

# Addressing Gaps and Disparities in HIV testing in the Emergency Department

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## Introduction

- Early diagnosis of HIV is a key first step to improving outcomes for persons living with HIV (PLWHIV)
- Emergency departments are critical sites for improving access to care for PLWHIV
- Prior studies in South Carolina have shown that 2/3 of individuals newly diagnosed with HIV have visited a health care facility 7 times prior to diagnosis
- Failure to test results from a multitude of barriers especially the specific concern from Emergency Department (ED) providers about lack of prompt and adequate follow-up of a positive test
- Overall, >80% of visits were to EDs, representing missed opportunities

## Goals

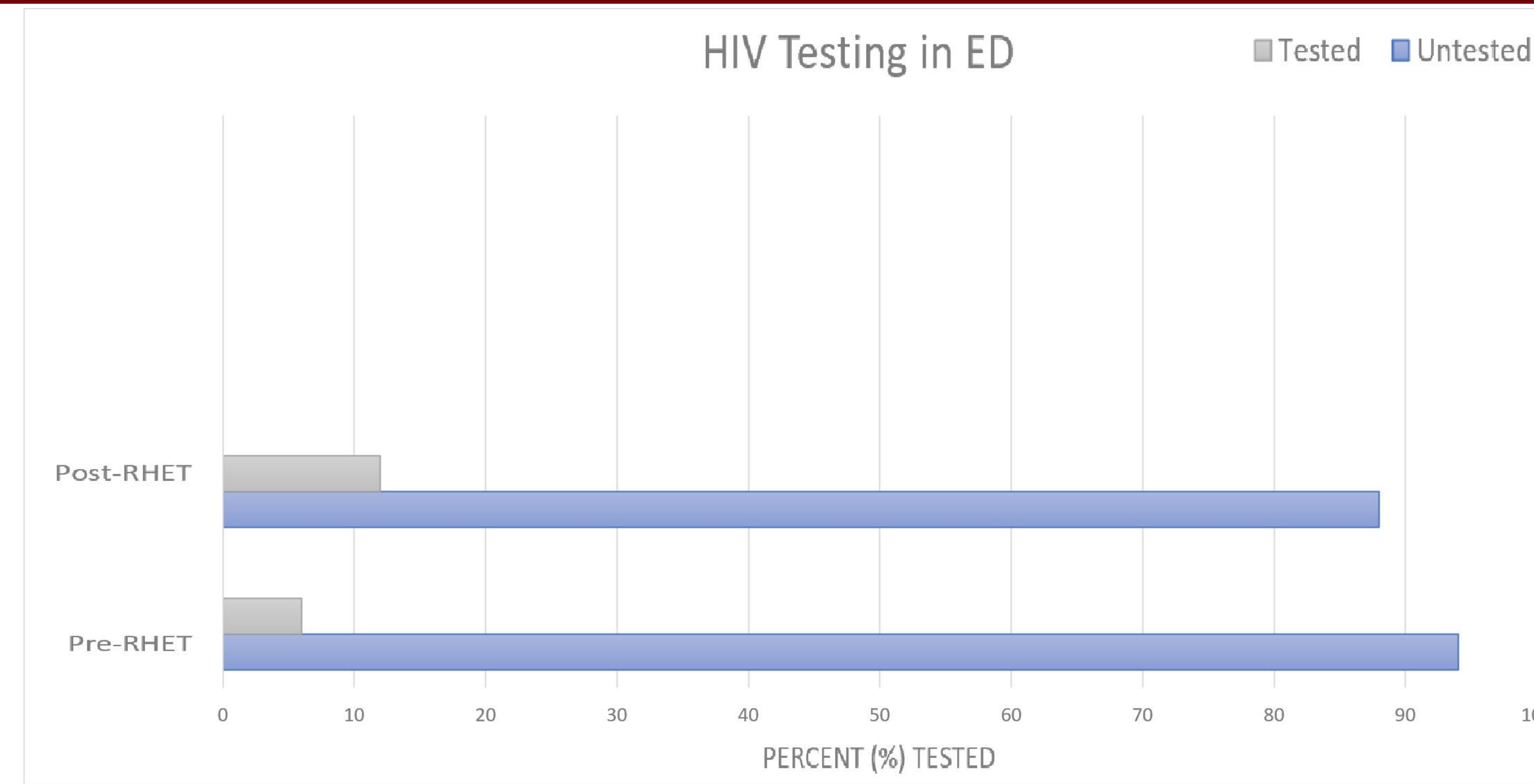
- To address gaps in HIV care by establishing a rapid HIV engagement team (RHET)
- **The goal of this study is to evaluate the effectiveness of this intervention**

## Methods

- **Study Design:** Prisma Health ED
  - Retrospective cohort study comparing HIV testing rates and patterns within the ED
  - May 2018 to October 2018 (pre-RHET)
  - May 2019 to October 2019 (post-RHET)
- **Inclusion criteria:**
  - Persons ≥18 years of age who presented to the ED during the previously mentioned dates who had one of the following:
    - ICD-10 codes for a STIs: Trichomonas, HSV, and G/C
    - Presented with an initial complaint of a STI
- Multivariable logistic regression analysis was utilized

## Results

- Total of 4104 individuals were identified
- Pre-RHET: 2,154
- Post-RHET: 1,950
- Table 1 displays baseline characteristics for the two groups
- The graph displays the difference in HIV testing Pre-/Post-RHET



**Table 1: Baseline Characteristics**

	All (n=4104)	Pre (n=2154)	Post (n=1950)	P-value
<b>Age, mean (years)</b>	31.4	31.7	31.0	NS
<b>Male gender, n (%)</b>	980 (23.9)	489 (22.7)	491 (25.2)	0.09
<b>Race/Ethnicity, n (%)</b>				
White, n (%)	916 (22.3)	554 (25.7)	362 (18.6)	<0.001
Black, n (%)	2885 (70.3)	1462 (67.9)	1423 (73.0)	<0.001
Hispanic, n (%)	196 (4.8)	84 (3.9)	112 (5.7)	<0.001
Other, n (%)	107 (2.6)	54 (2.5)	53 (2.7)	0.61
<b>Reason for ED Visit, n (%)</b>				
STI Related, n (%)	1629 (39.7)	848 (39.4)	781 (40.0)	<0.001
Constitutional Symptoms, n (%)	66 (1.6)	22 (1.0)	44 (2.3)	NS
Other, n (%)	2409 (58.7)	1284 (59.6)	1125 (57.7)	<0.001
<b>Day of the week</b>				NS
Sunday	563 (13.7)	284 (13.2)	279 (14.3)	
Monday	598 (14.6)	325 (15.1)	273 (14.0)	
Tuesday	639 (15.6)	359 (16.7)	280 (14.4)	
Wednesday	590 (14.4)	308 (14.3)	282 (14.5)	
Thursday	589 (14.3)	305 (14.2)	284 (14.6)	
Friday	591 (14.4)	309 (14.3)	282 (14.5)	
Saturday	534 (13.0)	264 (12.3)	270 (13.8)	
<b>STI Testing Obtained, n (%)</b>				
Gonorrhea		1829 (84.9)	1747 (89.6)	0.09
Chlamydia		1783 (82.8)	1729 (88.7)	0.19
Trichomonas		1518 (70.4)	1354 (69.4)	0.21
HSV		38 (1.8)	33 (1.7)	0.003
<b>HIV Testing Obtained, n (%)</b>		131 (6.1)	251 (12.9)	<0.001

NS = not significant  
STI = Sexually transmitted infection

- Of those individuals who presented with an initial complaint of an STI or who had an ICD-10 code for an STI:
  - 87% were tested for GC with 9% positivity
  - 95% were tested for CT with 12.6% positivity
  - 6% were tested for HIV Pre-RHET
  - 12% (P<0.001) were tested for HIV Post-RHET

## Conclusions

- Implementation of a dedicated rapid engagement team for contacting patients with positive HIV tests provided prompt linkage to care
- ED education on HIV testing led to an increase in risk-based HIV testing rates
- Despite this testing remained low (12%) even though these were all individuals at high risk as they were reporting concerns for STIs and being tested for other STIs
- Further interventions are needed to improve HIV testing especially in women and blacks

## Next Steps

- Reeducation of Emergency Department providers and support staff
- Electronic Medical Record modifications to address order entry
- Quick order sets for STIs that include HIV

## References

- "Prevent HIV | Ending the HIV Epidemic | CDC." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, <https://www.cdc.gov/endinghiv/prevent.html>.
- Xi Okoye S, Weissman S, Chang MH, Duffus W. Missed Opportunities to Initiate Pre-exposure Prophylaxis in South Carolina – 2013-2016 IDWeek. San Diego, CA, October 5-8, 2017.
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