

## Background

People with HIV (PWH) have a higher risk for severe disease due to SARS-CoV-2 infection. There are few studies on the frequency of PASC in PWH, the associated factors, and its impact on quality of life. We aim to analyze the frequency of PASC in PWH and its impact on the quality of life among PWH in care at the HIV Clinic of a tertiary teaching Hospital (INCMNSZ).

## Methods

All individuals seen at the HIV Clinic from November to December of 2022, with a history of acute COVID-19 from January 1, 2021, to August 31, 2022, were included. Data were collected from the electronic chart. A validated questionnaire was conducted to collect data related to the episode of acute COVID-19 and PASC defined as the presence of persistent-new symptomatology or laboratory-radiological abnormalities 12 weeks after acute COVID-19 with no other cause in addition to an assessment of health-related quality of life using EuroQol-5D-5L (EQ-5D-5L) with values set for Mexican adult general population.

## Results

399 individuals were seen during the study period, 103 had acute COVID-19 and 80 agreed to participate. All 80 participants were on ART during the study period, and 29(36%) had PASC. Fatigue was the most frequent symptom (72%), followed by anxiety (50%), headache (50%) and insomnia (48%) **Fig 1**. The percentage of individuals with CD4 cell count <200 was similar between participants with PASC vs without PASC (17% vs 10%, p=0.48); also the percentage of participants with three doses of SARS-CoV-2 vaccination (90% vs 92%, p=0.69, respectively).

**Fig 2** Shows the frequency by type of SARS-CoV-2 vaccines reported.

Female (p=0.023), overweight/obesity (p=0.03), and the presence of >3 comorbidities (p=0.049) were more likely to be present in the PASC group. Individuals with PASC had a negative impact on quality of life (p=0.0007) and lower overall health status (p=0.01). The absence of PASC was associated significantly with a greater perception of maximum health status (p=0.0003).

## Conclusions

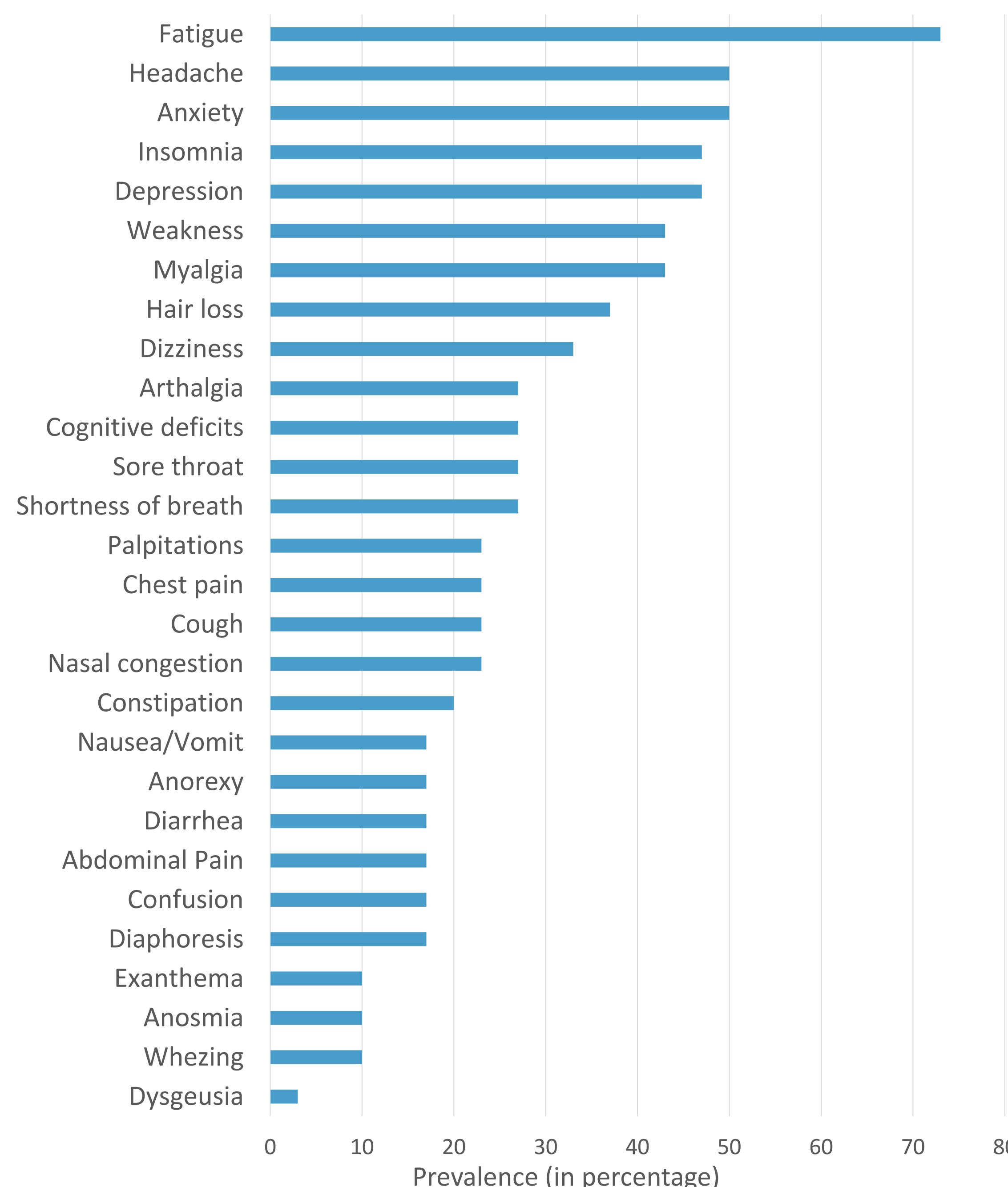
In a highly vaccinated population of PWH, PASC was a common finding (36%). Associated factors were being female, having overweight/obesity, and the presence of 3 or more comorbidities. Lower quality of life was observed in those with PASC. Comparative studies with non-HIV population are needed.

Characteristic-N (%)	Total	PASC		p=
	Population	Yes	No	
	N=80 (100)	N=29 (36)	N=51 (64)	
Age <sup>a</sup>	46 (38-54)	48 (42-54)	45 (37-56)	0.350
Gender				
Female	18 (23)	11 (38)	7 (14)	0.023
Active Smoker	48 (60)	15 (52)	33 (65)	0.342
Any comorbidity	42(53)	18 (62)	24(47)	0.246
Overweight/Obesity	21 (26)	12 (41)	9 (18)	0.033
Hypertensión	14 (18)	7 (24)	7 (14)	0.358
3 or more comorbidities	12 (15)	7 (24)	5 (10)	0.049
Polypharmacy	13 (16)	7 (24)	6 (12)	0.208
Years living with HIV <sup>a</sup>	13 (8-21)	12 (9-22)	14 (6-21)	0.962
ART*				
INSTI <sup>b</sup>	58 (73)	20 (69)	38 (75)	0.615
NNRTI <sup>c</sup>	18 (23)	7 (24)	11 (22)	0.787
PI <sup>d</sup> /r <sup>e</sup> or c <sup>f</sup>	15 (19)	8 (28)	7 (14)	0.145
CD4 <200 cell/mm <sup>3</sup>	10 (13)	5 (17)	5 (10)	0.483
HIV viral load <40 c/mL (past 12 months)	73 (91)	27 (93)	46 (90)	0.999

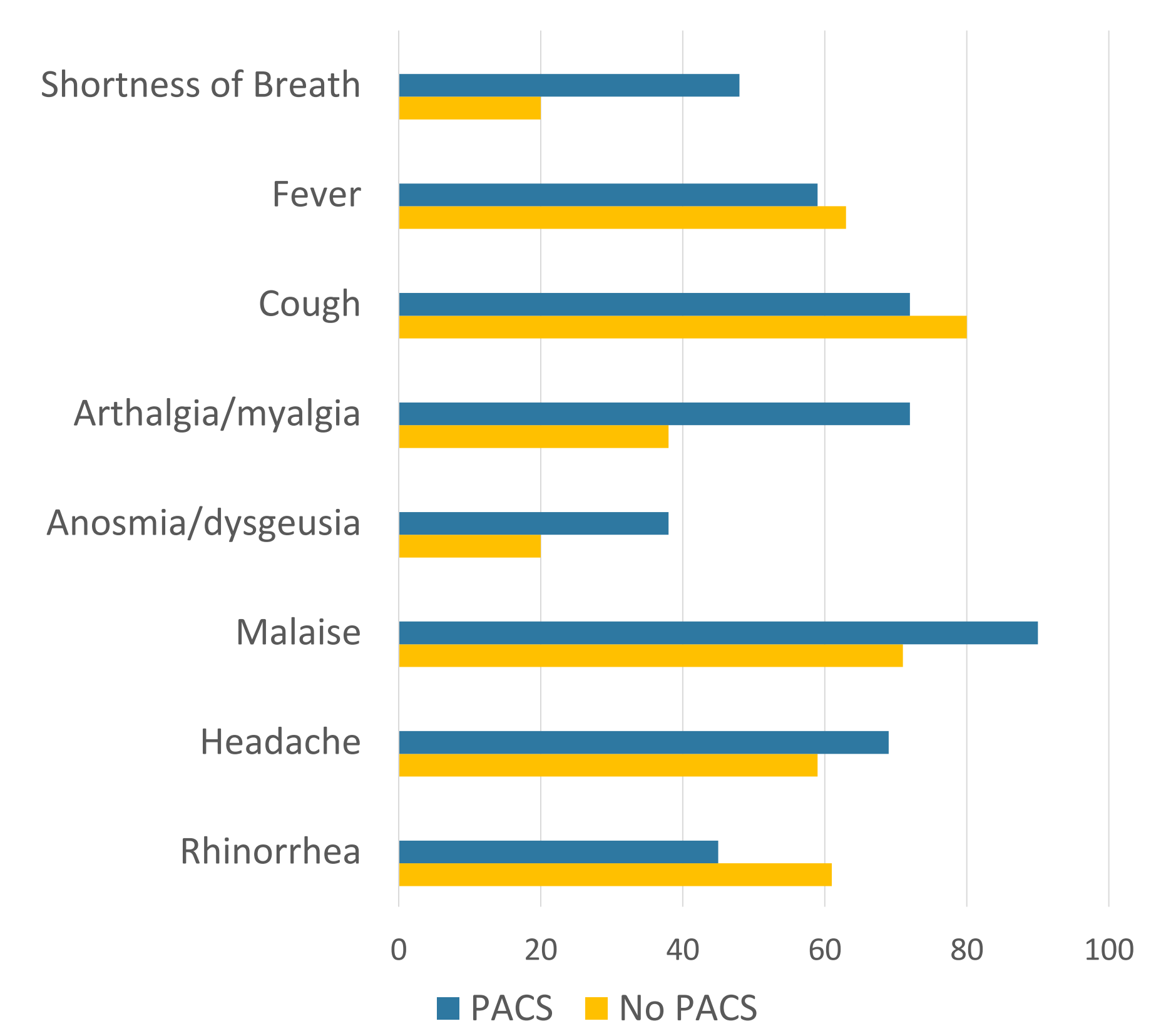
<sup>a</sup> Median (IQR), <sup>\*</sup>Third component, <sup>b</sup> Stand transfer inhibitors, <sup>c</sup> Non-nucleoside reverse transcriptase inhibitors, <sup>d</sup> Protease inhibitors, <sup>e</sup> Ritonavir-Boosted, <sup>f</sup> Cobicistat-Boosted.

**Table 1.** Demographic characteristics

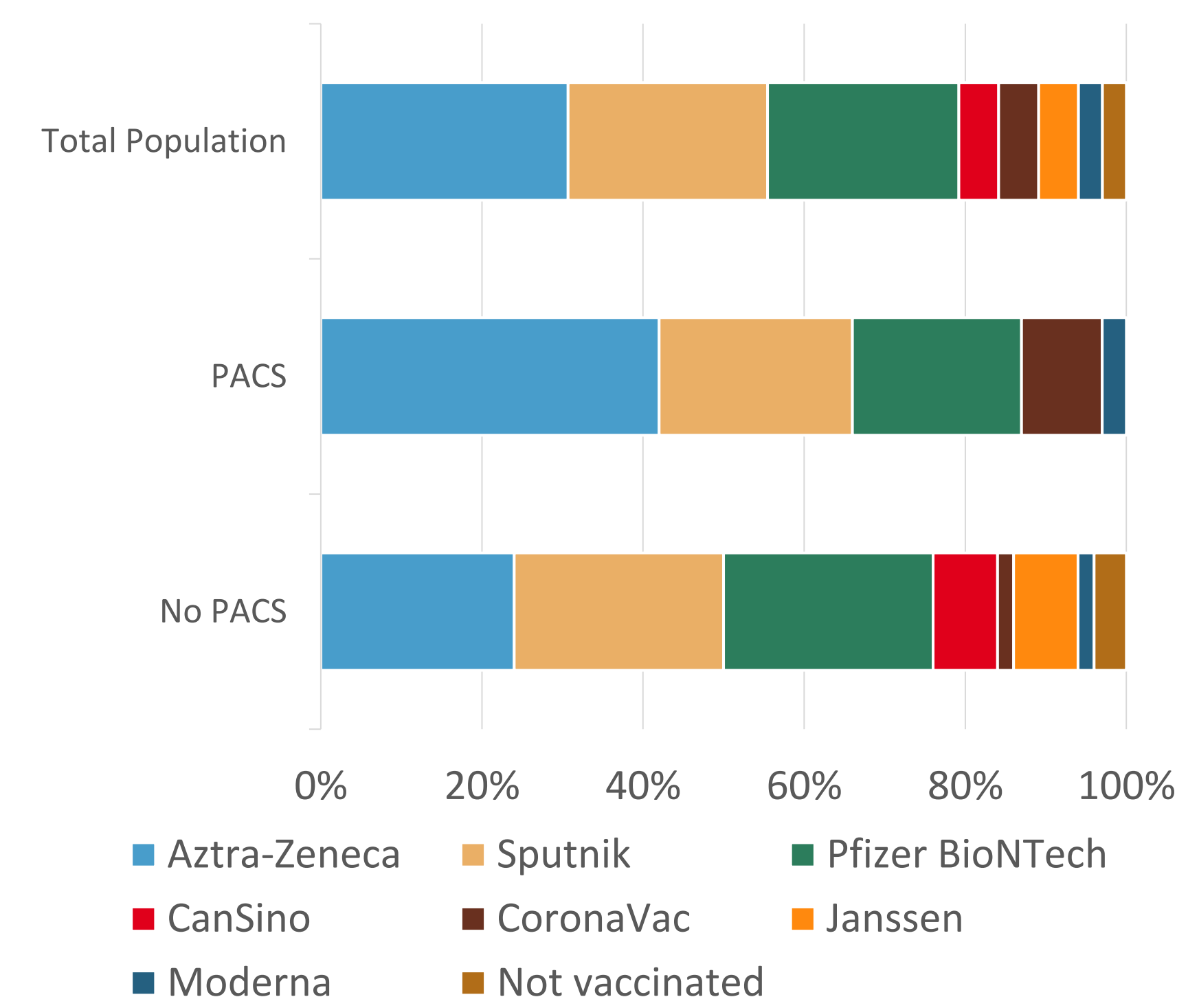
**PASC was a common finding in a highly vaccinated population of PWH. Being female, having overweight/obesity, and three or more comorbidities were factors associated with PASC. People with PASC had a lower quality of life.**



**Fig. 1.** Persistent Symptoms in PWH with PASC



**Fig. 2.** Comparison of the frequency of symptoms in PWH with and without PASC

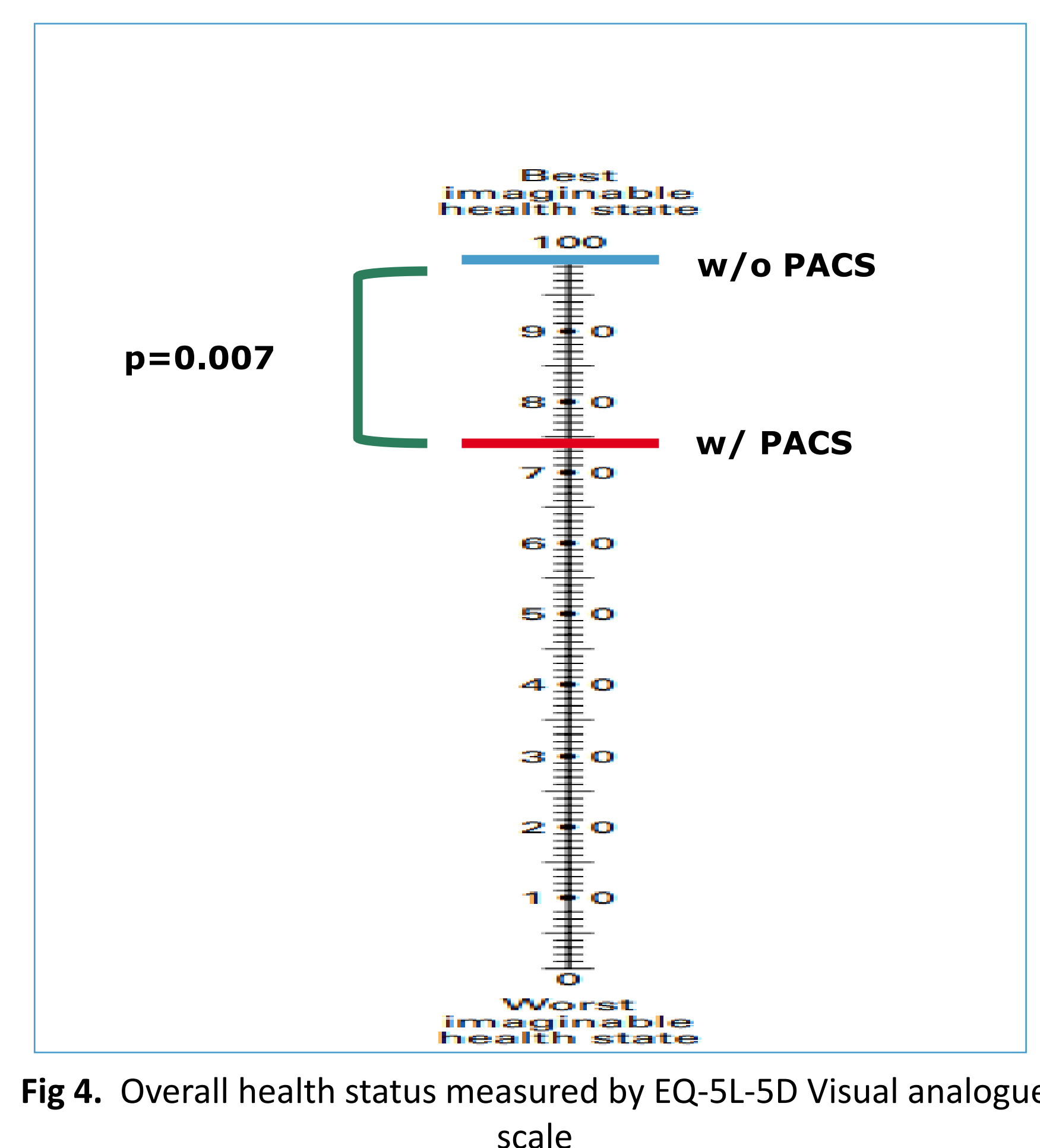


**Fig. 3.** Frequency by type (in percentage) of SARS-CoV-2 vaccines among participants

Characteristic	PASC			p
	Total Population	Yes	No	
	N=80 (100)	N=29 (36)	N=51 (64)	
Quality of life related to health <sup>a</sup>	0.94 (0.86-1.0)	0.87 (0.82-0.94)	1.0 (0.91-1.0)	0.007
Without health problems in any dimension, N(%)	33 (41)	6 (20)	27 (52)	0.003
Overall health status <sup>a</sup> N(%)	82 (15)	78 (16)	86 (13)	0.012

<sup>a</sup> Median (IQR) <sup>®</sup>At the time of the interview

**Table 2.** Quality of life with values set for the Mexican adult general population among PWH w/ PASC and w/o PASC



**Fig. 4.** Overall health status measured by EQ-5L-5D Visual analogue scale



For more information about this study