

Supplementary Material

Tordoff DM, Dombrowski JC, Ramchandani MS, Barbee LA. Trans-inclusive Sexual Health Questionnaire to Improve HIV/STI Care for Transgender Patients: Anatomic-site Specific STI Prevalence & Screening Rates. *Clinical Infectious Diseases*, 2022.

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Supplementary Table 1. Trans-inclusive CASI Questions

Measure	Question	Response Options	Data Collection	
			5/2016-12/2018	12/2018-2/2020
Gender	What is your gender? (select one)	<ul style="list-style-type: none"> • Male • Female • Transgender Woman/Transfeminine • Transgender Man/Transmasculine • Non-binary/Genderqueer • Not listed, please specify: (write-in) 	Yes	Yes
Sex Assigned at Birth	What sex was recorded on your original birth certificate? (select one)	<ul style="list-style-type: none"> • Male • Female 	Yes	Yes
Pronoun(s)	Which pronouns do you use? (select one)	<ul style="list-style-type: none"> • He/him • She/her • They/them • Not listed, please specify: (write-in) 	Yes	Yes
Current Anatomy	So that we may best serve you today, please tell us about your current anatomy. Which of the following do you have? (select all that apply)	<ul style="list-style-type: none"> • Vagina/Front hole • Cervix • Uterus • Ovaries/Adnexa • Penis/Phallus • Testes/Scrotum • Prostate • I prefer to discuss my anatomy with my clinician 	No	Yes
History of Gender-Affirming Genital Surgeries	Some surgical procedures impact which STDs a person can get. Have you had any of the following? (select all that apply)	<ul style="list-style-type: none"> • I had a hysterectomy • I had an oophorectomy • I had a vaginectomy • I had a penectomy • I had an orchiectomy • I had a vaginoplasty via penile inversion • I had a vaginoplasty via colonic graft • I had a metoidioplasty • I had a phalloplasty • I had a scrotoplasty • Not listed, please specify: (write-in) • None 	No	Yes
Hormone Use	Are you currently taking any hormone medications? (select one)	<ul style="list-style-type: none"> • Yes • No • I don't know 	No	Yes
Hormone Use	Which hormones are you taking? (select all that apply)	<ul style="list-style-type: none"> • Testosterone • Estrogen • Progesterone • Anti-androgens • Not listed, please specify: (write-in) 	No	Yes
Symptoms	Are you having any of these symptoms today? (select all that apply)	<p><i>[if patient was assigned male at birth, reported having a phalloplasty or metoidioplasty, or reported having a penis/phallus:]</i></p> <ul style="list-style-type: none"> • Discharge (fluid or drip) from your penis • Discomfort or pain when you urinate (pee) 	No	Yes

- Discomfort or itching at the tip of your penis
- Sores, bumps or rashes on the genitals
- Body rash
- Pain, discomfort or discharge from your anus (butt)
- Pain or discomfort in your testicles (balls)
- Sore throat
- I don't have any of these

[if patient was assigned female at birth, reported having a vaginoplasty, or reported having a vagina:]

- Abnormal vaginal discharge
- Abnormal vaginal odor
- Vaginal discomfort or itching
- Urinating (peeing) more often than usual
- Pain or burning when you urinate (pee)
- Abdominal (stomach) pain or cramping
- Pain with sex or after sex
- Abnormal vaginal bleeding (bleeding in between your periods or bleeding after sex)
- Sores, bumps or rashes on the genitals
- Body rash
- Pain or discharge from your anus (butt)
- Sore throat
- I don't have any of these

Note: patients could potentially be asked both sets of questions about STI symptoms depending on the anatomy/surgeries they reported

Gender of Sex Partners	In the past year, who have you had sex with? Sex refers to oral, anal or vaginal sex. (select all that apply)	<ul style="list-style-type: none"> • Men • Women • Trans Men • Trans Women • Non-binary/genderqueer • Someone else: (write-in) • I did not have sex in the past year 	No	Yes
Sexual Behavior	Please note that we know individuals use various terminology for their body parts and the type of sex they have. In order to be approachable to everyone, we are using clinical terminology. What kinds of sex have you had in the past 12 months? (select all that apply)	<ul style="list-style-type: none"> • Received oral sex (partner's mouth on my genitals) • Given oral sex (my mouth on partner's genitals) • Oral-anal sex (my mouth on partner's anus/butt) • Anal-oral sex (partner's mouth on my anus/butt) • Receptive anal sex (partner's penis in my anus/butt) • Insertive anal sex (my penis in partner's anus/butt) • Receptive vaginal/front hole sex (partner's penis in my vagina/front hole) 	No	Yes

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- Insertive vaginal/front hole sex (my penis in partner's vagina/front hole)
 - Not listed, please specify: (write-in)
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Supplementary Table 2. Demographics Characteristics of TNB Participants

Characteristics	Total	Period of Data Collection		p-value
		5/2016-12/2018	12/2018-2/2020	
N visits	826	489	337	
Age, mean (sd)	29.9 (7.6)	29.8 (7.4)	30.0 (7.7)	0.766
Gender, N (%)				
Non-binary AMAB	337 (40.8)	203 (41.5)	134 (39.8)	0.396
Non-binary AFAB	146 (17.7)	83 (17.0)	63 (18.7)	
Transgender Women	195 (23.6)	110 (22.5)	85 (25.2)	
Transgender Men	105 (12.7)	62 (12.7)	43 (12.8)	
Gender not listed	43 (5.2)	31 (6.3)	12 (3.6)	
Race, N (%)				
Asian	87 (10.5)	61 (12.5)	26 (7.7)	0.287
Black	79 (9.6)	47 (9.6)	32 (9.5)	
Native American/Alaska Native	15 (1.8)	7 (1.4)	8 (2.4)	
Native Hawaiian/Pacific Islander	4 (0.5)	2 (0.4)	2 (0.6)	
White	519 (62.8)	295 (60.3)	224 (66.5)	
Multiracial	35 (4.2)	22 (4.5)	13 (3.9)	
Unknown/Refused	87 (10.5)	55 (11.2)	32 (9.5)	
Ethnicity, N (%)				
Hispanic/Latinx	113 (13.7)	60 (12.3)	53 (15.7)	0.065
Non-Hispanic/Latinx	677 (82.0)	402 (82.2)	275 (81.6)	
Unknown/Refused	36 (4.4)	27 (5.5)	9 (2.7)	
Sexual Orientation				
Bisexual	67 (8.4)	47 (10.1)	20 (6.0)	<0.001
Gay	133 (16.7)	77 (16.6)	56 (16.9)	
Lesbian	10 (1.3)	0 (0.0)	10 (3.0)	
Pansexual	45 (5.7)	0 (0.0)	45 (13.6)	
Queer	386 (48.6)	240 (51.7)	146 (44.1)	
Straight	98 (12.3)	53 (11.4)	45 (13.6)	
Unknown/Refused	56 (7.0)	47 (10.1)	9 (2.7)	
Reason for Seeking Care ¹				
I have symptoms			83 (24.6)	
I tested positive for an STD and need treatment			12 (3.6)	
My sex partner was recently diagnosed with or has symptoms of an STD			59 (17.5)	
I tested positive for HIV			2 (0.6)	
Someone from the Health Department called me			4 (1.2)	
I want to be tested for HIV			137 (40.7)	
I want to be tested for STDs			198 (58.8)	
I want to start PrEP			25 (7.4)	
PrEP follow-up appointment			73 (21.7)	
I want an IUD or implant/Nexplanon			4 (1.2)	
I want emergency contraception (Plan B)			1 (0.3)	
I was referred from another clinic or doctor			13 (3.9)	

¹ These data were only collected during the latter study period. Patients could select multiple reasons for seeking care.

Supplementary Table 3. Mean Annual Number of Patient Visits

Period of Data Collection	TNB patient visits	Cisgender patient visits
5/2016-12/2018		
Days (Years)	958 (2.62)	958 (2.62)
Number of Visits, n (%)	489 (2.5%)	19446 (97.5%)
Mean Annual Number of Visits	188.6	7409.0
12/2018-2/2020		
Days (Years)	435 (1.19)	435 (1.19)
Number of Visits, n (%)	337 (3.2%)	10319 (96.8%)
Mean Annual Number of Visits	282.8	8658.5
Percentage Change	49.9%	16.9%
Difference in Percentage Change	33.0%	

Supplementary Table 4. Response patterns to questions of current anatomy and history of gender-affirming genital surgeries among transgender and non-binary patients

Sex assigned at birth	Response to check-all-that-apply current anatomy question	Patients who reported having		No response to surgery question
		No surgeries	1 or more surgeries	
Total, N		258 (76.6)	16 (4.7)	63 (18.7)
Assigned male at birth, N (%)		187 (81.3)	3 (1.3)	40 (17.4)
	penis/phallus, testes/scrotum, prostate	107 (57.2)	3 (100.0)	22 (55.0)
	penis/phallus	36 (19.3)		6 (15.0)
	penis/phallus, testes/scrotum	20 (10.7)		3 (7.5)
	penis/phallus, prostate	2 (1.1)		
	testes/scrotum, prostate	2 (1.1)		
	testes/scrotum	2 (1.1)		
	vagina/front hole	1 (0.5)		
	prefer to discuss with provider	16 (8.6)		3 (7.5)
	no response	1 (0.5)		6 (15.0)
Assigned female at birth, N (%)		71 (66.4)	13 (12.1)	23 (21.5)
	vagina/front hole, cervix, uterus, ovaries	48 (67.6)	1 (7.7)	18 (78.3)
	vagina/front hole	11 (15.5)	6 (46.2)	
	vagina/front hole, cervix, uterus	2 (2.8)		
	vagina/front hole, cervix, ovaries	1 (1.4)		1 (4.3)
	vagina/front hole, uterus, ovaries	2 (2.8)		1 (4.3)
	vagina/front hole, ovaries		1 (7.7)	
	penis/phallus	4 (5.6)		
	testes/scrotum			1 (4.3)
	prefer to discuss anatomy with provider	2 (2.8)	4 (30.8)	
	no response to anatomy question	1 (1.4)	1 (7.7)	2 (8.7)

Supplementary Table 5. Proportion of TNB patients who did not respond to questions about current anatomy, gender-affirming genital surgeries, and current hormones use

	Did not respond		
	N	n	% (95% CI)
Anatomy Questions			
Non-binary AFAB	63	5	7.9 (1.3, 14.6)
Non-binary AMAB	134	4	3.0 (0.1, 5.9)
Transgender Men	43	4	9.3 (0.6, 18)
Transgender Women	85	19	22.4 (13.5, 31.2)
Surgery Questions			
Non-binary AFAB	63	15	23.8 (13.3, 34.3)
Non-binary AMAB	134	18	13.4 (7.7, 19.2)
Transgender Men	43	7	16.3 (5.2, 27.3)
Transgender Women	85	19	22.4 (13.5, 31.2)
Hormone Questions			
Non-binary AFAB	63	0	0.0 (0.0, 0.0)
Non-binary AMAB	134	1	0.7 (0.0, 2.2)
Transgender Men	43	1	2.3 (0.0, 6.8)
Transgender Women	85	4	4.7 (0.2, 9.2)

AMAB, assigned male at birth; AFAB, assigned female at birth; CI, confidence interval.

Non-response to the question about anatomy include both participants who indicated they preferred to discuss their anatomy with their provider and those who did not respond to the questions.

Supplementary Table 6. Figure 2. HIV/STI positivity among transgender and non-binary patients attending the sexual health clinic in Seattle, WA, May 2016 – February 2020 (N=871)

	N Tested	Tested Positive	
		n	% (95% CI)
Pharyngeal GC			
Non-binary AFAB	59	0	0.0 (0.0, 0.0)
Non-binary AMAB	270	26	9.6 (6.1, 13.1)
Transgender Men	54	3	5.6 (0.0, 11.7)
Transgender Women	131	9	6.9 (2.5, 11.2)
Rectal GC			
Non-binary AFAB	21	0	0.0 (0.0, 0.0)
Non-binary AMAB	245	35	14.3 (9.9, 18.7)
Transgender Men	32	1	3.1 (0.0, 9.2)
Transgender Women	123	8	6.5 (2.1, 10.9)
Genital GC			
Non-binary AFAB	126	1	0.8 (0.0, 2.3)
Non-binary AMAB	107	13	12.1 (6.0, 18.3)
Transgender Men	75	3	4.0 (0.0, 8.4)
Transgender Women	59	1	1.7 (0.0, 5)
Pharyngeal CT			
Non-binary AFAB	59	0	0.0 (0.0, 0.0)
Non-binary AMAB	270	7	2.6 (0.7, 4.5)
Transgender Men	54	2	3.7 (0.0, 8.7)
Transgender Women	131	3	2.3 (0.0, 4.9)
Rectal CT			
Non-binary AFAB	21	1	4.8 (0.0, 13.9)
Non-binary AMAB	245	31	12.7 (8.5, 16.8)
Transgender Men	32	3	9.4 (0.0, 19.5)
Transgender Women	123	12	9.8 (4.5, 15)
Genital CT			
Non-binary AFAB	126	4	3.2 (0.1, 6.2)
Non-binary AMAB	107	2	1.9 (0.0, 4.4)
Transgender Men	75	2	2.7 (0.0, 6.3)
Transgender Women	59	2	3.4 (0.0, 8)
Syphilis			
Non-binary AFAB	118	0	0.0 (0.0, 0.0)
Non-binary AMAB	270	21	7.8 (4.6, 11)
Transgender Men	75	4	5.3 (0.2, 10.4)
Transgender Women	155	14	9 (4.5, 13.5)
HIV			
Non-binary AFAB	117	0	0.0 (0.0, 0.0)
Non-binary AMAB	254	0	0.0 (0.0, 0.0)
Transgender Men	78	0	0.0 (0.0, 0.0)
Transgender Women	159	2	1.3 (0.0, 3)

AMAB, assigned male at birth; AFAB, assigned female at birth; CT, chlamydia, GC, gonorrhea