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Determinants of Pre-Exposure Prophylaxis (PrEP) Initiation in Women at High Risk for HIV

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DISCLOSURE

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BACKGROUND:

Underutilization of PrEP by U.S. women

- **98% unmet need for HIV prevention**
 - **3,400 of 176,670** U.S. women who would benefit from PrEP have initiated use¹
 - Increased number of women initiating PrEP from **1,723 in 2014 → 4,428 in 2017**²
- Black women comprise only **33% of women initiating PrEP, but 59% of new HIV diagnoses** among women²
- Determinants of PrEP initiation in U.S. women are poorly understood

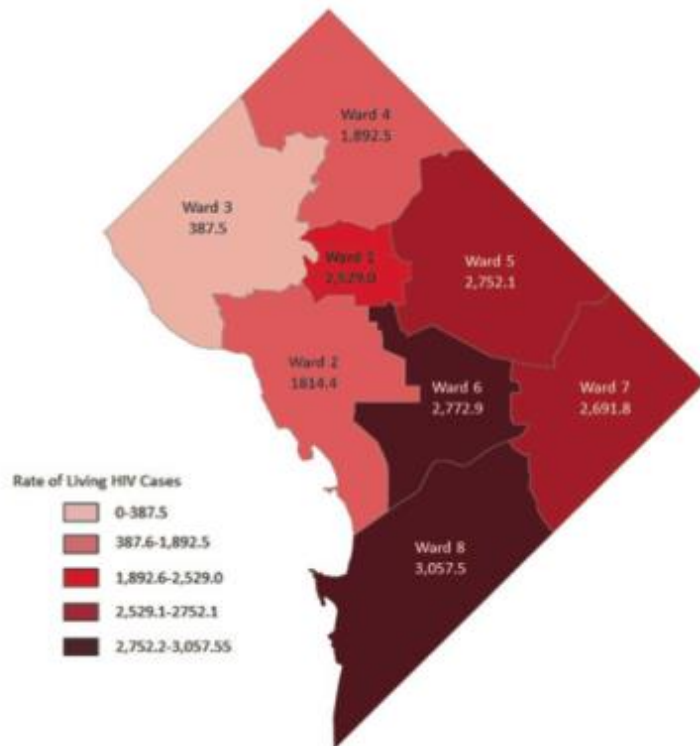
¹Smith DK et al. Estimates of adults with indications for HIV pre-exposure prophylaxis by jurisdiction, transmission risk group, and race/ethnicity, United States, 2015. *Ann Epidemiol.* 2018;28(12):850-857

²Mapping PrEP: First Ever Data on PrEP Users Across the U.S. - AIDSvu. <https://aidsvu.org/prep/>



BACKGROUND: HIV & Women in D.C.

Government of the District of Columbia
Map 1. HIV Cases Diagnosed in the District and Alive as of December 2012 by Ward: Rates per 100,000 persons
District of Columbia, 2012



- Washington, D.C. is an epicenter of the HIV epidemic in the US
- Prevalence of HIV among women in D.C. is 1,015 per 100,000
- Estimated prevalence of **1.9% among women of reproductive age**
- Women of color disproportionately affected
 - 3.9% prevalence in the D.C. Black community

METHODS:

- **Primary Aim:** to identify and populate the PrEP cascade for women by assessing risk factors for and perceived vulnerability to HIV, and PrEP acceptability, initiation, continuation, and adherence
- **Hypothesis:** *timeline and roadmap to PrEP adoption and the PrEP cascade will be longer and less linear for cis-gender women than for MSM & transgender women*
- **Study population:** women seeking care at a DOH sexual health clinic & hospital-based family planning clinic
- **Design:** Cross-sectional baseline survey & prospective cohort



PRELIMINARY RESULTS: PrEP Cascade

APPROACHED: 2678

DC DOH HWC: 1879

MWHC FPPC: 799

BASELINE SURVEY: 1298*

DC DOH HWC: 925

MWHC FPPC: 373

PrEP COHORT: 22

DC DOH HWC: 16

MWHC FPPC: 6

CONTINUATION: 1

DC DOH HWC: 0

MWHC FPPC: 1



METHODS: Sub-group Analysis



- **Objective:** to identify *barriers and facilitators* of PrEP initiation among women at **high risk** for HIV
- **Hypothesis:** that there are *demographic, behavioral, and psychosocial barriers* to PrEP initiation



METHODS: Sub-group Analysis

- **Inclusion criteria:** Cis-gender, HIV-negative women at “high risk” for HIV.
- Defined “high risk” as ≥ 3 behavioral risk factors*
 - Inconsistent condom use
 - Multiple, HIV +, or casual sex partners
 - Sex partners who were non-monogamous
 - IVDU
 - Transactional sex

*in addition to living in a high prevalence area

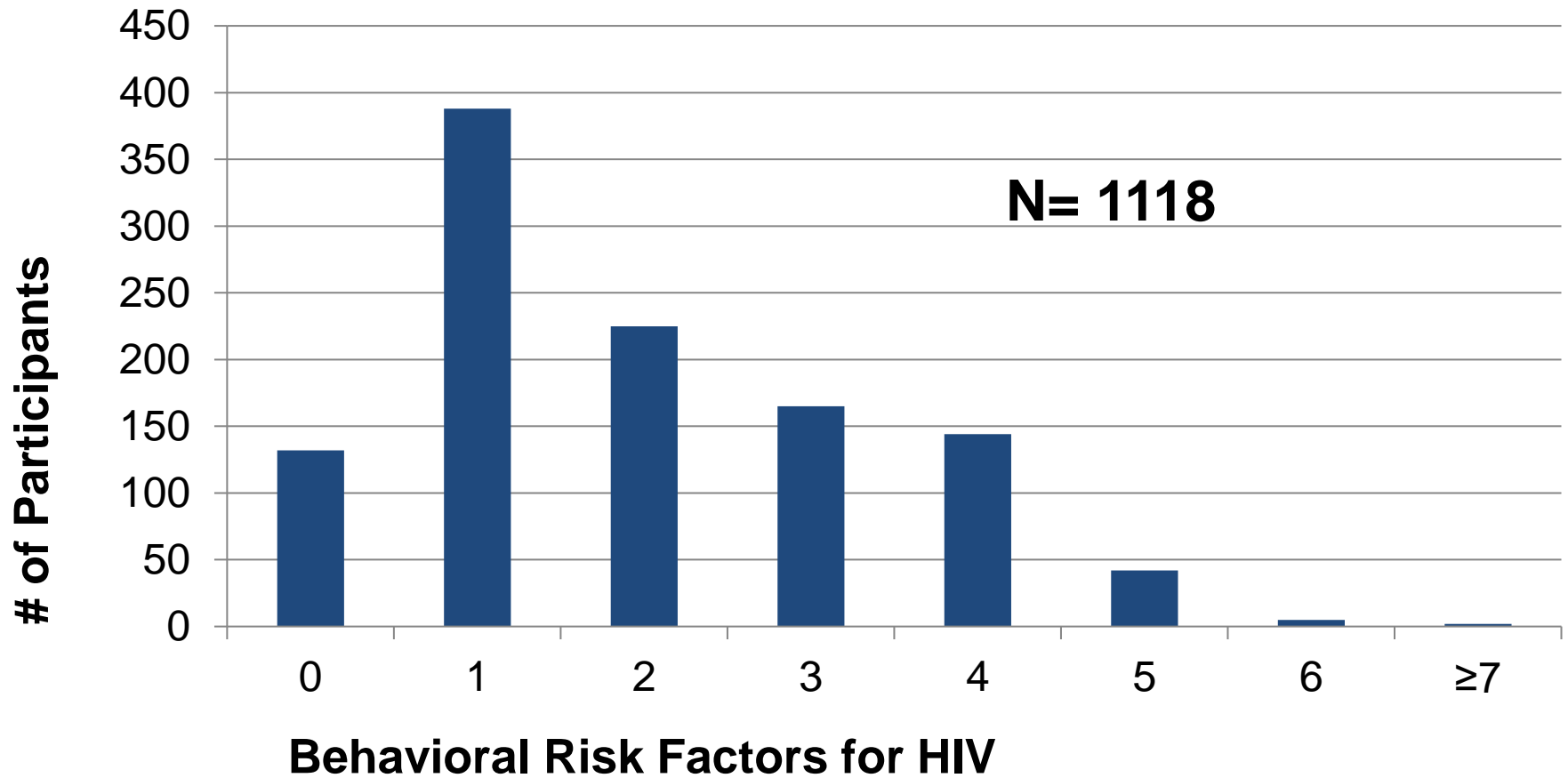


METHODS

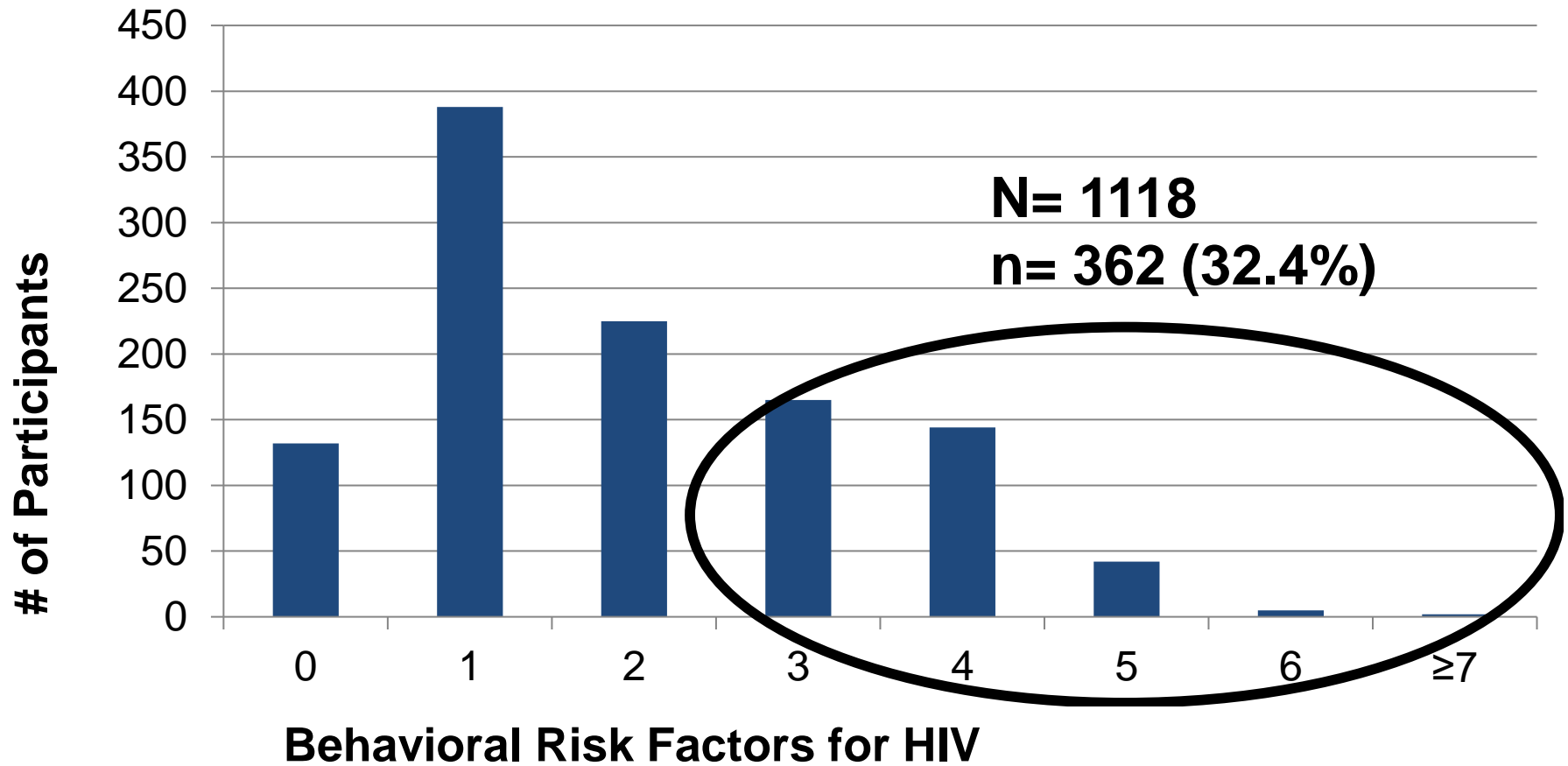
- **Survey Instrument:** Anonymous, previously-validated questionnaire
 - Socio-demographics, HIV behavioral risk factors, & awareness, attitudes, norms, self-efficacy re. PrEP
- **Statistical Analysis:** Chi-squared & Fisher's exact tests for categorical variables, t-tests for continuous variables, & Mann-Whitney U tests for ordinal variables



RESULTS: Behavioral Risk Factors for HIV



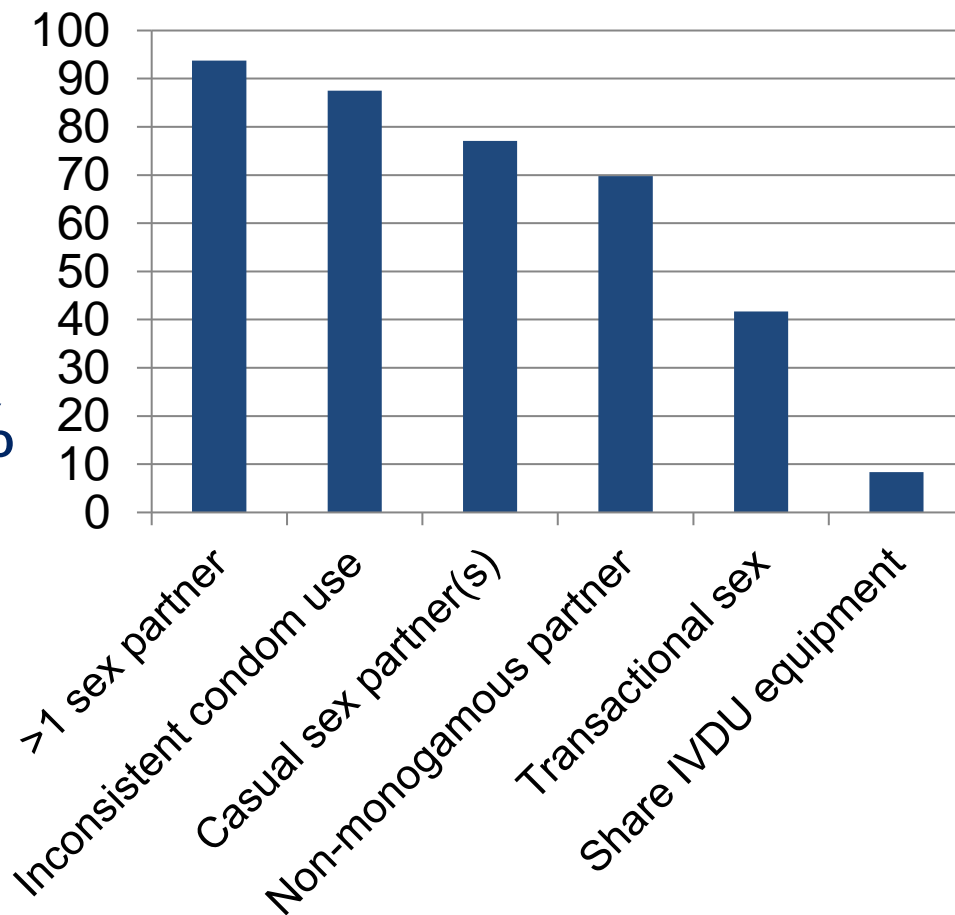
RESULTS: Behavioral Risk Factors for HIV



RESULTS: Sample Characteristics

- Mean age 27 years
- Majority:
 - Black: 71.6%
 - Single: 88.5%
 - Completed \geq high school/GED: 94.6%
 - Household income <\$25K: 51.5%

% of Participants with Behavioral Risk Factors



RESULTS:

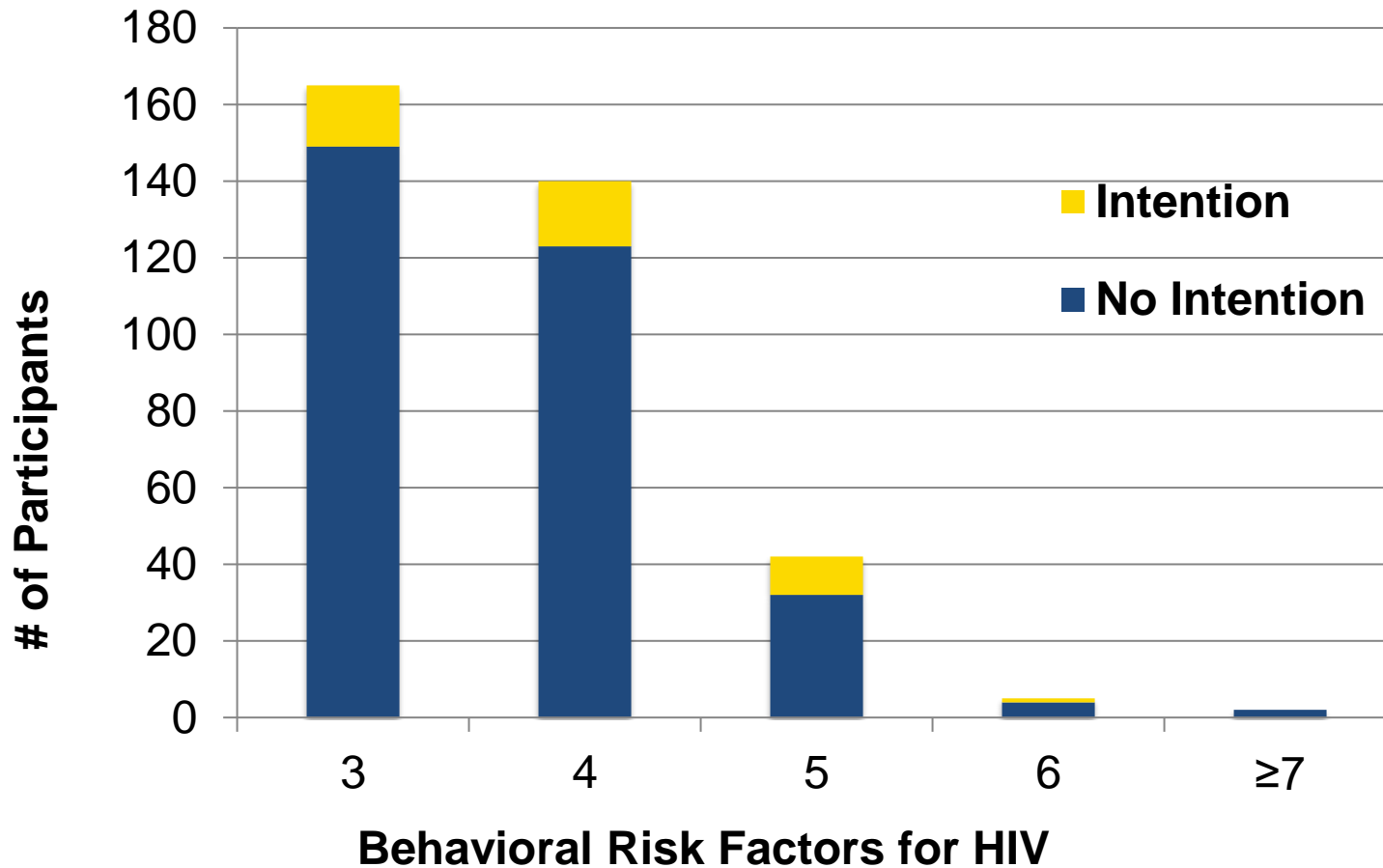
Perceived Risk, PrEP Awareness & Intention

- **Low perceived risk of HIV**
 - 8.7% moderate-high risk in next year
 - 15.7% moderate-high lifetime risk
- **12.3% a priori knowledge of PrEP**
 - Most commonly from a medical provider
- **48 (13.4%) “committed to starting PrEP in the next 12 months”**



RESULTS:

Risk Factors & Intention to Initiate PrEP



RESULTS: Intention to initiate PrEP

- Perceived risk was **NOT** associated with intention to initiate PrEP
- Age, race, marital status, income, distance from clinics, insurance status, transportation, housing, illicit drug use, and prior awareness of PrEP were **NOT** associated with uptake intention
- Prior discussion about PrEP with a **medical provider** was associated with intention to initiate PrEP ($p=0.02$)

RESULTS: Attitudes, Norms, & Efficacy

- **Positive attitudes** toward PrEP positively associated with uptake intention ($p < 0.01$)
 - PrEP is a safe/effective way to prevent HIV infection
 - Using daily PrEP would make me feel in control of my health
- **Perceptions of norms** (injunctive and descriptive) associated with uptake intention ($p < 0.01$)
 - Perceived support of **doctor**, partner, mother, best friend, sister
 - People would shame me if they learned that I was taking PrEP
- **Efficacy** positively associated with uptake intention ($p < 0.01$)
 - “I could take the pill every day, even if it gave me a stomachache”
 - “I could use PrEP, even if my main partner didn’t want me to”

CONCLUSIONS

- Anticipated demographic barriers and perceived risk of HIV were not associated with intention to initiate PrEP
- **Low concern for stigma/shaming and support from healthcare providers and social networks were positively associated with intention to initiate PrEP**
- Implications for **positive PrEP messaging** and development of interventions that center on the role of **providers in the provision of PrEP** and of **social networks in the destigmatization of PrEP**



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