Viral Suppression Trajectories Destabilized After COVID-19 among U.S. People with HIV

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BACKGROUND

- Disruptions in clinical services during the COVID-19 pandemic could compromise progress towards meeting U.S. Ending the HIV Epidemic (EHE) goals
- We examined changes in the proportion with virologic suppression (VS) before and since the onset of COVID-19 in a multi-site U.S. cohort of people with HIV (PWH) using an interrupted time series design

METHODS

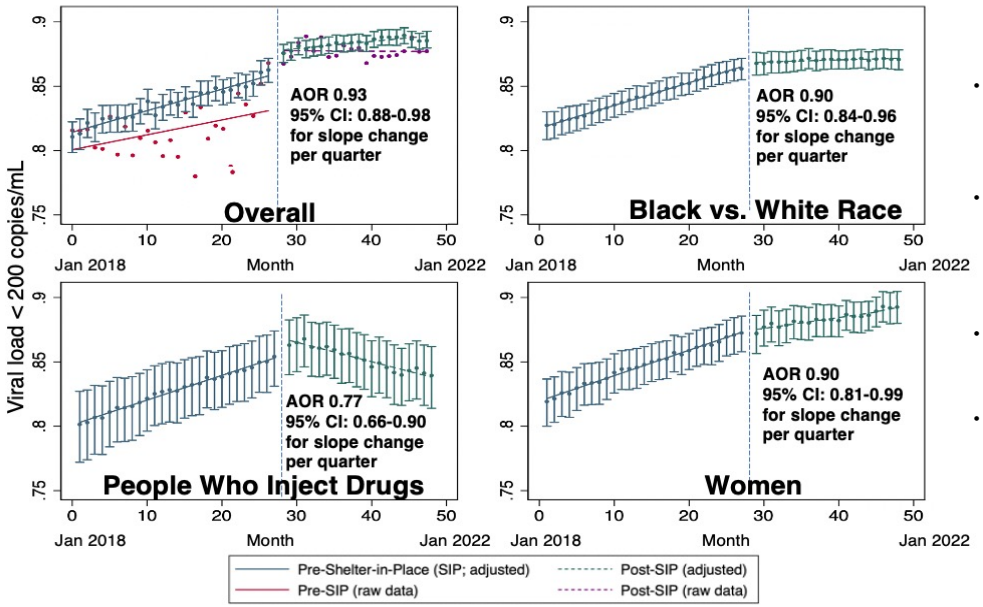
- Among PWH at 8 HIV Clinics: we assessed VS (<200 copies/mL) trajectories 1/1/2018-1/1/2022, comparing trends before and after March 21, 2020 within the U.S. Centers for AIDS Research Network of Integrated Clinical Systems ("CNICS")
- Hierarchical mixed-effects logistic regression and interrupted time series analyses examined changes in the trend (i.e., slope) of VS over time
- Maximum likelihood estimation was used to account for missing VS data among those lost to follow-up
- Analyses were adjusted for demographic characteristics, site, CDC transmission group, CD4 nadir, VS, time on ART

RESULTS

- Among 17,999 PWH, providing a total of 120,918 VS assessments:
  - Median age 53 (interquartile range 42-61); 19% were female sex at birth
  - Mean time on ART 9.5 years; 18% were unsuppressed at any point
- Overall, 17.7% were lost to follow-up
- Among the overall population, prior gains in VS slowed during COVID-19 (AOR: 0.93 per quarter-year; 95% CI: 0.88-0.98; p=0.004; **Figure**)

Previous gains in viral suppression slowed during COVID-19, with disparities worsening among PWH who were women, Black, or PWID

Figure: Viral Suppression Before and After COVID-19 Shelter in Place



Analyses were adjusted for age, birth sex, race/ethnicity site, CDC transmission group, CD4 nadir, time on ART, and viral suppression.

RESULTS CONTINUED

- Greater impacts of the pandemic on viral suppression occurred among the following groups, with prior positive trends plateauing or reversing:
  - Women (AOR 0.90; 95% CI 0.81-0.99; p=0.05)
  - Black PWH (AOR 0.90; 95% CI: 0.84-0.96; p=0.001)
  - Persons with a history of injection drug use (PWID) (AOR 0.77 95% CI: 0.66-0.90; p=0.001) (**Figure**)
- VS remained lower among those with unstable housing (AOR 0.44; 95% CI: 0.40-0.50; p<0.001) but stayed unchanged from the pre-pandemic period

CONCLUSIONS

- Previous gains in VS slowed during the COVID-19 pandemic among PWH in a multi-site network of U.S. HIV clinics
- Known disparities in VS according to housing status remain unchanged, but VS disparities worsened for PWH who were women or Black, and most dramatically among PWID
- Changes in VS trends could be related to socioeconomic impacts of the pandemic, the worsening fentanyl and meth epidemics, insurance lapses, reduction of in-person clinic services, fear of coming to clinics, or other factors
- Renewed investment in HIV public health and clinical services will be vital to achieve the U.S. EHE goals following COVID-19
- Additional targeted interventions are needed to support key populations with persistent disparities to recover VS and avoid worsening disparities

CNICS CFAR Network Of Integrated Clinical Systems

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