# Impact of COVID-19 Pandemic on HIV Testing Among MSM: An Interrupted Time Series Analysis

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## Background

- Gay, bisexual and other men who have sex with men (GBMSM) are disproportionately impacted by HIV compared to their heterosexual counterparts.
- The Los Angeles LGBT Center (the Center) is one of the largest Federally Qualified Health Centers providing health services to LGBTQ+ individuals.
- The Center's Sexual Health and Education Program (SHEP) reduced its testing capacity in accordance with California's statewide stay-at-home order.
- In this analysis, we investigated the impact of the COVID-19 pandemic on HIV testing patterns among GBMSM to identify possible disparities among a vulnerable population in Los Angeles County.

## Methods

### Interrupted Time Series Analysis

- Participant data comes from the Center's SHEP EHR system from March 2018 to August 2023

### Sample Size (n=96,613)

- **Eligibility Criteria:**
  - GBMSM
  - 15 years or older as of March 2018
  - Received at least one kind of HIV screening test at visit

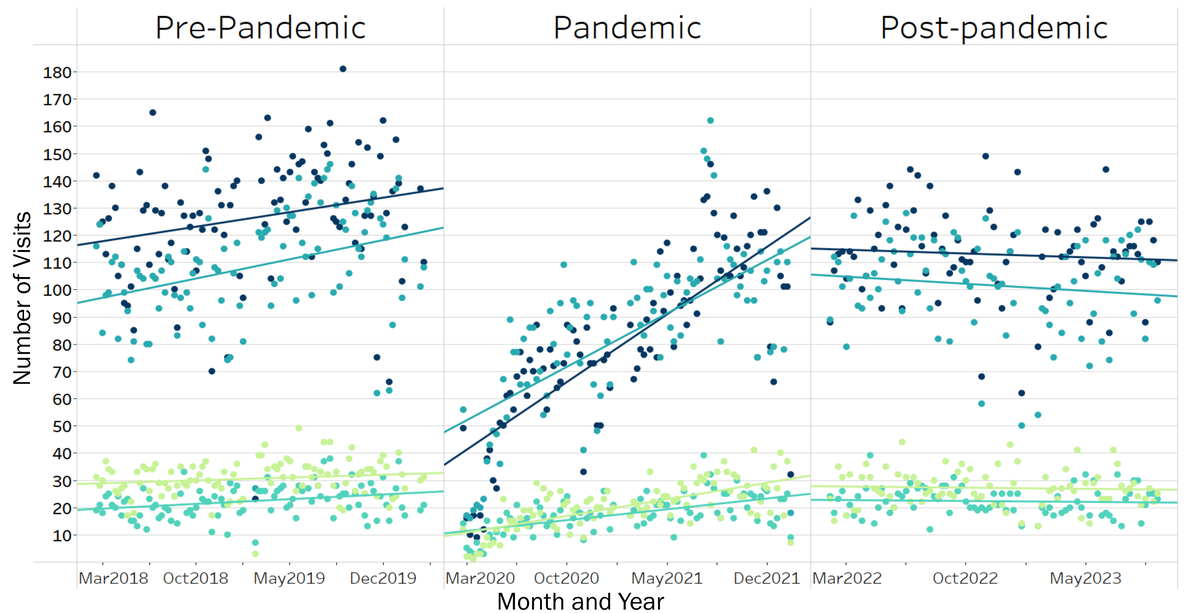
### Time Series Phases

- **Pre-pandemic**
  - March 1, 2018 – March 15, 2020
- **Pandemic**
  - March 16, 2020 – February 28, 2022
- **Post-pandemic**
  - March 1, 2022 – August 31, 2023

**HIV testing among GBMSM has yet to return to pre-pandemic levels.** *HIV testing among Black or African Americans* had the greatest decrease from pre-pandemic to post-pandemic.*

## Results

### Figure 1. Visits per week by Race/Ethnicity




*From pre-pandemic to post pandemic HIV testing among White people decreased 14% (Incident Rate Ratio (IRR): 0.86, 95%CI: 0.73-1.02), testing among Hispanic or Latino/a/e people also decreased 14% (IRR: 0.86, 95%CI: 0.72-1.03), testing among Black or African Americans decreased 19% (IRR: 0.81, 95%CI: 0.64-1.03), and testing among Asian/Pacific Islanders decreased 12% (IRR: 0.71-1.10).*
**When stratified by race, no IRR was statistically significant.*

## Results

### Table 1. Demographics (n=96,613)

| Characteristics | n(%) |
|---|---|
| **Age (Median, Range)** | 32 (16-91) |
| **Race/Ethnicity** | |
| Asian/Pacific Islander | 8,626 (8.9) |
| Black or African American | 7,769 (8.0) |
| Latina/o/e or Hispanic | 33,862 (35.1) |
| Other (*AI/AN, multiracial*) | 6,303 (6.5) |
| White | 37,143 (38.5) |
| Unknown/Unreported | 2,910 (3.0) |
| **Visits per Phase** | |
| Pre-pandemic | 41,203 (42.6) |
| Pandemic | 26,719 (27.7) |
| Post-pandemic | 28,691 (29.7) |

- The average number of HIV tests conducted weekly across the pre-pandemic, pandemic, and endemic phases were 321, 231 and 288, respectively.
- There was nearly a 50% reduction in the level of HIV testing conducted weekly after the transition from the pre-pandemic to pandemic phase (IRR: 0.54, 95%CI: 0.48-0.60).
- The number of HIV tests decreased slightly going from the pandemic to endemic phase (IRR = 0.80, 95%CI: 0.70-0.92) and HIV testing did not return to pre-pandemic levels (IRR = 0.76, 95%CI: 0.66-0.88).

## Conclusion

The overall reduction of HIV testing levels compared to pre-pandemic suggests a new strategy needs to be developed to understand why participants are not returning for testing and what additional efforts are needed to increase the accessibility of these necessary preventive services.

## Contact Information

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