HIGH HIV INCIDENCE AMONG PWID ON THE U.S./MEXICO BORDER DURING THE COVID-19 PANDEMIC

00785

Britt Skaathun[1], Cho-Hee Shrader[2], Annick Borquez[1], Antoine Chaillon[1], Tetyana Vasylyeva[1], Irina Artamanova, Alicia Harvey-Vera, Gudelia Rangel[3], Steffanie A. Strathdee[1]

[1]University of California San Diego, La Jolla, CA, USA, [2]ICAP at Columbia University, [3]U.S.-Mexico Border Health Commission, Mexican Section

BACKGROUND

Drug Tourism (DT)

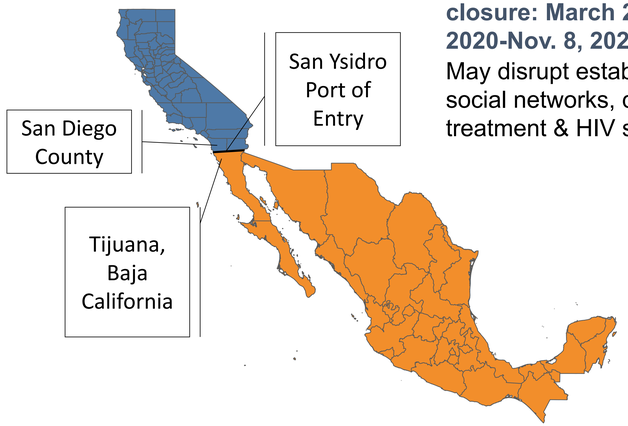
- Sex and drug tourism drive bidirectional cross-border mobility[1]
- Sex and drug tourism linked to increased HIV risk[2]
  - Sharing syringes and injection drug paraphernalia
  - Paying for sex

HIV among PWID in Tijuana

- HIV prevalence among PWID in Tijuana (5%)[3]
  - Engagement in HIV testing and care are low (37% ever tested; 3.7% of HIV diagnosed on ART)[4]
- Prior to the COVID19 pandemic, HIV incidence remained <2 per 100 person years (PY)

OBJECTIVE: To assess HIV incidence and associated risk factors among PWID during the COVID-19 pandemic

U.S./Mexico Border



US-Mexico border closure: March 21, 2020-Nov. 8, 2021:
May disrupt established social networks, drug treatment & HIV services

We found high HIV incidence over a 6 month period during the COVID-19 pandemic along the U.S./Mexico Border

Mobile harm reduction services & ART & PrEP initiation are needed

TABLE: BASELINE CHARACTERISTICS, LA FRONTERA COHORT, SAN DIEGO, USA & TIJUANA, MX, (N=611)

Characteristic	DT (n=206)	SD NDT (n=203)	TJ NDT (n=202)	Total (n=611)
Age, Median (IQR)	41 (35, 51)	40 (31, 53)	44 (38, 53)	43 (35, 52)
Cisgender woman, n (%)	44 (21%)	57 (28%)	55 (27%)	156 (26%)
Hispanic/Latinx/ Mexican, n (%)	156 (76%)	89 (44%)	195 (97%)	440 (72%)
Age at first injection, Median (IQR)	20 (17, 25)	20 (17, 27)	20 (17, 26)	20 (17, 26)

TABLE: FACTORS ASSOCIATED WITH HIV INCIDENCE IN 414 PWID OVER 6 MONTHS LA FRONTERA COHORT, SAN DIEGO, USA & TIJUANA

	Group	HIV seroconversions	Person-years (PY)	Incidence Rate	Incidence Rate Ratio	Incidence Rate Ratio (95% CI)
	Overall	9	174.64	5.15	---	---
Sample	San Diego, Drug Tourist	2	72.26	2.77	ref	ref
	San Diego, Not Drug Tourist	0	38.76	0.00	0.00	0
	Tijuana, Not Drug Tourist	7	63.62	11.00	3.98	(0.76, 39.22)
Race & ethnicity	White	1	58.39	1.71	ref	ref
	Black	0	7.31	0.00	0.00	0
	Asian/Native Hawaiian/Pacific Islander	0	1.49	0.00	0.00	0
	Indigenous/ American Indian/ Alaskan Native	1	3.74	2.67	15.61	(0.19, 1225.52)
	Multi-Racial	4	24.47	16.35	9.54	(0.94, 470.05)
	Other Race	3	68.17	4.40	2.57	(0.21, 134.90)
Age	Age < 40	4	75.86	5.06	ref	ref
	Age > 40	5	98.78	5.27	0.96	(0.21, 4.84)
Gender	Male	4	124.94	3.20	ref	ref
	Female	4	48.13	8.31	2.60	(0.48, 13.94)
	Trans/non-binary/other	1	1.56	6.41	20.02	(0.41, 202.33)
Sexual Identity	Heterosexual	7	163.48	4.28	ref	ref
	Lesbian, Gay, or Bisexual	2	10.68	18.73	0.23	(0.04, 2.26)
Receptive syringe sharing in past 6 mo	Never	3	80.19	3.74	ref	ref
	Ever	6	94.45	6.35	1.70	(0.36, 10.49)
Frequency of injecting alone in past 6 mo vs. before COVID	Inject alone more	0	20.82	0.00	0.00	0
	Inject alone less	2	51.35	3.89	ref	ref
	Inject alone the same	6	100.64	5.96	1.53	(0.27, 15.51)
SARS-Cov-2-Antigen result	Negative	6	106.98	5.39	ref	ref
	Positive	3	55.57	5.61	0.96	(0.16, 4.51)

*Incidence Rate per 100 person-years

Legend: Darker hue = higher numbers; Longer bar = higher IR; Darker hue = higher IRR

San Diego IR: 1.7 (95% CI 0.43,6.72) ; Tijuana IR: 11.0 (95% CI 5.5, 22.1)
Although not significant, incidence was notably higher among:
TJ NDT, those who receptively shared syringes/works in past 6 mo, and non-heterosexual participants.

METHODS

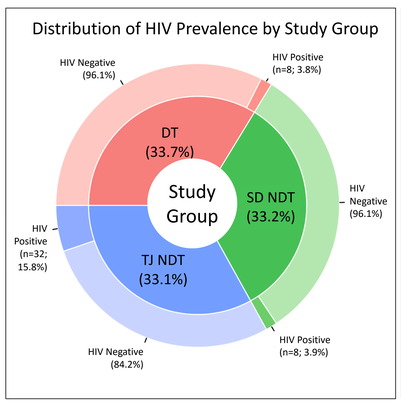
- Participants are from *La Frontera*, a longitudinal study of PWID aged ≥18 from 3 groups:
  - PWID who injected drugs in Tijuana ≤12 mo ago and live in San Diego (DT)
  - Non-drug tourists PWID who live in San Diego (SD NDT)
  - Non-drug tourists PWID who live in Tijuana (TJ NDT)
- Baseline data collection November 2020-October 2021
  - Follow-up visits every 6 mo, starting May 2021

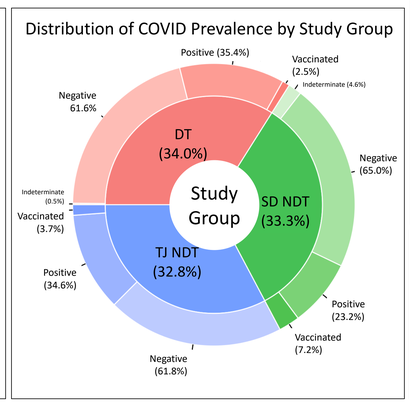
Measurements

- Behavioral Questionnaire (every 6 months)
- HIV test, HIV sequencing (every 6 months)
- SARS-CoV-2 serology (every 6 months)
- Social network survey (2 weeks post baseline)

Statistical Analyses

HIV prevalence, bivariate incidence-density rates (IR), incident rate-ratios (IRR), and exact 95% confidence intervals (CI) were calculated for independent variables between baseline and follow-up





CONCLUSIONS

- Preliminary HIV incidence rates among PWID in the U.S./Mexico border region during the pandemic are high.
- Mobile harm reduction services providing syringes & HIV testing, as well as coordination with the municipal HIV program to allow for ART initiation and PrEP are urgently needed.

REFERENCES

1. Rachlis B, Brouwer KC, Mills EJ, Hayes M, Kerr T, Hogg RS. Migration and transmission of blood-borne infections among injection drug users: understanding the epidemiologic bridge. Drug and alcohol dependence. 2007;90(2-3):107-19.
2. Jain JP, Abramovitz D, Strathdee SA, et al. Sex Work as a Mediator Between Female Gender and Incident HIV Infection Among People Who Inject Drugs in Tijuana, Mexico. AIDS Behav 2020.
3. White EF, Garfein RS, Brouwer KC, Lozada R, Ramos R, Firestone Cruz M, Strathdee SA. Prevalence of hepatitis C virus and HIV infection among injection drug users in two Mexican cities bordering the U.S. Salud Publica de Mexico. 2007;49(3):165–172.
4. Smith LR, Patterson TL, Magis-Rodriguez C, et al. Engagement in the HIV Care Continuum among Key Populations in Tijuana, Mexico. AIDS Behav 2016;20:1017-25.
5. Mehta SR, Wertheim JO, Brouwer KC, et al. HIV Transmission Networks in the San Diego-Tijuana Border Region. EBioMedicine 2015;2:1456-63.

Contact Information
Britt Skaathun, MPH, PhD
bskaathun@health.ucsd.edu

FUNDING:
P30 AI036214 CFAR Supplement
La Frontera (PI: Strathdee): R01DA049644

ACKNOWLEDGEMENTS: La Frontera participants;
Study Team: Carlos Nobles, Daniela Abramovitz, interviewers