# *Variation in Viral Load Testing and Outcomes in Telehealth HIV Care During COVID-19*

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## BACKGROUND

To maintain HIV care continuity during the COVID-19 pandemic, telehealth was heavily adopted at the beginning of the pandemic (**Fig. 1**). However, research evaluating viral suppression by visit type is conflicting. Some studies reported lower viral suppression rates among telehealth users and others did not find significant differences.

## OBJECTIVE

To **assess variation in viral load (VL) testing and outcomes related to visit type** among people living with HIV (PWH) during the first year of the COVID-19 pandemic.

## METHODS

**Data**: Aggregated electronic health record (EHR) data

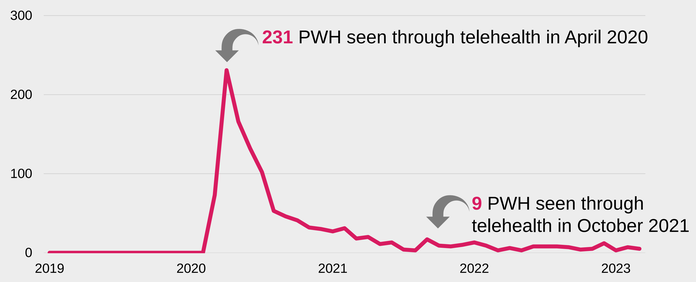
- Extracted using Epic's SlicerDicer tool
- From 1,835 PWH receiving care from Duke University's Infectious Disease clinic in Durham, North Carolina
- Study period: March 16, 2020 – December 31, 2022

**Variables of interest**

- Visit type patterns: PWH who have used
  - Only in-person,
  - A combination of in-person and telehealth, or
  - Only telehealth HIV care
- VL testing history and outcomes in 2022
  - No VL test recorded,
  - At least one VL test was unsuppressed (≥200 copies per milliliter of blood), or
  - VL was suppressed at all tests (<200 copies per milliliter of blood)

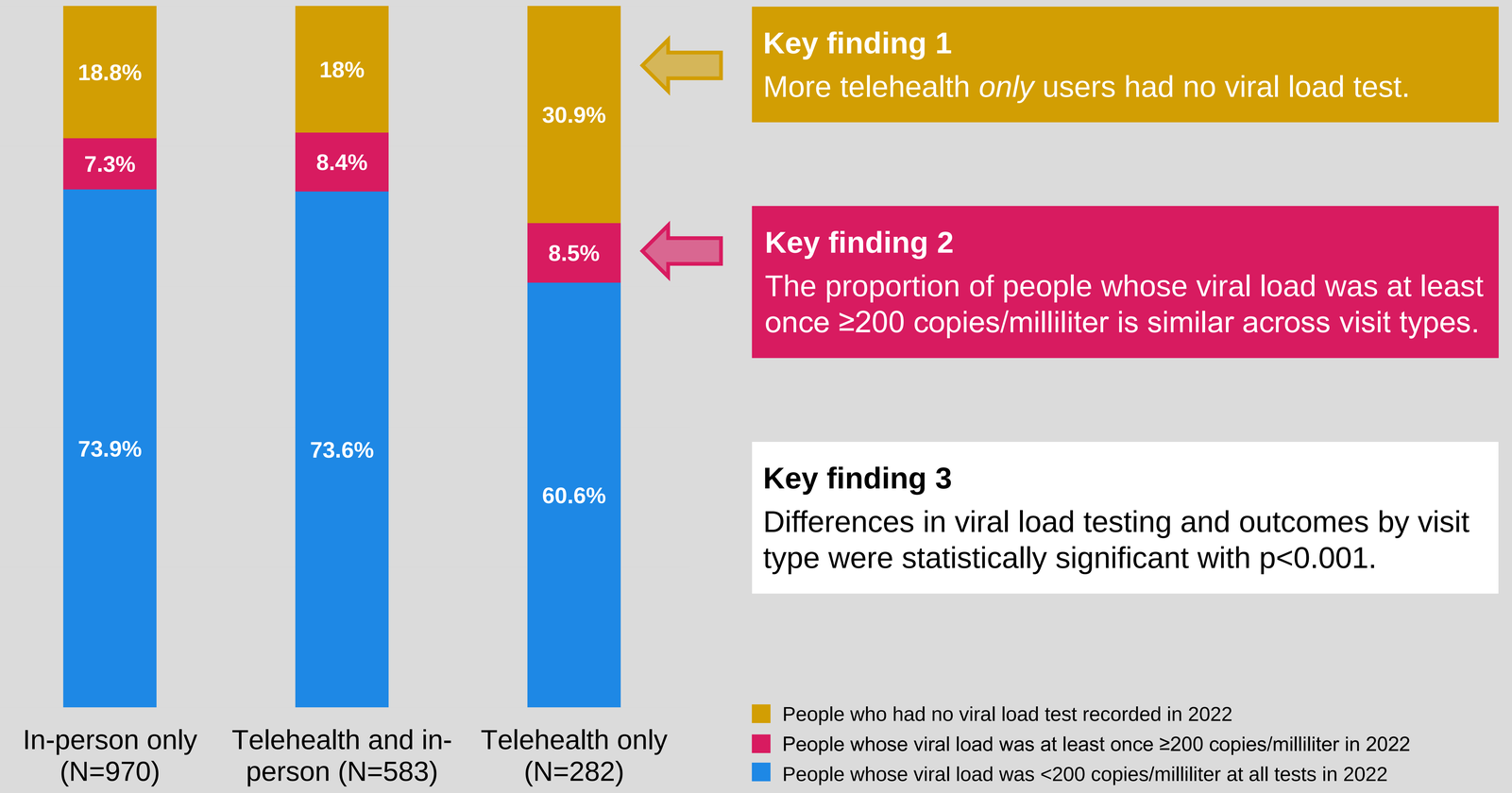
**Analysis**: Nonparametric Pearson's chi-square ($\chi 2$) test

***Figure 1. Telehealth use at Duke University's Infectious Disease clinic relative to the COVID-19 pandemic***




Source: Yelverton et al. (2023, Sep 14) *Telehealth bridged HIV care interruptions in the beginning of the COVID-19 pandemic: Study findings from North Carolina [Handout].* 19th Annual Duke CFAR Fall Scientific Retreat, Durham, NC, US

***Figure 2. Variation in viral load testing and outcomes by visit type***




## RESULTS

- Between March 16, 2020–March 15, 2021, most PWH receiving HIV care at Duke's Infectious Diseases clinic (53%) used in-person HIV care only
- $\chi 2$ tests indicated significant variation in VL testing and outcomes by visit type patterns (p<0.001; **Fig. 2**).

## CONCLUSIONS

- Results indicate that telehealth users' VL outcomes one year later may not be inferior as compared to exclusive in-person HIV care users; however, VL testing uptake is lower among telehealth only users.
- Strategies such as remote VL testing at home or at a local lab are needed to ensure regular VL testing among PWH who use telehealth HIV care.

## ADDITIONAL KEY INFORMATION

**Contact information**

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