

Changes in the Risk Environment Among People Who Inject Drugs in San Diego, California During the COVID-19 Pandemic

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Introduction

- The impact of the COVID-19 pandemic on HIV and HCV risk environments among people who inject drugs (PWID) is uncertain.
- During the COVID-19 pandemic, needle and syringe programs (NSPs) in the U.S. reported an increase in syringe distribution in part due to a shift to mobile or delivery options, yet NSPs also cut back or suspended HIV and HCV testing and mental health services¹⁻⁴
- Opioid agonist therapies (OAT) saw national changes that allowed telemedicine appointments for new OAT patients prescriptions of up to 28-day supplies of “take-home” medication for existing patients.⁵ However, the clinics reported decreased interaction with clients, disruption in care, and increased disparities in accessing care.⁶
- Unstable housing also saw changes in policy with San Diego (SD) initiatives to use San Diego Convention Center as a regional shelter in April 2020 and working to find permanent shelter for many of those with unstable housing.^{7,8}
- In addition to policy changes due to the the COVID-19 pandemic, changes to the drug supply in the US in recent years have been noted. A shift from injecting heroin to smoking fentanyl has been observed, including the SD (US) -Tijuana (Mexico) border.^{9,10}

This study aims to identify how risk environment among PWID in San Diego, California changed during the COVID-19 pandemic.

Methods

- Data from a longitudinal study that enrolled PWID in San Diego (SD), California and Tijuana, Mexico, from October 2020 to October 2021 (La Frontera Cohort, PI Strathee).
- Purposefully sampled PWID with cross-border drug use (CBDU), with classification was established at baseline.
- Adjusted Poisson GEE regression models with robust standard errors were used to examine if there were changes in injecting and sexual risk behaviors, harm reduction utilization (needle and syringe programs [NSPs], opioid agonist therapy [OAT]), and exposure to structural determinants of HIV/STI/overdose risk (e.g., homelessness, arrest, incarceration) between baseline and follow-up.
- Age was included as a potential confounder and CBDU was evaluated as an effect modifier.

References

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Results

- Among 336 PWID in SD who had at least one follow-up visit, 76% were male, mean age of 43 years, and 56% CBDU (Table 1).
- There was low baseline past 6 month NSP utilization (6%), low past 6 month OAT utilization (10%), and high prevalence of unstable housing (42%) (Table 1).
- From one year post-enrollment compared to baseline, PWID reported (Table 2 and 3):
 - A decrease in receptive syringe sharing (adjusted relative risk (aRR): 0.37, 95% Confidence Interval [95% CI] 0.28-0.49)
 - A decrease in exchanging sex (aRR: 0.28, 0.17-0.49).
 - An increase in recent NSP utilization, with a more pronounced uptake among no-CBDU (no-CBDU aRR: 6.47, 95% CI: 4.10-10.20; CBDU aRR: 2.90, 95% CI: 1.54-5.44).
 - Injecting heroin decreased among all participants, but with a stronger decrease seen among no-CBDU (aRR: 0.54, 95% CI: 0.44-0.67) than PWID with CBDU (aRR: 0.84, 95% CI: 0.78-0.91).
 - An increase in smoking fentanyl among PWID with no-CBDU (aRR: 1.66; 95% CI: 1.32, 2.08), but a decrease among PWID with CBDU (aRR: 0.62; 95% CI: 0.43, 0.88).
 - No significant changes in unstable housing or receipt of OAT.

Table 1. Participant baseline characteristics for those who reported living in San Diego from the La Frontera cohort (2020-2021)

	Baseline	
	n	%
Gender (Male)	254	75.6
Any injection drug use in past 6 months (Yes)	336	100.0
Cross-Border Drug Use (Yes)	188	56.0
Receptive Needle use in past 6 months (Yes)	147	43.8
Utilized NSP in past 6 months (Yes)	21	6.3
Utilized OAT in past 6 months (Yes)	34	10.1
Homeless in past 6 months (Yes)	140	41.7
Exchanged sex in past 6 months (Yes)	57	17.0
Arrested in the past 6 months (Yes)	28	8.3
Jail/Prison in the past 6 months (Yes)	5	1.5
Smoked fentanyl in the past 6 months (Yes)	85	25.3
Injected heroin in the past 6 months (Yes)	296	88.1

Table 2. Adjusted relative risks for changes from one year compared to baseline for participants reporting living in San Diego at baseline from the La Frontera cohort (2020-2021)

	aRRs (95% CI)	p-value
Receptive syringe sharing in past 6 months	0.37 (0.28, 0.49)	<0.01
Utilized OAT in past 6 months	1.01 (0.69, 1.47)	0.96
Homeless in past 6 months	0.99 (0.87, 1.13)	0.90
Casual partner in past 6 months	0.65 (0.50, 0.84)	<0.01
Exchanged sex in past 6 months	0.28 (0.17, 0.49)	<0.01
Arrested in the past 6 months	1.23 (0.79, 1.93)	0.36
Jail/Prison in the past 6 months	1.82 (0.87, 3.80)	0.11

All outcomes adjusted for age and cross-border drug use (CBDU) status

Table 3. Adjusted relative risks for changes from one year compared to baseline for participants reporting living in San Diego at baseline from the La Frontera cohort (2020-2021) stratified by effect modifier of cross-border drug use (CBDU).

	No-CBDU		CBDU	
	aRRs (95% CI)	p-value	aRRs (95% CI)	p-value
Utilized NSP in past 6 months	6.47 (4.10, 10.20)	<0.01	2.90 (1.54, 5.44)	<0.01
Regular partner in past 6 months	1.22 (0.94, 1.58)	0.14	2.07 (1.61, 2.66)	<0.01
Smoked fentanyl in the past 6 months	1.66 (1.32, 2.08)	<0.01	0.62 (0.43, 0.88)	<0.01
Injected heroin in the past 6 months	0.54 (0.44, 0.67)	<0.01	0.84 (0.78, 0.91)	<0.01

All outcomes adjusted for age

Conclusions/Implications

- Increased coverage of NSP and decreases in syringe sharing were seen coincident with a new mobile NSP service in SD.
- No change in low OAT coverage or high prevalence of unstable housing, which could fuel HIV, HCV, and overdose.
- Reductions in injecting heroin among all participants and an increase in smoking fentanyl among the no-CBDU participants mirrors shifts observed in other U.S. settings.⁹
- Key limitation is that recruitment occurred in October 2020 so cannot compare before and after the pandemic.
- Despite advances in NSP access with mobile services in San Diego, further harm reduction scale-up, supportive housing interventions, and smoking support services are urgently needed.**

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