RESEARCH THAT MATTERS

SUICIDE THOUGHTS AND ATTEMPTS AMONG TRANSGENDER ADULTS Findings from the 2015 U.S. Transgender Survey

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EXECUTIVE SUMMARY

Over the past 20 years, a growing body of research has focused on suicidality among transgender individuals, including prevalence estimates and risk factors associated with suicide thoughts and attempts. Studies of the transgender population demonstrate that the prevalence of suicide thoughts and attempts among transgender adults is significantly higher than that of the U.S. general population. For example, transgender adults have a prevalence of past-year suicide ideation that is nearly twelve times higher, and a prevalence of past-year suicide attempts that is about eighteen times higher, than the U.S. general population. The 2015 U.S. Transgender Survey (USTS), which is the largest survey of transgender people in the U.S. to date, found that 81.7 percent of respondents reported ever seriously thinking about suicide in their lifetimes, while 48.3 percent had done so in the past year. In regard to suicide attempts, 40.4 percent reported attempting suicide at some point in their lifetimes, and 7.3 percent reported attempting suicide in the past year.

Although the research literature to date agrees that transgender people are at an elevated risk of suicide thoughts and attempts, there is still much to learn about why transgender people are particularly at risk. In this report, we utilize data from the 2015 USTS to examine the key risk factors associated with lifetime and past-year suicide thoughts and attempts among a large and diverse sample of transgender people.

DEMOGRAPHICS

Demographic trends related to suicide thoughts and attempts among USTS respondents reflected trends found in prior research of suicidality in the U.S. general population and among transgender people.

- Among USTS respondents, suicide thoughts and attempts were more likely to be reported among those of younger ages, Alaskan Native/American Indian or Biracial/Multiracial respondents, transgender men, pansexual respondents, and non-binary respondents assigned female at birth.
- Similar to trends in the U.S. population, we found a higher prevalence across all suicide-related measures among respondents who had lower educational attainment, were unemployed, or had lower annual household income. In terms of relationship status, respondents who were partnered and living together with their partners had the lowest prevalence of suicide thoughts and attempts.

GENERAL RISK FACTORS

Transgender people have many of the same risk factors for suicidality as found in the U.S. general population, such as depression, substance use, and housing instability. Similar to these trends in the U.S. general population, we found an elevated prevalence of suicide thoughts and attempts among USTS respondents who

- Experienced serious psychological distress and reported heavy alcohol or illicit drug use (excluding marijuana);
- Reported poor general health compared to those who reported excellent health (19.9% versus 3.6% past year suicide attempts);

- Reported having a disability, experienced homelessness in the past year, or had ever been arrested for any reason.

UNIQUE RISK FACTORS

In addition to general risk factors, transgender people have additional risk factors, such as experiences of discrimination, stigma, family rejection, and lack of access to gender-affirming health care. Findings regarding these unique factors include the following:

- Experiencing discrimination or mistreatment in education, employment, housing, health care, in places of public accommodations, or from law enforcement is associated with higher prevalence of suicide thoughts and attempts. For example, the prevalence of past-year suicide attempts by those who reported that they had been denied equal treatment in the past year because they are transgender was more than double that of those who had not experienced such treatment (13.4% compared to 6.3%).
- Those who reported that their spouses, partners, or children rejected them because they are transgender reported higher prevalence of lifetime and past-year suicide attempts. Those who reported rejection by their family of origin, for example, reported twice the prevalence of past-year suicide attempts compared to those who had not experienced such rejection (10.5% compared to 5.1%).
- Respondents who had been rejected by their religious communities or had undergone conversion therapy were more likely to report suicide thoughts and attempts. For instance, 13.1 percent of those who had experienced religious rejection in the past year had attempted suicide in the past year; by contrast, 6.3 percent of respondents who had experienced religious acceptance in the past year attempted suicide in the past year.
- Experiences of violence, including intimate partner violence (IPV) are associated with higher prevalence of suicide thoughts and attempts. Over 30 percent of those who were physically attacked in a place of public accommodation reported attempting suicide in the past year, which is over four times the prevalence among respondents who were not similarly attacked.
- Those who had "de-transitioned" at some point, meaning having gone back to living according to their sex assigned at birth, were significantly more likely to report suicide thoughts and attempts, both past-year and lifetime, than those who had never "de-transitioned." Nearly 12 percent of those who "de-transitioned" attempted suicide in the past year compared to 6.7 percent of those who have not "de-transitioned."
- People who are not viewed by others as transgender and those who do not disclose to others that they are transgender reported lower prevalence of suicide thoughts and attempts. For instance, 6.3 percent of those who reported that others can never tell they are transgender attempted suicide in the past year compared to 12.2 percent of those who reported that others can always tell they are transgender.
- The cumulative effect of minority stress is associated with higher prevalence of suicidality. For instance, 97.7 percent of those who had experienced four discriminatory or violence experiences in the past year (being fired or forced to resign from a job, eviction, experiencing homelessness, and physical attack) reported seriously thinking about suicide in the past year and 51.2 percent made a suicide attempt in the past year.

We also found that there are some factors that are associated with lower risk of suicide thoughts and attempts for USTS respondents:

- Respondents with supportive families reported lower prevalence of past-year and lifetime suicide thoughts and attempts.
- Those who wanted, and subsequently received, hormone therapy and/or surgical care had substantially lower prevalence of past-year suicide thoughts and attempts than those who wanted hormone therapy and surgical care and did not receive them.
- A lower proportion of respondents who lived in a state with a gender identity nondiscrimination statute reported past-year suicide thoughts and attempts than those who lived in states without such a statute.

Our findings underscore the urgency of research to identify promising intervention and prevention strategies to address suicidality in this population. USTS respondents have the elevated risk of suicide thoughts and attempts that one would expect based on general risk factors that affect the U.S. population, such as substance use and serious psychological distress. Yet, it's clear that minority stress experiences, such as family rejection, discrimination experiences, and lack of access to gender-affirming health care, create added risks for transgender people. Furthermore, the cumulative effect of experiencing multiple minority stressors is associated with dramatically higher prevalence of suicidality. Future research that supports the design and evaluation of suicide intervention and prevention strategies for the transgender population is urgently needed.

INTRODUCTION

Over the past 20 years, a growing body of research has focused on suicidality among transgender individuals, including prevalence estimates and risk factors associated with suicide thoughts and attempts. In a meta-synthesis of studies from the U.S. and Canada, Adams, Hitomi, and Moody reviewed 42 studies that appeared in peer-reviewed publications and in other literature from 1997 to 2016 with findings regarding suicide thoughts and attempts among transgender people.[1] They found a prevalence of lifetime suicide ideation of 55.5 percent (ranging from 28.9% to 96.5% across studies) and lifetime suicide attempts of 28.9 percent (ranging from 10.7% to 52.4% across studies). Additionally, they found 50.6 percent prevalence of suicide ideation in the past year (ranging from 30.8% to 80.2% across studies) and 10.7 percent prevalence of suicide attempts in the past year (ranging from 4.2% to 19.0% across studies).

Using data from the U.S. National Comorbidity Survey, a nationally representative sample, researchers have found a prevalence of lifetime suicide ideation in the U.S. population of 13.5 percent and lifetime suicide attempts of 4.6 percent.[2] According to the National Survey of Drug Use and Health, 4.3 percent of U.S. adults had suicidal thoughts in the past year, and 0.6 percent attempted suicide.[3] Comparing the findings of Adams and colleagues to these benchmarks, transgender adults have a prevalence of lifetime suicidal thoughts about four times higher, and lifetime suicide attempts about six times higher, than the U.S. population. In the past year, the prevalence of suicide ideation among transgender adults is nearly twelve times higher than in the U.S. population, and the prevalence of suicide attempts is about eighteen times higher.

Although the research literature to date has coalesced around the conclusion that transgender people are at an elevated risk of suicide thoughts and attempts, there is still much to learn about why transgender people are particularly at risk. Existing studies suggest that not only do transgender people have many of the same risk factors for suicidality found in the general population, such as depression and substance use, but in addition have risk factors related to minority stressors, such as experiences of discrimination, stigma, family rejection, and lack of access to gender-affirming health

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[1] Adams, N., Hitomi, M., & Moody, C. (2017). Varied Reports of Adult Transgender Suicidality: Synthesizing and Describing the Peer-Reviewed and Gray Literature. *Transgender Health*, *2*(1), 60-75. Their review included 32 studies of lifetime suicide attempts, 23 studies of lifetime suicide ideation, 5 studies of suicide attempts in the past year, and 5 studies of suicide ideation in the past year. In this report, suicide ideation and suicide thoughts refer to serious thoughts about suicide, including thoughts about suicide plans. The term suicidality includes suicide thoughts and behaviors, such as attempts.

[2] Kessler, R.C., Borges, G., & Walters, E.E. (1999). Prevalence of and Risk Factors for Lifetime Suicide Attempts in the National Comorbidity Survey. *Archives of General Psychiatry*, *56*(7), 617-626; Nock, M.K., & Kessler, R.C. (2006). Prevalence of and Risk Factors for Suicide Attempts Versus Suicide Gestures: Analysis of the National Comorbidity Survey. *Journal of Abnormal Psychology*, *115*(3), 616-623.

[3] Substance Abuse and Mental Health Services Administration. (2018). *Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health* (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/.

care.[4] Minority stress experiences are commonly reported in studies of the transgender population, which puts this population at unique risk for suicide ideation and attempts.[5]

In 2008-2009, the National Center for Transgender Equality (NCTE) and the National LGBTQ Task Force fielded the National Transgender Discrimination Survey (NTDS) to better understand the lives and experiences of transgender adults in the United States.[6] The NTDS, which yielded about 6,500 respondents, asked a single suicide-related question, "Have you ever attempted suicide?" In 2014, the Williams Institute and the American Foundation for Suicide Prevention published a report that described the risk factors associated with lifetime suicide attempts for NTDS respondents. Our study found that the high prevalence of lifetime suicide attempts among NTDS respondents (41%) was exacerbated by discrimination experiences and other minority stressors, including family rejection and violence.[7] Our analysis was limited, however, by the limited number and scope of questions related to suicide in the NTDS questionnaire, including about mental health.

In August 2015, NCTE launched the U.S. Transgender Survey (USTS), a follow-up to the NTDS, which generated the largest survey sample of the U.S. transgender population to date (n=27,715).[8] The USTS included a new section on suicide thoughts and attempts that was based on validated measures from the National Survey of Drug Use and Health (NSDUH) and the U.S. National Comorbidity Survey Replication (NCS-R). Having addressed the limitations of the prior NTDS question on lifetime suicide attempts, and with a much larger sample, the USTS found that 40.4 percent of respondents had attempted suicide in their lifetimes, a difference of only one percentage point from NTDS. Suicide thoughts and attempts are individually distinct experiences and risk profiles for each differ.[9] Therefore, the inclusion of measures for both thoughts and attempts in USTS offers a fuller picture of suicidality among transgender people. In addition to lifetime suicide attempts, the USTS found that 81.7 percent of respondents had seriously thought about killing themselves in their lifetimes, and 48.3 percent had done so in the past year; 7.3 percent had attempted suicide in the past year.

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[4] Meyer, I.H. (2003). Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence. *Psychological Bulletin*, *129*(5), 674-697; Bockting, W., Miner, M.H., Swinburne Romine, R.E., Hamilton, A., & Coleman, E. (2013). Stigma, mental health, and resilience in an online sample of the U.S. transgender population. *American Journal of Public Health*, *103*(5), 943-951; Testa, R. J., Habarth, J., Peta, J., Balsam, K., & Bockting, W. (2015). Development of the gender minority stress and resilience measure. *Psychology of Sexual Orientation and Gender Diversity*, *2*(1), 65-77.

[5] *See*, for instance, Grant, J.M., Mottet, L.A., Tanis, J., Harrison, J., Herman, J.L., & Keisling, M. (2011). *Injustice at Every Turn: A Report of the National Transgender Discrimination Survey*. Washington, DC: National Center for Transgender Equality and National Gay and Lesbian Task Force; James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). *The Report of the 2015 U.S. Transgender Survey*. Washington, DC: National Center for Transgender Equality.

[6] James, S.E., et al., (2016).

[7] Haas, A.P., Rodgers, P.L., & Herman, J.L. (2014). *Suicide Attempts among Transgender and Gender Non-Conforming Adults: Findings of the National Transgender Discrimination Survey*. Los Angeles, CA: The Williams Institute and the American Foundation for Suicide Prevention.

[8] James, S.E., et al., (2016).

[9] Klonsky, E.D., May, A.M., & Saffer, B.Y. (2016). Suicide, Suicide Attempts, and Suicidal Ideation. *Annual Review of Clinical Psychology*, *12*, 307-330.

In addition to providing new data about suicide-related behaviors, the USTS improved upon the NTDS by incorporating validated measures of mental and physical health, and revised measures assessing discrimination and other minority stress experiences, violence, conversion therapy, law enforcement interactions, incarceration experiences, civic participation, and other topics. This new wealth of data from the USTS has given us the opportunity to further examine the key risk factors associated with lifetime and past-year suicide thoughts and attempts among a large and diverse sample of transgender people. In this report, we present our findings, discuss their implications, and conclude by identifying issues that remain to be examined in future research.

METHODS

The 2015 U.S. Transgender Survey was an online survey of transgender adults, ages 18 and over, which was fielded in August and September of 2015.[10] The survey was announced and distributed with the assistance of over 300 organizations across the United States and was made available in English and Spanish. The survey questionnaire contained over 300 items covering a wide range of topics, such as demographics, experiences at work and school, interactions with law enforcement, identity documents, politics and civic participation, violence, family relationships, gender-affirming health care, mental health, substance use, and suicide thoughts and attempts. The 27,715 respondents came from all 50 U.S. states, three U.S. territories, and overseas military bases.

Overall, the survey sample was young, with a median age of 26 years compared to 38 years for the U.S. population.[11] About a third of respondents identified as gender non-binary. The sample had generally higher educational attainment than the U.S. population, with 87 percent of USTS respondents having at least some college education compared to 56 percent of U.S. adults ages 18 to 24 and 60 percent of U.S. adults ages 25 and older.[12] Yet, respondents overall reported lower household income, with median household income of $35,000-$39,999 compared to $56,500 for U.S. households at that time.[13] The sample had a higher proportion of white (non-Hispanic) adults (82%) compared to the U.S. population (62%) and also had an unusually high number of 18 year-olds.[14] A weight was developed to adjust the survey sample to the racial and ethnic composition of the U.S., based on the 2014 American Community Survey, and to adjust for the overabundance of 18 year-old respondents. This survey weight was applied in all analyses for this report.[15]

The analyses presented in this report are mainly descriptive and rely on bivariate statistical techniques to assess the relationship between characteristics and experiences of USTS respondents and suicide thoughts and attempts. Specifically, we use Pearson's chi-square tests of independence to test the statistical significance of relationships. Due to the large sample size, nearly all chi-square tests were statistically significant at the $p<0.05$ level. Throughout the report, we note in the tables the relationships that were not found to be statistically significant.[16] In addition, in some cases seemingly small differences among groups were found to be statistically significant because of the large sample size.

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[10] The USTS was for individuals who identify as transgender, trans, non-binary, crossdressers, and other gender minority identities. In keeping with *The Report of the 2015 U.S. Transgender Survey*, we use the term "transgender" to describe those whose gender identity differs from their sex assigned at birth. We use this as an "umbrella term" to describe USTS respondents, keeping in mind the diversity of gender identities in this sample. This work is based on data generated from the 2015 U.S. Transgender Survey, which was conducted by the National Center for Transgender Equality. To find out more about the U.S. Transgender Survey, visit http://www.ustranssurvey.org/reports.

[11] U.S. Census Bureau. (2015). *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015*, available at: https://factfinder.census.gov (last accessed August 18, 2019).

[12] James, S.E., et al., (2016).

[13] U.S. Census Bureau. (2015).

[14] James, S.E., et al., (2016).

[15] For a detailed description of the USTS methodology and survey sample, please refer to the relevant chapters and appendices in the USTS report, *The Report of the 2015 U.S. Transgender Survey*, available online at www.ustranssurvey.org.

[16] All frequencies, chi-square test statistics, and p-values are on file with the lead author.

Information reported by USTS participants about suicide ideation and suicide attempts should not be used as the basis of inferences about suicide deaths among transgender people. No jurisdiction in the U.S. routinely and systematically collects information about decedents' gender identity at the time of death, and as a result, little is known about death among transgender people, whether by suicide or any other manner or cause. Systematic data from general population studies show differences in demographic characteristics (in particular, age and gender), and suicide risk factors among people who die by suicide, compared to those who seriously consider or attempt suicide.[17] In the absence of specific information about whether transgender people show similar differences, no implications about suicide death should be drawn from findings presented in this report.

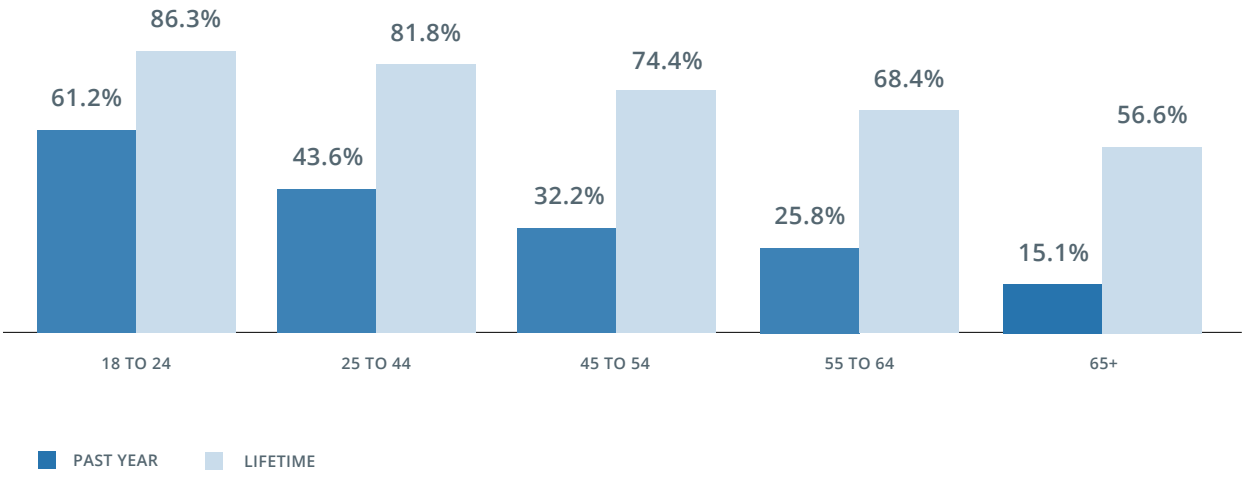
[17] DeJong, T.M., Overholser, J.C., & Stockmeier, C.A. (2010). Apples to oranges? A direct comparison between suicide attempters and suicide completers. *Journal of Affective Disorders, 124*(1-2), 90-97; Brown, G.K., Beck, A.T., Steer, R.A., & Grisham, J.R. (2000). Risk factors for suicide in psychiatric outpatients: A 20-year prospective study. *Journal of Consulting and Clinical Psychology. 68*(3), 371-377; Duberstein, P.R., Conwell, Y., & Caine, E.D. (1994). Age differences in the personality characteristics of suicide completers: Preliminary findings from a psychological autopsy study. *Psychiatry, 57*(3), 213-224.

FINDINGS

DEMOGRAPHICS

As shown in Table 1, lifetime and past-year suicide thoughts and attempts were less commonly reported among older USTS respondents, a pattern that has also been observed in general population studies. Lifetime and past-year suicide thoughts and attempts were most commonly reported by Alaska Native/American Indian and Biracial/Multiracial respondents, and least commonly by White/Middle Eastern/North African respondents. Respondents who were assigned male sex at birth had a lower prevalence of lifetime suicide thoughts and attempts compared to those assigned female at birth. Those assigned male had birth also had a lower prevalence of suicide thoughts in the past year, although no significant difference was found in the prevalence of past-year suicide attempts between respondents assigned male, or female, at birth. Comparing respondents of different gender identities, the highest prevalence of lifetime suicide thoughts and attempts was found among transgender men and non-binary respondents assigned female at birth, while crossdressers reported substantially lower prevalence of both lifetime and past-year suicide thoughts and attempts.[18] Higher prevalence across all suicide-related measures was found among respondents who had lower educational attainment, were unemployed, or had lower annual household income. In terms of relationship status, respondents who were partnered and living together with their partners had the lowest prevalence of suicide thoughts and attempts. Those who described their sexual orientation as heterosexual or straight had lower prevalence of suicide thoughts and attempts than respondents in other sexual orientation categories; pansexual respondents reported the highest prevalence on all suicide-related measures.[19]

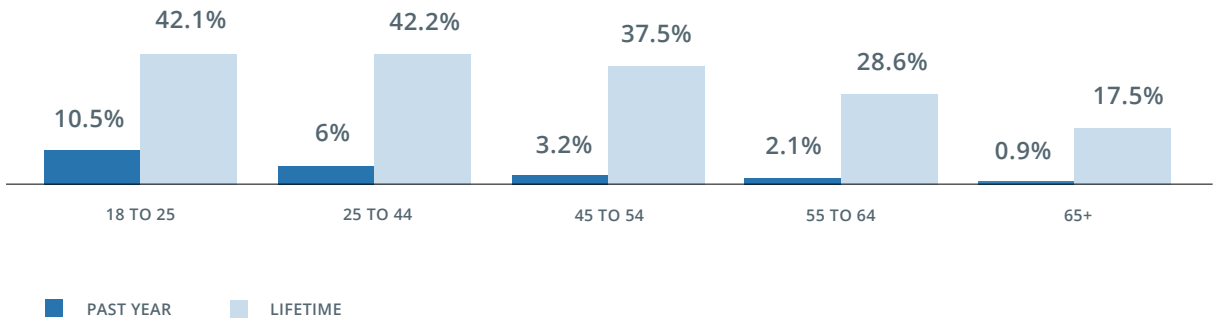
Figure 1. Suicide thoughts by age group



[18] The Report of the 2015 U.S. Transgender Survey provides the following definition for "crossdresser": "While definitions of 'crossdresser' vary, many use this term to describe a person who dresses in a way that is typically associated with a gender different from the one they were thought to be at birth, but who may not identify with that gender or intend to live full time as that gender" (p. 40).

[19] Pansexual is defined, generally, as being attracted to people of all genders.

Figure 2. Suicide attempts by age group



With few exceptions, the demographic patterns seen in the USTS data were consistent with findings from our 2014 analysis of NTDS data.[20] While generally confirming our earlier findings related to demographic characteristics of transgender people regarding the highest, and lowest, prevalence of lifetime suicide attempts, the present analysis also shows a quite similar picture regarding past-year suicide thoughts and attempts.

Table 1. Suicide thoughts and attempts by demographic characteristics

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Current Age	18 to 24	61.2	10.5	86.3	42.1
	25 to 44	43.6	6.0	81.8	42.2
	45 to 54	32.2	3.2	74.4	37.5
	55 to 64	25.8	2.1	68.4	28.6
	65 plus	15.1	0.9	56.6	17.5
Race/Ethnicity	Alaska Native/American Indian alone	54.2	10.4	86.8	57.3
	Asian/NH/PI alone	44.8	7.9	81.8	40.3
	Biracial/Multiracial	53.9	10.4	88.0	50.4
	Black/African American alone	47.6	8.7	81.2	46.6
	Latinx/Hispanic alone	52.5	9.1	84.1	44.5
	White/ME/NA alone	47.4	6.3	80.8	37.4
Assigned Sex	Female	50.9	7.2	85.1	42.7
	Male	44.8	7.4	77.2	37.2
Gender Identity	Crossdresser	22.0	2.7	50.8	15.1
	Trans women	46.8	8.4	79.4	39.9
	Trans men	45.3	6.7	84.7	44.9
	GQ/NB (AFAB)	57.0	7.6	85.5	40.6
	GQ/NB (AMAB)	43.5	5.0	76.0	31.5

[20] Haas, A.P., et al., (2014).

Table 1. Suicide thoughts and attempts by demographic characteristics (continued)

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Education	Less than high school	63.1	17.3	85.0	51.8
	High school grad (incl. GED)	59.5	12.5	84.6	48.5
	Some college (no degree)/Associate's	53.7	8.5	84.9	44.1
	Bachelor's degree	40.4	4.0	78.6	33.7
	Graduate or professional degree	30.7	2.6	72.1	30.0
Workforce Participation	Employed	44.7	5.8	80.6	38.4
	Unemployed	62.5	12.6	87.1	46.4
	Out of the labor force	50.9	8.5	81.7	42.9
Annual Household Income	$1 to $9,999	60.4	11.3	85.5	47.3
	$10,000 to $19,999	55.2	10.4	86.7	48.5
	$20,000 to $49,999	48.6	6.7	84.2	42.9
	$50,000 to $100,000	42.6	5.3	78.8	36.2
	$100,000 or more	36.5	3.9	74.0	29.6
Relationship Status	Partnered, living together	39.5	4.4	79.3	40.0
	Partnered, not living together	56.0	10.5	85.5	43.5
	Single	51.5	8.0	81.9	39.5
	Not listed above	47.1	7.4	83.0	40.8
Sexual Orientation	Asexual	54.1	9.7	81.1	37.9
	Bisexual	48.0	7.2	81.1	40.1
	Gay/Lesbian/Same Gender Loving	43.8	6.4	79.6	37.3
	Heterosexual/Straight	33.6	4.8	73.2	38.7
	Pansexual	59.1	9.7	88.3	47.0
	Queer	49.2	6.3	83.9	39.2
	Not listed above	52.4	8.2	83.2	41.5

NOTE: Text in blue indicates there is no statistically significant relationship.

GENERAL RISK FACTORS

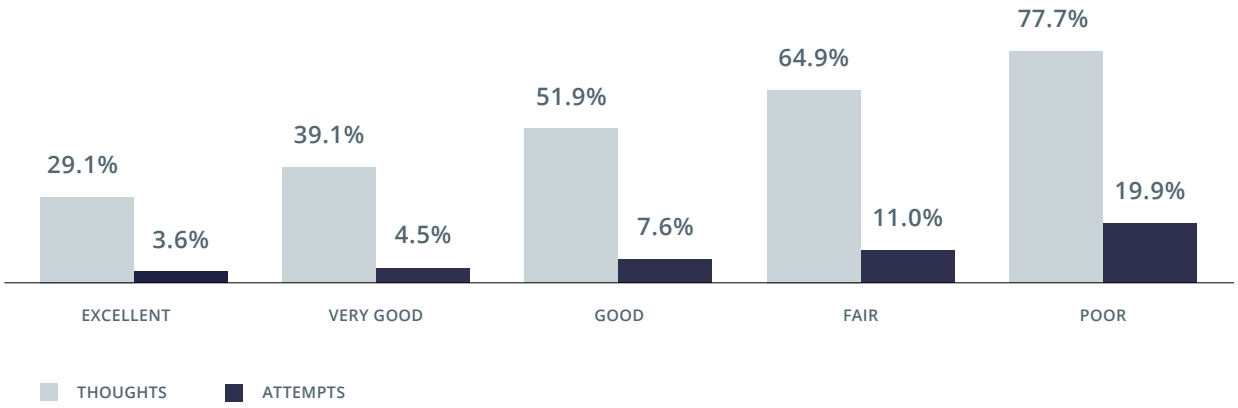
The USTS collected data on a number of factors that have long been established to contribute to suicide risk in the general population, including depression and other mental health conditions, substance use, physical health and disability, and stressful life circumstances, such as homelessness or encounters with law enforcement.[21] Prior analysis of the USTS data found that respondents reported experiencing such risk factors, such as serious psychological distress and homelessness,

[21] *See*¸ for instance, Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S., Selby, E. A., & Joiner, T. E. (2010). The Interpersonal Theory of Suicide. *Psychological Review*, *117*(2): 575-600; Russell, D., Turner, R. J. & Joiner, T. E. (2009). Physical Disability and Suicidal Ideation: A Community-Based Study of Risk/Protective Factors for Suicidal Thoughts. *Suicide and Life-Threatening Behavior*, *39*(4), 440-451; Steele, I. H., Thrower, N., Noroian, P., & Saleh, F. M. (2018). Understanding Suicide Across the Lifespan: A United States Perspective of Suicide Risk Factors, Assessment & Management. *Psychiatry & Behavioral Science*, *63*(1), 162-171.

at a prevalence much higher than the U.S. general population.[22] The relationship between these risk factors and suicide thoughts and attempts are shown in Table 2.

Similar to findings in the general population, experiencing serious psychological distress and heavy alcohol use or illicit drug use (excluding marijuana) are significant risk factors for suicide thoughts and attempts among USTS respondents, both lifetime and past-year. As shown in Figure 3, respondents who rated their general health as "poor" had a dramatically increased prevalence of lifetime and past-year suicide thoughts and attempts, compared to those who described their health as "excellent." For instance, while 3.6 percent of those who reported excellent general health attempted suicide in the past year, 19.9 percent of those who reported poor health attempted suicide in the past year.

Figure 3. Suicide thoughts and attempts in the past year by general health



In regard to HIV status, those who reported living with HIV were more likely than those who are HIV negative or don't know their status to have attempted suicide at some point in their lives, although this group was the least likely to have attempted suicide in the past year. Respondents who indicated not knowing their HIV status were more likely than others to report thinking about and attempting suicide in the past year. Respondents who reported having a disability, either by meeting the definition of disability according to the American Community Survey or by personally identifying as having a disability, had higher prevalence on all suicide-related measures than those without disabilities.

Similarly, experiencing homelessness was associated with a markedly higher prevalence of lifetime and past-year suicide thoughts and attempts compared to those who had not experienced homelessness. Notably, over 20 percent of respondents who experienced homelessness in the past year had attempted suicide during that time. Finally, those who had been arrested for any reason in the past year were more likely to report suicide thoughts and attempts, both lifetime and past-year.

[22] James, S.E., et al., (2016).

Table 2. Suicide thoughts and attempts by general risk factors

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Serious psychological distress (Kessler-6)	No	29.6	2.9	73.8	31.5
	Yes	77.8	14.1	94.3	54.2
Heavy alcohol use	No	48.0	6.9	81.4	39.5
	Yes	53.1	11.8	85.2	50.3
Binge alcohol use	No	47.3	6.8	80.8	38.5
	Yes	51.3	8.7	83.9	45.5
Illicit drug use (excluding marijuana)	No	47.2	6.6	81.0	39.1
	Yes	60.3	13.6	88.6	52.9
General health	Excellent	29.1	3.6	66.9	26.9
	Very good	39.1	4.5	77.6	33.9
	Good	51.9	7.6	84.8	42.1
	Fair	64.9	11.0	90.3	52.3
	Poor	77.7	19.9	95.8	65.0
HIV status	Living with HIV	35.1	6.0	72.6	48.4
	HIV negative	43.9	6.5	82.0	43.4
	Don't know status	53.7	8.2	81.7	36.8
Disability (ACS)	No	37.0	4.1	75.7	32.0
	Yes	65.9	12.2	91.2	53.0
Disability (self-identify)	No	42.2	5.4	78.2	35.0
	Yes	64.5	12.1	90.9	54.5
Homelessness (ever)	No	44.7	5.3	77.7	32.2
	Yes	56.6	11.8	91.0	59.3
Homelessness (past year)	No	45.4	5.6	80.8	38.2
	Yes	66.5	20.4	91.3	63.5
Arrested any reason (past year)	No	48.1	7.1	81.6	40.1
	Yes	58.5	19.0	88.1	58.1

UNIQUE RISK FACTORS

As described above, transgender people have many of the same risk factors found in the U.S. general population. In addition, transgender people have risk factors that are unique to the transgender population, such as experiences related to disclosure of transgender status, access to gender affirming care, and exposure to minority stressors, such as experiences of discrimination, stigma, and family rejection. While cisgender people (i.e., people who are not transgender) sometimes experience discrimination and rejection for various reasons, the findings presented in this section describe the unique experiences of USTS respondents that were attributed to transgender status.

"Outness" and Disclosure

In addition to general risk factors, transgender individuals have unique factors in their lives that may increase risk of suicide thoughts and attempts. One unique factor is disclosure of transgender status to family, friends, and others (i.e., being "out" as transgender). The USTS asked respondents about the degree to which they were "out" to various people in their lives. Table 3 presents findings about how "outness" is related to suicide thoughts and attempts. While being "out" to immediate or extended family, boss, co-workers, classmates, or health care providers was not related to past-year suicide attempts, being "out" was associated with lower prevalence of past-year suicide thoughts compared with not being "out." Being "out" to an increasing number of LGBT and non-LGBT friends, however, was associated with higher prevalence of suicide thoughts and attempts, both lifetime and past-year. Strikingly, in regard to every group of people in respondents' lives examined by the USTS, respondents who indicated they had not disclosed their transgender status to anyone were the least likely to have reported lifetime suicide attempts compared to those who had disclosed their status to others. This replicates our previously reported finding from the NTDS that respondents who had told no one that they are transgender, and respondents who were not "out" to family, friends, or others, were the least likely to have reported lifetime suicide attempts.

The USTS asked respondents whether they thought other people could tell that they are transgender. Twenty-four percent of USTS respondents reported that people can never tell they are transgender, whereas 2 percent reported that people can always tell that they are transgender.[23] Those who reported that others can always tell they are transgender had the highest prevalence of both lifetime and past-year suicide thoughts and attempts. Due to the larger sample size and revised questionnaire, this finding is generally more robust than our 2014 analysis of NTDS data, where respondents who reported that others could always tell they are transgender had only a slightly elevated risk of lifetime suicide attempts. It should be noted, however, that those who reported they had not disclosed their transgender status to anyone and those who reported that people can never tell they are transgender reported a prevalence of suicide thoughts and attempts much higher than the U.S. general population.

[23] James, S.E., et al., (2016).

Table 3. Suicide thoughts and attempts by "outness," disclosure, and perception by others

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
"Out" to immediate family	None	52.8	6.5	80.2	35.6
	Some	53.1	7.7	82.1	37.9
	Most	50.9	7.7	83.5	40.4
	All	44.7	7.4	82.1	42.6
"Out" to extended family	None	52.7	7.1	80.1	35.2
	Some	51.7	7.8	85.3	43.6
	Most	46.3	7.3	83.0	42.5
	All	38.1	6.6	80.0	43.1
"Out" to LGBT friends	None	41.7	6.6	72.3	32.4
	Some	45.3	5.5	79.0	35.2
	Most	50.4	5.9	82.2	38.2
	All	48.8	8.0	82.9	42.9
"Out" to non-LGBT friends	None	44.7	7.0	75.6	34.7
	Some	47.1	6.0	81.1	37.1
	Most	49.5	6.2	82.9	38.7
	All	49.4	9.0	83.8	47.1
"Out" to boss	None	48.8	6.5	80.3	36.2
	Some	44.8	6.4	81.6	41.5
	Most	44.0	6.9	80.0	39.5
	All	42.9	6.2	81.1	41.5
"Out" to co-workers	None	48.8	6.7	79.9	36.6
	Some	45.9	5.7	82.5	39.4
	Most	40.0	5.7	79.5	38.1
	All	42.9	6.4	80.2	42.1
"Out" to classmates	None	50.4	7.0	80.7	38.2
	Some	51.6	7.2	82.3	39.6
	Most	47.1	7.7	81.6	40.0
	All	46.1	8.7	82.2	46.8
"Out" to health care providers	None	53.4	7.6	81.2	36.5
	Some	50.0	6.6	82.8	39.1
	Most	45.9	6.0	80.8	40.6
	All	42.5	7.4	81.6	43.8
People can tell I'm trans, even if I don't tell them	Always	62.0	12.2	84.2	47.0
	Most of the time	49.6	9.6	82.3	42.2
	Sometimes	50.3	7.2	82.6	41.4
	Rarely	46.9	7.1	81.5	40.6
	Never	46.0	6.3	80.5	37.6

NOTE: Text in blue indicates there is no statistically significant relationship.

Social and Medical Gender Affirmation

USTS respondents were asked about whether they live full time according to their gender identity and whether and how they have accessed gender-affirming medical care (i.e., hormones or surgery). Table 4 shows how these gender affirmation milestones are related to suicide thoughts and attempts. Those who do not want to live full time according to their gender identity generally were at similar or lower risk of lifetime suicide attempts compared to those who do not live full time yet but want to someday. Those who began to live full time according to their gender identity more recently have a higher prevalence of past-year suicide thoughts and attempts than those who began living full time longer ago. For instance, those who began to live full time according to their gender identity within the past year had nearly double the prevalence of past year suicide attempts than those who began ten or more years ago.

There was no statistically significant relationship between suicide thoughts and attempts and current hormone use, but there was a significant relationship among people receiving hormone therapy based on where they got their hormones. Respondents who got their hormones only from licensed professionals were less likely to report past-year suicide thoughts and attempts and lifetime attempts than those who got their hormones from friends or other non-licensed sources. Those who wanted, and subsequently received, hormone therapy and/or surgical care had substantially lower prevalence of past-year suicide thoughts and attempts than those who wanted hormone therapy and surgical care but had not received them. For instance, 5.1 percent of those who wanted surgical care and received it attempted suicide in the past year compared to 8.5 percent of those who wanted surgical care but did not receive it.

The USTS asked respondents if they had ever gone back to living according to their sex assigned at birth, which was referred to as "de-transitioning." Eight percent of respondents reported having "de-transitioned" at some point for reasons such as pressure from family and friends and having experienced too much harassment or discrimination. Those who had "de-transitioned" at some point were significantly more likely to report suicide thoughts and attempts, both past-year and lifetime, than those who had never "de-transitioned."

Table 4. Suicide thoughts and attempts by gender affirmation milestones

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Want to live in gender identity someday	No	36.5	4.1	71.0	32.6
	Yes	55.3	7.4	81.9	35.6
	Not sure	45.5	5.2	75.9	31.0
Years since began to live according to gender identity	0 to 1	54.7	9.7	84.3	42.3
	2 to 5	50.7	7.9	86.0	46.3
	6 to 9	39.2	6.6	80.2	45.6
	10 plus	31.5	5.2	78.4	43.1
Currently taking hormones	No	43.0	7.3	79.2	40.8
	Yes	42.7	6.5	82.1	42.6

Table 4. Suicide thoughts and attempts by gender affirmation milestones (continued)

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Where get hormones	Only licensed professionals	41.6	5.8	81.7	41.6
	Professionals and friends /other	53.7	11.6	87.0	51.4
	Only friends/other	54.1	16.4	81.7	52.0
Had/have hormones	Want them, haven't had	57.9	8.9	84.4	41.1
	Want them, have had	42.9	6.5	81.9	42.4
Had/have surgery	Want, have not had	54.8	8.5	83.9	41.5
	Want, have had	38.2	5.1	79.0	39.5
Ever "de-transitioned"	No	44.2	6.7	81.6	41.8
	Yes	57.3	11.8	86.0	52.5

NOTE: Text in blue indicates there is no statistically significant relationship.

Minority Stressors

Family rejection and social support

Family rejection for being transgender can include such things as relationships ending, experiencing violence from a family member, being kicked out of the family home, not being allowed by their families to live according to their gender identity, and being forced to receive counseling or therapy. Table 5 shows findings for suicide thoughts and attempts related to these experiences. Respondents with supportive families were less likely to report suicide thoughts and attempts than those who reported that their spouses, partners, or children rejected them because they are transgender. Respondents who ever ran away from home as youth because of being transgender had more than double the prevalence of past year suicide attempts than those who had not had that experience. Those with supportive co-workers and classmates had a lower prevalence of suicide thoughts and attempts.

The availability and quality of resources for social support can have an impact on suicidality.[24] As one measure of social support resources, the USTS asked respondents about whether and how they socialize with other transgender people. Overall, there was no significant relationship between socializing with other transgender people and suicide thoughts or attempts. However, some significant relationships emerged when looking at specific ways in which respondents socialized with other transgender people. Those who socialize with other transgender people online were more likely to report suicide thoughts and attempts, while those who socialize with other transgender people in person were less likely to report suicide thoughts and attempts. Those who socialize with other transgender people in political activism had a higher prevalence of suicide thoughts and attempts than those who did not socialize with other transgender people in this way.

[24] *See*, for instance, Bauer, G. R., Pyne, J., Francino, M. C., & Hammond, R. (2013). Suicidality among trans people in Ontario: Implication for social work and social justice. *Service Social*, *59*(1), 35-62; Zeluf, G., Dhejne, C., Orre, C., Mannheimer, L. N., Deogan, C., Hoijer, J., Winzer, R., & Thorson, A. E. (2018). Targeted Victimization and Suicidality Among Trans People: A Web-Based Survey. *LGBT Health*, *5*(3), 180-190.

Table 5. Suicide thoughts and attempts by experiences of family rejection and social support

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Spouse or partner ended relationship	No	46.8	6.4	81.5	39.2
	Yes, only because I'm trans	48.8	11.3	85.6	54.3
	Yes, because I'm trans and other reasons	46.6	8.4	83.4	46.7
Child ended relationship	No	34.6	4.2	74.1	35.9
	Yes	41.3	8.1	83.6	50.5
Family support	Supportive	41.9	5.8	79.3	37.3
	Neutral	50.8	7.4	84.2	42.4
	Unsupportive	60.3	13.1	89.9	54.0
Rejected by family of origin	No	42.2	5.1	77.3	33.1
	Yes	53.5	10.5	88.4	52.0
Ever ran away from home	No	45.6	6.4	81.2	38.4
	Yes	61.1	17.2	91.6	67.5
Co-worker support	Supportive	40.2	5.2	79.2	38.5
	Neutral	49.0	7.1	84.3	42.7
	Unsupportive	66.3	12.3	91.0	54.7
Classmate support	Supportive	45.1	6.2	79.9	39.5
	Neutral	53.1	8.8	84.4	43.3
	Unsupportive	65.9	16.5	90.3	55.0
Socializing with other trans people	I do socialize	48.5	7.2	81.7	40.4
	I do not socialize	46.5	7.7	81.4	39.9
Socialize in political activism	No	47.6	7.3	80.3	38.8
	Yes	49.9	7.2	84.7	43.7
Socialize online	No	40.8	6.2	77.2	36.9
	Yes	50.3	7.5	82.9	41.3
Socialize in person	No	51.6	8.4	82.8	41.5
	Yes	46.5	6.7	81.1	39.8
Socialize in support groups	No	49.1	7.1	82.1	39.6
	Yes	46.6	7.7	80.9	42.1

NOTE: Text in blue indicates there is no statistically significant relationship.

Religion

As can be seen in Table 6, lifetime suicide thoughts and attempts were marginally more common among respondents who had ever been a part of a religious or spiritual community, although this group showed marginally lower suicide thoughts and attempts in the past year. Elevated prevalence of both lifetime and past-year suicide thoughts and attempts was observed among respondents who had left a religious or spiritual community because they felt rejected, as well as those who reported experiencing religious rejection in the past year. Conversely, respondents who experienced religious acceptance in the past year were markedly less likely to report past-year suicide thoughts and attempts.

Table 6. Suicide thoughts and attempts by experiences with religion

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Ever part of religious community	No	49.7	8.1	80.7	38.6
	Yes	47.6	6.8	82.2	41.3
Left religious community rejected	No	45.9	5.8	80.2	36.8
	Yes	54.7	11.0	90.8	60.4
Found accepting religious community	No	59.3	12.2	92.6	60.8
	Yes	48.2	9.4	88.1	60.0
Part of religious community (past year)	No	50.0	6.7	83.8	41.8
	Yes	42.0	7.2	78.4	40.1
Religious acceptance (past year)	No	54.6	22.5	87.4	46.3
	Yes	39.6	6.3	79.3	41.5
Religious rejection (past year)	No	38.9	5.5	78.7	40.0
	Yes	46.1	13.1	84.1	49.1

NOTE: Text in blue indicates there is no statistically significant relationship.

Conversion therapy

A prior analysis of USTS data found that 18 percent of respondents reported that a psychologist, counselor, religious advisor, or other professional with whom they had discussed their gender identity attempted to stop them from being transgender.[25] Fourteen percent reported that such a professional had attempted to change their sexual orientation. As shown in Table 7, having either of these experiences is associated with a higher prevalence of both lifetime and past-year suicide thoughts and attempts. Whether the professional in question was a religious advisor or non-religious professional was not significantly related to these outcomes.

Table 7. Suicide thoughts and attempts by experiences with conversion therapy

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Professional tried to stop them being trans	No	45.7	6.4	81.3	38.7
	Yes	57.4	11.9	90.9	58.3
Professional was a religious counselor	No	57.3	11.1	91.4	58.4
	Yes	57.7	13.7	89.9	58.1
Professional tried to change sexual orientation	No	47.2	6.5	82.4	39.9
	Yes	59.4	12.2	92.9	63.1

NOTE: Text in blue indicates there is no statistically significant relationship.

[25] James, S.E., et al., (2016).

Violence

Physical victimization, sexual violence, and intimate partner violence (IPV) have been shown to increase risk of suicidal ideation and behavior in the general population.[26] Prior research suggests that transgender people experience violence more often than the general population, including violence that is related to transgender status.[27] Table 8 presents findings regarding relationships between experiences of violence and suicide thoughts and attempts. Past-year suicide thoughts and attempts were considerably more prevalent among respondents who reported having experienced physical attacks during the past year, compared to respondents who did not have that experience. The large majority of respondents who reported they had been physically attacked attributed the attack to their transgender status. This group of respondents was significantly more likely to report lifetime suicide thoughts and attempts than those who did not have that experience.

Very similar results were obtained in relation to other types of violent experiences, including unwanted sexual contact and intimate partner violence (IPV), such as IPV centering on coercive control and also physically abusive IPV. In addition to other types of coercive control IPV, respondents were asked if an intimate partner had ever withheld hormones, threatened to "out" them, or told them they weren't a real man or women. Unwanted sexual contact and all aspects of IPV explored in the USTS were associated with a higher prevalence of suicide thoughts and attempts, both lifetime and in the past year.

Table 8. Suicide thoughts and attempts by experiences with violence

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Physically attacked, any reason (past year)	No	45.2	5.6	80.1	36.7
	Yes	68.7	18.4	92.4	64.9
Physically attacked because trans (past year)	No	46.2	6.0	80.5	37.7
	Yes	70.1	20.9	93.8	69.2
Unwanted sexual contact (ever)	No	41.1	4.7	74.7	28.7
	Yes	56.5	10.2	89.7	53.6
Unwanted sexual contact (past year)	No	45.8	5.9	80.4	38.2
	Yes	70.6	19.4	93.2	59.8
Coercive control IPV (ever)	No	44.1	5.7	77.1	31.4
	Yes	53.6	9.2	87.4	51.8
Coercive control IPV, trans-related (ever)	No	46.4	6.1	79.6	35.5
	Yes	53.4	10.3	87.2	53.4

[26] Klomek A.B., Kleinman M., Altschuler E., Marrocco, F., Amakawa, L., & Gould, M.S. (2013). Suicidal adolescents' experiences with bullying perpetration and victimization during high school as risk factors for later depression and suicidality. *Journal of Adolescent Health, 53*(1), Supplement, S37–42.

[27] Stotzer, R. L. (2009). Violence against transgender people: A review of United States data. *Aggression and Violent Behavior*, *14*(3), 170-179; Lombardi, E. L., Wilchins, R.A., Priesing, D., & Malouf, D. (2001). Gender violence: transgender experiences with violence and discrimination. *Journal of Homosexuality*, *42*(1), 89-101.

Table 8. Suicide thoughts and attempts by experiences with violence (continued)

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Physical IPV (ever)	No	46.0	6.1	78.4	32.8
	Yes	52.7	9.4	87.9	54.3
Severe physical IPV (ever)	No	46.0	6.0	79.1	34.1
	Yes	55.8	11.2	89.9	60.2
Any type of IPV (ever)	No	43.7	5.7	75.8	29.4
	Yes	52.2	8.6	86.7	49.7

Discrimination

The USTS collected data on discrimination experiences across many areas of life, such as school, work, health care, and public accommodations, including public restrooms. Prior research shows that such discrimination experiences are minority stressors, which negatively impact mental and physical health.[28] Tables 9a through 9g present findings related to the generally strong association of discrimination experiences and past-year and lifetime suicide thoughts and attempts.

Denied equal treatment & verbal harassment

As shown in Table 9, significantly large proportions of respondents who reported being denied equal treatment or being verbally harassed in the past year, either for any reason or specifically because of their transgender status, reported past-year suicide thoughts and attempts, compared to those who did not have these experiences.

Table 9. Suicide thoughts and attempts by experiences of being denied equal treatment and verbal harassment

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Denied equal treatment, any reason (past year)	No	46.1	6.2	80.2	37.5
	Yes	60.2	12.8	89.8	55.7
Denied equal treatment because trans (past year)	No	46.2	6.3	80.3	37.8
	Yes	61.3	13.4	90.3	56.4
Verbally harassed, any reason (past year)	No	36.3	4.1	74.6	30.7
	Yes	58.4	10.0	87.7	48.5
Verbally harassed because trans (past year)	No	39.5	5.0	76.1	32.9
	Yes	58.8	10.0	88.4	49.4

[28] Tucker, R. P., Testa, R. J., Reger, M. A., Simpson, T. L., Shipherd, J. C., & Lehavot, K. (2018). Current and Military-Specific Gender Minority Stress Factors and Their Relationship with Suicide Ideation in Transgender Veterans. *Suicide Life-Threatening Behavior*, *49*(1), 155-166; Testa, R. J. Michaels, M. S., Bliss, W., Rogers, M. L., Balsam, K. F., & Joiner, T. (2017). Suicidal ideation in transgender people: Gender minority stress and interpersonal theory factors. *Journal of Abnormal Psychology*, *126*(1), 125-136.

Education

Table 10 shows that USTS respondents who reported negative experiences in K-12 educational settings, such as being verbally harassed, physically attacked, or sexually assaulted, had higher prevalence of lifetime and past-year suicide thoughts and attempts than respondents who did not have such experiences. Similar patterns emerge for those who left school due to mistreatment or were expelled. Notably, the group with the lowest prevalence of suicide thoughts and attempts—much lower than the overall USTS averages in some cases—are those who were not "out" or perceived by others to be transgender or lesbian, gay, bisexual, or queer (LGBQ) in K through 12. Yet, the prevalence of suicide thoughts and attempts in that group remains much higher than the U.S. general population. Those who reported harassment in college or who left college due to harassment had a higher prevalence of past-year and lifetime suicide attempts than those who did not have those experiences.

Table 10. Suicide thoughts and attempts by experiences in educational settings

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Out or perceived as trans or LGBQ in K-12	Out or perceived as trans/LGBQ	51.8	8.0	85.1	44.2
	Not out or perceived as trans/LGBQ	36.5	4.4	70.5	27.1
Verbally harassed in K-12, because trans	No	51.2	7.9	83.1	41.6
	Yes	58.0	11.8	89.9	54.9
Physically attacked in K-12, because trans	No	53.6	8.4	85.1	43.5
	Yes	59.1	15.2	92.2	65.7
Unwanted sexual in K-12, because trans	No	53.8	8.8	86.1	45.9
	Yes	61.9	18.1	91.9	67.6
Left K-12 due to mistreatment so bad	No	53.0	8.7	85.6	44.7
	Yes	64.3	16.6	92.7	69.3
Expelled from K-12	No	54.4	9.5	86.4	47.7
	Yes	63.2	18.2	94.2	67.8
Any negative K-12 experience	No	47.5	7.2	79.3	36.5
	Yes	57.1	10.9	89.0	52.5
Verbally harassed in college because trans	No	47.0	6.4	82.2	39.3
	Yes	57.7	10.3	91.7	57.2
Left college due to mistreatment so bad	No	56.0	9.1	91.1	54.8
	Yes	66.0	15.4	95.0	69.6

NOTE: Text in blue indicates there is no statistically significant relationship.

Employment & Workplace

Table 11 presents findings about the relationship between employment and workplace discrimination to suicide thoughts and attempts. As shown, losing a job because of one's transgender status (as opposed to losing a job for any reason) was significantly related to past-year and lifetime suicide thoughts and attempts. Respondents who reported negative past-year work experiences because of their transgender status, such as being fired or forced to resign, not being hired, and being harassed,

attacked, or physically assaulted in the workplace had higher prevalence of past-year suicide thoughts and attempts than those who had not experienced these events. Those who took steps to avoid mistreatment at work, such as quitting their job or hiding their gender identity, were more likely to report suicide thoughts and attempts compared to those who did not take such steps to avoid mistreatment.

Table 11. Suicide thoughts and attempts by experiences with employment and in the workplace

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Ever lost job, any reason	No	48.3	7.3	80.0	36.4
	Yes	48.4	7.3	84.0	45.7
Ever lost job because trans/GNC	No	47.9	7.0	80.7	38.3
	Yes	51.5	9.2	88.5	55.1
Denied promotion because trans (past year)	No	50.8	7.7	83.1	40.3
	Yes	61.3	9.6	90.7	59.1
Fired/forced to resign because trans (past year)	No	50.8	7.5	83.2	40.5
	Yes	64.1	15.3	90.3	59.8
Not hired because trans (past year)	No	48.2	6.5	81.4	37.6
	Yes	62.2	12.4	90.7	54.6
Took steps to avoid discrimination at work (past year)	No	33.6	4.7	76.0	35.0
	Yes	54.5	7.5	85.2	42.2
Any mistreatment by employer (past year)	No	46.5	5.8	80.8	36.2
	Yes	60.1	10.4	90.6	54.9
Harassed, attacked, sexual assault at work (past year)	No	47.0	5.9	81.5	37.7
	Yes	64.6	12.2	92.1	56.6

NOTE: Text in blue indicates there is no statistically significant relationship.

Housing

Housing instability is a known risk factor for suicide thoughts and attempts in the general population.[29] Prior research suggests that transgender people have high prevalence of housing instability compared to the general population, including experiencing homelessness.[30] The figures in Table 12 show the impact of recent housing discrimination and instability on suicidality among USTS respondents. Those who reported being evicted or denied a home or apartment in the past year due to their transgender status had an especially high prevalence of past-year suicide thoughts and attempts, with those being evicted having nearly four times higher prevalence of attempted suicide in the past year compared to those who were not evicted. Similarly, respondents who had "couch

[29] Van Orden, K. A., et al., (2010).

[30] Begun, S. & Kattari, S.K. (2016). Conforming for survival: Associations between transgender visual conformity/passing and homelessness experiences. *Journal of Gay & Lesbian Social Services*, *28*(1), 54-66; Spicer, S. S., Schwartz, A., & Barber, M.E. (2016). Special Issue on Homelessness and the Transgender Homeless Population. *Journal of Gay and Lesbian Mental Health*, *14*(4), 267-270.

surfed" during the past year, meaning they relied on short-term accommodations in the homes of friends or family members to avoid being homeless, had over three times the prevalence of past-year suicide attempts than those who were not in that position.

Table 12. Suicide thoughts and attempts by experiences with housing

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Evicted from home/apartment (past year)	No	46.0	6.1	81.3	40.0
	Yes	69.1	22.3	90.9	65.6
Denied a home/apartment (past year)	No	46.1	6.4	81.5	40.6
	Yes	65.0	19.8	88.4	63.3
Couch surfing (past year)	No	44.4	5.5	80.6	37.8
	Yes	69.0	18.8	90.9	64.3

Health Care

The initial USTS report found that many respondents encountered discrimination within health care settings.[31] As shown in Table 13, more respondents who were denied care from a health care provider in the past year reported suicide thoughts and attempts compared to those who were not denied care. Conversely, those who reported that their health care provider knew they were transgender and treated them with respect had significantly lower prevalence of suicide thoughts and attempts. Other negative health-care-related experiences in the past year, such as not having health insurance, or being mistreated in any way by a health care provider, were also associated with a higher prevalence of past-year suicide thoughts and attempts.

Table 13. Suicide thoughts and attempts by experiences in health care settings

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Has health insurance	No	56.4	10.5	85.6	47.4
	Yes	47.0	6.7	81.1	39.2
Doctor knew trans and treated with respect (past year)	No	55.2	8.4	82.3	39.1
	Yes	43.3	6.4	81.4	41.7
Doctor refused to give trans-related care (past year)	No	46.7	6.5	81.0	39.1
	Yes	62.0	14.4	90.8	59.5
Doctor refused to give other care (past year)	No	47.2	6.8	81.4	39.8
	Yes	68.2	18.8	91.8	68.6
Any negative experience in doctor/health setting (past year)	No	44.3	5.7	78.5	35.5
	Yes	55.0	10.2	88.2	51.3

NOTE: Text in blue indicates there is no statistically significant relationship.

[31] James, S.E., et al., (2016).

Public Accommodations

Places of public accommodation, such as restaurants, public transportation, retail stores, hotels, and government agencies (DMV, Social Security Office) can be places of vulnerability for transgender people. In a prior analysis, nearly one-third of USTS respondents reported being denied equal treatment or service, verbally harassed, or physically assaulted in a place of public accommodation in the past year.[32] Twenty percent of USTS respondents had avoided places of public accommodation in the past year to avoid mistreatment.[33] As shown in Table 14, the present analysis shows that having negative experiences in places of public accommodation in the past year, or avoiding these places all together, is associated with a higher prevalence of suicide thoughts and attempts compared to respondents who did not have these experiences in the past year. Over 30 percent of those who were physically attacked in a place of public accommodation reported attempting suicide in the past year, which is over four times higher than the prevalence found among respondents who were not similarly attacked. Experiences in public restrooms reveal a similar pattern, with respondents who were denied access to restrooms, or harassed, physically attacked, or sexually assaulted in restrooms during the past year reporting more past-year suicide thoughts and attempts than those who did not have these experiences. Those who completely avoided using public restrooms in the past year had much higher prevalence of past-year suicide thoughts and attempts than those who did not avoid restrooms or only sometimes avoided them.

Table 14. Suicide thoughts and attempts by experiences in places of public accommodation

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Avoided public accom for fear of mistreatment (past year)	No	44.9	6.1	79.7	37.1
	Yes	62.1	11.9	90.5	54.0
Denied equal treatment in public accom (past year)	No	47.6	6.7	81.4	38.8
	Yes	60.3	12.9	90.3	57.1
Verbally harassed in public accom (past year)	No	45.8	6.1	80.5	37.0
	Yes	63.6	13.1	90.6	57.5
Physically attacked in public accom (past year)	No	48.4	7.0	82.0	40.0
	Yes	75.1	30.9	93.1	74.5
Any neg experience in public accom (past year)	No	45.3	5.9	80.0	36.2
	Yes	61.5	12.4	90.1	56.1
Any neg experience with TSA (past year)	No	38.1	4.7	76.0	32.1
	Yes	50.7	7.3	82.8	41.7
Told that you were in wrong restroom (past year)	No	45.6	6.2	80.2	37.2
	Yes	57.2	10.6	86.7	50.7
Denied access to a restroom (past year)	No	47.0	6.4	80.9	38.5
	Yes	62.1	15.9	89.6	59.8

[32] James, S.E., et al., (2016).

[33] James, S.E., et al., (2016).

Table 14. Suicide thoughts and attempts by experiences in places of public accommodation (continued)

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Harassed, attacked, sexual assault in restroom (past year)	No	46.4	6.3	80.7	37.9
	Yes	62.8	14.2	89.4	59.1
Any negative experience in restroom (past year)	No	45.1	6.0	79.9	36.5
	Yes	57.5	11.0	86.8	51.3
Avoided restrooms (past year)	Not avoided	39.1	4.9	75.6	34.1
	Sometimes avoided	51.9	7.9	84.7	42.8
	Always avoided	63.7	12.9	89.4	51.1
	Not listed above	52.0	7.9	82.8	42.0

Law Enforcement

As can be seen in Table 15, respondents who described themselves as very uncomfortable seeking help from the police and those who reported being disrespected or mistreated by police in the past year all were more likely to report past year suicide thoughts and attempts than those who did not report having these experiences. Twenty-three percent of those who said they were not treated with respect in any past-year encounters with police attempted suicide in the past year. This is a prevalence nearly three times higher than those who reported having always been treated with respect by police in the past year.

Table 15. Suicide thoughts and attempts by experiences with law enforcement

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
How comfortable are you seeking help from the police?	Very comfortable	25.1	3.6	64.6	27.7
	Somewhat comfortable	35.2	4.2	73.6	31.6
	Neutral	43.9	6.0	79.9	37.3
	Somewhat uncomfortable	52.4	6.7	84.9	40.1
	Very uncomfortable	63.2	11.5	90.9	51.9
Police treated you with respect (past year)	Never treated with respect	68.7	23.1	91.6	67.0
	Sometimes treated with respect	59.3	13.7	90.5	58.7
	Always treated with respect	43.1	8.4	79.2	41.6
Any mistreatment by police (past year)	No	41.5	6.1	79.2	40.8
	Yes	62.3	17.6	90.7	60.9

Protection against gender identity discrimination

The Movement Advancement Project (MAP) has tracked state-level policies that positively or negatively impact the transgender population in the United States, including state statutes prohibiting

discrimination against transgender people in employment, housing, and public accommodations.[34] By providing at least some level of protection against discrimination based on gender identity, state nondiscrimination policies are thought to enhance the health and well-being of transgender people.[35] Because USTS respondents reported their state of residence, we were able to categorize respondents by whether they lived in states that had, or did not have, a statute prohibiting gender identity discrimination in employment, housing, and public accommodations at the time of the survey (2015).[36] As is shown in Table 16, a lower proportion of respondents who lived in a state with a gender identity nondiscrimination statute reported past-year suicide thoughts and attempts than those who lived in states without such a statute.

Table 16. Suicide thoughts and attempts by presence of state gender identity nondiscrimination statutes in state of residence

	PAST 12 MONTHS	
	THOUGHTS	ATTEMPTS
No comprehensive statute	49.9	7.8
Has comprehensive statute	46.8	6.7

Cumulative effect of minority stressors

Minority stress can be exacerbated when multiple discriminatory experiences occur within a period of time. This can have a compounding effect on mental and physical health. To better understand this "cumulative effect" of minority stress experiences, we "scored" respondents using four selected discriminatory experiences that we considered to be of relatively high impact in one's life, were measured in the past-year time frame, and were attributed by the respondent to their transgender status: being fired or forced to resign from a job, eviction, experiencing homelessness, and physical attack. Respondents received a score of 0, which means they had none of these experiences, up to a score of 4, which means they had all four of these experiences in the past year.

Figure 4 shows how these scores were associated with suicide thoughts and attempts in the past year. With each added experience, the prevalence of suicide thoughts and attempts increases. Among those who had all four experiences in the past year, 97.7 percent had suicide thoughts in the past year and 51.2 percent made a suicide attempt. Additionally, Figure 4 shows that a higher number of discrimination experiences is associated with a higher prevalence of serious psychological distress. As was described earlier in this report, serious psychological distress is related to suicidality, so as the number of discriminatory experiences increases, the higher prevalence of serious psychological distress acts as a possible pathway for increased suicide thoughts and attempts.

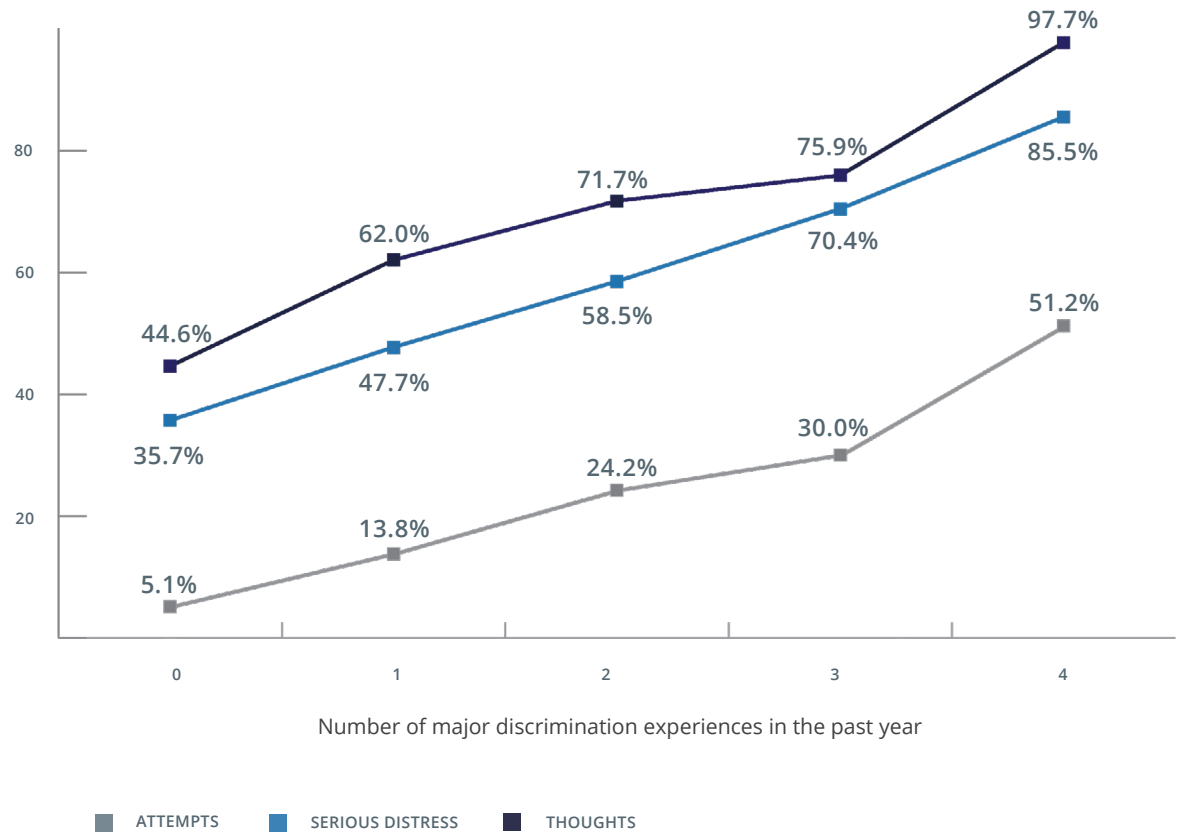
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[34] Movement Advancement Project. "Equality Maps." Available at http://www.lgbtmap.org/equality-maps/legal_equality_by_state (last accessed August 18, 2019).

[35] Hatzenbuehler, M.L. (2016). Structural Stigma and Health Inequalities: Research Evidence and Implications for Psychological Science. *American Psychologist*, *71*(8), 742-751.

[36] Movement Advancement Project. "Equality Maps." Additional adjustments to the nondiscrimination maps to reflect the 2015 state policy landscape provided by Christy Mallory of the Williams Institute.

Figure 4. Current serious psychological distress and past-year suicide thoughts and attempts by cumulative discrimination experiences in the past year



Other Potential Risk Factors

The broad scope of topics included in the USTS provided an opportunity to explore relationships between suicide thoughts and attempts and potential risk/protective factors that have not received much attention in prior research among transgender people. Table 17 describes relationships between suicide thoughts and attempts and non-binary identity disclosure, identity documents, sex work and other work in the underground economy, and political and civic participation.

Non-binary respondents were asked what they do when someone incorrectly assumes their gender. Those who always disclose that they are non-binary were more likely to report past-year suicide attempts and lifetime suicide thoughts and attempts, compared to those who do not always disclose that that are non-binary. Those who have no identity documents listing their correct name and gender had higher prevalence of suicide thoughts and attempts than those having some or all correct identity documents. Respondents who have engaged in sex work and who work in the underground economy reported a higher prevalence of suicide thoughts and attempts than those who have not engaged in those types of work. In regard to civic participation, those who believe they can influence government decisions were less likely to report suicide thoughts and attempts than those who believed they could not influence government decisions. Engaging in political activity, protests, and rallies were either not statistically significantly associated with suicide thoughts or attempts or the differences between those who do and do not engage in these activities were small.

Table 17: Suicide thoughts and attempts by other potential risk factors

		PAST 12 MONTHS		LIFETIME	
		THOUGHTS	ATTEMPTS	THOUGHTS	ATTEMPTS
Nonbinary respondents: When someone assumes wrong gender	Let them assume I'm man/woman	52.6	6.9	81.4	34.8
	Sometimes tell them I'm NB/GQ	55.4	6.6	85.2	41.0
	Always tell them I'm NB/GQ	65.7	14.0	89.5	57.5
Name and gender correct on IDs	All	29.5	4.0	73.4	34.0
	Some	39.3	6.3	81.0	43.0
	None	54.2	8.1	83.4	40.7
Ever engaged in sex work	No	47.4	6.5	81.2	38.1
	Yes	55.2	12.8	85.6	57.4
Engaged in sex work (past year)	No	47.6	6.7	81.5	39.4
	Yes	61.1	17.3	85.4	57.8
Drug sales/underground economy (ever)	No	47.1	6.8	80.5	37.8
	Yes	57.6	10.7	90.4	59.5
Drug sales/underground economy (past year)	No	52.2	7.8	89.5	57.6
	Yes	66.9	16.3	91.5	63.3
Someone like me can't influence government decisions	Strongly agree	61.5	13.7	87.5	50.5
	Agree	53.4	6.9	83.5	40.8
	Neither agree nor disagree	48.8	7.0	82.0	39.3
	Disagree	42.9	5.1	79.7	36.8
	Strongly disagree	40.7	6.8	78.0	39.9
Civic or political activity (past year)	No	46.0	8.3	78.6	39.5
	Yes	49.1	6.8	82.9	40.7
Attended political protest or rally (past year)	No	48.0	7.4	80.5	38.9
	Yes	49.1	7.0	84.3	43.5

NOTE: Text in blue indicates there is no statistically significant relationship.

DISCUSSION

The U.S. Transgender Survey provides a unique and valuable data source for understanding suicide risk factors among transgender people. Our findings underscore the urgency of research to identify promising intervention and prevention strategies to address suicide thoughts and attempts in this population. The prevalence of lifetime suicide attempts remained consistent with the prior iteration of the survey (i.e., 41% in the NTDS). Since the USTS sample is substantially younger than the U.S. population generally, one might assume that high overall prevalence of reported suicide thoughts and attempts is driven, at least in part, by age. However, as shown in Figures 6 and 7, USTS respondents reported substantially higher prevalence of suicide thoughts and attempts in each age group compared to the 2015 NSDUH, which is a representative sample of the U.S. population. Factors beyond age must explain the relatively high overall prevalence of suicide thoughts and attempts among USTS respondents.

Figure 6. Suicide thoughts in the past year by age group, USTS v. NSDUH

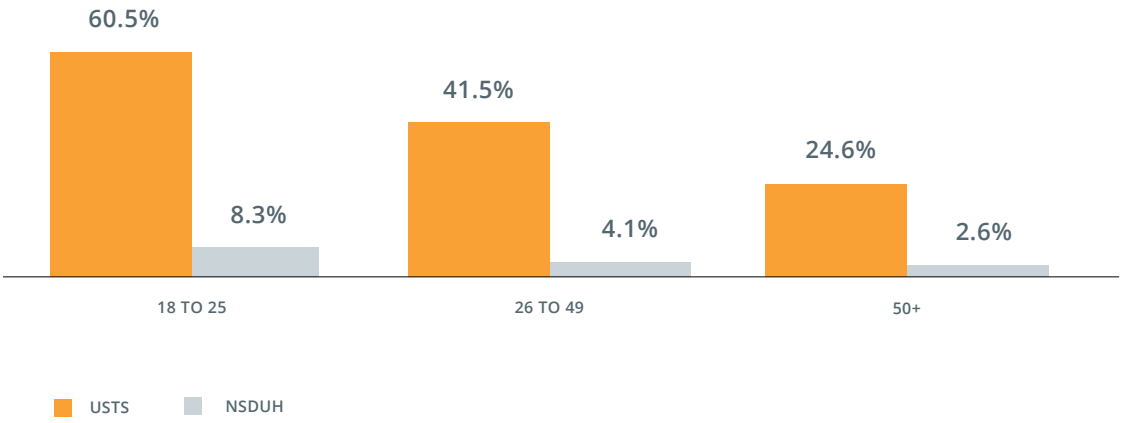
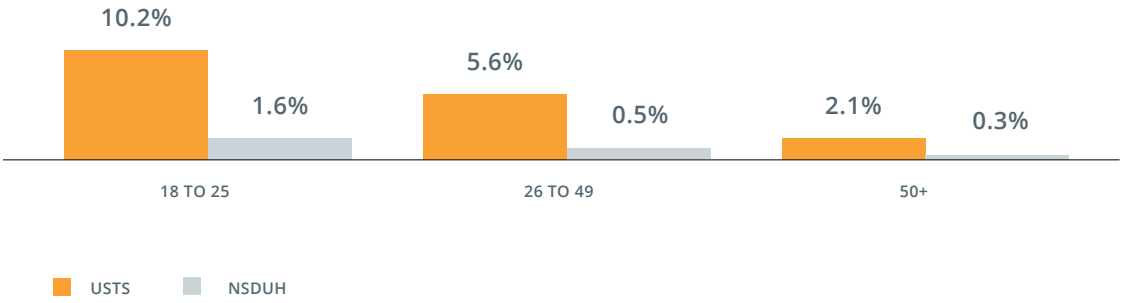


Figure 7. Suicide attempts in the past year by age group, USTS v. NSDUH



Our 2014 study examining risk factors for suicidality among NTDS respondents and our current study of USTS respondents found very similar relationships between demographic factors and discrimination experiences and suicide attempts. Overall, it is a consistent finding that those who are younger, assigned female at birth, have lower incomes and educational attainment, are not partnered, and do not identify as heterosexual or straight have higher prevalence of suicide attempts.

It is also a consistent finding that being "out" to others about being transgender can be an added risk factor in some circumstances, including being "out" to LGBT and non-LGBT friends. Additionally, the ways in which transgender people socialize with each other may be related to an increase or decrease in risk of suicide thoughts and attempts. Findings regarding "outness" and socializing may reflect added or reduced stress that results from negative or positive aspects of relationships that transgender people navigate. Alternately, other aspects of life that may be related to suicidality, such as isolation or living far from other transgender people, may necessitate making social connections in certain ways (e.g., online versus in person, or in ways that don't meet one's needs for socialization). Furthermore, it should be noted that not being "out" and socializing with trans people in ways that appear to be positive for suicide thoughts and attempts are both associated with a prevalence of suicidality much higher than the U.S. general population. This suggests that there are more complex factors that contribute to risk of suicide thoughts and attempts for these groups.

The present analysis indicates that the elevated risk of suicide thoughts and attempts among USTS respondents is related, in part, to the same risk factors that affect the U.S. population as a whole, including substance use and serious psychological distress. At the same time, it is also clear that minority stress experiences, such as family rejection, discrimination experiences, and lack of access to gender-affirming health care, create added risks for transgender people. In particular, "de-transitioning" is associated with a higher risk of suicide thoughts and attempts compared to those who are living their lives according to their gender identity and those who have not yet begun to, signaling that "de-transitioning" is a uniquely stressful experience for transgender people. Furthermore, the cumulative effect of experiencing multiple minority stressors dramatically increases serious psychological distress and suicidality.

A strength of this report, compared to our 2014 report using NTDS data, was our ability to look at timing of gender-affirming care and suicide thoughts and attempts in the past year time frame. We found that transgender people who want to have gender-affirming medical care (i.e., hormones and/or surgery) and are able to get it have a lower prevalence of suicide thoughts and attempts, particularly in the past year time frame. This finding is not surprising given that a thorough review of the 73 extant studies on mental and physical health outcomes for transgender people who have had gender-affirming medical care found that gender-affirming care effectively treats symptoms of gender dysphoria, improves well-being and quality of life, and reduces suicide risk factors, like depression and substance use, as well as reducing suicidality itself.[37] In our prior 2014 report using NTDS data, we were only able to look at gender-affirming care and lifetime suicide attempts, which is a time frame that does not allow the effects of receiving gender-affirming health care to be assessed.

[37] What We Know. (2017). *What does the scholarly research say about the effect of gender transition on transgender well-being?* New York: Cornell University, available at https://whatweknow.inequality.cornell.edu/topics/lgbt-equality/what-does-the-scholarly-research-say-about-the-well-being-of-transgender-people/#top (last accessed August 18, 2019).

LIMITATIONS

The findings presented in this report have some notable limitations. USTS was a cross-sectional study that asked respondents to report information about suicide thoughts and attempts and other experiences across their lifetimes, and responses may have been affected by recall bias and temporal ordering. Additionally, the USTS sample, though large, diverse, and nationally well-distributed, was not randomly selected and thus cannot be considered nationally representative. Findings in this report should be understood to represent the nearly 28,000 USTS respondents rather than the full U.S. transgender population. Further, our analysis relied on bivariate techniques, which did not adjust for other respondent characteristics, like age, nor simultaneously account for other experiences, like discrimination and other factors that may help explain the relationship between the two variables presented. Despite these limitations, a major strength of this report is that we are able to present topically broad findings, which point to characteristics and experiences that are related to an elevated prevalence of suicide thoughts and attempts (i.e., risk factors). We then point to areas needing further examination to understand additional related factors that may contribute to that elevated prevalence and help target and design interventions.

FUTURE RESEARCH

Future research that supports the design and evaluation of suicide intervention and prevention strategies for the transgender population is urgently needed. For instance, in-depth understanding of risk factors and the timing of suicide thoughts and attempts compared to gender affirmation milestones would help to target prevention and intervention strategies. We are currently limited by the availability and quality of data about the transgender population in the United States. Large surveys like the NTDS and USTS can provide a wealth of knowledge about the lives and experiences of transgender people in the United States, but are limited in their generalizability. This report has presented descriptive analyses that provide a broad view of suicide risk factors for USTS respondents. Additional, more topically-focused research utilizing multi-variate models is needed to provide better depth of understanding of particular risk factors. In addition to surveys like the NTDS and USTS that provide large samples and describe experiences relevant to the transgender population, large, nationally representative surveys, like the National Survey of Drug Use and Health, could provide valuable, population-based data about the transgender population and suicide risk if they were to include questions to identify transgender respondents. While much progress has been made, further research is needed to refine and field gender identity measures in large, nationally representative surveys.

The USTS provides the ability to create time lines of gender affirmation milestones, suicide attempts, and timing of discriminatory experiences, substance use, and experiences of serious psychological distress. With the large sample size, additional bivariate and multivariate models could be created to understand how gender affirmation milestones relate to timing of discriminatory experiences and measures of mental and physical health. This could inform research into suicide intervention and prevention by pinpointing particular time periods of vulnerability relative to gender affirmation milestones where intervention and prevention strategies would be most needed and most effective. Research that makes use of these rich data is highly recommended.

Over 20 percent of USTS respondents who have attempted suicide reported having done so five or more times. Our analyses in this report did not address multiple attempts. Indicators of past year and lifetime suicide attempts lump together respondents who have had one or more attempts, but respondents in this group are diverse in number of attempts and recent timing of attempts. Future research is needed that accounts for a broader range of co-existing and co-occurring experiences, including mapping out milestones of those reporting multiple attempts, to describe these diverse groups and their different risk profiles.

In this report, we found that cumulative discrimination experiences are associated with higher risk of suicide thoughts and attempts. The USTS gives us the ability to not only look at multiple discrimination experiences based on anti-transgender bias, but to also look at discrimination experiences based on other characteristics, such as race, age, and disability. Analyses using intersectional approaches could further elucidate the ways in which discrimination experiences based on multiple experiences and multiple characteristics affect suicidality. Studies that aim to assess effective strategies to decrease minority stress, including structural stigma, would help inform suicide prevention and intervention strategies that focus on alleviating such risk factors.

Finally, this report points to new areas of research that are promising for expanding knowledge about suicide risks, interventions, and prevention. For instance, the USTS provides a large sample and geographic coding down to the zip code level. It would be possible with this dataset to expand analyses of structural types of stigma, such as public policy environments, and its relationship to suicide. This study suggests that there is more to learn about the associations between suicidality and socializing with others, disclosure of transgender status, and civic and political participation. A better understanding is needed of how and why community connectedness, social isolation, HIV status, political and civic engagement, and disclosure of transgender status affect suicide thoughts and attempts, including through qualitative studies.

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