



# **Moving Beyond Viral Suppression: Poor Patient-Provider Communication and its Impact on Overall Health Management Among People Living with HIV in the United States**

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# Background and Objectives

- Improving HRQoL beyond viral suppression an increasing focus of PLHIV
- Patient-provider communication plays a pivotal role in managing overall health and improving HRQoL
- **THRIVE Study Objectives:** To understand gaps and unmet needs associated with interactions between PLHIV and primary clinicians who manage their HIV in relation to managing overall health

# Methods



**Design:** A cross-sectional Web-based survey among PLHIV in the US aged  $\geq 18$  years currently on ART (for at least 6 months), fielded from February-June 2022

## **Variables and Measures:**

- Sociodemographic, social determinants of health, clinical factors
- Patient activation level:
  - Knowledge, skills, and confidence in managing one's own health and healthcare, measured by Patient Activation Measure® (PAM®) score
- General and HIV-specific health locus of control (HLOC):
  - Measured by Multidimensional Health Locus of Control (MHLC).



## Variables and Measures (continued):

- Difficulty verbalizing their health concerns with primary HIV clinician
  - Four health concerns: General wellness, non-HIV-related illness, sexual health, HIV health (5-point scale from extremely difficult to extremely easy)
  - Defined overall difficulty of verbalizing health concerns: Extremely or somewhat difficult to  $\geq 1$  of the four health concern areas
- Satisfaction with their primary clinician who manages HIV
  - 5-point scale from not at all satisfied to extremely satisfied
- Healthcare outcomes
  - Self-reported overall health status (5-point scale, from poor to excellent)
  - Suboptimal ART adherence: intentionally or purposively skipping doses of any medications used to treat HIV (sometimes, often, or always)

# Statistical Analysis

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- Descriptive analyses
- Logistic regression analyses assessed factors associated with difficulty verbalizing health concerns, satisfaction with HIV primary clinician's care, and self-reported poor overall health
  - Sociodemographic, clinical and HIV-related factors, and patient activation and locus of control were explored in the analyses
  - Predictors selected based on statistical significance in bivariate analysis and clinical relevance
  - Odds ratios, 95% confidence intervals, and p values are presented

# Sociodemographic Characteristics

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Analyses included 781 PLHIV; mean (SD) age was 43.7 (13.5) years.

Characteristic	n = 781
<b>Age, n (%)</b>	
<50 years	523 (67.0)
≥50 years	258 (33.0)
<b>Sex assigned at birth, n (%)</b>	
Female	295 (37.8)
Male	482 (61.7)
Other	4 (0.5)
<b>Gender identity, n (%)</b>	
Cisgender female	286 (36.6)
Cisgender male	439 (56.2)
Transgender male	14 (1.8)
Transgender female	15 (1.9)
Gender non-conforming	14 (1.8)
Additional gender category	13 (1.7)
<b>Sexual orientation, n (%)</b>	
Heterosexual	356 (45.6)
Homosexual (gay, lesbian, same-gender loving)	282 (36.1)
Bisexual	115 (14.7)
Other	28 (3.6)

Characteristic	n = 781
<b>Race/ethnicity, n (%)</b>	
White	402 (51.5)
Black or African American	191 (24.5)
Hispanic or Latinx	155 (19.8)
Another race	30 (3.8)
Prefer not to say	3 (0.4)
<b>Education, n (%)</b>	
High School graduate or less	152 (19.5)
Some college or associate degree	326 (41.7)
College degree or higher	303 (38.8)
<b>Employment status, n (%)</b>	
Employed (full-time, part-time, self-employed)	539 (69.1)
Retired	67 (8.57)
Disability (short-term or long-term)	98 (12.5)
Not employed*	77 (9.9)
<b>Insurance status,<sup>†</sup> n (%)</b>	
Commercial/Private insurance	334 (42.8)
Government insurance	392 (50.2)
Uninsured	54 (6.9)

\*Includes homemakers and students

†1 respondent reported being insured but was unsure about coverage type

# Clinical Characteristics

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Characteristic	n = 781
<b>Social determinants of health (SDOH)</b>	
Housing instability,* n (%)	439 (56.2)
Food insecurity,† n (%)	447 (57.2)
<b>BMI, n (%)</b>	
Underweight	161 (20.6)
Normal weight	213 (27.3)
Overweight	205 (26.2)
Obese	202 (25.9)
<b>Smoking status, n (%)</b>	
Current smoker	252 (32.3)
Former smoker	234 (30.0)
Never smoker	295 (37.8)
<b>Multimorbidity‡, yes, n (%)</b>	664 (85.02)
<b>Most common self-reported comorbidities, n (%)</b>	
Anxiety	287 (36.7)
Depression	241 (30.9)
High blood pressure	202 (25.9)
Arthritis	161 (20.6)
High cholesterol	152 (19.5)

\* Rating of "somewhat to extremely worried about stable housing"

† Rating of "sometimes to often worried food would run out before I could buy more"

‡ Defined as ≥1 non-HIV comorbidities

Characteristic	n = 781
<b>Duration of HIV, n (%)</b>	
6 months to <1 year	104 (13.3)
1 to <5 years	245 (31.4)
5 to <10 years	142 (18.2)
≥ 10 years	290 (37.1)
<b>Has HIV ever been undetectable or virally suppressed, n (%)</b>	
Yes	709 (90.8)
No	49 (6.3)
I don't know	23 (2.9)
<b>Polypharmacy, yes, n (%)</b>	<b>314 (40.2)</b>
<b>Primary clinician who manages HIV</b>	
Primary Care Physician or Doctor (General Practitioner, Family Practitioner, or Internist)	153 (19.6)
Infectious Disease Specialist or HIV Specialist	506 (64.8)
Physician Assistant (PA)	34 (4.4)
Nurse Practitioner (NP)	47 (6.0)
Traditional healer, functional medicine or holistic practitioner	32 (4.1)
Other	9 (1.2)

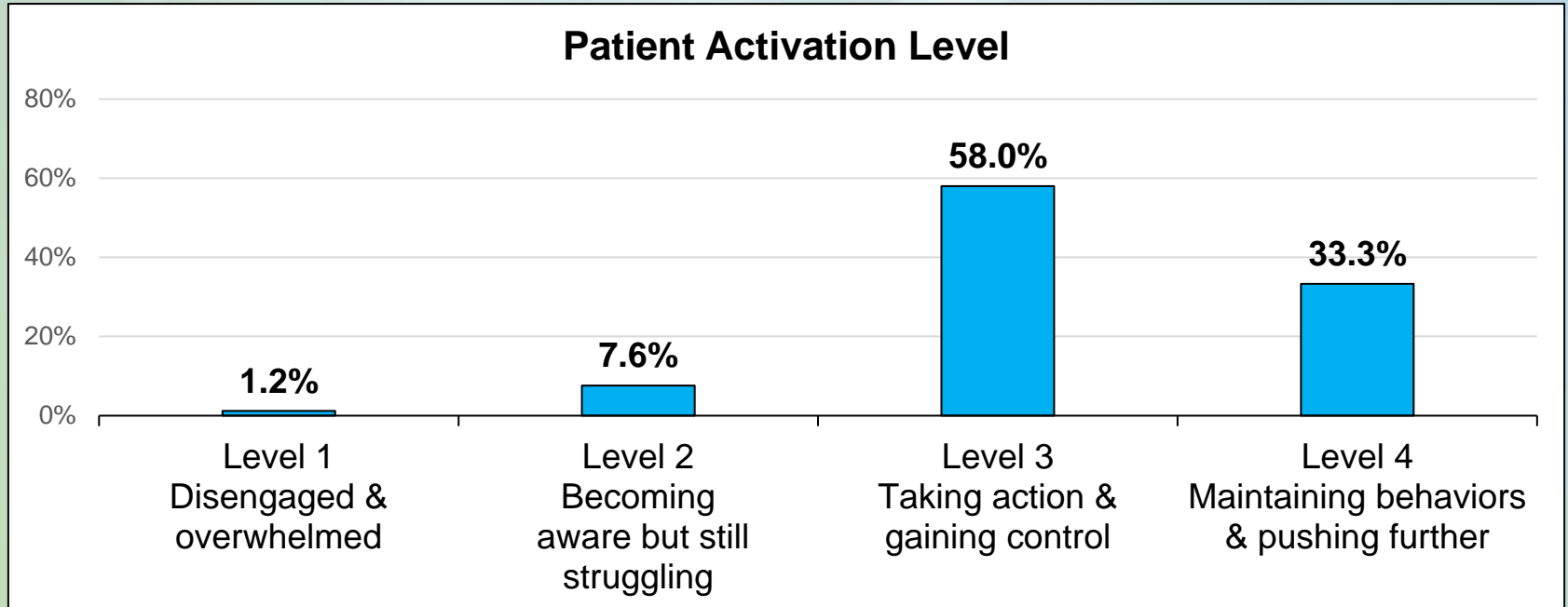
\* Defined as ≥1 taking ≥5 pills/day or currently taking medicines for ≥5 conditions



# Patient Activation



Most respondents had high patient activation (91.3% Level 3 or 4); mean (SD) score was 69.9 (13.3) [range:1.2-100].



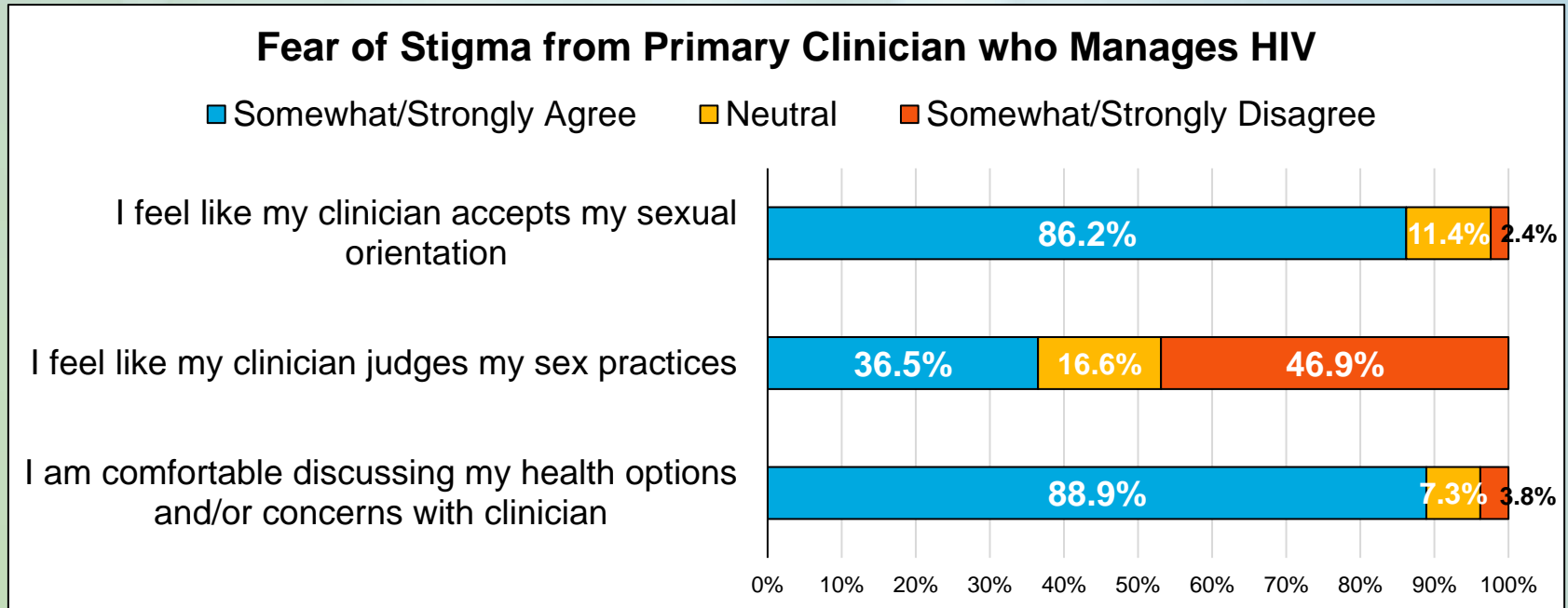


# Barriers in Patient-Provider Communication in Managing Overall Health

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Over one-third (~37%) of respondents reported feeling like their primary HIV clinician judges their sex practices.

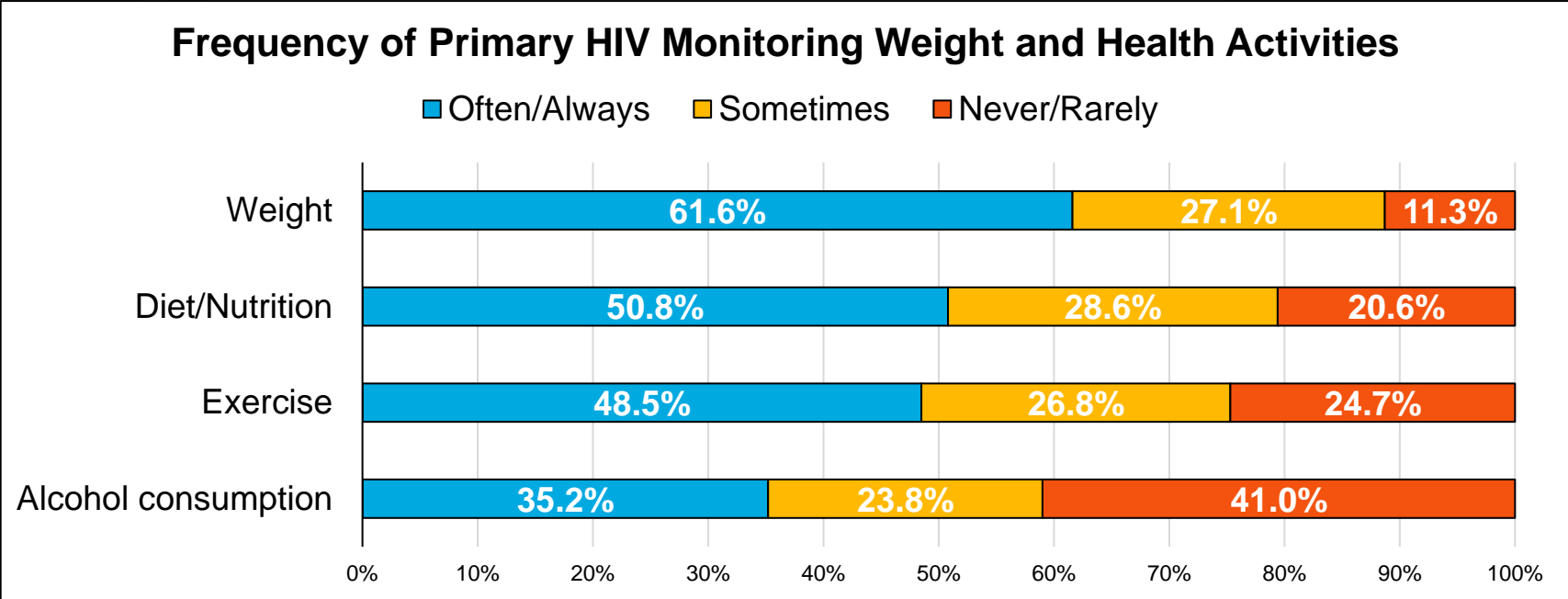


# Gaps in Patient-Provider Communication In Managing Overall Health

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41% and 25% of respondents reported that alcohol consumption and exercise, respectively, were never or rarely monitored by their primary HIV clinician.

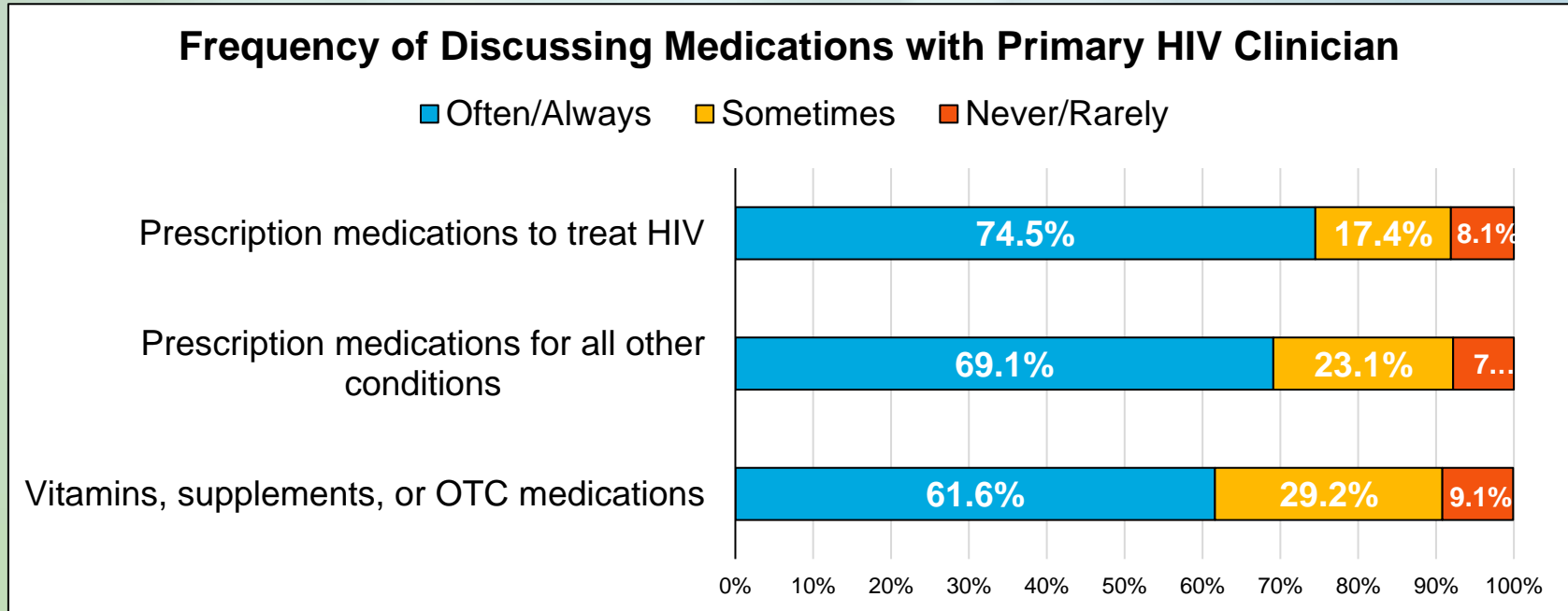


# Gaps in Patient-Provider Communication in Managing Overall Health

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~25% of respondents reported never to sometimes discussing HIV prescription medications, and ~30% never to sometimes discussed other conditions' medications with their HIV clinician.

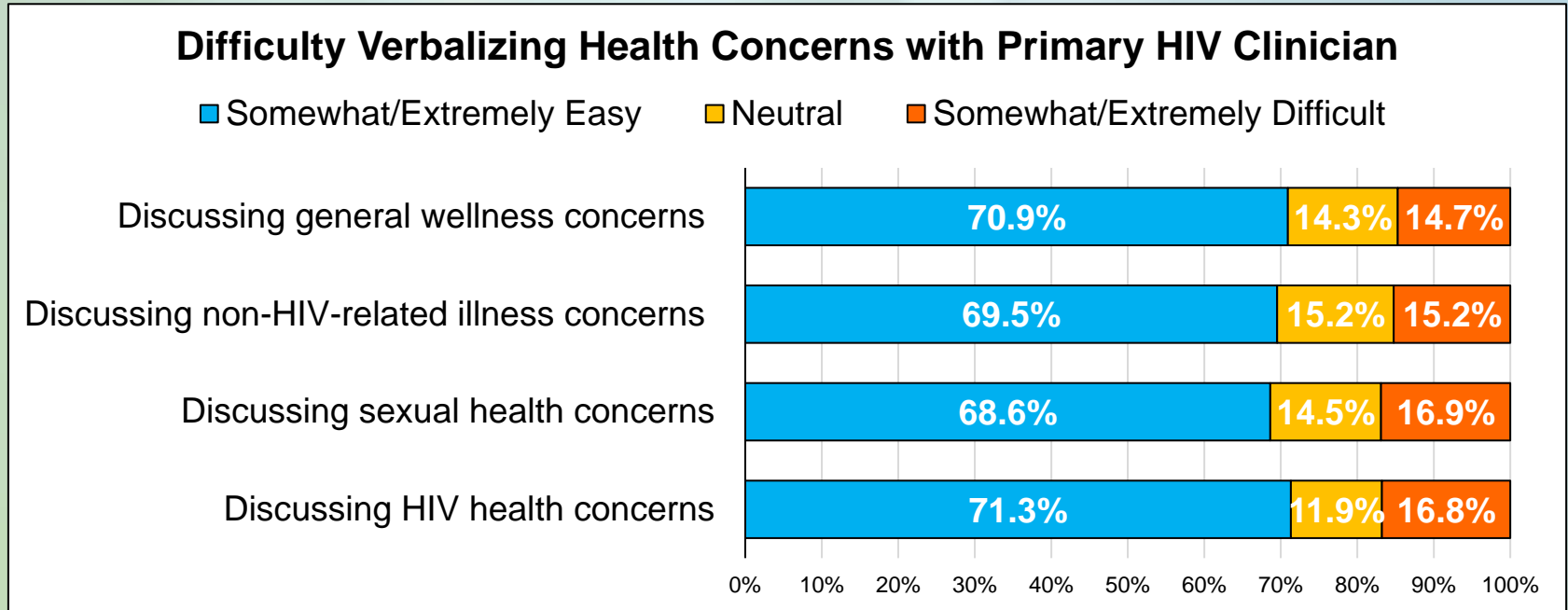


# Gaps in Patient-Provider Communication In Managing Overall Health

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~15% of respondents reported difficulty verbalizing specific health concerns, and 33.4% reported difficulty verbalizing at least 1 health concern with their primary HIV clinician.

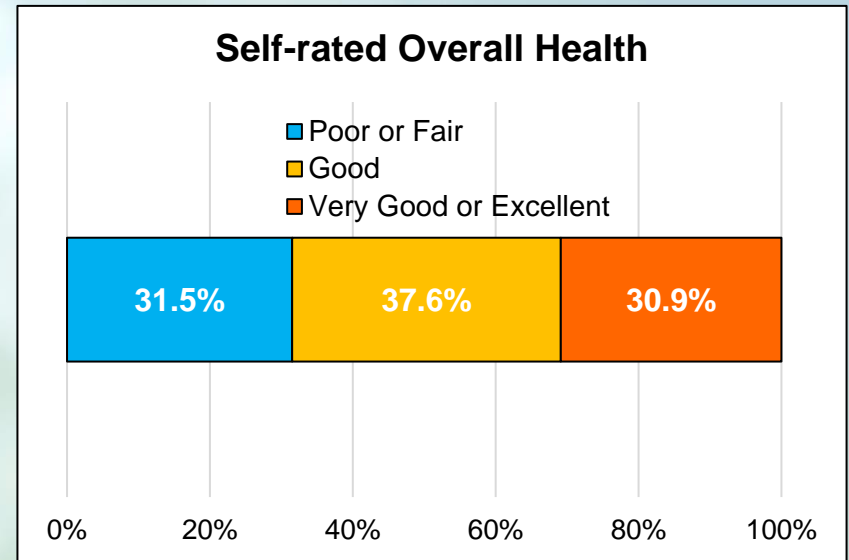
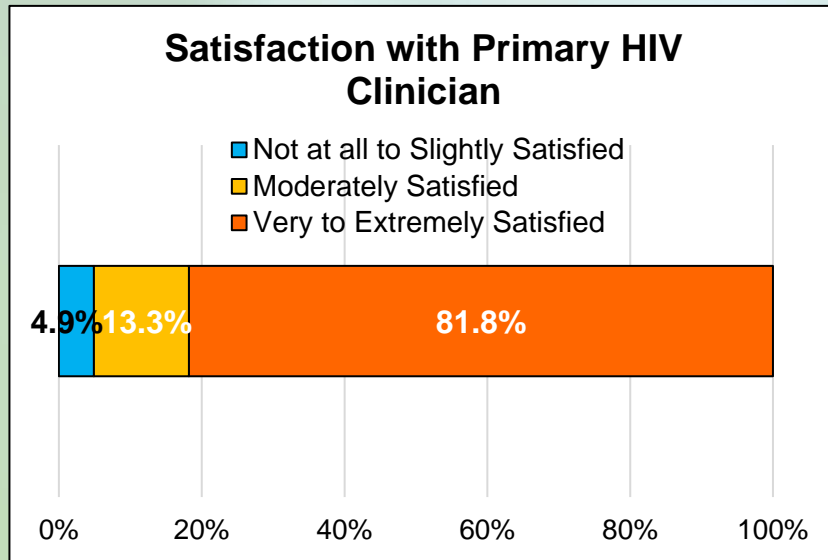


# Satisfaction with Primary HIV Clinician and Poor Overall Health

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- 18.2% reported not very/extremely satisfied with the primary clinician who manages their HIV; 31.5% rated their overall health as poor.

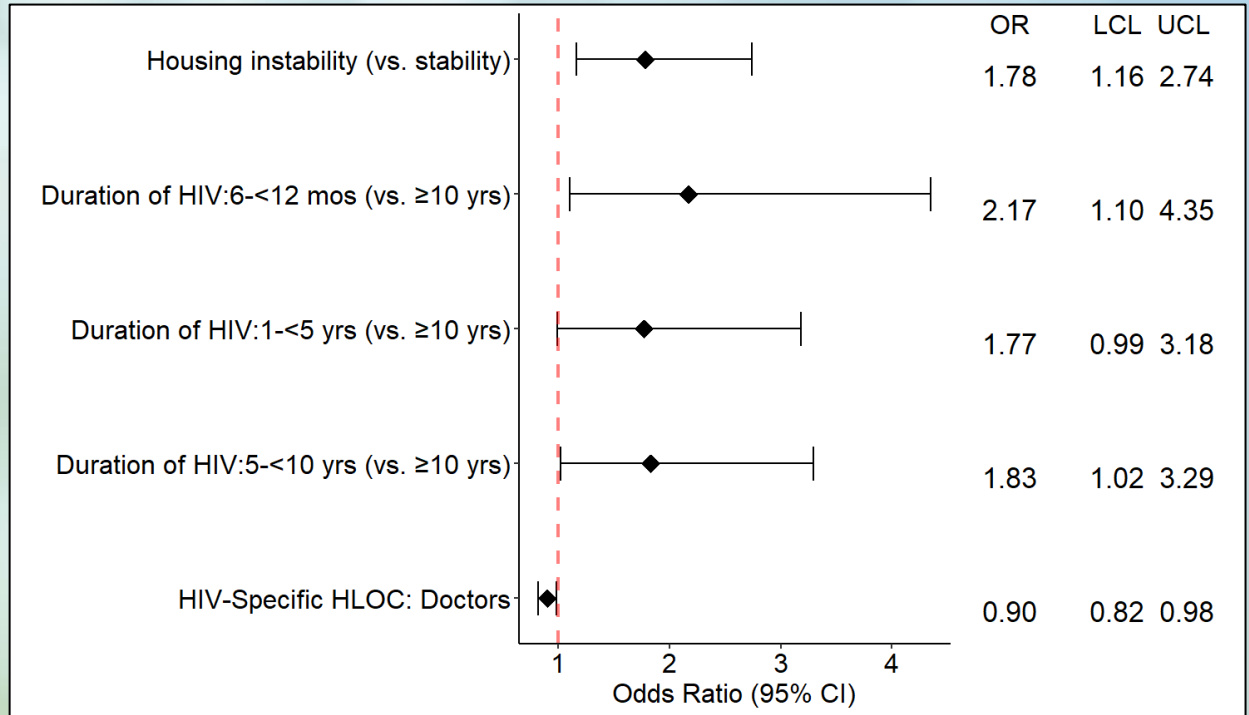


# Factors Associated with Difficulty Verbalizing Health Concerns



## PLHIV having:

- Housing instability
- Shorter duration of HIV
- Lower belief that their HIV health is determined by their doctors were associated with higher odds of difficulty verbalizing their health concerns.



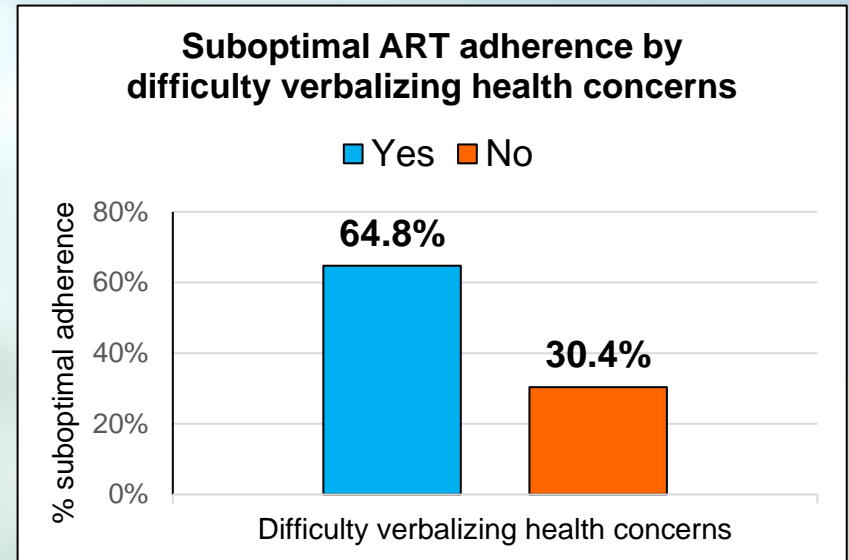
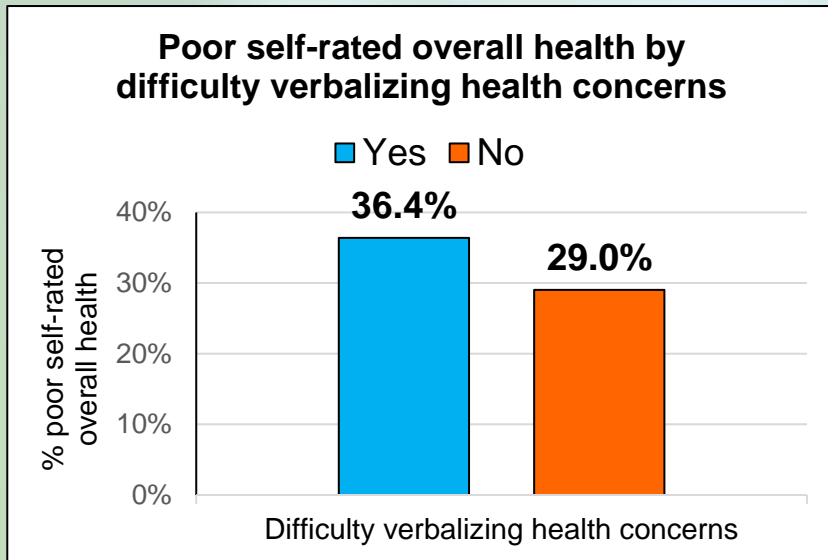
Odds ratios (ORs) and 95% confidence intervals from a binary logistic generalized linear model examining factors that are associated with difficulty verbalizing health concerns with the primary clinician who manages HIV.

# Difficulty Verbalizing Health Concerns versus Healthcare Outcomes

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In bivariate analysis, PLHIV with difficulty verbalizing health concerns, versus those without, were more likely to report poor overall health ( $p=0.04$ ) and suboptimal ART adherence ( $p<0.001$ ).



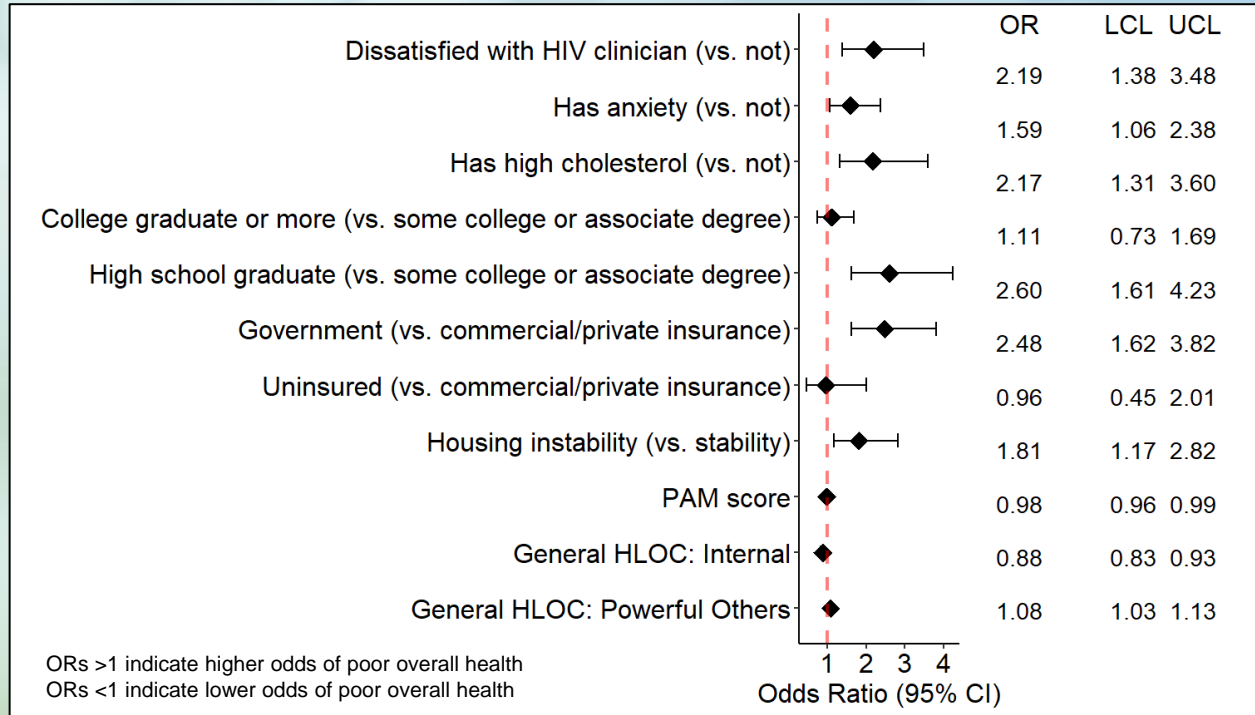


# Factors Associated with Poor Overall Health



**PLHIV dissatisfied with their primary HIV clinician had 2.2 times the odds of reporting poor overall health.**

**Other factors associated with poor overall health included factors such as anxiety and housing instability.**



Odds ratios (ORs) and 95% confidence intervals from a binary logistic generalized linear model examining factors that are associated with fair/poor self-rated overall health (reference: good/very good/excellent self-rated overall health).

# Limitations



- Data were self-reported and may be subject to methodological limitations
  - Recall bias could affect the accuracy of the reported data, as participants may forget certain details or experiences
  - Social desirability bias may lead to responses aligned with social norms.
- Data is cross-sectional, therefore, causal inferences cannot be made
- Highly engaged patient population (high patient activation levels) may not be representative of the general population of PLHIV in the US

# Conclusions

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- This study underscores the critical role of an optimized patient-provider relationship in influencing individual holistic well-being beyond viral suppression
- Healthcare interventions should prioritize strategies to enhance patient communication and satisfaction, recognizing its profound impact on HIV and overall health outcomes



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**Thank You!**