

A standardized comparison of cardiovascular risk factor prevalence between People living with HIV and general population in Spain.

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Purpose: We aim to compare the general Spanish population prevalence of CV risk factors with that of Spanish PLWH, after standardizing for referent age and sex population distributions.

Methods: We used 5,680 PLWH from the HIV VACH Spanish cohort and the general population DARIOS cohort, a pooled analysis of 11 population surveys (n=28,342). The prevalence of diabetes, blood pressure, body mass index (BMI), total and high-density (HDL) cholesterol, and smoking was compared in the age group 35 to 74 years.

Results: The proportion of males was higher in HIV (46.5 vs. 80.4% [p<0.001]), and PLWH were younger (53.5 [11.1] vs 42.5[7.4]; p<0.001). Standardized BMI and lipid profile are significantly better in PLWH except low-HDL and high HDL/total cholesterol ratio and triglycerides which are significantly higher in PLWH.

Conclusions: After appropriate standardization to correct the effect of age and sex differences between PLWH and the general population, we found that the prevalence of traditional CV risk factors are similar. However, PLWH have a higher frequency of diabetes, lower HDL levels and higher levels of triglycerides in both sexes, more female smokers, and higher total cholesterol/HDL cholesterol ratio in males

MEN	General population DARIOS (N=13,193)	Male PLWH VACH (N=4,566)	Standardized comparison	Interpretation
Body mass index	28.1 (28 - 28.1)	24.3 (24.2 - 24.5)	<0.001	PLWH better
Diabetes	15.4% (14.8% - 16.0%)	21.1% (19.6% - 22.6%)	<0.001	PLWH worst
Hypertension	29.0% (28.2% - 29.7%)	23.7% (22.2% - 25.2%)	<0.001	PLWH better
Total cholesterol mg/dL	214.2 (213.6 - 214.9)	189.1 (187 - 191.1)	<0.001	PLWH better
LDL cholesterol mg/dL	139 (138.4 - 139.6)	114 (112.2 - 115.8)	<0.001	PLWH better
HDL cholesterol mg/dL	48.5 (48.3 - 48.6)	44.7 (44 - 45.4)	<0.001	PLWH worst
Total cholesterol/HDL	4.6 (4.6 - 4.6)	4.6 (4.5 - 4.6)	0.331	Similar prevalence
Triglycerides mg/dL	141.1 (139.5 - 142.7)	172.3 (167.3 - 177.3)	<0.001	PLWH worst
Smoking	33.6% (32.8% - 34.4%)	34.2% (32.7% - 35.7%)	0.488	Similar prevalence
WOMEN	General population DARIOS (N=15,149)	Female PLWH VACH (N=1,114)	Standardized comparison	Interpretation
Body mass index	27.5 (27.4 - 27.6)	24.3 (23.9 - 24.8)	<0.001	PLWH better
Diabetes	10.6% (10.1% - 11.1%)	19.5% (16.4% - 22.7%)	<0.001	PLWH worst
Hypertension	27.4% (26.7% - 28.0%)	25.9% (22.6% - 29.2%)	0.392	Similar prevalence
Total cholesterol mg/dL	213.9 (213.3 - 214.5)	198.1 (193.2 - 203)	<0.001	PLWH better
LDL cholesterol mg/dL	135.8 (135.2 - 136.3)	120.4 (116.3 - 124.5)	<0.001	PLWH better
HDL cholesterol mg/dL	57.2 (57 - 57.4)	51.9 (50.4 - 53.3)	<0.001	PLWH worst
Total cholesterol/HDL	3.9 (3.9 - 3.9)	4.1 (4.0 - 4.2)	0.001	PLWH worst
Triglycerides mg/dL	107.4 (106.5 - 108.4)	153.6 (146 - 161.3)	<0.001	PLWH worst
Smoking	21.2% (20.6% - 21.9%)	28.4% (25.8% - 31.0%)	<0.001	PLWH worst