

# Engagement in Outpatient Care for Patients Living with HIV (PLWH)

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No real or apparent conflicts of interest to disclose pertaining to this presentation

# Background

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- The HIV cascade illustrates HIV patients' varying level of engagement within the stages of HIV care
- Certain subgroups of PLHW demonstrate lower engagement in the various stages of HIV care and are also less likely to achieve viral suppression
  - Racial/ethnic minorities, males, younger patients

# Background

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- Prior studies that have applied the HIV cascade to various populations focused on patients receiving care in HIV medical care facilities
- These data are not representative of care received by PLWH throughout the United States, as not all PLWH receive care in HIV clinics
- Study Objective: To estimate engagement in outpatient care for PLWH, beyond facilities that specialize in HIV

# Study Overview

- Study Design:
  - This was a nationally representative, retrospective, cross-sectional, observational study
  - Patient data were retrieved from the National Hospital Ambulatory Medical Care Survey (NHAMCS)

## Inclusion Criteria:

Clinic visits between 2009-2010

ICD-9-CM code for HIV

## Exclusion Criteria:

Age <18 years at clinic visit

# Study Definitions - HIV

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<b>Disease/Condition</b>	<b>ICD-9-CM Code</b>
<b>HIV Disease</b>	042
<b>Asymptomatic HIV Infection</b>	V08
<b>HIV-2 illness</b>	079.53

# Study Definitions - Levels of Care

Level of Care	Definition
<b>Receiving any care</b>	≥1 clinic visit for a PLWH
<b>Receiving HIV care</b>	≥1 clinic visit with a primary ICD-9-CM code for HIV
<b>Established in care</b>	Patient previously seen within the clinic
<b>Engaged in care</b>	≥2 clinic visits in the past year
<b>Prescribed ARV</b>	Documentation of ≥1 ARV medication

# Statistical Analysis

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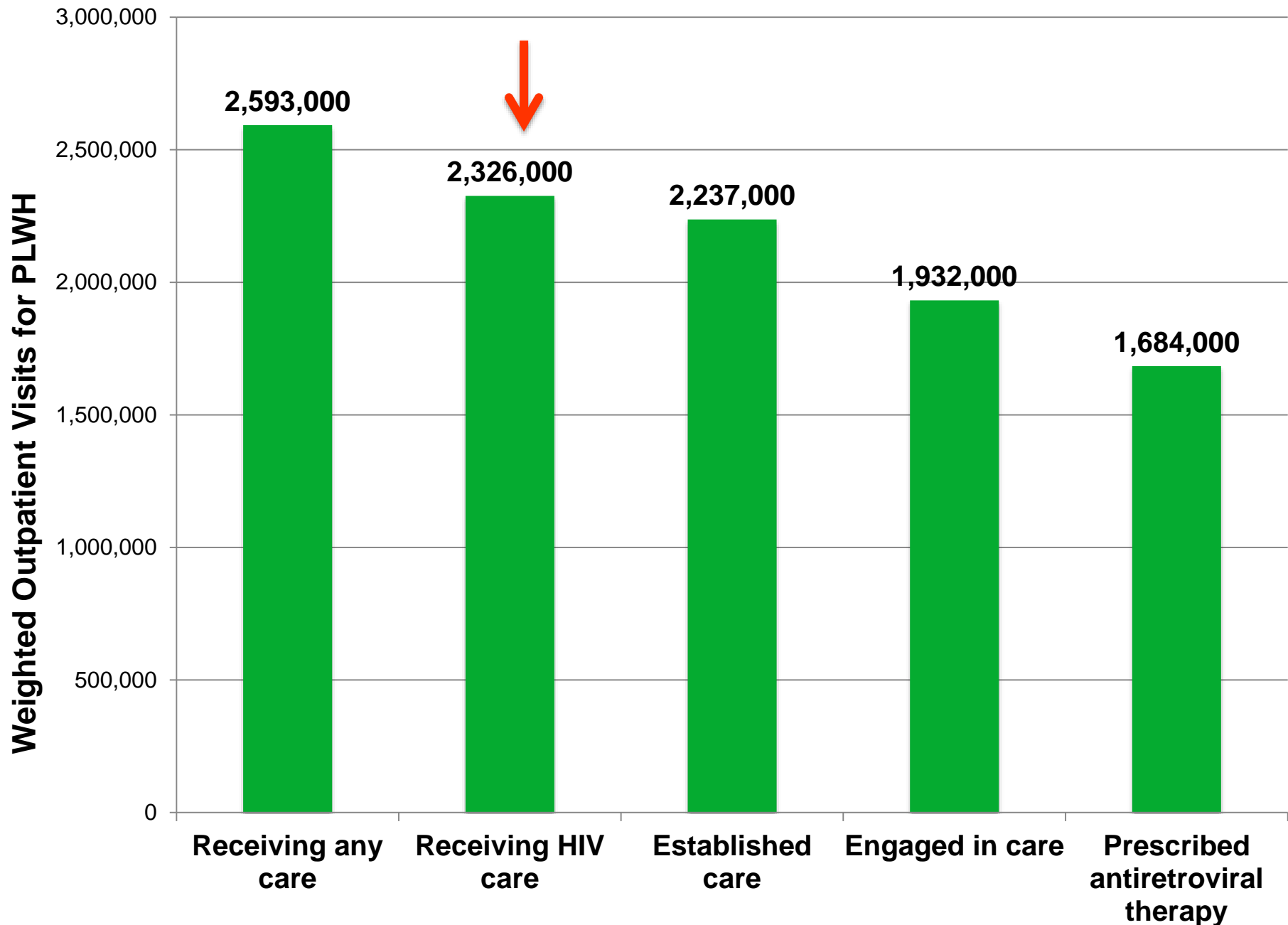
- Survey weights were incorporated to compute national estimates of outpatient clinic visits
- Covariates:
  - Patient demographics (age, race/ethnicity, sex, insurance status), visit characteristics (clinic geographic region in the United States, year of visit)
- Survey logistic regression model predicting ARV prescription based on relevant characteristics
- SAS version 9.2 (SAS Institute, Cary, NC)
  - SURVEYFREQ, SURVEYMEANS, SURVEYLOGISTIC



# Results - Levels of Engagement

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- ~2.6 million outpatient clinic visits for PLWH
- Of these visits:
  - 90% were receiving HIV-related care
  - 86% were established in care
  - 75% were engaged in care
  - 65% were prescribed ARV



	Age (years)				Sex			Race/Ethnicity				
	18-29	30-49	≥50	<i>P</i> -value	M	F	<i>P</i> -value	White	Black	Hisp.	Other	<i>P</i> -value
<b>HIV-Related Care, % *</b>	84.9	89.2	92.3	n.s.	91.0	85.7	n.s.	90.5	86.5	94.1	81.3	n.s.
<b>Established in Care among PLWH Receiving HIV Care, % *</b>	78.7	86.5	89.0	n.s.	87.6	82.5	n.s.	88.5	84.1	87.5	80.8	n.s.
<b>Engaged in Care among PLWH Established in Care, % ‡</b>	75.8	83.0	94.6	n.s.	86.4	86.1	n.s.	90.5	86.6	80.6	100	<b>&lt;0.001</b>
<b>Prescribed ARV among PLWH Established in Care, % ‡</b>	57.4	82.7	71.3	<b>0.004</b>	78.6	65.0	n.s.	81.0	67.1	80.2	83.3	n.s.

n.s. = not significant

\* Number of visits meeting study criteria was used as the denominator

‡ Number of visits for PLWH established in care was used as the denominator

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# Factors associated w/ ARV Prescription

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- Type of provider seen at time of clinic visit was associated with ARV prescription
  - OR=0.27, 95% CI=0.15-0.51
- Routine engagement in care was not associated with ARV prescription ( $\geq 2$  clinic visits in the past year)
  - OR=0.99, 95% CI=0.96-1.03

# Discussion

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- Engagement in HIV care decreased with progressing levels of care
- Fewer PLWH receiving HIV-related care were prescribed ARV compared to other studies
  - This may be a reflection of low ARV treatment utilization in non-specialty clinics
- Younger adults were less likely to be engaged in care or to be prescribed ARV compared to older adults
  - Need for targeted interventions

# Discussion

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- No. of visits in the past year was not associated with ARV prescription
  - Routine clinic visits may be missed opportunities to promote ARV use for PLWH
- Limitations:
  - Lack of objective laboratory markers
  - Cross-sectional study, engagement in care can fluctuate
- Conclusion:
  - Many PLWH lack ARV coverage, underscoring the significance of the missed opportunities in outpatient care to initiate ARV

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# Questions?

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