Insurance and healthcare utilization: An analysis of the likelihood of STI/HIV diagnosis among female sex workers (FSW) in Tijuana and Ciudad Juarez, Mexico

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BACKGROUND

- Female sex workers (FSW) are at high risk of HIV and STI acquisition worldwide.^{1,2}
- Barriers to healthcare access reported by FSWs include lack of insurance coverage and unawareness of sexual health clinics.³
- FSWs' healthcare usage and insurance coverage vary due to fear of discrimination and distrust of medical professionals.⁴

OBJECTIVE

• Assess associations between health insurance and healthcare utilization on STI diagnosis among FSWs.

METHODS

• Secondary analysis of N=599 FSW enrolled in *Proyecto Mapa de Salud* [PI: Kimberly Brouwer].⁵

Predictors of Interest

- Healthcare utilization
- Continuous variable that assessed the number of sexual health check-ups in the past 12 months.
- Categorized as 0 check-ups, 1-2 check-ups, and 3 or more check-ups for analysis.
- Insurance
- 1-item, binary (yes or no) question that assessed health insurance coverage.

Outcome of Interest

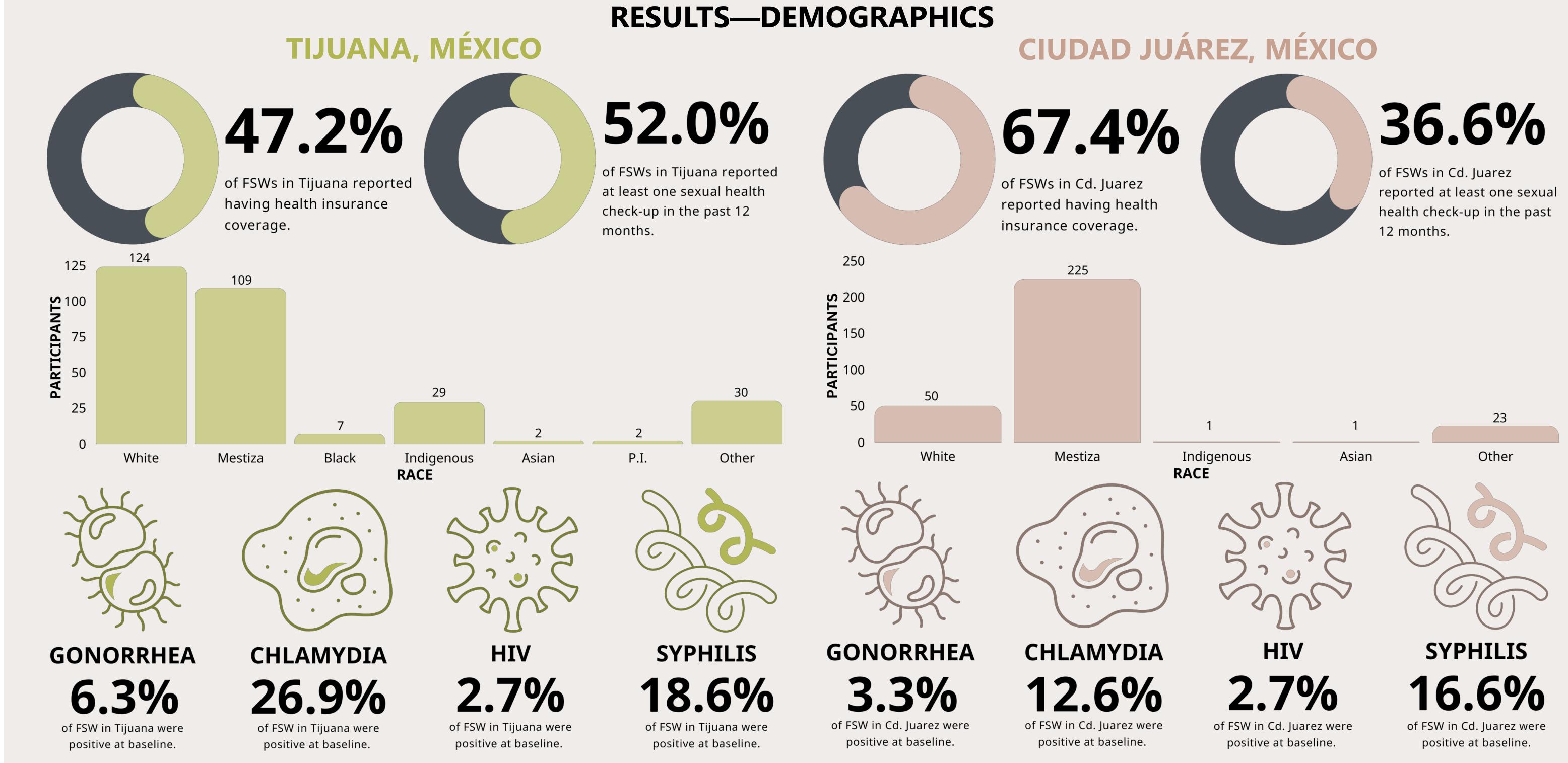
- STI diagnosis
- Gonorrhea, chlamydia, HIV, and syphilis were analyzed separately.

Analysis

• Logistic regression analyses to assess differences in associations between insurance and healthcare utilization on STI diagnosis.

DISCUSSION

- Health insurance coverage showed decreased odds of infection for gonorrhea, chlamydia, and syphilis.
- Results add to limited literature on association between health insurance coverage and STI infection and serves as a starting point for future studies.
- Further analyses between healthcare utilization and STI odds should be explored to determine whether a relationship exists.
- **★** Health insurance coverage among FSW should be promoted and barriers to coverage addressed, particularly after the repeal of Seguro Popular.



RESULTS—LOGISTIC REGRESSION ANALYSES

Health insurance was associated with decreased odds of STI diagnosis among FSWs, but health care utilization was not.

		Insurance Coverage			Healthcare Utilization		
		OR	95% CI		OR	95% CI	
	ALL	0.38*	0.17	0.82	0.94	0.41	2.18
Gonorrhea	TIJUANA	0.52	0.19	1.41	0.74	0.26	2.12
	CD JUAREZ	0.31	0.08	1.18	1.24	0.29	5.29
Chlamydia	ALL	0.60*	0.39	0.90	1.06	0.68	1.65
	TIJUANA	0.54	0.32	0.93	0.71	0.40	1.25
	CD JUAREZ	1.12	0.53	2.37	1.62	0.76	3.45
HIV	ALL	1.50	0.50	4.46	0.73	0.22	2.41
	TIJUANA	1.13	0.27	4.64	0.51	0.10	2.71
	CD JUAREZ	2.95	0.35	24.98	0.93	0.17	5.27
Syphilis	ALL	0.48*	0.30	0.75	0.93	0.57	1.51
	TIJUANA	0.43*	0.22	0.85	0.99	0.51	1.93
	CD JUAREZ	0.62	0.32	1.21	0.81	0.39	1.69

Healthcare Utilization: Comparison between participants with zero visits and those with one or two visits. $*: p \le 0$.

Baral, S., et al. (2012). Burden of HIV among female sex workers in low-income and middle-income countries: A systematic review and meta-analysis. *The Lancet Infectious Diseases*, 12(7), 538–549.
Peabody, R. (2012). Why do surveys show that female sex workers have 14 times the risk of having HIV as other women? *Aidsmap.Com*.
McBride, B., et al. (2021). Structural determinants of HIV/STI prevalence, HIV/STI/sexual and reproductive health access, and condom use

Sawicki, D. A., et al. (2019). Culturally Competent Health Care for Sex Workers: An Examination of Myths That Stigmatize Sex-Work and Hindel Access to Care. Sexual and Relationship Therapy: Journal of the British Association for Sexual and Relationship Therapy, 34(3), 355–371.

Conners, E. E., et al. (2016). Quantitative, qualitative and geospatial methods to characterize HIV risk environments. PLOS ONE, 11(5).

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