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## Background

- The COVID-19 pandemic has disrupted health care services for people living with HIV (PLWH)
- Decreases in HIV screening,<sup>1</sup> office visits,<sup>2</sup> HIV viral load testing,<sup>2</sup> viral suppression<sup>3</sup> have been reported in the US and around the globe
- Data from an on-going study were used to investigate the impact of COVID-19 on clinical care

## Objective

Compare rates of clinical visits, viral load monitoring, and antiretroviral therapy (ART) regimen discontinuation among virally suppressed PLWH in the US before and during the COVID pandemic

## Methods

### Study Population

- OPERA<sup>®</sup> Cohort: Prospectively captured, routine clinical data from electronic health records (EHR) in the US (85 clinics, 19 states, 1 US territory)
- Inclusion criteria
  - ART-experienced PLWH
  - ≥18 years of age
  - ≥1 clinical encounter within 2 years prior to 31Oct2020
  - Switched from any ART regimen to dolutegravir/lamivudine (DTG/3TC), or to DTG or bicitegravir-based 3-drug regimen between 01May2019 and 30Apr2020
  - Viral load <200 copies/mL at switch

### Study periods (Figure 1)

- Pre-COVID: 01May2019 to 28Feb2020
- During COVID: 01Mar2020 to 31Oct2020

### Outcomes

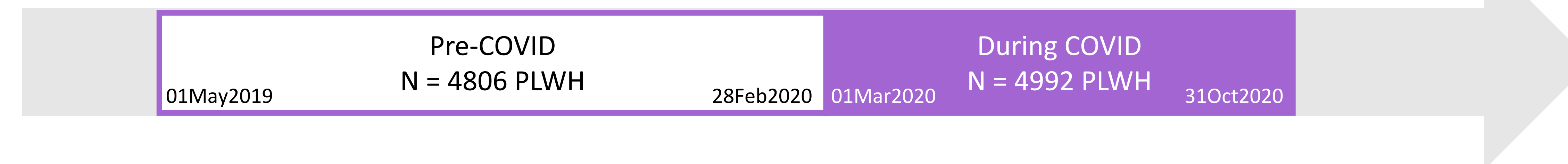
- Clinical visits; HIV-related or otherwise (Figure 2)
  - In-person visits: any scheduled or walk-in outpatient, inpatient, emergency, or laboratory visit
  - Telehealth visits: any phone or video encounters
- Viral load (VL) measurements; regardless of result (Figure 3)
- Regimen discontinuation: change in any component of the regimen (Figure 4)
- Virologic failures: 2 VLs ≥200 copies/mL (Table 1)

### Statistical analyses

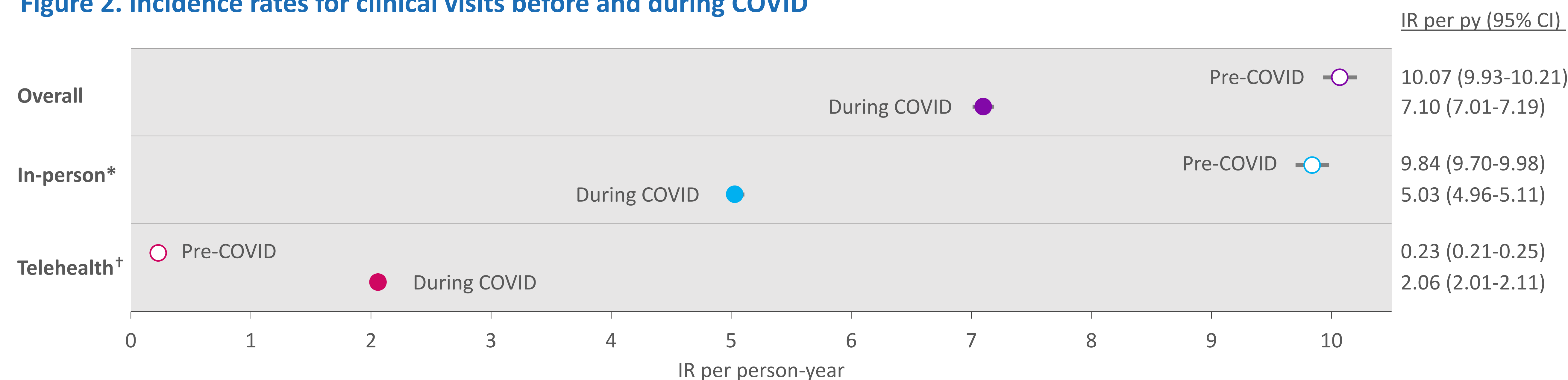
- Incidence rates: univariate Poisson regression

## Results

**Figure 1. Study population before and during COVID**

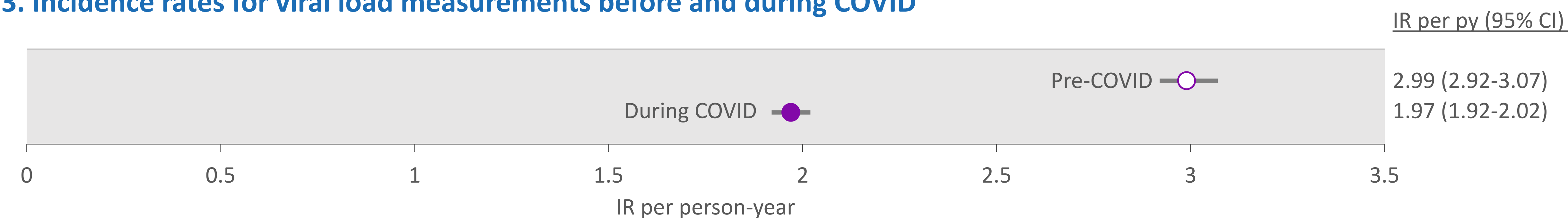


**Figure 2. Incidence rates for clinical visits before and during COVID**

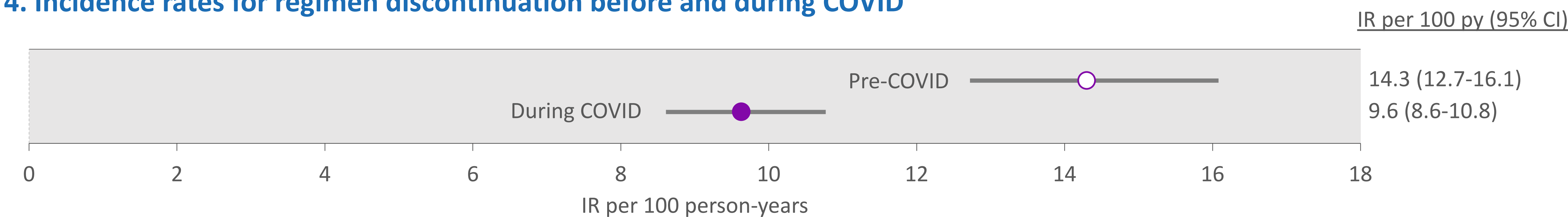


\*Any scheduled or walk-in outpatient, inpatient, or emergency with a healthcare provider, or laboratory visits  
†Any telephone encounters, virtual visits, telehealth, and video encounters

**Figure 3. Incidence rates for viral load measurements before and during COVID**



**Figure 4. Incidence rates for regimen discontinuation before and during COVID**



**Table 1. Virologic failures before and during COVID**

Virologic Failures	Pre-COVID	During COVID
Total virologic failures, n (%)	13 (0.3%)	29 (0.6%)
Incidence rate per 100 person-years (95% CI)	0.67 (0.39-1.15)	0.91 (1.00-1.32)

## Discussion

- The COVID-19 pandemic impacted HIV care in several ways among virally suppressed PLWH in the US
  - Reduction in the rates of:
    - Overall & in-person clinical follow-up visits
    - Viral load monitoring
- Reduction in rates of regimen discontinuation
  - Presumably associated with less frequent follow-up
- Increase in telehealth follow-up visits did not offset the decrease of in-person visits
  - Convenient and safe; except for those with limited technology and/or privacy away from the provider's office
  - Reduced access to laboratory monitoring
  - Reduced access to physical assessments including screenings for sexually transmitted infections
- Virologic failures were infrequent in both study periods (<1% of those with ≥1 viral load)
  - Less frequent viral load testing could lead to more failures going undetected
- The long-term impact of the pandemic on HIV care remains uncertain

## Key Findings

The COVID pandemic has led to important reductions in rates of in-person follow-up visits and viral load monitoring among virally suppressed PLWH in the US

## References

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