

Barriers to Gender Transition-Related Healthcare: Identifying Underserved Transgender Adults in Massachusetts

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Abstract

Purpose: The present study sought to examine whether individual (e.g., age, gender), interpersonal (e.g., health-care provider discrimination), and structural (e.g., lack of insurance coverage) factors are associated with access to transition-related care in a statewide sample of transgender adults.

Method: In 2013, 364 transgender residents of Massachusetts completed an electronic web-based survey online (87.1%) or in person (12.9%). A multivariable logistic regression model tested whether individual, interpersonal, and structural factors were associated with access to transition-related care.

Results: Overall, 23.6% reported being unable to access transition-related care in the past 12 months. In a multivariable model, younger age, low income, low educational attainment, private insurance coverage, and health-care discrimination were significantly associated with being unable to access transition-related care (all $p < 0.05$).

Discussion: Despite state nondiscrimination policies and universal access to healthcare, many of the Massachusetts transgender residents sampled were unable to access transition-related care. Multilevel interventions are needed, including supportive policies and policy enforcement, to ensure that underserved transgender adults can access medically necessary transition-related care.

Keywords: access to care; gender transition; health policy; transgender health

Introduction

Transgender people have a gender identity or expression that differs from their assigned birth sex. It is estimated that transgender people comprise ~0.6% of the United States adult population, with North Dakota (0.3%) and Iowa (0.3%) among the states with the lowest percentage of transgender adults and Massachusetts (0.6%) and Hawaii (0.8%) among the states with the highest percentage of transgender adults.¹ Moreover, it is likely that the number of transgender people is even higher when transgender individuals under age 18 are accounted for. Like all people, transgender individuals need to access healthcare to meet their preven-

tative and urgent medical needs. Many transgender people also access healthcare to “transition” or medically affirm their gender, which can include the use of hormone therapy and/or surgery to align one’s gender presentation with one’s gender identity. Access to transition-related care is considered medically necessary for many transgender people² and is associated with reduced gender dysphoria and improved mental health and quality of life.³ However, many transgender people face structural- (e.g., restrictive insurance policies), interpersonal- (e.g., provider discrimination), and individual-level (e.g., education) barriers to healthcare, which can contribute to poor health.⁴

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Due to having a gender expression or identity that does not conform to the socially sanctioned gender norms of their birth sex, transgender people experience widespread stigma, which can impact their access to essential resources, including employment, housing, and healthcare.⁴ Transgender stigma in healthcare can include overt enacted discrimination at the interpersonal level, such as being refused care by a healthcare provider, as well as more subtle or even inadvertent forms of stigma, such as provider's use of nonaffirming language and/or lack of transgender health knowledge.^{4,5} Research suggests that healthcare discrimination can impact access to care for transgender individuals directly through healthcare refusal or indirectly through healthcare avoidance.^{4,6,7} Indeed, studies have found that transgender individuals may avoid healthcare for fear of discrimination, which can lead to otherwise preventable healthcare emergencies.⁸⁻¹⁰

While it is not always necessary to disclose one's transgender history to one's healthcare provider, accessing transition-related care is unique in that providers must know a patient is transgender to offer and oversee transition-related care.⁸ Transgender individuals, who have socially transitioned or live "full time" in their identified gender, may be better able to access transition-related care than those who have not socially transitioned as those who have socially transitioned tend to have better mental health and therefore may be more capable of managing the threat of healthcare discrimination.^{11,12} Regardless of social transition status, visual gender conformity or the extent to which a person's gender expression aligns with socially-sanctioned expressions of the gender binary (i.e., masculine or feminine but not both) could also potentially impact access to care. For example, being visually gender *nonconforming* could be a barrier to care as gender nonconformity may increase exposure to discrimination and discrimination has been linked to healthcare avoidance in transgender people.^{11,12} Conversely, those who are gender *conforming* may not experience provider discrimination based on their visible gender presentation; however, they would be required to verbally disclose their transgender history to obtain medical transition-related services, at which point they could experience discrimination, including being denied services.⁸ Given the potential for experiencing discrimination upon disclosing one's transgender history, some transgender individuals may conceal their transgender history, which could further impede access to care even for those who are visually gender conform-

ing.^{4,8,13} Research that concurrently examines social transition status, visual conformity, disclosure of transgender status, and experiences of discrimination in relation to access to transition-related care is needed.

Affordability and insurance coverage can also limit access to healthcare for transgender people.⁴ Many transgender individuals lack health insurance, which may be due, in part, to the higher prevalence of unemployment and poverty faced by transgender people relative to the general United States population, a likely product of employment discrimination.^{14,15} For transgender people who are insured, barriers to care can persist, as private insurers have historically excluded coverage for medical interventions related to gender transition.¹⁶ While the passage of the Affordable Care Act (ACA) made it illegal for any health program, provider, or organization that receives federal funding to discriminate against an individual due to their race, color, national origin, sex, age, or disability (e.g., treat inequitably, including charging more for services and denying coverage for preexisting conditions or based on health status),¹⁷ private insurers and healthcare entities not receiving federal funds are not subject to the ruling and lack of early clarification about whether the law extended to transgender individuals and transition-related care limited the reach of the ACA.¹⁸⁻²⁰ Moreover, the limited availability of transgender-competent providers²¹ forces some transgender people to pay out of pocket for providers outside their plan, leading to high healthcare expenditures even for the insured.²² Due to the many challenges surrounding affordable healthcare coverage for transgender people, along with the disproportionate prevalence of poverty and unemployment facing this patient population, inadequate insurance coverage and lack of financial resources remain important barriers to accessing healthcare.

While numerous studies have documented transgender people's experience accessing general healthcare,¹⁷ access to transition-related care remains understudied, particularly in more progressive areas of the United States like Massachusetts that has had universal healthcare and transgender nondiscrimination polices since 2006 and 2011, respectively. The current study sought to assess the individual, interpersonal, and structural factors associated with being unable to access transition-related healthcare in the past 12 months among transgender adults in Massachusetts. Understanding the multilevel factors associated with being unable to access medically necessary transition-related care among transgender individuals living in one of the most socially



progressive areas of the United States can inform the development of targeted interventions to increase access to care for the most vulnerable and underserved transgender individuals.

Methods

This study conducted a secondary analysis of data from 452 transgender residents of Massachusetts who completed a one-time, secure, electronic web-based survey between August and December 2013. Only participants who had sought transition-related care in the past 12 months were included in the analytic sample ($n = 364$; 80.5%).

Participants were recruited through transgender-specific online and in-person venues. The majority (87.1%) of the analytic sample was recruited online through transgender-focused electronic listserv, e-mails, web postings, and social networking sites; 12.9% were surveyed in person through electronic tablets at transgender community events and other social programming. Eligible participants were ages 18 years or older; self-identified as transgender/gender nonconforming (e.g., had a gender identity/expression that differed from assigned sex at birth); lived in Massachusetts for at least 3 months in the last year; and had the ability to read and write in either English or Spanish. All participants provided consent before beginning the survey. Participants could opt to be entered into a community raffle for two tablet computers. All study activities were IRB approved. Additional details on the study can be found elsewhere.²³

Measures

Access to transition-related care (outcome). Participants were asked the following question used in prior national research with transgender samples:¹⁴ “I was unable to access transition-related care (hormones or surgery) in the past 12 months” (yes, no).

Demographics. Age in years was assessed continuously. Race/ethnicity captured whether participants were White non-Hispanic, Black non-Hispanic, Hispanic, Other race/ethnicity, or Multiracial. Participants were then categorized as White non-Hispanic or people of color (POC). Gender was assessed using a two-step method²⁴ asking: (1) assigned sex at birth (*female*, *male*) and (2) current gender identity (*man*, *woman*, *female-to-male (FTM)/trans man*, *male-to-female (MTF)/trans woman*, *genderqueer*, *gender variant*, *gender nonconforming*, *other*). The two items were cross-tabulated

to categorize participants according to their natal sex: FTM transmasculine spectrum, which included binary and nonbinary/gender nonconforming people assigned a female sex at birth versus MTF transfeminine spectrum, which included binary and nonbinary/gender nonconforming people assigned a male sex at birth. Educational attainment ranged from 1 = “high school or less” to 4 = “graduate school,” using a measure from the Behavioral Risk Factor Surveillance Survey.²⁵ Educational attainment was then dichotomized as “high school degree or less” versus “college degree or more.” Participants were asked whether they were currently employed for wages (yes, no). Annual household income was assessed continuously and then categorized as earning “less than \$35,000 a year,” which is 300% of the federal poverty level in 2013²⁶ vs. “\$35,000 a year or more.”

Insurance coverage. Participants were asked whether they had private, public, or no insurance. Participants were also asked to indicate whether they had insurance coverage for transition-related services (yes, no, don’t know), including for mental health services to support the transition process; hormones; breast or chest surgeries; and sex reassignment surgery.

Social and medical gender transition. Social gender transition was assessed with one item previously used in research with transgender adults:²⁷ “Do you consistently present (live “full time”) in your identified gender?” (yes, no). Participants were also asked whether they had legally changed their name (yes, no) and, if yes, the specific document where they had changed their name (license, passport, social security card, and birth certificate). In addition, participants were asked about specific types of medical transition-related care they had received in their lifetime (yes, no), including hormones (e.g., estrogen, testosterone); breast or chest surgeries (e.g., FTM chest reconstruction, MTF breast augmentation, or implants); abdominal surgeries (e.g., oophorectomy, hysterectomy); gender confirmation surgery (e.g., metoidioplasty, phalloplasty, vaginoplasty); and or another type of procedure (e.g., facial feminization, hair removal). Visual gender conformity was assessed by asking participants how often people could tell they were transgender (never to always). Participants indicating that people could never tell they were transgender were coded as yes (visually gender conforming), otherwise no (visually gender nonconforming).



Healthcare experiences. Participants were asked about specific experiences seeking medical care in the past 12 months, including whether they had presented as transgender at one or more healthcare entity (yes, no), which could entail verbally disclosing one's transgender identity to a provider or visually "disclosing" one's transgender identity vis-à-vis one's nonconforming gender expression. Participants were also asked whether they had to teach their doctor or other provider about transgender people to receive appropriate care (yes, no); whether they had been verbally harassed or physically assaulted by a healthcare provider (yes, no); and whether a healthcare provider had refused to treat them (yes, no).

Data analysis

Statistical analyses were performed in SAS v9.4.1. Distributions of individual items were assessed, including missingness. Because missingness was differential and violated the missing completely at random assumption,^{28,29} data were multiply imputed.^{30–32} Descriptive statistics (means, frequencies) was stratified by whether participants were unable to access transition-related care in the past 12 months (yes, no). Crude unadjusted bivariate logistic regression analyses then estimated associations among demographic, insurance coverage, social and medical gender transition, healthcare experiences, and the outcome—unable to access transition-related care in the past 12 months. Variables that were statistically significantly associated with ability to access transition-related care at the bivariate level ($p < 0.05$) were retained in a final multivariable logistic regression model, which also adjusted for survey mode (online or in person). Adjusted odds ratios and 95% confidence intervals were estimated.

Results

Distribution of variables

As shown in Table 1, the mean age of participants was 34.0 (standard deviation = 13.0; range = 18–75). The majority of participants were White non-Hispanic (85.0%) and more than half (59.1%) were on the trans-masculine spectrum (i.e., assigned a female sex at birth and currently identify as man, male, or another masculine gender identity). The majority of participants had a college degree or higher (54.7%), were employed for wages (53.0%), and earned <\$35,000 a year (57.7%).

Nearly all participants had some form of insurance coverage (96.1%), with 60.1% having private insurance and 36.0% having public insurance (e.g., Medicare,

Medicaid/MassHealth). When asked about whether they had insurance coverage for specific transition-related services, nearly half of the sample had insurance for mental healthcare to support the transition process (47.8%) and 40.1% had coverage for hormone therapy. Only 7.4% of participants had coverage for breast or chest surgeries and gender confirmation surgery. Approximately a third of participants did not know if their insurance covered specific transition-related services, including coverage for mental healthcare related to their transition-related care (36.5%), hormones (32.1%), breast or chest surgery (37.4%), and gender confirmation surgery (36.5%).

The majority of participants had socially transitioned (77.0%) and almost half had legally changed their name (49.2%). Hormone therapy was the most common transition-related intervention received (66.2%), followed by breast or chest surgeries (25.3%), abdominal surgeries (7.4%), gender confirmation surgeries (6.3%), and other services (5.2%). A quarter of the sample (25.0%) indicated that they were visually gender conforming.

The vast majority of participants (79.7%) had presented as transgender when accessing healthcare in the past 12 months. Nearly a third of participants (32.1%) reported having to teach their provider about transgender care, 25.0% had been discriminated against in healthcare, and 5.8% indicated that a provider refused to treat them in the past 12 months. Finally, nearly a quarter of the sample (23.6%) indicated that they were unable to access transition-related care in the past 12 months.

Factors associated with being unable to access transition-related care

Multivariable models are shown in Table 2. In multivariable models adjusted for survey mode, younger age, being visually gender conforming, and having presented as transgender when accessing healthcare were each protective against being unable to access transition-related care in the past 12 months (all $p < 0.05$). Factors associated with the increased odds of being unable to access transition-related care in the past 12 months included the following: having a high school degree or less; having an annual household income of <\$35,000; having private insurance or no insurance; not having mental health coverage for transition-related care or not knowing if one has mental health coverage; having taught one's provider about transgender care; having experienced discrimination;



Table 1. Demographics of Transgender and Gender Nonconforming Adults from Massachusetts (n = 364) Who Accessed (n = 278) and Who Were Unable to Access (n = 86) Transition-Related Care in the Past 12 Months

	Able to access n = 278		Unable to access n = 86		Total n = 364	
	Mean	SD	Mean	SD	Mean	SD
Age Range: 18–75	33.8	13.3	30.3	11.5	33.0	13.0
	%	n	%	n	%	n
Race						
White, non-Hispanic	81.7	227	83.72	72	82.1	299
Person of color	18.3	51	16.3	14	17.9	65
Black, non-Hispanic	3.2	9	2.3	2	3.0	11
Hispanic	9.0	25	5.8	5	8.2	30
Other race/ethnicity	1.4	4	3.5	3	1.9	7
Multiracial	4.7	13	4.7	4	4.7	17
Current gender identity						
Transmasculine spectrum	57.9	161	62.79	54	59.1	215
Female-to-male/trans man/man/male identity	36.3	101	37.2	32	36.5	133
Female assigned birth sex nonbinary gender nonconforming identity	21.6	60	25.6	22	22.5	82
Transfeminine spectrum	42.1	117	37.21	32	40.9	149
Male-to-female/trans woman/woman/female identity	33.1	92	30.2	26	32.4	118
Male assigned birth sex nonbinary gender nonconforming identity	9.0	25	7.0	6	8.5	31
Education						
High school degree or less	43.5	121	51.16	44	45.3	165
College degree or more	56.5	157	48.84	42	54.7	199
Employed for wages						
No	47.1	131	46.51	40	47.0	171
Yes	52.9	147	53.49	46	53.0	193
Annual household income						
< \$35,000	55.0	153	66.28	57	57.7	210
\$35,000 or more	45.0	125	33.72	29	42.3	154
Insurance coverage—current						
Insurance type						
None	4.0	11	8.1	7	4.9	18
Public (medicare, medicaid/masshealth)	35.3	98	25.6	22	33.0	120
Private	60.8	169	66.3	57	62.1	226
Mental health coverage						
Yes	52.9	147	31.4	27	47.8	174
No	13.3	37	23.3	20	15.7	57
Don't know	33.8	94	45.3	39	36.5	133
Hormone coverage						
Yes	42.8	119	31.4	27	40.1	146
No	25.5	71	34.9	30	27.7	101
Don't know	31.7	88	33.7	29	32.1	117
Breast or chest surgery coverage						
Yes	7.6	21	7.0	6	7.4	27
No	54.7	152	57.0	49	55.2	201
Don't know	37.8	105	36.0	31	37.4	136
Gender confirmation surgery coverage						
Yes	7.9	22	5.8	5	7.4	27
No	54.0	150	62.8	54	56.0	204
Don't know	38.1	106	31.4	27	36.5	133
Social and medical gender transition						
Socially transitioned—lifetime						
No	24.1	67	19.8	17	23.0	84
Yes	75.9	211	80.2	69	77.0	280
Legal name change						
No	51.1	142	50.0	43	50.8	185
Yes	48.9	136	50.0	43	49.2	179
Changed on license	46.0	128	45.3	39	45.9	167
Changed on social security card	45.3	126	44.2	38	45.1	164
Changed on passport	21.6	60	16.3	14	20.3	74
Changed on birth certificate	12.9	36	10.5	9	12.4	45

(continued)



Table 1. (Continued)

	Able to access <i>n</i> = 278		Unable to access <i>n</i> = 86		Total <i>n</i> = 364	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Medical transition-related care accessed—lifetime						
Hormones						
No	33.1	92	36.0	31	33.8	123
Yes	66.9	186	64.0	55	66.2	241
Breast or chest surgeries						
No	75.5	210	72.1	62	74.7	272
Yes	24.5	68	27.9	24	25.3	92
Abdominal surgeries						
No	92.8	258	91.9	79	92.6	337
Yes	7.2	20	8.1	7	7.4	27
Gender confirmation surgery						
No	92.8	258	96.5	83	93.7	341
Yes	7.2	20	3.5	3	6.3	23
Other surgery						
No	94.2	262	96.5	83	94.8	345
Yes	5.8	16	3.5	3	5.2	19
Visually gender conforming—current						
No	73.0	203	81.4	70	75.0	273
Yes	27.0	52	18.6	16	25.0	91
Healthcare experiences—past 12 months						
Presented as transgender when accessing healthcare						
No	18.7	52	25.6	22	20.3	74
Yes	81.3	226	74.4	64	79.7	290
Taught provider about transgender care						
No	73.0	203	51.2	44	67.9	247
Yes	27.0	75	48.8	42	32.1	117
Experienced discrimination						
No	78.8	219	62.8	54	75.0	273
Yes	21.2	59	37.2	32	25.0	91
Provider refused to treat						
No	97.1	270	84.9	73	94.2	343
Yes	2.9	8	15.1	13	5.8	21
Unable to access transition-related care						
No	0.0	0	0.0	0	76.4	278
Yes	100.0	278	100.0	86	23.6	86

SD, standard deviation.

and having been refused care by a provider in the past 12 months (all $p < 0.05$).

Discussion

In this statewide sample of transgender adults in Massachusetts, nearly a quarter of respondents reported being unable to access transition-related care in the past 12 months. The study also identified key individual, interpersonal, and structural factors associated with an inability to access transition-related care, including low educational attainment, low income, limited insurance coverage, and healthcare discrimination. These findings highlight the need for multilevel interventions to improve access to transition-related care for transgender adults in Massachusetts, with implications for transgender individuals across the United States.

Massachusetts pioneered the concept of universal healthcare coverage (i.e., MassHealth) and uninsurance in the state has been below 5% since passing the landmark healthcare law in 2006.³³ However, when it comes to transition-related healthcare policies, Massachusetts did not have protections prohibiting the denial of transition-related care by insurers and medical providers until 2014³⁴ and 2016,³⁵ respectively. Thus, at the time these data were collected in 2013, transgender residents of Massachusetts did not have any state-level protections against healthcare discrimination.¹⁷ Despite access to general healthcare coverage under MassHealth, nearly a quarter of the sample was unable to access transition-related healthcare in the past year. In addition, patients with private insurance or no insurance had 1.62 and 2.92 increased



Table 2. Bivariate and Multivariable Logistic Regression Analyses Examining Associations Among Demographics, Insurance Coverage, Healthcare Experiences, and Ability to Access Transition-Related Care in the Past 12 Months in a Sample of Transgender Adults in Massachusetts (n = 364)

	Outcome: unable to access transition-related care—past 12 months					
	Bivariate			Multivariable		
	OR	95% CI	p-Value	aOR	95% CI	p-Value
Demographics						
Age	0.98	0.97–0.99	<0.001	0.99	0.98–0.998	0.02
Race						
White, non-Hispanic	Ref	—	—	—	—	—
Person of color ^a	0.87	0.65–1.16	0.33	—	—	—
Gender identity						
Transfeminine spectrum	Ref	—	—	—	—	—
Transmasculine spectrum	0.82	0.65–1.02	0.07	—	—	—
Education						
High school degree or less	1.36	1.09–1.69	0.01	1.52	1.17–1.96	0.002
College degree or more	Ref	—	—	Ref	—	—
Employed for wages						
No	Ref	—	—	—	—	—
Yes	1.03	0.83–1.27	0.82	—	—	—
Annual household income						
< \$35,000	1.64	1.30–2.05	<0.001	1.45	1.10–1.96	0.01
\$35,000 or more	Ref	—	—	Ref	—	—
Insurance coverage						
Insurance type						
Public	Ref	—	—	Ref	—	—
Private	2.89	1.80–4.63	<0.001	1.62	1.15–2.29	0.01
None	1.54	1.20–1.97	0.001	2.92	1.60–5.34	<0.001
Mental health coverage						
Yes	Ref	—	—	Ref	—	—
No	2.94	2.17–3.99	<0.001	2.59	1.75–3.84	<0.001
Don't know	2.26	1.76–2.90	<0.001	2.56	1.84–3.57	<0.001
Hormone coverage						
Yes	Ref	—	—	Ref	—	—
No	1.86	1.43–2.43	<0.001	1.04	0.72–1.48	0.85
Don't know	1.45	1.11–1.89	0.01	0.83	0.54–1.27	0.39
Breast or chest surgery coverage						
Yes	Ref	—	—	—	—	—
No	1.13	0.73–1.74	0.58	—	—	—
Don't know	1.03	0.66–1.61	0.88	—	—	—
Gender confirmation surgery coverage						
Yes	Ref	—	—	Ref	—	—
No	1.58	Ref, 2.50	0.048	1.03	0.59–1.79	0.92
Don't know	1.12	0.70–1.80	0.64	0.64	0.35–1.19	0.16
Social and medical gender transition						
Socially transitioned—lifetime						
No	Ref	—	—	Ref	—	—
Yes	1.33	1.01–1.74	0.04	1.29	0.92–1.80	0.13
Medical transition-related care accessed—lifetime						
Hormones						
No	Ref	—	—	—	—	—
Yes	0.96	0.89–1.04	0.31	—	—	—
Breast or chest surgeries						
No	Ref	—	—	—	—	—
Yes	0.99	0.90–1.08	0.81	—	—	—
Abdominal surgeries						
No	Ref	—	—	—	—	—
Yes	0.96	0.86–1.07	0.46	—	—	—
Gender confirmation surgery						
No	Ref	—	—	—	—	—
Yes	0.82	0.84–1.02	0.11	—	—	—

(continued)



Table 2. (Continued)

	Outcome: unable to access transition-related care—past 12 months					
	Bivariate			Multivariable		
	OR	95% CI	p-Value	aOR	95% CI	p-Value
Other surgeries or services						
No	Ref	—	—	—	—	—
Yes	0.93	0.83–1.03	0.18	—	—	—
Visual gender conforming—current						
No	Ref	—	—	Ref	—	—
Yes	0.62	0.47–0.81	<0.001	0.62	0.46–0.84	0.002
Healthcare experiences and consequences—past 12 months						
Presented as transgender when accessing healthcare						
No	Ref	—	—	Ref	—	—
Yes	0.67	0.52–0.86	0.002	0.52	0.38–0.72	<0.001
Taught provider about transgender care						
No	Ref	—	—	Ref	—	—
Yes	2.57	2.06–3.22	<0.001	1.90	1.45–2.49	<0.001
Experienced discrimination						
No	Ref	—	—	Ref	—	—
Yes	2.23	1.77–2.82	<0.001	1.67	1.27–2.19	<0.001
Provider refused to treat						
No	Ref	—	—	Ref	—	—
Yes	6.01	3.99–9.06	<0.001	3.69	2.32–5.87	<0.001

p < 0.05; Bolded text = significant at the *p* < 0.05 level.

^aBlack (non-Hispanic), Hispanic, multiracial, and other.

aOR, adjusted odds ratio (adjusted for survey mode); CI, confidence interval.

odds of being unable to access transition-related care, respectively, relative to those with public insurance (i.e., Medicare, Medicaid/MassHealth). While the ACA provided federal protections against discrimination on the basis of sex for any healthcare entity receiving federal funds, before the 2016 issuing of the final non-discrimination rule (Section 1557),¹⁸ there was great uncertainty as to whether the mandate applied to transgender individuals.^{19,36} Furthermore, while an earlier directive issued to Massachusetts insurers in 2014 noted that the exclusion of coverage on the basis of gender identity was inherently discriminatory, both the 2014 state directive and 2016 federal ruling contain ambiguous language that likely limited coverage for transition-related services by private insurers. For example, the ACA ruling did not define “health services related to gender transition”^{18,37} and the state directive defined procedures in terms of their “medical necessity,” which has only been defined for public insurers under MassHealth as of 2015.³⁸ In addition, the burden of policy enforcement largely relies on the reporting of violations by individual subscribers,³⁶ which can be difficult, time consuming, and prohibitive for many people. As a result of delays in state and federal directives and challenges with their interpretation and enforcement, particularly for private

insurers, it follows that a greater proportion of transgender individuals in our survey with private insurance were unable to access transition-related care relative to those with public insurance. Continued efforts should be made to monitor healthcare access and utilization by insurance status and type among transgender individuals in Massachusetts, as well as more conservative states where lack of state-level protections (e.g., Arizona, Alaska, Louisiana, Montana, and Tennessee)³⁹ and/or current legislative efforts to remove transgender protections (e.g., Florida, South Carolina, Texas, Virginia, and Wisconsin) threaten healthcare access for transgender individuals.⁴⁰

When examining the specific type of healthcare services covered, transition-related mental health coverage emerged as one of the factors most strongly associated with an inability to access care. Specifically, compared to participants who had transition-related mental health coverage, those who did not have transition-related mental health coverage and those who did not know if they had coverage had more than a twofold increased odds of being unable to access transition-related care in the past 12 months. Historically, a diagnosis of gender dysphoria was required to access transition-related care for both hormones and surgeries.⁴¹ With the advent of informed consent



models, in which patients are able to access hormones through their primary care provider after being informed of the risks and benefits of treatment, a mental health diagnosis of gender dysphoria is no longer required to receive hormone therapy.⁴² However, not all clinics or physicians utilize informed consent models and it is possible that less experienced clinicians may feel more comfortable referring transgender patients to a mental health provider who specializes in transgender care before prescribing hormones.⁴² Furthermore, most insurers still require a diagnosis of gender dysphoria to access surgical care.⁴³ Consequently, transgender people who face challenges accessing mental healthcare due to lack of coverage or limited coverage (e.g., restrictions on number of visits, competent providers outside of one's insurance network) might also report an inability to access gender affirmative hormones and surgical services. Advocacy work is needed to ensure better access to mental health coverage for transition-related services and fully eliminate any mental health diagnosis requirements to access medically necessary care for transgender individual in Massachusetts and across the United States. In accordance with informed consent models,⁴² transgender patients should still be evaluated by their primary care provider to determine capacity to provide informed consent, and mental health diagnoses that may interfere with a patient's ability to consent should be treated before receiving transition-related services.

Younger age, having a low income, and low educational attainment were also associated with increased odds of being unable to access transition-related care for transgender individuals in our sample. It is possible that younger people, those with lower incomes, and those with limited education may face challenges navigating the healthcare system,^{44,45} including identifying knowledgeable and gender affirming providers and understanding their healthcare coverage, which may in turn impact their ability to access gender affirmative care.^{14,46} Research among the general population has shown that low health literacy predicts likelihood of both being uninsured and facing difficulties accessing healthcare.^{47,48} Health insurance literacy may therefore be a salient mechanism to improve access-to-care for intervention efforts.⁴⁹ High cost of services may further prevent healthcare access directly through the inability to pay for services, as well as indirectly through healthcare avoidance.^{4,7} In light of the healthcare insurance coverage available to low-income individuals through MassHealth (Massachusetts)/Medicaid

(federal), efforts must be made to identify eligible low-income individuals to help them access healthcare insurance and successfully navigate the healthcare system to facilitate access to needed transition-related services. Future research would also benefit from examining the role of health literacy in access to transition-related care for transgender patient populations.

In addition to individual- and structural-level barriers to accessing transition-related care, many participants reported recent negative interpersonal healthcare experiences. One quarter of the sample reported healthcare discrimination, 32.1% reported having to teach their provider about transgender care, and 5.8% reported that a healthcare provider had refused to treat them in the past year. Discrimination, teaching one's provider, and care refusal were associated with a 1.69–3.69 elevated odds of being unable to access transition-related care. One possible explanation for these findings is that transgender people face mistreatment in healthcare settings, which may impact their ability to access transition-related services due to healthcare refusal or subsequent avoidance of healthcare due to anticipated healthcare discrimination.⁴ At the time the survey was conducted in 2013, no state-level healthcare protections existed for transgender people.³⁵ Given the more recent passage of state-level protections,³⁵ future research should assess the current prevalence of healthcare discrimination among transgender residents of Massachusetts and whether the association between discrimination and access to transition-related services persists or has decreased in magnitude. Efforts should also be made to enforce healthcare nondiscrimination policies and encourage the reporting of healthcare discrimination at the healthcare delivery level (e.g., healthcare clinics, hospitals) and governmental level (e.g., Health and Human Services office of civil rights), to improve access to quality gender affirmative care for transgender patients.

Finally, in a multivariable model, having socially transitioned (i.e., living full time) was not associated with access to care; however, being visually conforming was protective against an inability to access transition-related care in the past 12 months. Prior research with this sample of transgender adults has found that transgender individuals who are less visually conforming have a higher probability of experiencing discrimination than those who are more gender conforming and that discrimination experiences are associated with avoidance of preventative and urgent healthcare.²³



Thus the higher probability that gender conforming people are able to access transition-related care relative to lower visually gender conforming people likely reflects both less care refusal on the part of providers, as well as less care avoidance by patients; longitudinal data are needed to explore the ordering of these experiences and their interrelationships over time. In addition, presenting as transgender when accessing care was protective against an inability to access transition-related care. Given that nearly 80% of the sample disclosed their transgender history (either verbally or visually) when accessing healthcare, our findings suggest that transgender individuals in our sample felt comfortable presenting as transgender and/or were highly motivated to do so regardless of the risk of mistreatment. Healthcare providers play an essential role in creating safe and welcoming clinical environments for transgender individuals where they can feel comfortable disclosing their transgender history.⁵⁰ Thus, efforts must be made to ensure providers' cultural and clinical competence to care for transgender patients to facilitate patient disclosure of their transgender history and, ultimately, enable access to care. Future mixed-methods research would benefit from examining facilitators and barriers to presenting as transgender, and differences by gender conformity, to identify intervention targets to increase access to transition-related care for transgender individuals who desire to medically affirm their gender.

This study has several limitations. First, convenience sampling was used to identify a statewide sample of transgender residents of Massachusetts; findings may not be generalizable to all transgender adults in Massachusetts or other areas of the country. Second, this observational study utilized cross-sectional data, thus causal inferences cannot be made. Third, participants were asked whether they had "presented" as transgender when accessing care, which could entail verbally disclosing one's transgender identity to a provider or visually disclosing one's transgender identity vis-à-vis one's nonconforming gender expression. In addition, transgender participants in our sample had diverse racial/ethnic backgrounds and gender identities; however, due to low prevalence of transgender people from specific racial/ethnic groups (e.g., "other race/ethnicity") and gender identity groups (e.g., nonbinary/gender nonconforming male assigned sex at birth) in our sample, race and gender were collapsed into dichotomous variables (i.e., White Non-Hispanic vs. POC; Transmasculine Spectrum vs. Transfeminine

Spectrum). These binary specifications may have obscured the unique healthcare access challenges of particular subgroups of racial and gender minorities. In addition, while the present study assessed social gender transition, participants were not asked about whether or not they had changed their name or gender marker on their insurance documents. Future research should assess verbal and visual disclosure separately, oversample racial/ethnic minorities and nonbinary individuals, and assess transition-related changes on insurance documents to better characterize multilevel risk factors for access to care challenges among transgender people. Finally, the present study utilized quantitative methods to evaluate access to care, which did not allow for nuanced exploration of the contexts shaping access to care barriers. Future research would benefit from utilizing mixed-methods approaches to characterize access to transition-related services to develop interventions that are responsive to the various healthcare barriers faced by transgender people.

This study found that approximately one quarter of the transgender individuals sampled were unable to access transition-related care in the last 12 months. Age, income, education, insurance coverage, and healthcare discrimination were identified as key factors associated with being unable to access transition-related care among transgender adults in Massachusetts. United States Healthy People 2020 aims to "improve the health, safety, and well-being of lesbian, gay, bisexual, and transgender individuals."⁵¹ By identifying individual-, interpersonal-, and structural-level factors where access-to-care barriers exist and persist, this study paves the way for the development of targeted public health research, programming, and intervention efforts to reach underserved transgender individuals to promote transgender health equity.

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Abbreviations Used

ACA = Affordable Care Act
aOR = adjusted odds ratio
CI = confidence interval
FTM = female-to-male
MTF = male-to-female
POC = people of color
SD = standard deviation

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