

# PUTTING THE HEART BACK INTO HAART: GREATER HCP-PATIENT ENGAGEMENT IS ASSOCIATED WITH BETTER HEALTH OUTCOMES AMONG PERSONS LIVING WITH HIV (PLHIV) ON TREATMENT

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## Background

- While in many settings HIV care involve fewer face to face appointments, a greater movement pushes toward achieving the UNAIDS 90-90-90 targets<sup>1</sup>
  - In this context, optimizing the relationship between healthcare provider (HCP) and patient is critical
- In addition, inclusion of a fourth "90" target is intended to ensure that 90% of all people living with HIV (PLHIV) have good health-related quality of life (QOL)<sup>1</sup>
- Today there is increasing recognition by HCPs to work towards achieving the fourth 90 as an added marker of treatment success beyond virologic control
- We investigated healthcare provider (HCP)-patient communication and engagement and explored associations with indicators of Quality of Life and health outcomes among PLHIV

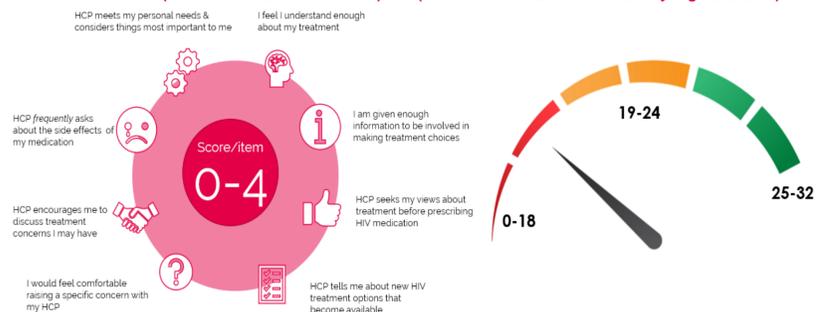
## Methods

- We analyzed data from the 2019 Positive Perspectives Survey of PLHIV in 25 countries (N=2389)<sup>2</sup>
- This was a web-based survey conducted between April 2019 and January 2020 to capture attitudes, perceptions, and knowledge about antiretroviral therapy (ART)
  - An advisory committee comprising PLHIV, PLHIV advocacy groups, and HCPs helped identify key themes
- A combination of different non-probability-based sampling approaches was used to recruit participants, including snowball sampling, targeted sampling within Patient Advocacy Groups, Patient Support Groups or HIV Charities; and use of existing panels of PLHIV
- Surveyed participants were from North America (N=520), Europe (N=1119), Latin America (N=221), Asia (N=230), Australia (N=120), and South Africa (N=179)
- Inclusion criteria were as follows:
  - Male or female, aged 18 to 84 years, and willing and able to provide electronic/verbal informed consent to participate
  - Self-identify as having been diagnosed by a doctor or other HCP as being HIV seropositive, and currently on ART
  - Resident of selected country and be able to communicate in the language with which the survey is being administered

## Key Measures and Approach

- Participants were asked, "What is your most recent viral load?"
  - Those answering "undetectable" or "suppressed" were classified as reporting viral suppression; those answering "detectable" or "unsuppressed" were classified as reporting being virally unsuppressed; and those answering, "I don't know" or "prefer not to say" were classified as indeterminate status
- Participants were classified as fully (100%) adherent if they did not report missing ART for even one time in the past month
- Individuals diagnosed with HIV for 2 years or longer before the survey were classified as being treatment experienced
- Patient engagement in care (low, moderate, high), was measured based on a modified version of the Observing Patient Involvement scale<sup>3</sup>
- Data were analyzed using descriptive and multivariable techniques
- Figure 1 illustrates the 12-item Observing Patient Involvement scale

Figure 1. Modified From the Observing Patient Involvement (OPTION) Scale, a 12-Item Scale Where Each Item Is Scored Between 0 (the Behavior Is Not Observed) to 4 (the Behavior Is Exhibited to a Very High Standard)



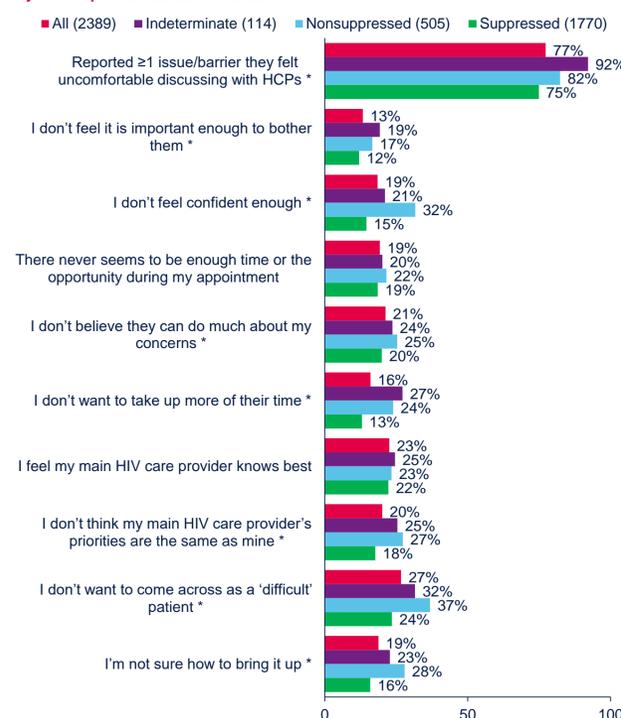
## Results

- Most of the study population reported being virally suppressed (74%); younger (<50 y, 71%); men (68%); and diagnosed prior to 2017 (77%); Table 1
- Figure 2 details perceived communication barriers by PLHIV of HCPs by viral load status

Table 1. Characteristics of the Study Population (N=2389)

Variable	Categories	Distribution
Self-reported virologic status	Indeterminate (114)	5%
	Nonsuppressed (505)	21%
	Suppressed (1770)	74%
Age	<50 (1690)	71%
	50+ (699)	29%
Gender	Men (1623)	68%
	Other gender (70)	3%
	Women (696)	29%
Sexual orientation	Heterosexual (984)	41%
	Homosexual (1094)	46%
	Other sexual orientation (311)	13%
Year of HIV diagnosis	2017 to 2019 (548)	23%
	2010 to 2016 (913)	38%
	Pre-2010 (928)	39%
Region	Northern America (520)	22%
	Europe (1119)	47%
	Latin America (221)	9%
	Asia (230)	10%
	Australia (120)	5%
	South Africa (179)	7%

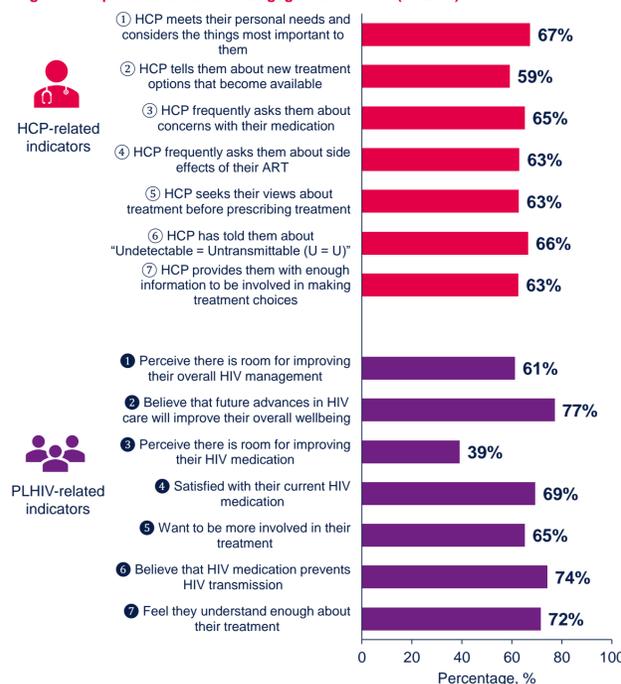
Figure 2. Perceived HCP Communication Barriers Reported by PLHIV, by Self-Reported Viral Load Status



\*P<0.05.

- Those not virally suppressed were the most likely to report barriers
- Overall, 68% had shared their HIV status with a family doctor not providing HIV care, and this was higher among those virally suppressed (72%) than either those non-suppressed (57%) or with indeterminate status (51%)
- Figure 3 illustrates indicators of engagement in care

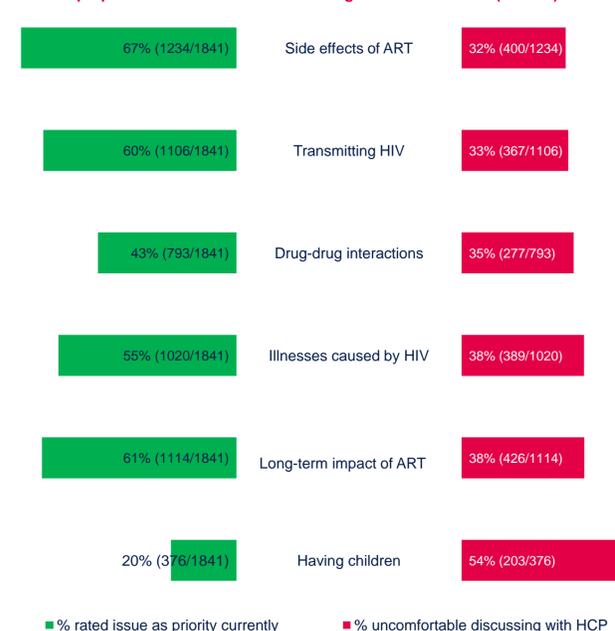
Figure 3. Reported Indicators of Engagement in Care (N=2389)



- 59% were updated on new treatment options
- 63% reported their HCP asked their views before new treatments
- 72% reported they understood their HIV treatment
  - However, 65% still wanted more involvement

- The top issues considered treatment priorities among those diagnosed for ≥2 years were concerns regarding (Figure 4):
  - ART side effects (67%) and
  - Long-term impacts (60.5%)
  - Transmitting HIV (60.1%)
- Yet, among those rating these issues as important, ~one-third were uncomfortable discussing with their HCP

Figure 4. Illustrates treatment priorities of PLHIV who had been on ART for ≥2 Years and the proportion not comfortable discussing this with their HCP (N=1841)



- Figure 5 details the relationship between engagement in care and health outcomes

Figure 5. Adjusted Odds Ratios and Corresponding 95% Confidence Intervals for the Relationship Between Engagement in Care and Health Outcomes (N=2389)

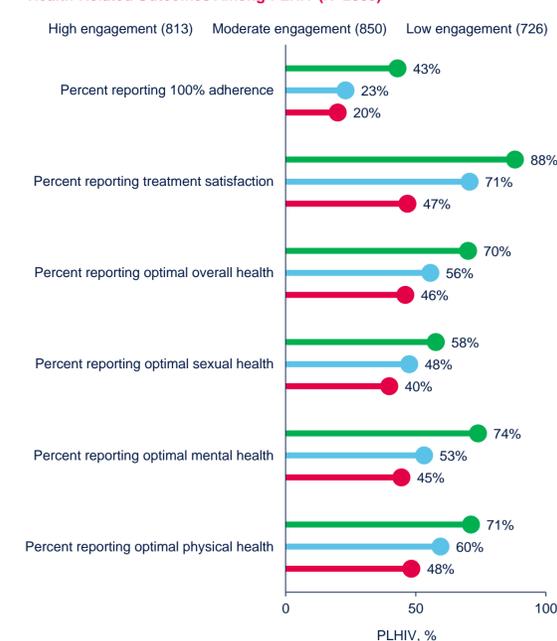
SPECIFIC HCP BEHAVIOR	PATIENT-REPORTED OUTCOME WITH LARGEST OBSERVED ASSOCIATION	# OF TIMES HIGHER ODDS OF OUTCOME BEHAVIOR VS THOSE NOT EXPOSED
① HCP provides enough information	Patient feels knowledgeable about HIV	5.9 (4.9-7.2)
② HCP seeks patients' view on treatment	Patient reports that their treatment needs are met	4.5 (3.7-5.5)
③ HCP inquires about treatment concerns	Patient reports that their treatment needs are met	3.7 (3.1-4.5)
④ HCP asks about ART side effects	Patient reports that their treatment needs are met	4.6 (3.8-5.6)
⑤ HCP discusses new treatment options	Patient reports that their treatment needs are met	4.3 (3.6-5.2)
U=U HCP has informed patient of "U=U"	Patient reports that their treatment needs are met	2.9 (2.4-3.5)

Logistic regression models controlled for gender, sexual orientation, age, duration of disease, comorbidities, region, and education. Values indicated with confidence intervals (CL).

- Specific HCP behaviors were associated with various patient responses differentially
- The strongest patient responses attributable to specific HCP behaviors are shown above
- PLHIV reporting that their HCP provided them with enough information to be involved in making treatment choices had 5.9 times higher odds than those not provided with enough information
- Involvement of patients in care, eg, seeking their view before prescribing new treatment was associated with 4.5 times higher odds of perceiving treatment needs as being met
- Of HCP behaviors assessed, the one most strongly predictive of patients' desire to be involved in care was HCPs discussing of new treatment options with patients (AOR=1.35; P<0.05)

- Prevalence of positive outcomes increased with increasing HCP engagement (Figure 6)
  - For example, the percentage who did not miss a single dose in the past month was 20% among those with low engagement, 23% with medium, and 43% with high engagement
  - Within adjusted analyses, consistent results were seen. Odds of 100% adherence (0 missed dose/past 30d) were 1.3 and 3.0 higher among those with moderate and high engagement respectively, compared to low HCP engagement (all P<0.05)

Figure 6. Relationship Between Extent of HCP-Patient Engagement and Health-Related Outcomes Among PLHIV (N=2389)



## Discussion

- Good communication with HCPs on specific issues was associated with PLHIV reporting better understanding of their treatment and perceiving their treatment needs as met
- Even for the top three issues deemed as current priorities to PLHIV (ART side effects, long-term impacts of ART, and transmitting HIV to a partner), about a third of affected PLHIV did not feel comfortable sharing these concerns to their HCPs
- Of HCP behaviors assessed, the one most strongly predictive of patients' desire to be involved in care was HCPs discussing of new treatment options with patients
- Improving quality of communication between patients and HCPs may better support the fourth 90 goal of improving aspects of quality of life
  - PLHIV can be empowered by community and patient associations to ask HCPs who care about their health issues

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**Conflicts of Interest:** CO, MMB, and MM are employees of ViiV Healthcare.

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