> = 13,674	<i>n</i> = 5699	<i>n</i> = 5006	<i>n</i> = 24,379	

Boldface indicates statistical significance.

provider. A majority of respondents had visited a health care provider in the past year (87%). NB participants were the least likely to have had a doctor's visit in the past year.

Thirty percent of survey respondents had experienced healthcare discrimination, according to Table 3. Within the three gender identity categories, TF were the most likely to experience health care discrimination (31%) and NB were the least likely (18.6%). When comparing the gender identity categories, a higher proportion of NB respondents reported postponement of care due to cost at 37.6%, and a higher percentage of TM postponed care due to fear of discrimination at 27.6%.

Table 4 displays the odds and adjusted odds ratios. After adjusting for demographic characteristics, TM were 1.20 times more likely to have access to health insurance when compared with TF, whereas NB were 17% less likely to have health insurance in comparison to TF. TM were 1.29 times more likely to have a transgender-specific care provider than TF. NB were 89% less likely to have a transgender-specific care provider and were 46% less likely to have a routine provider in comparison to TF. TM and NB were 1.15 and 1.42 times more likely to postpone medical treatment due to cost than TF, respectively, and NB were 42% less likely to postpone seeking health care due to

fear of discrimination when compared with TF. NB respondents were 55% less likely to face health care discrimination than TF.

## Discussion

The USTS is the largest survey of transgender people to date in the United States. Although previous research has identified disparities in access to health care and health insurance among transgender people when compared with cisgender people, the purpose of this study was to analyze the USTS dataset to determine if there were disparities in health care access and utilization within the transgender community. There were significant differences in the demographic characteristics between each of the three gender identity categories: TF, TM, and NB. Previous research found that transgender populations are more ethnically diverse than cisgender populations and are more likely to identify as Black/African American or Hispanic/Latinx than White.<sup>13,18</sup> Studies using 2014 BRFSS data found that TM and NB are more likely to identify Hispanic/Latino.<sup>13,15</sup> In the USTS sample, TM individuals were more likely to identify as Hispanic or Black than TF or NB. Similar to previous research, NB people tended to be younger than TM or TF, and TF people tended to be older. NB participants in this study were in the lower income brackets, particularly compared with TF. Over half of the participants reported making less than \$50,000 per year.

A majority of the sample reported having health insurance (84.3%). TM individuals were more likely and NB individuals were less likely to have health insurance coverage when compared with TF individuals after controlling for demographic variables. Although the overall percentage of those who reported having health insurance was similar to that of Downing and Przedworski and Gonzales and Henning-Smith in their analyses of BRFSS data, we found that TM were more likely to have health insurance rather than less likely.<sup>14,15</sup> NB participants had the greatest risk of not being insured and thus were more vulnerable to health disparities due to a lack of health insurance. The overall percentage of being insured was 84% in this study, which is lower than that found among cisgender population which averages close to 90%, leaving transgender people at great risk of financial hardship due to a lack of health insurance.<sup>13-15</sup> Additional research is needed to understand the reasons for the lower rates of health insurance coverage among transgender people, especially those who identify as NB. Barriers

**Table 4. Odds Ratio and Adjusted Odds Ratio with Transfeminine as the Reference Category**

Variable	Odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval	
		Lower	Upper		Lower	Upper
Health insurance						
TM	1.03	0.95	1.13	<b>1.20</b>	<b>1.07</b>	<b>1.34</b>
NB	<b>0.88</b>	<b>0.80</b>	<b>0.96</b>	<b>0.83</b>	<b>0.74</b>	<b>0.94</b>
Existence of trans-specific care provider						
TM	<b>1.11</b>	<b>1.03</b>	<b>1.19</b>	<b>1.29</b>	<b>1.17</b>	<b>1.42</b>
NB	<b>0.11</b>	<b>0.10</b>	<b>0.12</b>	<b>0.11</b>	<b>0.10</b>	<b>0.13</b>
Existence of routine health care provider						
TM	<b>0.77</b>	<b>0.69</b>	<b>0.86</b>	0.96	0.83	1.10
NB	<b>0.45</b>	<b>0.39</b>	<b>0.52</b>	<b>0.54</b>	<b>0.45</b>	<b>0.66</b>
Lack of visiting health care provider due to lack of cost						
TM	<b>1.59</b>	<b>1.49</b>	<b>1.70</b>	<b>1.15</b>	<b>1.05</b>	<b>1.25</b>
NB	<b>1.82</b>	<b>1.70</b>	<b>1.95</b>	<b>1.42</b>	<b>1.29</b>	<b>1.57</b>
Lack of visiting health care provider due to fear of discrimination						
TM	<b>1.49</b>	<b>1.39</b>	<b>1.60</b>	1.06	0.96	1.16
NB	<b>0.88</b>	<b>0.81</b>	<b>0.95</b>	<b>0.58</b>	<b>0.51</b>	<b>0.65</b>
Health care discrimination						
TM	<b>1.12</b>	<b>1.05</b>	<b>1.20</b>	1.00	0.93	1.08
NB	<b>0.57</b>	<b>0.53</b>	<b>0.62</b>	<b>0.45</b>	<b>0.41</b>	<b>0.50</b>

Boldface indicates statistical significance ( $p \leq 0.05$ ).

could include the cost of health insurance, jobs that do not offer health insurance, or health plans that do not appeal to the needs of transgender people due to lack of coverage of trans-specific care. Future research should also include the intersection of gender identity, race/ethnicity, and other demographic characteristics.

A majority of participants from each of the three gender categories reported having access to a primary care provider. NB participants were the least likely to have a primary care provider and were almost 50% more likely to forgo a health care visit due to cost after controlling for demographic characteristics such as income, age, and employment. These findings are consistent with those of Gonzales and Henning-Smith who found that gender-nonconforming individuals were more likely to have an unmet medical need due to cost and to not have routine checkups.<sup>15</sup> These findings may be a result of lower rates of health insurance coverage as identified above or may be due to a lack of comfortability with health care providers.

A higher percentage of TF and TM participants indicated that they had experienced some form of interpersonal health care discrimination than NB participants. Adjusted odds ratios showed that NB were almost half as likely to have experienced health care discrimination and were 42% less likely to postpone care due to fear of discrimination than TF. Since NB respondents may not be visibly gender nonconforming, they may have “passing privilege,” in which a person is able to remain within the framework of intelligibility due to phenotypic similarities to dominant groups.<sup>20</sup> In the context of the transgender community, passing indicates a person’s ability to be perceived as cisgender, therefore reducing risk of discrimination and stigma.

Cruz’s analysis of the NDTs data found that over half of the respondents reported postponement of care due to fear of discrimination.<sup>1</sup> Our findings from the USTS showed that 22% of respondents reported postponement of care due to fear of discrimination. Kosenko et al. found that 70% of their participants experienced stigma of adverse interactions with health care providers.<sup>12</sup> While the percentage of participants in this study who delayed health care due to fear of discrimination or experience discrimination in the health care setting is lower than previous findings, it is still unacceptably high. To date, there are few medical schools with comprehensive LGBTQ+ specific health education.<sup>21</sup> A lack of proper medical education on gender-affirming care can leave providers unable to cater to the needs of LGBTQ patients.<sup>22</sup>

### Limitations

There have been few robust estimates of the transgender population due to a lack of consensus on terminology, lack of data collection on national public health surveys, and generalized social stigma.<sup>1,23–25</sup> According to the USTS codebook, the NCTE weighted the data based on their understanding of the transgender community, which is not relevant without accepted population estimate. Studies point to the racial and ethnic diversity of transgender communities; however, since racial and ethnic minorities were vastly underrepresented in the unweighted USTS dataset, the NCTE assumes that a small number of a minority respondents can accurately represent the opinions of their racial and ethnic group.<sup>13,15,19</sup> Another limitation is the lack of inclusivity and representation for intersex populations who identify as trans and/or gender nonconforming. The USTS asked respondents for their sex at birth and only provided binary options (“male” and “female”). They did not provide “intersex” or other options. Other limitations in this study include lack of generalizability due to sampling methodology, self-selection bias, and self-reporting bias.

### Conclusions

This study highlights disparities in access to and utilization of health care among subgroups of transgender-identifying populations. Previous studies estimated that the transgender community represents about 0.50% of the population in the United States.<sup>14,16</sup> Based on current U.S. population estimates, that would equate to ~1.6 million people who identify as transgender.<sup>14,18</sup> Nearly 30% of our study population experienced a form of health care discrimination or did not see a health care provider due to cost, and 20% did not seek health care due to fear of discrimination. These findings indicate that almost 500,000 transgender people experience health care disparities in the United States. This represents a significant public health issue. Programs and policies are also necessary to ensure that TM, TF, and NB-identifying individuals are not left vulnerable to health disparities due to a lack of health insurance or cost of care. Education and cultural competence training for health care providers are needed to ensure that transgender people are not dissuaded from seeking health care due to fear of discrimination.

This study also demonstrates the need for further research on the intersectional and diverse population of LGBTQ people to work toward health equity.

Population based studies, such as the USTS, provide invaluable data that lay the foundation, groundwork, and justification for legislative endeavors, medical education, and public health programs to improve health care for transgender people. Transgender visibility is increasing in politics, social media, news, and pop culture, which creates a safer environment for individuals to openly identify as gender nonconforming. With increasing visibility and growing need for transgender-specific health care, data collection, and data analysis are crucial to alleviate health disparities.

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### Abbreviations Used

ACS = American Community Survey  
 AFAB = Assigned Female at Birth  
 AMAB = Assigned Male at Birth  
 BRFS = Behavioral Risk Factor Surveillance Survey  
 FTM = trans man  
 LGBTQ = lesbian, gay, bisexual, transgender, and queer  
 MTF = trans woman  
 NB = nonbinary  
 NCTE = National Center for Transgender Equality  
 NTDS = National Transgender Discrimination Survey  
 TF = transfeminine  
 TM = transmasculine  
 USTS = United States Transgender Survey