

AMERICAN FOUNDATION FOR
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Suicide Attempts among Transgender and Gender Non-Conforming Adults

FINDINGS OF THE NATIONAL TRANSGENDER DISCRIMINATION SURVEY

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January 2014

EXECUTIVE SUMMARY

The prevalence of suicide attempts among respondents to the National Transgender Discrimination Survey (NTDS), conducted by the National Gay and Lesbian Task Force and National Center for Transgender Equality, is 41 percent, which vastly exceeds the 4.6 percent of the overall U.S. population who report a lifetime suicide attempt, and is also higher than the 10-20 percent of lesbian, gay and bisexual adults who report ever attempting suicide. Much remains to be learned about underlying factors and which groups within the diverse population of transgender and gender non-conforming people are most at risk.

In the present study, we sought to increase understanding of suicidal behavior among transgender and gender non-conforming people through an in-depth analysis of NTDS data. The specific aims of our analysis were to identify the key characteristics and experiences associated with lifetime suicide attempts in the NTDS sample as a whole, and to examine how lifetime suicide attempts vary among different groups of transgender and gender non-conforming people.

Key findings of this report include the following:

- Suicide attempts among trans men (46%) and trans women (42%) were slightly higher than the full sample (41%). Cross-dressers assigned male at birth have the lowest reported prevalence of suicide attempts among gender identity groups (21%).
- Analysis of other demographic variables found prevalence of suicide attempts was highest among those who are younger (18 to 24: 45%), multiracial (54%) and American Indian or Alaska Native (56%), have lower levels of educational attainment (high school or less: 48-49%), and have lower annual household income (less than $10,000: 54%).
- Prevalence of suicide attempts is elevated among those who disclose to everyone that they are transgender or gender-non-conforming (50%) and among those that report others can tell always (42%) or most of the time (45%) that they are transgender or gender non-conforming even if they don't tell them.
- Respondents who are HIV-positive (51%) and respondents with disabilities (55-65%) also have elevated prevalence of suicide attempts. In particular, 65 percent of those with a mental health condition that substantially affects a major life activity reported attempting suicide.
- Respondents who experienced rejection by family and friends, discrimination, victimization, or violence had elevated prevalence of suicide attempts, such as those who experienced the following:
  - — Family chose not to speak/spend time with them: 57%
  - — Discrimination, victimization, or violence at school, at work, and when accessing health care
    - Harassed or bullied at school (any level): 50-54%
    - Experienced discrimination or harassment at work: 50-59%
    - Doctor or health care provider refused to treat them: 60%
    - Suffered physical or sexual violence:
      - — At work: 64-65%
      - — At school (any level): 63-78%
  - — Discrimination, victimization, or violence by law enforcement
    - Disrespected or harassed by law enforcement officers: 57-61%
    - Suffered physical or sexual violence: By law enforcement officers: 60-70
  - — Experienced homelessness: 69%

"Overall, the most striking finding of our analysis was the exceptionally high prevalence of lifetime suicide attempts reported by NTDS respondents across all demographics and experiences."

Overall, the most striking finding of our analysis was the exceptionally high prevalence of lifetime suicide attempts reported by NTDS respondents across all demographics and experiences. Based on prior research and the findings of this report, we find that mental health factors and experiences of harassment, discrimination, violence and rejection may interact to produce a marked vulnerability to suicidal behavior in transgender and gender non-conforming individuals. More research on suicidal behavior among transgender and gender non-conforming people is needed.

INTRODUCTION

Since 2001, over a dozen separate surveys of transgender adults in the United States and other countries have found lifetime suicide attempts to be reported by 25-43 percent of respondents (Clements-Nolle et al., 2001; Clements-Nolle et al., 2006; Grant et al., 2011; Kenagy, 2005; Maguen & Shipherd, 2010; Transgender Equality Network Ireland, 2012; Trans PULSE, 2010; Whittle et al., 2007; Whittle et al., 2008; Xavier et al., 2005; Xavier et al., 2007). These figures vastly exceed the 4.6 percent of the overall U.S. population who report a lifetime suicide attempt (Kessler, Borges and Walters, 1999; Nock & Kessler, 2006), and are also higher than the 10-20 percent of lesbian, gay and bisexual adults who report ever attempting suicide (Paul et al., 2002).

While these surveys suggest an unparalleled level of suicidal behavior among transgender adults, much remains to be learned about underlying factors and which groups within this diverse population are most at risk. In the present study, we sought to increase understanding of suicidal behavior among transgender and gender non-conforming people through an in-depth analysis of data from the U.S. National Transgender Discrimination Survey (NTDS), conducted by the National Gay and Lesbian Task Force and the National Center for Transgender Equality. With over 6,000 respondents, the NTDS is the largest survey of transgender and gender non-conforming adults to date. In that sample, 41 percent of respondents reported ever attempting suicide (Grant et al., 2011).

The specific aims of our analysis were to identify the key characteristics and experiences associated with lifetime suicide attempts in the NTDS sample as a whole, and to examine how lifetime suicide attempts vary among different groups of transgender and gender non-conforming people. In this report, we present our findings, discuss their implications, and conclude by describing considerations and needs for future research.

METHODS AND LIMITATIONS

The NTDS was launched in fall 2008 and was distributed online and on paper through over 900 organizations that were known venues for contact with the transgender community throughout the United States. Details of the survey instrument, methods and procedures have previously been described (Grant et al., 2011). In brief, responses were obtained from 6,456 self-identified transgender and gender non-conforming adults aged 18 and over. History of lifetime suicide attempt was among the many outcomes covered in the 70-item survey. The analysis of the NTDS data presented in this paper is mainly descriptive. Where appropriate, Pearson's chi-square tests of independence were conducted to assess whether lifetime suicide attempts were related to a variety of characteristics and experiences of survey respondents.

While the NTDS provides a wealth of information about the experiences of transgender and gender non-conforming people, the survey instrument and methodology posed some limitations for this study. First, the NTDS questionnaire included only a single item about suicidal behavior that asked, "Have you ever attempted suicide?" with dichotomized responses of Yes/No. Researchers have found that using this question alone in surveys can inflate the percentage of affirmative responses, since some respondents may use it to communicate self-harm behavior that is not a "suicide attempt," such as seriously considering suicide, planning for suicide, or engaging in self-harm behavior without the intent to die (Bongiovi-Garcia et al., 2009). The National Comorbity Survey, a nationally representative survey, found that probing for intent to die through in-person interviews reduced the prevalence of lifetime suicide attempts from 4.6 percent to 2.7 percent of the adult sample (Kessler et al., 1999; Nock & Kessler, 2006). Without such probes, we were unable to determine the extent to which the 41 percent of NTDS participants who reported ever attempting suicide may overestimate the actual prevalence of attempts in the sample. In addition, the analysis was limited due to a lack of follow-up questions asked of respondents who reported having attempted suicide about such things as age and transgender/gender non-conforming status at the time of the attempt.

Second, the survey did not directly explore mental health status and history, which have been identified as important risk factors for both attempted and completed suicide in the general population (Lasage, Boyer, Grunberg, Vanier, Morissett et al., 1994; Suominen, Henrikssen, Suokas, Isometsa, Ostamo, et al., 1996; Harris & Barraclough, 1997; Bertolote & Fleischmann, 2002; Nock, Hwang, Sampson, & Kessler, 2010). Further, research has shown that the impact of adverse life events, such as being attacked or raped, is most severe among people with co-existing mood, anxiety and other mental disorders (Breslau, Davis, Andreski, & Peterson,

1991; Kendler, Kardowski, & Presco, 1999). The lack of systematic mental health information in the NTDS data significantly limited our ability to identify the pathways to suicidal behavior among the respondents.

Third, since the NTDS utilized convenience sampling, it is unclear how representative the respondents are of the overall U.S. transgender/gender non-conforming adult population. Further, the survey's focus on discrimination may have resulted in wider participation by persons who had suffered negative life experiences due to anti-transgender bias.[1] As the relationship between minority stress and mental health would suggest (Meyer, 2003), this may have contributed to a higher prevalence of negative outcomes, including lifetime suicide attempts, in the sample. These limitations should be kept in mind in interpreting the findings of our analyses.

Finally, it should be emphasized that the NTDS, like all similar surveys, captured information about suicide attempts, not completed suicide. Lacking any information about completed suicide among transgender people (due primarily to decedents not being identified by gender identity or transgender status), it may be tempting to consider suicide attempt data to be the best available proxy measure of suicide death. Data from the U.S. population at large, however, show clear demographic differences between suicide attempters and those who die by suicide. While almost 80 percent of all suicide deaths occur among males, about 75 percent of suicide attempts are made by females. Adolescents, who overall have a relatively low suicide rate of about 7 per 100,000 people, account for a substantial proportion of suicide attempts, making perhaps 100 or more attempts for every suicide death. By contrast, the elderly have a much higher suicide rate of about 15 per 100,000, but make only four attempts for every completed suicide. Although making a suicide attempt generally increases the risk of subsequent suicidal behavior, six separate studies that have followed suicide attempters for periods of five to 37 years found death by suicide to occur in 7 to 13 percent of the samples (Tidemalm et al., 2008). We do not know whether these general population patterns hold true for transgender people but in the absence of supporting data, we should be especially careful not to extrapolate findings about suicide attempts among transgender adults to imply conclusions about completed suicide in this population.

1. *For the purposes of this paper, "anti-transgender bias" means bias or prejudice that is directed toward people who are transgender or gender non-conforming.*

DEMOGRAPHICS

The age of NTDS respondents ranged from 18 to 98 years, with an average of 37 years. Frequency distributions for other demographic characteristics are provided in Table 1; gender-related characteristics are summarized in Table 2.

Table 1: Demographic characteristics of NTDS respondents

	Mean	sd	Range	n
Age	37.0	13.1	18-98	5885

Age Categories	Percent	n
18-24	19%	1099
25-44	52%	3051
45-54	17%	973
55-64	11%	648
65+	2%	114

Race/Ethnicity	Percent	n
American Indian or Alaska Native Alone	1%	75
Asian or Pacific Islander Alone	2%	137
Black or African American Alone	5%	290
Hispanic or Latino Alone	5%	294
White Alone	76%	4872
Multiracial or Mixed Race/Ethnicity[2]	11%	736

Education	Percent	n
Did not graduate from high school	4%	266
High school graduate	8%	540
Some college (incl. AA, AS, tech, other)	40%	2585
College degree (incl. BA, BS, other)	27%	1745
Graduate degree (incl. PhD, MD, other)	20%	1281

Household Income	Percent	n
< $10,000	15%	944
$10,000 - $19,999	12%	754
$20,000 - $49,999	32%	1982
$50,000 - $99,999	28%	1718
> $100,000	14%	860

Employment Status	Percent	n
Full-time	46%	2970
Part-time	16%	1012
More than one job	8%	490
Self-employed (own your business)	8%	541
Self-employed (contract worker)	4%	282
Unemployed but looking	11%	700
Unemployed and stopped looking	3%	210
On disability	8%	502
Student	20%	1292
Retired	7%	450
Homemaker/full-time parent	2%	111
Other	7%	434

Workforce Participation Recode[3]	Percent	n
In workforce	70%	4498
Out of the workforce, unemployed	11%	710
Out of the workforce, not looking	19%	1203

Relationship Status	Percent	n
Single	36%	2286
Partnered	27%	1706
Married	22%	1394
Divorced	11%	690
Separated	3%	185
Widowed	2%	94
Civil Union	1%	72

Sexual Orientation	Percent	n
Gay/Lesbian/Same-Gender Attraction	21%	1326
Bisexual	23%	1473
Queer	20%	1270
Heterosexual	21%	1341
Asexual	4%	260
Other	11%	698

2 *Multiracial or Mixed Race includes survey respondents who selected "Multiracial or Mixed Race" as their race/ethnicity on the survey plus those who selected two or more races/ethnicities.*

3 *NTDS researchers utilized the survey question on employment status to create this three-level current workforce participation recode for survey respondents. The original variable contained the following twelve categories: full-time, part-time, more than one job, self-employed (own your business), self-employed (contract worker), unemployed but looking, unemployed and stopped looking, on disability, student, retired, homemaker or full-time parent, and other. The recoded variable collapsed the twelve categories into three: in workforce, out of the workforce – unemployed, and out of the workforce – not looking. PLEASE NOTE: the rate of those who are out of the workforce and unemployed should not be used as the unemployment rate for the NTDS sample. Unemployment rates calculated by the U.S. Bureau of Labor statistics do not include those who are out of the workforce and not looking for employment. For more information on how the U.S. Bureau of Labor Statistics measures unemployment, please visit http://www.bls.gov/cps/cps_htgm.htm. The unemployment rate for the NTDS sample is 14%.*

Table 2: Gender-related characteristics of NTDS respondents

Sex Assigned at Birth	Percent	n
Male	60%	3870
Female	40%	2566

Primary Gender Identity Today[4]	Percent	n
Male/Man	26%	1687
Female/Woman	41%	2608
Part time one gender/ part time another	20%	1275
A gender not listed	13%	864

Gender Identity Recode[5]	Percent	n
Trans Women / MTF	47%	3005
Trans Men / FTM	28%	1776
Cross-dresser (male-assigned)	11%	702
Cross-dresser (female-assigned)	3%	192
GNC[6] / Genderqueer (male-assigned)	3%	169
GNC / Genderqueer (female-assigned)	9%	597

Strength of Identification with Listed Identities				
Listed Identity	Strongly	Somewhat	Not at all	n
Transgender	65%	26%	10%	6258
Transsexual	46%	27%	27%	6154
FTM (female to male)	26%	13%	62%	5835
MTF (male to female)	46%	10%	44%	6066
Intersex	6%	16%	79%	5801
GNC or gender variant	32%	34%	34%	5903
Genderqueer	22%	25%	53%	5865
Androgynous	14%	30%	56%	5856
Feminine Male	10%	25%	65%	5837
Masculine Female/Butch	8%	19%	73%	5823
A.G. or Aggressive	2%	8%	90%	5798
Third gender	10%	21%	69%	5814
Cross-dresser	15%	16%	69%	5882
Drag Performer	3%	8%	89%	5795
Two spirit	15%	23%	63%	5851
Other	17%	2%	81%	2552

SUICIDE ATTEMPTS AND DEMOGRAPHIC CHARACTERISTICS

As shown in Table 3, reported lifetime suicide attempts decreased with age, from a high of 45 percent for 18-44 year-olds to 33 percent for 55-64 year-olds and 16 percent for those over 65 years.[7] Respondents who indicated "white" race/ethnicity had the lowest prevalence of lifetime suicide attempts at 38 percent, while American Indians and Alaska Natives reported the highest at 56 percent. Generally, those with greater educational achievement were less likely to report having attempted suicide, with 31 percent of respondents with a graduate degree, compared to 49 percent of those with a high school diploma, reporting a lifetime suicide attempt. Like education, those with higher household income had a lower prevalence of lifetime suicide attempts, with 26 percent of those with income exceeding $100,000 saying they had ever attempted suicide, compared to 54 percent of those with income less than $10,000.

4 *Gender identities listed here are as they appeared on the NTDS survey. "Part time one gender/part time another" was listed to include those respondents who are not yet living full-time in their gender identity, such as those who only express their gender identity in certain circumstances (e.g. at home but not at work) and/or those who do not wish to live full-time in a gender different than the one assigned at birth (e.g. part time cross-dressers).*

5 *NTDS researchers utilized the three questions in the survey related to gender identity and sex assigned at birth (shown in Table 2) to create this six-level gender identity recode for survey respondents. Respondents were first categorized by cross-tabulating sex assigned at birth and primary gender today. Next, respondents' answers to strength of identification with listed terms were taken into consideration. For instance, those who were assigned male at birth and today identify as female would generally be categorized as trans women/ MTF. However, if they did not at all identify with terms indicating a trans identity (transgender, transsexual, MTF) and strongly identified with another identity, such as cross-dresser, they were categorized according to the identity with which they strongly identified. For more information on how the gender identity recode was constructed, see Injustice at Every Turn, available at http://www.thetaskforce.org/reports_and_research/ntds.*

6 *"GNC" stands for Gender Non-Conforming.*

7 *Lower percentages of older respondents reporting lifetime suicide attempts has also been observed in some general population surveys, including the National Comorbidity Survey (Nock & Kessler, 2006). Possible reasons include older respondents' selective recall, reinterpretation of past suicidal behavior in light of more recent life events, and cohort effects.*

Lifetime suicide attempts were less frequently reported by respondents who were in the workforce (37%) than those who were out of the workforce and not looking for work (46%) and those who were unemployed (50%). Among all categories of current participation in the workforce, respondents who were retired reported the lowest prevalence of lifetime suicide attempts (29%), which is consistent with findings related to age. The highest prevalence of lifetime suicide attempts (65%) was found among those on disability.[8]

In regard to relationship status, those who were married or widowed reported lower prevalence of lifetime suicide attempts at 33 percent and 31 percent, respectively, while those who were single reported the highest prevalence at 45 percent. The prevalence of lifetime suicide attempts varied across sexual orientation categories with 35 percent of those who described themselves as heterosexual saying they had ever attempted suicide, compared to 40 percent of those who were gay/lesbian, 40 percent of those who were bisexual, and 46 percent of those who said they were asexual or another orientation.

Table 3: Lifetime suicide attempts by demographic characteristics

	Have Attempted Suicide	
	Frequency	Row %
Age		
18-24	488	45%
25-44	1348	45%
45-54	373	39%
55-64	210	33%
65+	18	16%
		$\chi^2_4 = 70.6$*
Race/Ethnicity		
American Indian or Alaska Native Alone	39	56%
Asian or Pacific Islander Alone	52	39%
Black or African American Alone	118	45%
Hispanic or Latino Alone	125	44%
White Alone	1829	38%
Multiracial or Mixed Race/Ethnicity	395	54%
		$\chi^2_5 = 81.2$*
Education		
Did not graduate from high school	125	48%
High school graduate	258	49%
Some college (incl. AA, AS, tech, other)	1228	48%
College degree (incl. BA, BS, other)	566	33%
Graduate degree (incl. PhD, MD, other)	394	31%
		$\chi^2_4 = 171.7$*

	Have Attempted Suicide	
	Frequency	Row %
Household Income		
< $10,000	504	54%
$10,000 - $19,999	397	53%
$20,000 - $49,999	826	42%
$50,000 - $99,999	563	33%
> $100,000	222	26%
		$\chi^2_4 = 240.0$*
Workforce Participation Recode		
In workforce	1673	37%
Out of the workforce, unemployed	352	50%
Out of the workforce, not looking	547	46%
		$\chi^2_2 = 59.9$*
Relationship Status		
Single	1009	45%
Partnered	715	42%
Married	452	33%
Divorced	272	40%
Separated	67	37%
Widowed	29	31%
Civil Union	32	44%
		$\chi^2_6 = 60.7$*
Sexual Orientation		
Gay/Lesbian	528	40%
Bisexual	583	40%
Queer	544	43%
Heterosexual	466	35%
Asexual	119	46%
Other	318	46%
		$\chi^2_5 = 32.3$*

*$p < .001$

8 *The workforce participation question in the NTDS was a "check all" item with twelve workforce categories listed, meaning respondents could choose more than one response from the list of twelve. Therefore, a chi-square test was only performed with the workforce recode variable, as shown in Table 3. Findings for those on disability and those who are retired are provided here due to their notable rates of lifetime suicide attempts.*

SUICIDE ATTEMPTS AND GENDER IDENTITY

As shown in Table 4, among respondents who were assigned female at birth, 44 percent reported making a lifetime suicide attempt, compared to 38 percent of those who were assigned male at birth.

Table 4: Lifetime suicide attempts by gender-related characteristics

	Have Attempted Suicide	
	Frequency	Row %
Sex Assigned at Birth		
Male	1457	38%
Female	1120	44%
		$\chi^2_1 = 19.3$*
Primary Gender Identity Today		
Male/Man	699	42%
Female/Woman	1106	43%
Part time one gender/ part time another	406	32%
A gender not listed	367	43%
		$\chi^2_3 = 45.1$*
Gender Identity Recode		
Trans Women / MTF	1251	42%
Trans Men / FTM	822	46%
Cross-dresser (male-assigned)	147	21%
Cross-dresser (female-assigned)	84	44%
GNC / Genderqueer (male-assigned)	61	38%
GNC / Genderqueer (female-assigned)	212	36%
		$\chi^2_5 = 145.2$*

*$p < .001$

The percentage of respondents who reported a lifetime suicide attempt overall showed little variability by current gender identity, as defined by respondents' answers to the question "What is your primary gender identity today?" The one exception was seen among those who described themselves as "part time as one gender/part time as another." These respondents, who constituted 20 percent of the NTDS sample, were less likely than others to report having ever attempted suicide. Using the gender identity recode which categorized respondents into one of six gender identities, trans women (MTF), trans men (FTM), and female-assigned cross-dressers had the highest prevalence of lifetime suicide attempts (42%, 46% and 44% respectively).

Additional insight into the relationship between gender identity and lifetime suicide attempts was provided by respondents' answers to a survey question that inquired about mental health care services and medical treatments and procedures related to gender transition. As shown in Table 5, respondents who said they had received transition-related health care or wanted to have it someday were more likely to report having attempted suicide than those who said they did not want it. This pattern was observed across all transition-related services and procedures that were explored in the NTDS. The survey did not provide information about the timing of reported suicide attempts in relation to receiving transition-related health care, which precluded investigation of transition-related explanations for these patterns.

Table 5: Lifetime suicide attempts by responses about transition-related health care

Transition-related Health Care	Do Not Want It	Want It Someday	Have Had It	χ^{2}_{2}*
Counseling	190 (29%)	327 (39%)	1963 (44%)	53.2
Hormone Treatment	272 (31%)	540 (40%)	1608 (45%)	60.6
Top/chest/ breast surgery	500 (34%)	1222 (45%)	563 (44%)	46.3
Male-to-female removal of testes	327 (31%)	800 (43%)	286 (43%)	47.3
Male-to-female genital surgery	340 (31%)	834 (43%)	265 (43%)	49.7
Female-to-male hysterectomy	344 (36%)	564 (49%)	182 (48%)	40.4
Female-to-male genital surgery	570 (40%)	464 (49%)	38 (49%)	21.0
Female-to-male phalloplasty	757 (40%)	268 (56%)	21 (46%)	39.9

*$p < .001$

Perceived recognition by others as transgender/ gender non-conforming was also examined as possibly contributing to variation in lifetime suicide attempt rates among NTDS respondents. For this analysis, we looked at responses to the questionnaire item, "People can tell I'm transgender/gender non-conforming even if I don't tell them." This item measured respondents' perceptions of how often others recognize the respondent as transgender or gender non-conforming. As can be seen in Table 6, lifetime suicide attempts were found to be lowest (36%) among respondents who said people can "never" tell they are transgender or gender non-conforming. Suicide attempts were reported by higher percentages of those who said people can "always" (42%) or "most of the time" (45%) tell they are transgender or gender non-conforming.

To better understand the impact of perceived recognition as transgender or gender non-conforming on suicidality, we looked separately at respondents in each of the six major gender identity categories (see Table 7). In three of the gender identity categories:

Table 6: Lifetime suicide attempts by perceived recognition by others

	Have Attempted Suicide	
People can tell I'm transgender/GNC	Frequency	Row %
Always	167	42%
Most of the time	457	45%
Sometimes	693	41%
Occasionally	765	41%
Never	487	36%
		$\chi^2_4 = 20.6, p < .001$

trans women (MTF), male-assigned cross-dressers, and gender non-conforming/genderqueer people assigned male at birth, lifetime suicide attempt rates were found to be lower among those who perceived others as only "occasionally" or "never" being able to tell they are transgender or gender non-conforming, compared to those who thought that others could "always," "most of the time," or "sometimes" tell. Trans men (FTM) were found to have the same prevalence of lifetime suicide attempts (46%) regardless of whether they thought others can tell they are transgender. However, for respondents in the last two gender identity categories – female-assigned cross-dressers and gender non-conforming/genderqueer people assigned female at birth – the prevalence of lifetime suicide attempts was found to be higher among those who said other people "occasionally" or "never" can tell they are transgender or gender non-conforming, compared to those who said that other people "always," "most of the time," or "sometimes" can tell. Cross-dressers assigned female at birth who perceived that they were generally not recognized as transgender or gender non-conforming were found in this analysis to have the highest prevalence of lifetime suicide attempts (47%). In summary, the patterns in Table 7 are most striking among those who said that people can occasionally or never tell they are transgender/gender non-conforming in that those on the trans-feminine spectrum had lower prevalence of lifetime suicide attempts than those on the trans-masculine spectrum.

Related to these analyses, we also examined respondents' disclosure of transgender/gender non-conforming status and whether or not they were "out" in various settings. As shown in Table 8, the prevalence of lifetime suicide attempts was found to be highest (50%) among those who said they "tell everyone" about their transgender/gender non-conforming status and lowest (33%) among those who said they "never" tell people their status.

Table 8: Lifetime suicide attempts by disclosure of transgender/gender non-conforming status

	Have Attempted Suicide	
I tell people that I'm transgender/GNC	Frequency	Row %
Never	242	33%
Tell people who are close friends	1755	40%
Tell people who are casual friends	692	41%
Tell work colleagues	565	40%
Tell family	1091	41%
Tell everyone	468	50%

Similarly, suicide attempts were more frequently reported by respondents who were "out" to others as transgender or gender non-conforming in various settings (see Table 9).[9]

Table 9: Lifetime suicide attempts by being "out" in various settings

	Have Attempted Suicide	
Setting	Not Out	Out
At home	193 (34%)	2233 (41%)
On the job	526 (33%)	1590 (42%)
At school	385 (35%)	886 (45%)
In private social settings	226 (37%)	2274 (41%)
In public social settings	603 (38%)	1909 (41%)
When seeking medical care	395 (31%)	2092 (43%)

Table 7: Lifetime suicide attempts by gender identity and perceived recognition by others

People can tell I'm transgender/GNC	Trans Women / MTF	Trans Men / FTM	Cross-dresser (male assigned)	Cross-dresser (female assigned)	GNC / Genderqueer (male assigned)	GNC / Genderqueer (female assigned)
Always, most of the time, sometimes	652 (45%)	342 (46%)	67 (27%)	63 (43%)	40 (43%)	152 (34%)
Occasionally, never	590 (40%)	480 (46%)	76 (17%)	20 (47%)	21 (31%)	60 (42%)

9 *Respondents were classified as being "Out" if they answered "a few," "some," "most" or "all" to the question, "How many people know or believe you are transgender/gender non-conforming in each of the following settings?" Respondents who answered "none" for each setting found in this question were classified as "Not out". Those who responded "Not Applicable" to any of the settings were excluded from the analysis. Respondents who are "Out" are more likely to report that people can tell they are transgender or gender non-conforming.*

SUICIDE ATTEMPTS AND HIV

The prevalence of lifetime suicide attempts was higher among respondents who indicated being HIV positive (see Table 10).

Table 10: Lifetime suicide attempts by HIV status

	Have Attempted Suicide	
HIV Status	Frequency	Row %
Positive	84	51%
Negative	2260	40%
Don't know	217	41%
		$\chi^2_2 = 7.7$, $p < .021$

SUICIDE ATTEMPTS AND DISABILITIES

Respondents who indicated having a disability (physical, learning, mental health) that substantially affects a major life activity reported a higher prevalence of lifetime suicide attempts than those without a disability (57% v.33%, = 320.8, p < .001). As seen in Table 11, the highest prevalence of suicide attempts (65%) was reported by those who described their disability as related to a mental health condition. *It should be noted that this was the only item on the NTDS that specifically asked about mental health, and was answered only by respondents who indicated in the previous question that they had a disability that substantially affects a major life activity.*

Table 11: Lifetime suicide attempts by type of disability

	Have Attempted Suicide	
Disability	Frequency	Row %
Physical condition	984	56%
Learning disability	493	55%
Mental health condition	1220	65%

As shown in Table 12, among respondents who indicated having a mental health disability, at least 54 percent of respondents in each of the six main gender identity categories reported a lifetime suicide attempt. In all gender identity categories, respondents who did not indicate having a mental health disability were found to have significantly lower prevalence of lifetime suicide attempts than those in the same category who had such a disability.[10] Among those who did not indicate having a mental health disability, the prevalence of suicide attempts ranged from a high of 40 percent among trans men (FTM) and female-assigned cross-dressers, to a low of 17 percent among male-assigned cross-dressers.

Table 12: Lifetime suicide attempts by gender identity and mental health disability

	Have Attempted Suicide	
Gender Identity	MH Disability	No MH Disability
Trans Women / MTF	360 (67%)	891 (37%)
Trans Men / FTM	263 (67%)	559 (40%)
Cross-dresser (male-assigned)	39 (54%)	108 (17%)
Cross-dresser (female-assigned)	27 (56%)	57 (40%)
GNC / Genderqueer (male-assigned)	18 (62%)	43 (33%)
GNC / Genderqueer (female-assigned)	82 (59%)	130 (29%)

Among respondents who reported having a disability due to a mental health condition, the prevalence of lifetime suicide attempts was not substantially affected by whether they could be recognized by others as transgender/gender non-conforming (see Table 13).

Table 13: Lifetime suicide attempts by perceived recognition by others and mental health disability

	Have Attempted Suicide	
People can tell I'm transgender/GNC:	MH Disability	No MH Disability
Always, most of the time, sometimes	431 (64%)	886 (36%)
Occasionally, never	356 (66%)	896 (33%)

10 *Respondents who did not indicate having a mental health disability included those who reported no disability of any kind and those who reported a disability related to conditions other than mental health.*

SUICIDE ATTEMPTS AND STRESSORS RELATED TO ANTI-TRANSGENDER BIAS

In a series of analyses, we looked at the relationship between suicide attempts and a range of stressful life experiences that NTDS respondents described as occurring due to anti-transgender bias, which we refer to collectively as "stressors related to anti-transgender bias." These included experiences of rejection, discrimination, victimization, and violence that occurred within a number of specific contexts, as described below.

Table 14: Lifetime suicide attempts by experiences of housing discrimination and other housing-related problems

	Have Attempted Suicide	
Housing experience	Frequency	Row %
I moved into less expensive home/ apartment	849	54%
I became homeless	487	69%
I was evicted	254	63%
I was denied home/apartment	449	62%
I had to move back with family/friends	614	62%
I had to find a temporary place to sleep	652	64%
I had sex to stay with people/pay rent	281	64%

Housing

Relative to the prevalence of lifetime suicide attempts reported by NTDS respondents as a whole (41%), those who reported experiencing housing discrimination or other housing-related problems because of anti-transgender bias were found to have an elevated prevalence of lifetime suicide attempts (see Table 14). The highest suicide attempt prevalence (69%) was found among those who became homeless due to anti-transgender bias.

School

A higher than average prevalence of lifetime suicide attempts was consistently found among NTDS respondents who reported that they had been harassed, bullied, or assaulted in school by other students and/ or teachers due to anti-transgender bias (see Table 15). Among such respondents, suicide attempt prevalence varied little according to the level of school at which the victimization occurred. Consistently, suicide attempts were most frequently reported by those who had experienced school-based violence in the form of physical or sexual assault.

Work

As shown in Table 16, an elevated prevalence of lifetime suicide attempts was consistently found among respondents who reported negative work experiences related to anti-transgender bias. Prevalence was found

Table 15: Lifetime suicide attempts by experiences of school victimization

	Have Attempted Suicide	
	Frequency	Row %
Elementary School		
Harassed or Bullied	360	50%
Physically Assaulted	191	63%
Sexually Assaulted	46	73%
Jr. High/Middle School		
Harassed or Bullied	477	50%
Physically Assaulted	255	64%
Sexually Assaulted	80	73%
High School		
Harassed or Bullied	659	52%
Physically Assaulted	292	68%
Sexually Assaulted	104	69%
College		
Harassed or Bullied	424	54%
Physically Assaulted	71	68%
Sexually Assaulted	45	78%

Table 16: Lifetime suicide attempts by negative work experiences

	Have Attempted Suicide	
Work experience	Frequency	Row %
I did not get a job I applied for	987	53%
I am or have been under-employed	977	50%
I was removed from direct contact with clients, customers or patients	491	57%
I was denied a promotion	553	56%
I lost my job	660	55%
I was harassed by someone at work	1259	51%
I was the victim of physical violence by someone at work	209	65%
I was the victim of sexual assault by someone at work	176	64%
I was forced to present in the wrong gender to keep my job	806	54%
I was not able to work out a suitable bathroom situation with my employer	500	58%
I was denied access to appropriate bathrooms	546	59%
I was asked inappropriate questions about my transgender or surgical status	1019	55%
I was referred to by the wrong pronoun, repeatedly and on purpose	1155	56%
Supervisors or coworkers shared information about me that they should not have	1193	54%

to be especially high among those who said they had experienced work-based physical violence (65%) or sexual assault (64%).

In addition, respondents who indicated having engaged in sex work reported a high prevalence of lifetime suicide attempts. A separate question on the NTDS identified 694 respondents who had engaged in sex work for income. Among those in this group who answered the question on ever attempting suicide (n=674), 407 or 60 percent reported a lifetime suicide attempt.

Family and Friends

A lower than average prevalence of lifetime suicide attempts (33%) was found among respondents who said their family relationships had remained strong after coming out (see Table 17). In contrast, the prevalence of suicide attempts was elevated among respondents who reported experiencing rejection, disruption, or abuse by family members or close friends because of anti-transgender bias. Again, lifetime suicide attempts were reported most frequently by those who were victims of violence by a family member, with 65 percent of such respondents indicating having attempted suicide.

Table 17: Lifetime suicide attempts by experiences with family and friends

	Have Attempted Suicide	
Experience with family and friends	Frequency	Row %
Family is as strong today as when I came out	747	33%
Family relationships are improving after coming out	1171	42%
Relationship with my spouse or partner ended	894	49%
Ex limited or stopped relationship with children	257	55%
Court/judge limited/stopped relationship with children	108	58%
Children chose not to speak/spend time with me	272	50%
Parents/family chose not to speak/ spend time with me	994	57%
Victim of domestic violence by a family member	490	65%
Lost close friends	1552	52%

Medical Care

Respondents who reported having negative experiences related to obtaining medical care as a transgender or gender non-conforming person also reported an elevated prevalence of lifetime suicide attempts (see Table 18). Sixty percent of respondents who said they had been refused medical care because of anti-transgender bias reported a lifetime suicide attempt.

Table 18: Lifetime suicide attempts by experiences with medical care

	Have Attempted Suicide	
Experience with medical care	Frequency	Row %
I have postponed or not tried to get needed medical care when I was sick or injured because I could not afford it	1354	53%
I have postponed or not tried to get checkups or other preventive medical care because I could not afford it	1371	51%
I have postponed or not tried to get needed medical care when I was sick or injured because of disrespect or discrimination from doctors or other healthcare providers	827	56%
I have postponed or not tried to get checkups or other preventive medical care because of disrespect or discrimination from doctors or other healthcare providers	927	54%
A doctor or other provider refused to treat me because I am transgender/ gender nonconforming	582	60%
I had to teach my doctor or other provider about transgender/gender non-conforming people in order to get appropriate care	1275	51%

Law Enforcement

Respondents who reported having negative experiences with law enforcement officers commonly reported having attempted suicide (see Table 19). An especially high prevalence of lifetime suicide attempts was found among those who had experienced police violence in the form of physical or sexual assault.

Lifetime suicide attempts were less prevalent among respondents who said they had been generally treated with respect by law enforcement personnel. As seen in Table 20, decreasing level of comfort in seeking help from the police was found to be significantly related to higher prevalence of lifetime suicide attempts.

Table 19: Lifetime suicide attempts by experiences with law enforcement

	Have Attempted Suicide	
Experience with law enforcement	Frequency	Row %
Officers have generally treated me with respect	963	41%
Officers have generally treated me with disrespect	593	57%
Officers have harassed me	466	61%
Officers have physically assaulted me	122	60%
Officers have sexually assaulted me	60	70%

Table 20: Lifetime suicide attempts by comfort level seeking help from police

	Have Attempted Suicide	
Comfort level seeking help from police	Frequency	Row %
Very comfortable	356	33%
Somewhat comfortable	416	36%
Neutral	466	38%
Somewhat uncomfortable	670	41%
Very uncomfortable	666	52%
	$\chi^2_4 = 108.4$, $p < .001$	

Nature of the Relationship between Stressors and Suicide Attempts

The survey data did not allow us to determine a direct causal relationship between experiencing rejection, discrimination, victimization, or violence, and lifetime suicide attempts. Drawing on minority stress theory (Meyer, 2003) and recent research on the development of suicidal thinking and behavior following victimization (Espelage & Holt, 2013; Klomek et al., 2011), we hypothesized that mental health factors may be an important factor in helping to explain the strong and consistent relationship observed between stressors related to anti-transgender bias and lifetime suicide attempts among NTDS respondents. Although the limited NTDS data related to mental health precluded a full testing of this hypothesis, many specific experiences of rejection, discrimination, victimization, and violence were found to be significantly related to having a disabling mental health condition (see Table 21). Examples included a weakening of family relationships after coming out as transgender, being a victim of violence by a family member, becoming homeless after coming out, being harassed at work, and being refused medical care because of anti-transgender bias. The significant relationship between such stressors and mental health disability, coupled with our earlier findings of the relationship between mental health disability and lifetime suicide attempts (Tables 11-13), suggests that mental health factors and stressors interact to produce a marked vulnerability to suicidal behavior in transgender and gender non-conforming individuals.

Table 21: Relationship between specific stressors related to gender identity and mental health disability

Experience	MH Disability	No MH Disability	χ^2_1*
Family is not as strong as before I came out	614 (61%)	2218 (54%)	17.25
Victim of violence by a family member	235 (30%)	523 (17%)	72.98
Became homeless after coming out	236 (28%)	485 (16%)	67.88
Harassed at work	593 (62%)	1873 (47%)	70.89
Was refused medical treatment	252 (24%)	721 (18%)	23.86

*$p < .001$

QUALITY OF LIFE

The prevalence of lifetime suicide attempts was lowest (31%) among respondents who felt that being transgender or gender non-conforming had not markedly affected the quality of their lives (see Table 22). Those who felt that their life was "much worse" because they were transgender or gender non-conforming had a much higher prevalence of suicide attempts (56%).

Table 22: Lifetime suicide attempts by perceived impact of transgender/gender non-conforming status on quality of life

	Have Attempted Suicide	
Because I am Trans/GNC, life in general is...	Frequency	Row %
Much improved	570	39%
Somewhat improved	379	37%
The same	255	31%
Somewhat worse	316	42%
Much worse	135	56%
Some ways better, some ways worse	918	45%
		$\chi^2_5 = 75.6$, $p < .001$

DISCUSSION

The most striking finding of our analysis was the exceptionally high prevalence of lifetime suicide attempts reported by NTDS respondents. In looking at the percentages reporting a lifetime attempt within various subgroups of the overall sample, we repeatedly found "lows" in the range of 30 to 40 percent, while the "highs" exceeded 50 or even 60 percent. Even taking into consideration that some degree of over-reporting likely occurred in the survey, the results suggest these transgender and gender non-conforming respondents have experienced exceptionally high levels of suicidality. Notwithstanding the several significant limitations of the NTDS data that we noted at the outset of this report, our analysis suggests some tentative findings related to risk and protective factors for suicide attempts among transgender and gender non-conforming adults. Two interrelated risk factors appear to be most strongly related to suicidal behavior among transgender and gender non-conforming adults: rejection, discrimination, victimization, and violence related to anti-transgender bias and serious mental health conditions. In this study, we found a markedly high prevalence of lifetime suicide attempts among respondents who reported experiencing stressors related to anti-transgender bias, and among those who reported having a mental health condition that substantially affects a major life activity. In addition, our analyses suggest that these two sets of risk factors are closely related.

Significantly higher prevalence of lifetime suicide attempts was found among respondents who were classified as trans women (MTF) and trans men (FTM), based on their primary self-identifications. Since trans women and trans men are the groups within the overall transgender population most likely to need surgical care for transition, this may help to explain the high prevalence of lifetime suicide attempts we found among respondents who said they have had transition-related surgical procedures, compared to those who said they did not want transition-related surgery. Comparably high, or higher, prevalence of suicide attempts were found among respondents who said that they someday wanted FTM genital surgery, hysterectomy, or phalloplasty, suggesting that desiring transition-related health care services and procedures but not yet having them may exacerbate respondents' distress at the incongruence between their gender identity and physical appearance. It is also possible that elevated prevalence of lifetime suicide attempts may be due

"In looking at the percentages reporting a lifetime attempt within various subgroups of the overall sample, we repeatedly found "lows" in the range of 30 to 40 percent, while the "highs" exceeded 50 or even 60 percent."

to distress related to barriers to obtaining transition-related health care, such as a lack of insurance coverage, inability to afford the procedures, or lack of access to providers. These findings may also be related to the higher rates of reported lifetime suicide attempts among those who have undergone transition-related surgery. As has been noted, the NTDS instrument did not include questions about the timing of suicide attempts relative to transition, and thus we were unable to determine whether suicidal behavior is significantly reduced following transition-related surgeries, as some clinical studies have suggested (Dixen et al., 1984; De Cuypere et al., 2006).

Respondents' perceptions that people can always or sometimes tell they are transgender or gender non-conforming were likewise found to be associated with high prevalence of lifetime suicide attempts. Similarly, higher suicide attempt prevalence was found among respondents who said they tell "everyone" they are transgender or gender non-conforming. In this analysis, we were not able to precisely identify how perceived recognition by others or disclosure of one's transgender status contributes to suicide risk, although our overall results suggest that recognition by others as transgender or gender non-conforming, whether actual or perceived, significantly increases the likelihood of rejection and discrimination, which are clearly related to increased risk of suicidal behavior.

In contrast, prevalence of lifetime suicide attempts was found to be significantly lower among respondents, who described their gender identity as "part time as one gender and part time as another," which may suggest more selective disclosure and/or more limited perceived recognition by others of transgender or gender non-conforming status. This would be consistent with the findings of significantly lower prevalence of suicide attempts among respondents who said people can "never" tell they are transgender or gender non-conforming, and those who "never" tell anyone they are transgender or gender non-conforming. Collectively, these findings suggest that not being recognized by others as transgender or gender non-conforming may function as a protective factor for suicidal behavior. Conversely, one's *inability* to *not* be recognized as transgender or gender non-conforming may create added risk.

> *"Collectively, these findings suggest that not being recognized by others as transgender or gender non-conforming may function as a protective factor for suicidal behavior."*

Importantly, our analyses suggest that the protective effect of non-recognition is especially significant for those on the trans feminine spectrum. For people on the trans masculine spectrum, however, our data suggest that this protective effect may not exist or, in some cases, may work in the opposite direction. Clearly, more research is needed to illuminate the mechanisms through which not being recognized by others as transgender or gender non-conforming, whether by not disclosing to others or not being perceived as such by others, reduces suicidal behavior among transgender and gender non-conforming people.

NEED FOR FUTURE STUDIES

Transgender people are estimated to constitute 0.3 percent of the U.S. population (Gates, 2011). Federally-sponsored population-based surveys are increasingly including measures of sexual orientation and gender identity, and the data from these surveys will certainly help to increase understanding of the characteristics and needs of the transgender population. It is unlikely, however, that population-based surveys will be able to explore the full range of issues that uniquely impact the well-being of transgender people, such as barriers to transition-related health care and the impact of discrimination due to anti-transgender bias. Thus, well-designed studies that specifically engage the transgender community will continue to be needed to identify and illuminate the health and mental health needs of transgender people, including access to appropriate health care services. In light of the clarity with which the NTDS data have identified suicidal behavior as a significant threat to the well-being of transgender and gender non-conforming people, it is recommended that future surveys that include these populations devote particular attention to careful measurement of suicidal behavior and suicide risk.

This study has identified several areas that are in particular need of further research. First, more research is needed into the timing of suicide attempts in relation to age and gender transition status. In regard to timing of suicide attempts and gender transition, some surveys and clinical studies have found that transgender people are at an elevated risk for suicide attempt during gender transition, while rates of suicide attempts decrease after gender transition (Whittle et al., 2007; DeCuypere et al., 2006; Transgender Equality Network Ireland, 2012). Further research is clearly needed on the occurrence of all aspects of self-harm behavior, including suicidal ideation, suicide attempts and non-suicidal self-injury, in relation to gender transition and barriers to transition. Such research would provide better insight into the factors that underlie suicidal thinking and behavior among transgender people, especially those who want to transition from one gender to another, and could serve as the basis for designing better interventions and suicide prevention services for this population.

Second, further research is needed to examine the interrelationship of rejection, discrimination, victimization, and violence related to anti-transgender bias and serious mental health conditions. In-depth studies using in-person interviews and clinical measures are also needed to determine the independent and combined effects of these two factors in creating a pathway to suicidal behavior in transgender and gender non-conforming populations. Such studies could not only provide the basis for better interventions, but could also underscore the need to address through public policy the high levels of rejection, discrimination, victimization, and violence experienced by transgender and gender non-conforming people.

Finally, prior studies have suggested that lack of disclosure and attempts to conceal sexual orientation contributes to lower levels of mental health for lesbian, gay and bisexual individuals (Meyer, 2003; Pachankis, 2007; Hatzenbuehler, 2009; Schrimshaw, Siegel, Downing & Parsons, 2013). Explanatory mechanisms that have been posited include the stress of constant vigilance and concern about being "outed," internalized homophobia, and loss of potential emotional support from others. Our findings suggest that non-disclosure may function differently for transgender and gender non-conforming people. As we have noted, one possible explanation is that limiting disclosure of transgender or gender non-conforming status reduces the likelihood of experiencing bias-related rejection, discrimination, victimization, and violence, which in turn, reduces the likelihood suicidal behavior. This appears to be an additional important area for future research.

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Acknowledgements

The authors gratefully acknowledge Andrew Lane, Chair of the National Action Alliance for Suicide Prevention Task Force on LGBT Populations (2011-13), for initiating this project and providing ongoing leadership, support, and critical input. We thank Kellan Baker, Jack Harrison-Quintana, Mara Keisling, Ilan Meyer, Brad Sears, and Jill Harkavy-Friedman for their thoughtful reviews of the report. We also thank Erin Fitzgerald, Sheila Nezhad, and Becky Mengel Freund for their assistance with the final report. We also thank the National Gay and Lesbian Task Force and the National Center for Transgender Equality for the use of the NTDS dataset.

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