

mcg8gs@virginia.edu / @mgeba_md

Maria Geba¹, Samuel Powers¹, Brooke Williams¹, Kathryn Dort¹, Elizabeth Rogawski McQuade^{1,2}, Kathleen A. McManus¹

@Sam_D_Powers / @kmcmanusMD

1. Infectious Diseases and International Health, University of Virginia, Charlottesville, Virginia, USA, 2. Public Health Sciences, University of Virginia, Charlottesville, Virginia, USA

Background

Per CDC and Ryan White HIV/AIDS Program (RWHAP) guidelines, all people living with HIV who are sexually active should undergo **annual screening for sexually transmitted infections (STIs)** including gonorrhea and chlamydia.

Screening should be performed at each site of exposure which includes **oropharyngeal, urogenital and rectal sites**.

Infections are often asymptomatic and can lead to a higher risk of HIV transmission, pelvic inflammatory disease, chronic pelvic pain and infertility.

Objectives

Evaluate the rate of screening for STIs

Describe risk factors associated with being diagnosed with an STI

Determine the percentage of extragenital STIs that would have been missed with only urogenital testing

Methods

Participants: ≥ 14 years old with ≥ 1 in-person medical visit at the studied RWHAP clinic in 2019

Data: Demographics, reported sexual activity, and STI test dates and results

Controlling for number of sites tested, a log-binomial model was used to estimate the association of different characteristics with an STI diagnosis.

Figure 1: Study Participants

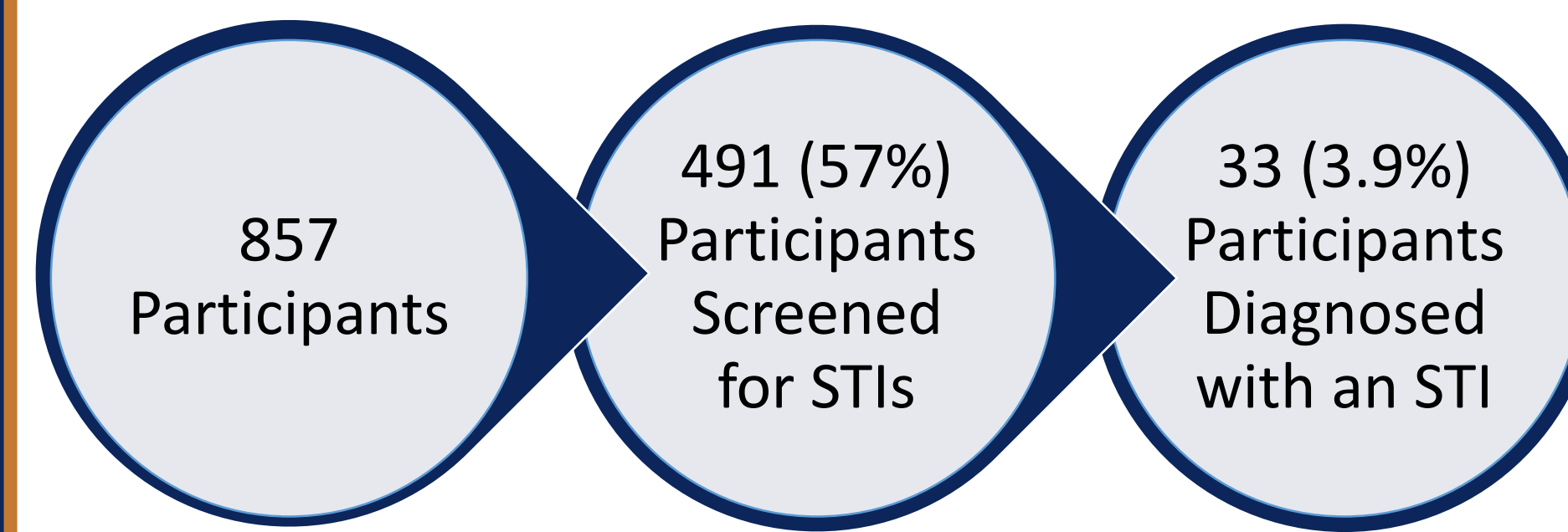
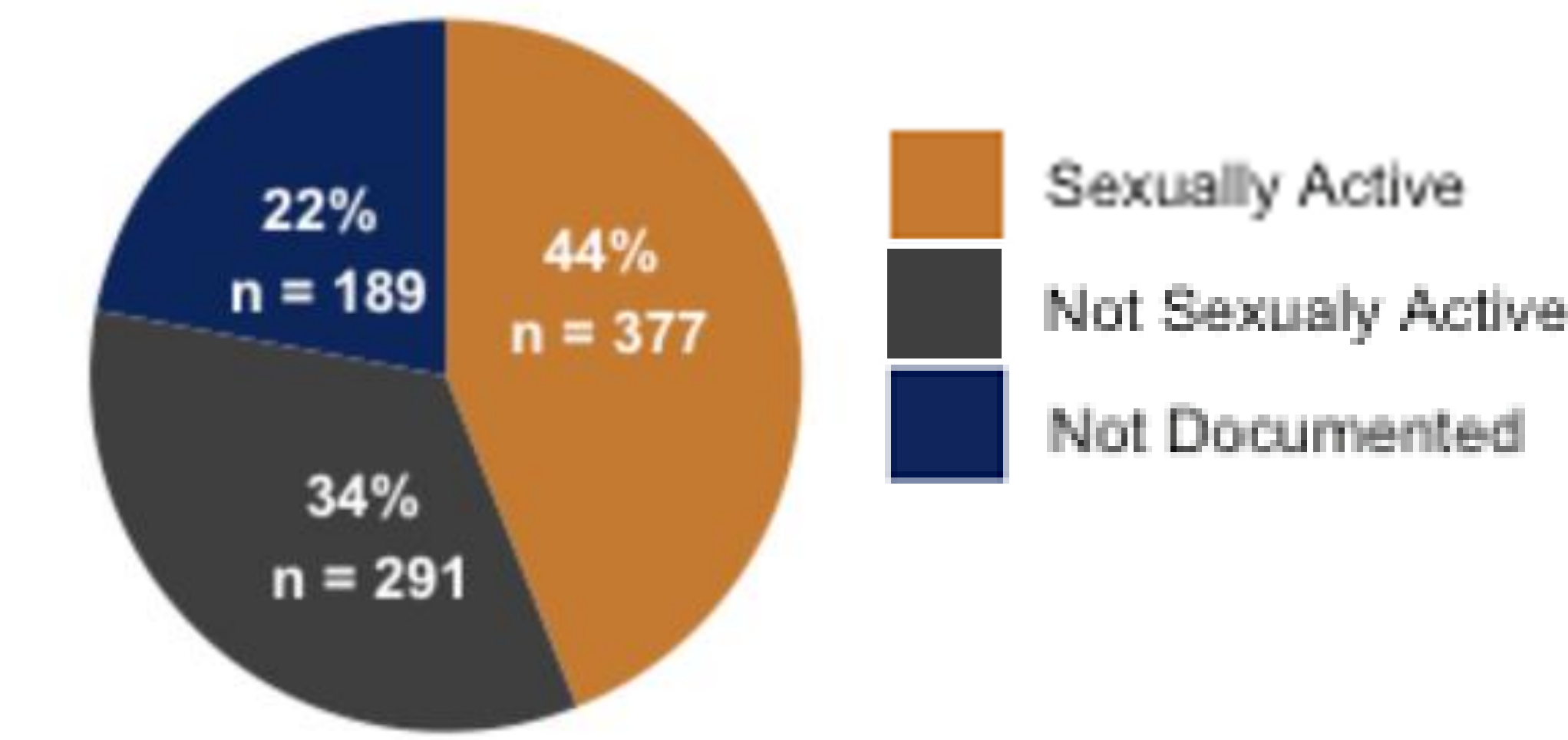


Figure 2: Documented Sexual History



Results

857 participants met inclusion criteria, 491 participants (57%) were screened for at least one STI, 33 (3.9%) participants were diagnosed with an STI in at least one anatomical site (**Figure 1**).

In this cohort, 22% had no sexual history documented, 44% reported sexual activity, and 34% reported no sexual activity in the last year (**Figure 2**).

For those with documented sexual activity, **68%** (253/375) received appropriate urogenital testing, **63%** (85/134) received appropriate oropharyngeal testing and **69%** (72/105) received appropriate rectal testing.

1 STI was diagnosed in a female (0.7%) so they were excluded from the model. For male participants with at least 1 STI screening test (n=347), **Hispanic ethnicity** [aRR (95%CI) = 6.1 (2.1-17.7)] and **detectable viral load** [aRR (95%CI) = 3.4 (1.0-11.4)] were factors associated with being diagnosed with an STI (**Figure 3**).

Of those with concurrent extragenital and urogenital testing who were diagnosed with an STI (n=26), **96% of participants** (n=25) were positive at an extragenital site and negative at the urogenital site.

Conclusions

Nearly a **quarter of participants had no sexual history documented** in the year, which is an area for improvement for the clinic.

Appropriate STI screening was 63-69% across the three anatomical sites. There was **no obvious clinician/patient bias** against extragenital testing.

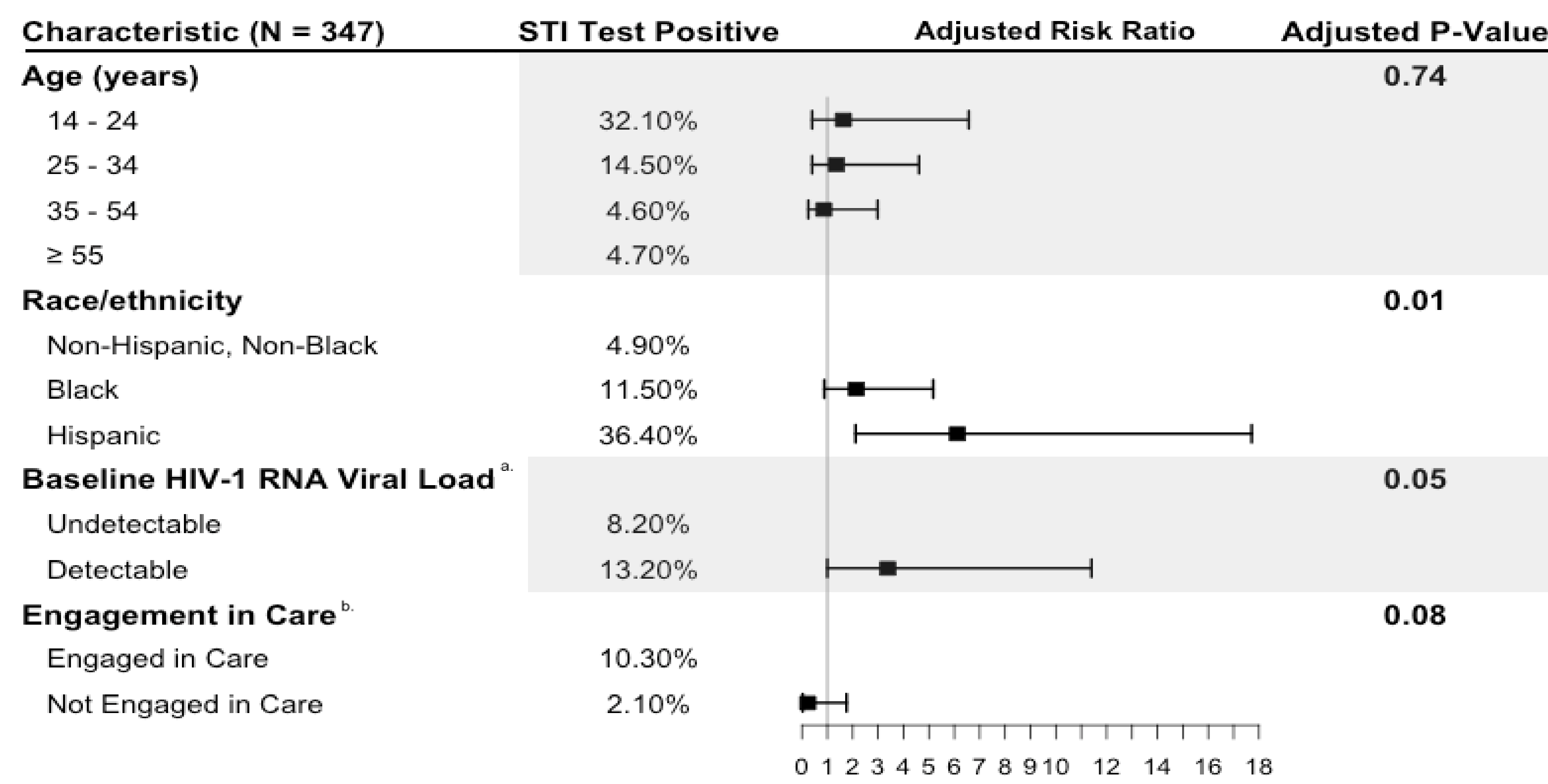
Hispanic male participants and men with a detectable viral load had higher rates of STI diagnoses which may point to **more condomless sex in these populations**.

Based on the prevalence of exclusively extragenital sites, **we likely missed STI diagnoses prior to three site testing**.

Hispanic ethnicity and detectable viral load are significantly associated with being diagnosed with an STI which may point to more condomless sex in these groups.

In highest risk individuals, **96% of infections would have been missed** with urine screening alone.

Figure 3: Risk Factors Associated with an STI diagnosis



a. Undetectable viral load is defined as < 200 copies/mL

b. Engagement in care is defined as two office visits in a given year separated by at least 60 days

Abbreviations: FPL- Federal Poverty Level, MSM: men who have sex with men, IDU: intravenous drug use