

Supplementary Material

Unveiling HIV dynamics among transgender women: a respondent driven sampling study in Rio de Janeiro, Brazil

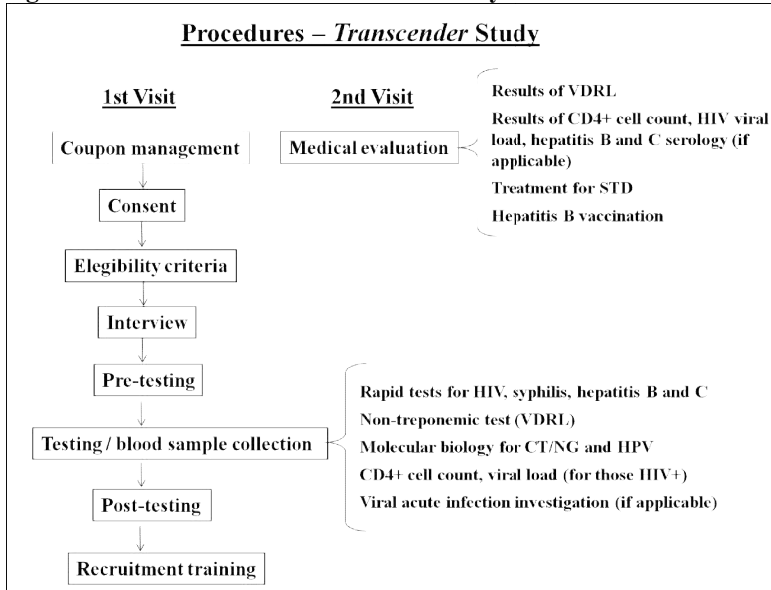
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Definitions of gender identities

We used four categories for gender identity (*travesti*, woman, transsexual woman, and other definitions) and included all of these categories within the umbrella term ‘transgender women’ (or ‘transwomen’ as a short form).

In Brazil, the term ‘*travesti*’ mostly refers to people who were assigned a male sex at birth, have feminine gender expression, but do not identify as women, and generally do not wish to undergo feminizing vaginoplasty¹. The identity of transsexual woman in Brazil often refers to people who identify as women and usually want surgery. Both *travestis* and transsexual women are considered transgender people on the feminine spectrum who were assigned a male sex at birth².

Figure S1 - Procedures – *Transcender* Study



Comparison between known HIV positive transwomen and newly diagnosed as HIV positive transwomen

We used chi-square tests to compare the known HIV positive group with the newly diagnosed and found these groups to be significantly different from each other (Table S1).

Compared to those with a known HIV positive serostatus, transwomen newly diagnosed with HIV were more likely to be younger (age 18-24) (31.1% newly diagnosed vs. 4% known HIV positive; $p < 0.0001$), of mixed race (59.6% newly diagnosed vs. 33.2% known HIV positive; $p < 0.0001$), of a gender identity other than “woman” (94.7% newly diagnosed vs. 70.2% known HIV positive; $p < 0.0001$), on hormones (45.1% newly diagnosed vs. 34.6% known HIV positive; $p < 0.0001$), and were less likely to report using soft tissue fillers (46.7% newly diagnosed vs. 54% known HIV positive; $p < 0.0001$) (Table 3). Significantly more physical violence (76% newly diagnosed vs. 71.4% known HIV positive; $p = 0.0417$) and binge drinking (87.4% newly diagnosed vs. 64.9% known HIV positive; $p < 0.0001$) was reported among those newly diagnosed with HIV compared to those who knew they were living with HIV. A significantly higher proportion of those newly diagnosed also reported currently doing sex work compared to those who knew they were living with HIV (88.4% newly diagnosed vs. 55.4% known HIV positive; $p < 0.0001$). The median number of sexual partners in the last 6 months was higher among transwomen newly diagnosed with HIV compared to those with a previously known HIV positive status (399 [IQR 159-576] newly diagnosed vs. 4 [IQR 3-100] known HIV positive).

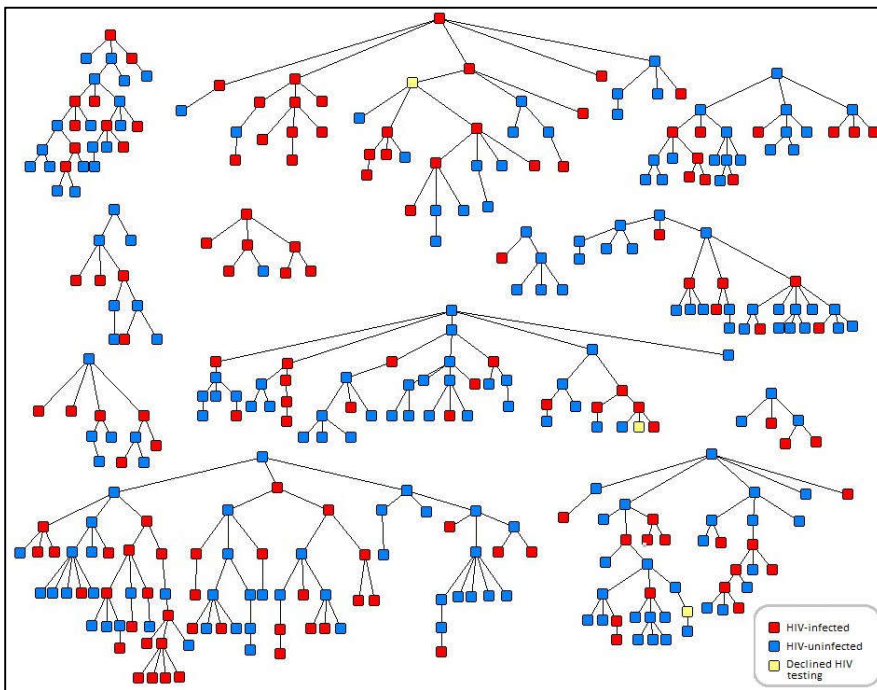
Median HIV VL and CD4+ cell counts of transwomen newly diagnosed with HIV were 4.0 log₁₀ copies per mL (IQR 3.7-4.3) and 832 cells per μ L (IQR 568-942). Among those with a known HIV positive serostatus, 83.5% (95% CI 59.6-100.0) were on combined antiretroviral therapy (cART), and 71.3% had a CD4+ cell count higher than 500 cells per μ L (95% CI 47.3-95.4). Among those on cART, 49.0% (95% CI 8.0-90.0) had an undetectable VL.

Table S1: Weighted prevalences among transwomen, according to HIV status, in Rio de Janeiro, Brazil, 2015-2016.

Characteristic	Previous HIV-positive (101) %	Newly diagnosed HIV-infection (40) %	p-value
Age			<0.0001
18-24	4.0	31.1	
25-35	49.6	55.3	
36+	46.4	13.6	
Self-declared race/color			<0.0001
White	22.8	8.0	
Mixed	33.2	59.6	
Black	43.7	32.4	
Other	0.3	0.0	
Monthly income (in US\$) ¹			<0.0001
≤130.00	58.4	41.1	
131.00 – 260.00	30.3	46.6	
>260.00	11.3	12.3	
Years of education			<0.0001
<4	10.9	14.2	
4-8	30.8	17.2	
9+	58.3	68.6	
Current gender identity			<0.0001
Travesti	33.0	50.1	
Woman	29.8	5.3	
Transsexual woman	35.2	44.3	
Other definitions	2.0	0.3	
Currently taking hormones	34.6	45.1	<0.0001
Ever used soft tissue fillers	54.0	46.7	0.0034
Age at sexual debut			<0.0001
<12	45.1	23.2	
12-18	48.7	75.2	
>19	6.2	1.6	
Sex work			<0.0001
No	17.7	2.2	
Currently	55.4	88.4	
Ever (not currently)	26.9	9.4	
Ever suffered physical violence	71.4	76.0	0.0417
Ever suffered discrimination			<0.0001
Ever raped	67.9	50.9	
Ever drug use	89.7	77.9	<0.0001
Binge drinking ²	64.9	87.4	<0.0001
5+ sex partners in the last 6 mos	44.5	94.8	<0.0001
Had condomless anal intercourse with last 3 partners	48.6	49.5	0.7159

¹ US\$1.00=BRL3.85; ² Defined as six or more alcohol drinks on any occasion.

Figure S2 - Pattern of recruitment of transwomen according to HIV test result in Rio de Janeiro, 2015-2016.



References

1. Kulick D. Travesti: prostituição, sexo, gênero e cultura no Brasil. Rio de Janeiro: Fiozacruz, 2008. 280 p.
2. Krüger A, Silva RP. Aspectos fisiológicos e a hormonioterapia para mulheres trans. Ponta Grossa: UEPG, 2015. 55 p.