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KEY FINDINGS

Recent substance use (SU), regardless of substance type, was consistently associated with HIV viral non-suppression in a diverse population of people with HIV (PWH) in the current treatment era

These findings underscore the importance of integrated care, including screening and interventions that support harm reduction

BACKGROUND

- Substance use (SU) is more common among people with HIV (PWH) than in general population
- SU is associated with lower adherence to antiviral therapy and viral non-suppression
- Sustained suppression of viral load (VL) is critical to prevention of HIV transmission
- We assessed the association between VL and SU within past 6 months in a cross-sectional analysis of data from five observational studies of PWH

METHODS

- Analyses used data collected between 2015 and 2023 from PWH in the following cohorts:
 - Centers for AIDS Research Network of Integrated Clinical Systems (CNICS) [Sites included: CWRU, Fenway Health, UAB, UCSD, UCSF, UNC, UW], Johns Hopkins HIV Clinical Cohort (JHHCC), Miami Adult Studies on HIV (MASH), MSM and Substances Cohort at UCLA Linking Infections Noting Effects (mSTUDY), and RADAR
- Logistic regression models with robust variance used to estimate odds ratios as an approximation of prevalence ratios for VL and current SU while adjusting for age, sex, and race/ethnicity
- Given between-cohort heterogeneity, varying inclusion criteria and enrollment periods, data analyzed both independently by study and pooled via meta-analysis techniques as appropriate

CONCLUSIONS

- Consistency of results reported across all cohorts analyzed suggests that viral non-suppression among PWH who engage in SU remains an issue in the current treatment era, in a diverse array of clinical care and substance using populations
- Future analyses should expand on role of other factors over time, and consider frequency, intensity, and mode of SU

RESULTS

Demographic Characteristics Overall and by Cohort at Most Recent Visit

	CNICS	JHHCC	MASH	RADAR	mSTUDY	Overall
	(N=10,297)	(N=1,396)	(N=408)	(N=238)	(N=347)	(N=12,686)
Age	48.4 (12.7)	54.8 (12.3)	56.4 (8)	26.3 (4)	37.0 (7.4)	48.7 (13.1)
Sex						
Female	1,694 (16.5)	481 (34.5)	160 (39.2)	0 (0)	0 (0)	2,335 (18.4)
Race/Ethnicity						
White	4,333 (42.1)	200 (14.3)	34 (8.3)	4 (1.7)	126 (36.3)	4,697 (37)
Black	3,926 (38.1)	1,159 (83)	251 (61.5)	155 (65.1)	136 (39.2)	5,627 (44.4)
Latine/Hispanic	1,488 (14.5)	28 (2)	119 (29.2)	55 (23.1)	69 (19.9)	1,759 (13.9)
Other/Unknown	550 (5.3)	9 (0.6)	4 (1)	24 (10.1)	16 (4.6)	603 (4.8)
Region						
West	4,117 (40)	0 (0)	0 (0)	0 (0)	347 (100)	4,464 (35.2)
South	4,388 (42.6)	0 (0)	408 (100)	0 (0)	0 (0)	4,388 (34.6)
Northeast	927 (9)	1,396 (100)	0 (0)	0 (0)	0 (0)	2,323 (18.3)
Midwest	865 (8.4)	0 (0)	0 (0)	238 (100)	0 (0)	1,103 (8.7)
Current use						
Cannabis	3,424 (33.3)	356 (25.5)	99 (24.3)	171 (71.8)	169 (48.7)	4,219 (33.3)
Cocaine	632 (6.1)	140 (10)	115 (28.2)	26 (10.9)	74 (21.3)	987 (7.8)
Meth	1,013 (9.8)	26 (1.9)	7 (1.7)	23 (9.7)	170 (49.0)	1,239 (9.8)
Opioids	261 (2.5)	103 (7.4)	84 (20.6)	4 (1.7)	39 (11.2)	491 (3.9)
Sedatives	342 (3.3)	25 (1.8)	107 (26.2)	6 (2.5)	NC	480 (3.8)
HIV viral load						
<200 copies/mL	9,317 (90.5)	1,257 (90)	339 (83.1)	115 (48.3)	272 (78.4)	11,300 (89.1)
≥200 copies/mL	980 (9.5)	139 (10)	69 (16.9)	123 (51.7)	75 (21.6)	1,386 (10.9)



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Prevalence Ratio Estimates for HIV Viral Load Non-suppression by Study and Substance Used

