



# Determinants of Quality of Life in PLWH effectively treated with ART

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## Introduction

Measuring progress towards the HIV care cascade allows to identify processes that should be improved to achieve UNAIDS 95-95-95 goal. We focused our attention on the fourth “95”: health related quality of life (HRQoL).

## Methods

We calculated the number of PLWH using the eCDC HIV modeling tool (version 1.3.0) that estimates the size of the undiagnosed population. Data on the diagnosed and treated populations were derived from the clinical database of the only Provincial Center authorized to treat HIV infection. Virologic response to ART was defined according to the last available HIV-RNA measure. HRQoL was assessed by EuroQol 5 Dimensions (EQ-5D) patient questionnaire using EQ-5D index score responses (scale - 0.594 to 1; worst to best health status). We defined as good an HRQoL status with an index score >0.75 that is no more than a modest discomfort in no more than 1 domain. A probit model was used to assess the outcome in relation to baseline variables.

## Results

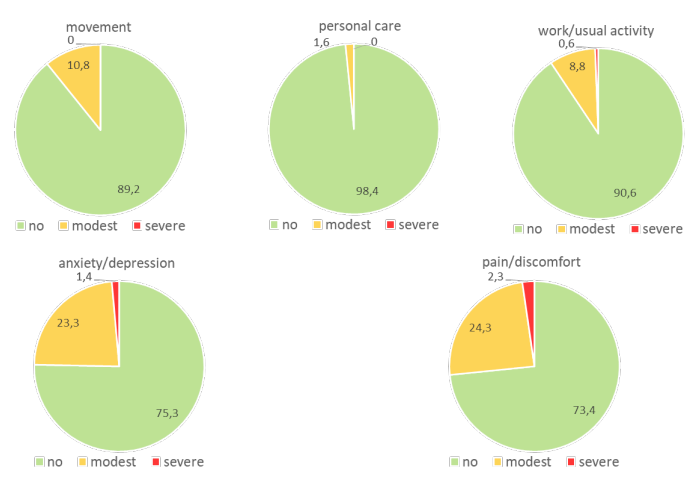
At January 2022 the estimated number of PLWH was 3225 . All subjects on active FU (2834) were actively taking ART and 98.5% of them had their last viral load < 200 copies/ml, for a final proportion of PLWH virally suppressed of 86.45% just above the 95-95-95% goal. We focused our attention on PLWH with suppressed viremia. Their mean HRQoL was 0.88 (95%CI 0.87-0.909) with 82.6% of persons indicating an index >0.75 thus reaching the threshold for the UNAIDS fourth “95” goal. A severe discomfort was reported by no more than 2.3% of persons. The “pain” and “anxiety/depression” domains resulted those with the greatest negative impact on HRQoL. However, 56% of people indicated a perfect HRQoL status (index 1). According to probit analysis, neither age, gender or any characteristic of HIV infection including last CD4 or CD8 counts, nadir of CD4, CDC category, number of ARV drugs significantly influenced HRQoL that was significantly linked only with the number of chronic co-pathologies (P = 0.002).

### Baseline characteristics

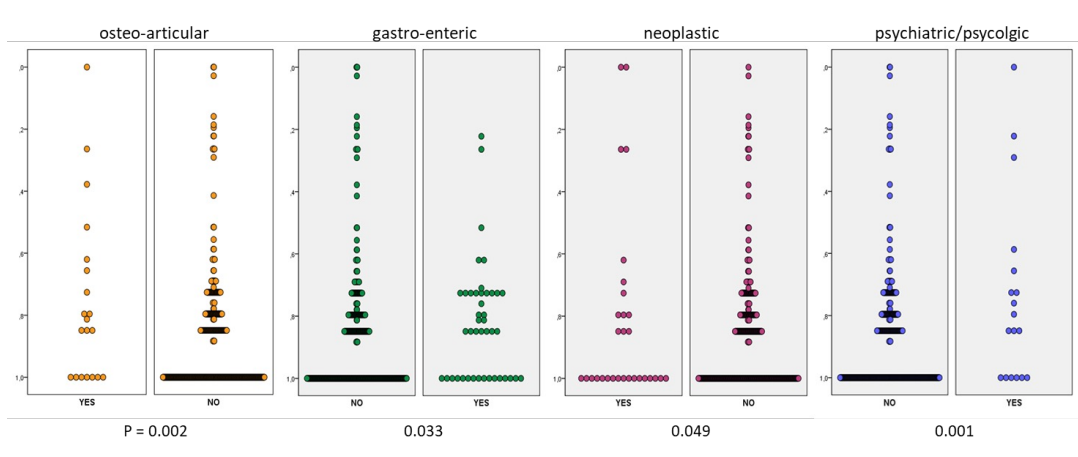
variable	percentage
Gender	
male	79.3
female	20.7
Origin	
Italian	95.3
Risk factor for HIV	
Eterosexual	45.5
MSM	31.4
IVDU	22.5
Others	0.6
PLWH with QoL > 75%	81.7

## Main Results

### Responses at the 5 domains of EQ5D questionnaire



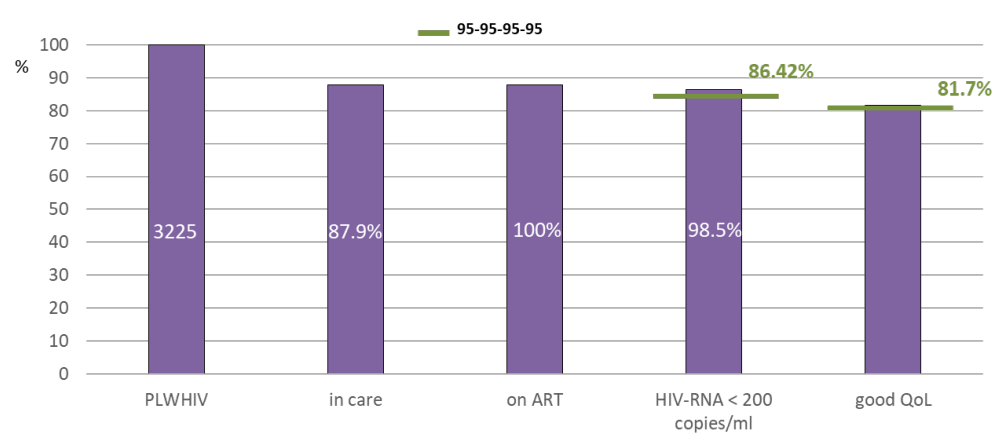
### Effect of selected chronic co-morbidities on HRQoL



### Probit analysis indicating factors associated with HRQoL

Variable	OR	95% CI	P
age	0.991	0.974-1.009	0.324
gender	0.938	0.64-1.433	0.767
basal CD4	1.000	0.999-1.001	0.898
last CD4	1.000	0.999-1.000	0.597
last CD8	1.000	1.000-1.001	0.173
CDC/C3	0.975	0.619-1.537	0.914
number of ARV drugs	0.823	0.582-1.165	0.273
<b>number of co-pathologies</b>	<b>0.811</b>	<b>0.708-0.929</b>	<b>0.002</b>

### Provincial cascade of care: the fourth 95 has been reached



## Conclusions

- Reported HRQoL was completely independent from the classical tools for describing HIV infection or from the type of ARV therapy.
- Much more relevant was the weight of some concomitant chronic diseases especially if they could influence specific domains such as “pain/discomfort” or “anxiety/depression” which have the greatest negative impact on HRQoL.
- Chronic co-pathologies with potential impact on these domains should be addressed carefully in clinical practice.