HIV SEROCONVERSION AND ASSOCIATED RISK IN A TRANSGENDER AND NONBINARY COHORT IN ARGENTINA

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Maria Figueroa[1]; Carina Cesar[1]; Mariela Ceschel[1]; Gissella Mernies[1]; Virginia Zalazar[1]; Carolina Perez[1]; Felipe Bilbao[1]; Carla Petriglieri[1]; Julian Garcia[1]; Nadir Cardozo[1,2]; Romina Caballero[1]; Ana Gun[1]; Ines Aristegui[1]; Pedro Cahn[1] [1]Fundación Huesped; [2] Asociación de Travestis, Transexuales y Transgéneros de Argentina

BACKGROUND

- Transgender women (TGW) are disproportionately affected by HIV worldwide.
- Prospective incidence data from Latin America are scarce.
- We estimated HIV incidence, cumulative risk of seroconversion, and associated factors in a transgender and nonbinary (TNB)cohort in Argentina.

METHODS

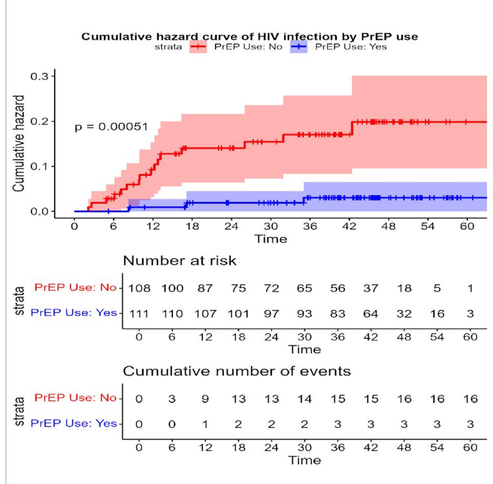
- Between September 2019 and August 2022, 499 TNB- were enrolled in TransCITAR, a prospective cohort in the Metropolitan Area of Buenos Aires.
- This analysis included TGW and NB assigned male at birth, and HIV-negative at entry.
- Participants were followed for 60 months and underwent HIV testing every six months, counseling, and behavioral assessments.
- Oral PrEP was available in our country from September 2021.
- HIV incidence per 100 person-years (PY) and cumulative risk of seroconversion were estimated by hazard curves. Cox proportional hazards models identified baseline factors associated with HIV seroconversion over time (bivariate/ multivariate analysis).

HIV incidence among transgender women and non-binary individuals in Argentina is high, with most infections occurring within the first year of follow-up.
Key risks factors include sex work, sexualized drug use, unstable housing internal migration,
while PrEP use is a highly protective factor.
Early tailored prevention strategies are urgently needed.

RESULTS

- 219 HIV-negative participants (TGW = 205);
- 19 seroconversions (median follow-up: 42.3 months);
- HIV incidence: 2.75/100 PY (95% CI:1.7–4.3)
- Incidence was higher among participants reporting sex work (4.8 vs. 0.8/100 PY; p=0.002), sexualized drug use (6.4 vs. 1.2; p<0.001), and internal migrants (4.8 vs. 1.1; p=0.004) and lower among PrEP users (0.76 vs. 5.40; p<0.001).
- Most seroconversions occurred within the first 18 months.
- In bivariate analyses, higher risk was associated with sex work (HR= 5.76, p=0.005), internal migration (HR= 4.69, p=0.006), sexualized drug use (HR= 5.21, p=0.002), and unstable housing (HR= 2.59,p=0.04), while PrEP use was protective (HR= 0.15, p=0.003).
- In the adjusted model, sex work (HR= 6.26, p=0.01) and sexualized drug use (HR= 5.08, p=0.01) remainedsignificant, while PrEP use remained protective (HR= 0.04, p<0.001) (Figure 1)

Figure 1: Hazard Curve by PrEP Use and Cox Model of Factors Associated with Seroconversion



Factors associated with HIV infection risk (Cox proportional hazards model)

Variable		N	Hazard ratio	p
Age		199	1.04 (0.97, 1.12)	0.24
Sex work at baseline	No	103	Reference	
	Yes	96	6.26 (1.52, 25.81)	0.01
Internal migration	No	109	Reference	
	Yes	90	3.23 (0.82, 12.77)	0.09
Sexualized drug use in the past year	No	130	Reference	
	Yes	69	5.08 (1.40, 18.40)	0.01
Unstable housing	No	130	Reference	
	Yes	69	1.23 (0.41, 3.68)	0.71
PrEP use	No	99	Reference	
	Yes	100	0.04 (0.01, 0.17)	<0.001

CONCLUSIONS

- HIV incidence in the TransCITAR cohort of TGW/NB was high, with most infections occurring during the first year of follow-up.
- These findings underscore the urgent need for early and tailored prevention strategies, including timely PrEP, gender-affirming care, harm reduction, and structural interventions to address social vulnerabilities, particularly among those engaged in sex work and sexualized drug use.

PLAIN LANGUAGE SUMMARY

Transgender women and non-binary people in Argentina remain at high risk of HIV. Expanding access to clear information and effective prevention tools like PrEP and supportive health services is critical to stop new infections.

ACKNOWLEDGEMENTS

To all participants, the Association of Travestis, Transsexuals and Trangender people from Argentina, transgender peer navigators, and all clinical and social research team and TransCITAR Study Group at Fundacion Huesped that made this study possible.

ADDITIONAL KEY INFORMATION

Author Contact Information
maria.Figueroa@huesped.org.ar

Trans CITAR

FUNDACIÓN HUÉSPED