COVID-19 Related Disruptions in the HIV Care Continuum in a Large Urban Cohort of PWH

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Background

- COVID-19 has caused severe disruptions in healthcare access
- The impact on persons with HIV (PWH), including their outcomes along the HIV care continuum, is still being assessed
- Washington, DC is a hotspot for both HIV and COVID-19 infections

Objectives

- To describe the impact of COVID-19 on the care continuum among a cohort of PWH enrolled in a longitudinal HIV study, the DC Cohort

Methods

DC COHORT STUDY

- Multi-site prospective longitudinal observational cohort study of HIV-infected persons in care in Washington, DC at 15 participating clinical sites
- Data abstracted from participants' electronic medical records at enrollment and through electronic exports monthly thereafter
- DC Cohort participants enrolled by 09/1/2018 and active as of 3/1/2020 were included in the longitudinal analysis (N=8,288)

COVID-19 SUBSTUDY

- Cross-sectional survey on the impact of COVID-19 among PWH enrolled in the DC Cohort
- Survey launched in October 2020 and ongoing
- Eligible participants were those actively enrolled in the DC Cohort

ANALYSIS

- Using cross-sectional and longitudinal approaches, we assessed care continuum outcomes before the pandemic the "pre-pandemic era" (3/1/2019-2/28/2020) vs. the recent "peri-pandemic era" (3/1/2020-9/1/2021)
- Care continuum outcomes defined as:
  -Engagement in care (EIC): at least one viral load (VL), CD4 or HIV visit
  -on ART: Evidence of prescription of antiretroviral therapy (ART)
  -Viral suppression (VS): HIV RNA <200 copies/ml
- Linked DC Cohort database with COVID-19 survey participant results (n= 801) to assess self-reported impact on HIV care
- Conducted uni- and bivariate analysis to describe care continuum outcomes and factors associated with "care disruption" defined as no HIV visits, loss of VS or loss of ART (n=348)

Results

Figure 1. Outcomes Along the Care Continuum Pre- vs. Peri-Pandemic Among DC Cohort Participants (N=8,288)

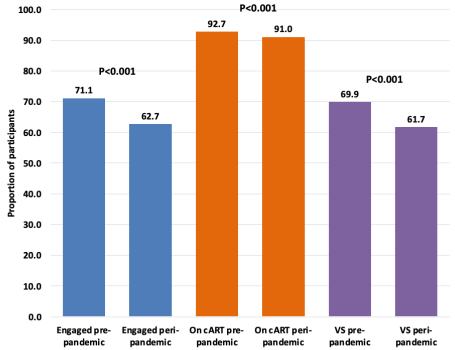
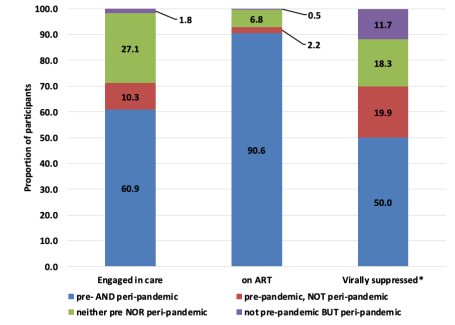


Figure 2. Longitudinal Changes in Care Continuum Outcomes in the Pre- vs. Peri-Pandemic Era (N=8,288)

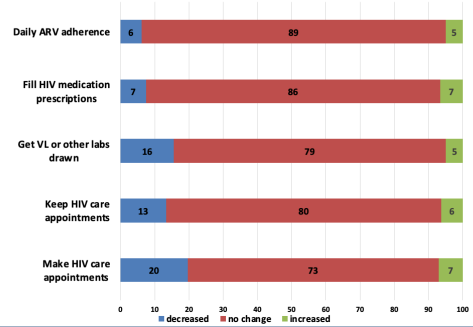


*The viral suppression category includes persons who did not have HIV RNA labs during either time period.

During the COVID-19 pandemic, among a cohort of PWH, there was a significant decrease in PWH's ability to remain engaged in care, stay on ART, and to maintain viral suppression. Interventions such as telehealth, multi-month dispensing of ART and home-based testing are needed to further minimize care disruptions.

Results

Figure 3. Self-Reported Impact of the COVID-19 Pandemic on PWH (N=801)



Summary

- Among 8,288 participants, comparing the pre- vs. peri-pandemic eras, EIC, ART use and VS declined significantly (all p<0.001)(Figure 1)
- At the end of the observation period, 10.3%, 2.2% and 19.9% of participants were no longer EIC, on ART, VS or had no labs (Figure 2)
- Among surveyed participants, 20%, 13%, and 16% reported decreased ability to make and keep HIV appointments and obtain labs (Figure 3)
- A higher proportion of participants who had disruptions in care were not on ART (p=0.001); no other significant differences were observed with respect to demographics, social or structural factors (Table 1)

Results

Table 1. Characteristics Associated with HIV Care Continuum Disruption (N=348)

	Total N=348	Disruption in Care N=128	No Disruption in Care N=220	P-value
Participant Characteristic	%	%	%	
Age (median, IQR)	54 (43.5, 60.5)	54 (43, 60)	53 (43.5, 61.0)	0.902
Gender (male)	57.5	60.9	55.5	0.212
Race/ethnicity*				
NH Black	82.4	81.6	82.9	0.705
NH White	8.9	10.4	8.1	
Hispanic	4.5	3.2	5.1	
Other/unknown	4.2	4.8	3.8	
Mode of HIV Transmission				
MSM	35.1	38.3	33.2	0.091
Heterosexual	33.6	28.9	36.4	
IDU	4.3	2.3	5.5	
Perinatal	1.4)	3.1	0.5	
Other*	25.6	27.3	24.6	
Duration of HIV diagnosis (median, IQR)	16 (11, 24)	17 (11,24)	16 (12,23)	0.738
CD4 ≥200 cells/µl (n=253)**	96.8	97.8	96.3	0.497
Not on ART (n=346)	2.6	6.3	0.5	**0.001**
Employed (part or full time)	47.9	48.4	47.7	0.928
Engaged in telehealth since 3/1/20	82.4	80.9	83.3	0.592
Decreased household income since 3/1/20	37.6	39.8	30.4	0.518
Lost insurance since 3/1/20	5.5	4.7	5.9	0.778
Lost housing since 3/1/20	4.6	3.9	5.0	0.887
Ability to access non-HIV related services negatively impacted	21.3	21.9	20.9	0.127
Increased use of recreational drugs since 3/1/20	6.2	4.8	7.0	0.239
Increased alcohol consumption since 3/1/20	12.1	9.6	13.6	0.149
Depressive symptoms (PHQ score ≥3)	4.5	32.0	35.9	0.463

*Other includes: coagulation/hemophilia, blood transfusion, occupational exposure, and not reported;** Excludes participants who did not have a CD4 results within 6 months of survey completion. Bolded p-value indicates statistical significance.

Conclusions

- Our analysis shows that COVID-19 has disrupted HIV care continuum outcomes including EIC, ART and loss of viral suppression
- As the pandemic continues, efforts to engage PWH through telehealth, multi-month dispensing and home-based testing, are needed to ensure continued progress towards ending the HIV epidemic

Additional Information

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