

# Evaluation of cardiovascular risk factors in HIV patients in a Public Hospital



Sergio L. Martini Novas MD<sup>1</sup>; Falak, Adriana MD<sup>2</sup>; Aguilar, Adriana MD<sup>3</sup>; Sued, Omar MD<sup>4</sup>; Cahn, Pedro MD<sup>5</sup>; Perez, Hector MD<sup>6</sup>



<sup>1</sup>Huesped Medical Center, Buenos Aires, <sup>2</sup>Fernandez Hospital, Buenos Aires, <sup>3</sup> Huesped Foundation, Buenos Aires, <sup>4</sup>Head at Huesped Foundation, Buenos Aires, <sup>5</sup>Director of Huesped Foundation, Buenos Aires, <sup>6</sup>Head of the Infectious Diseases Division at Fernandez Hospital, Buenos Aires

## Background

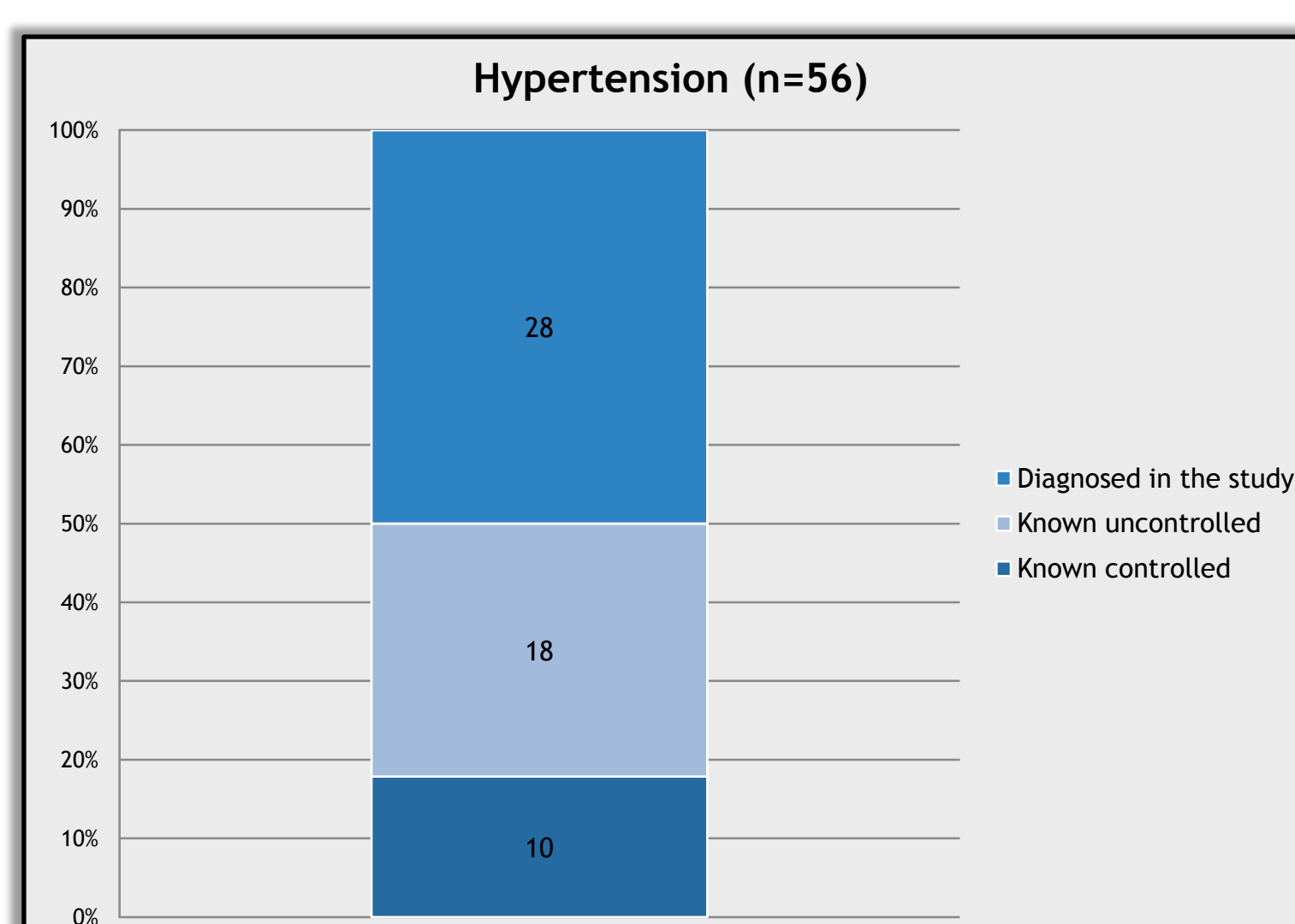
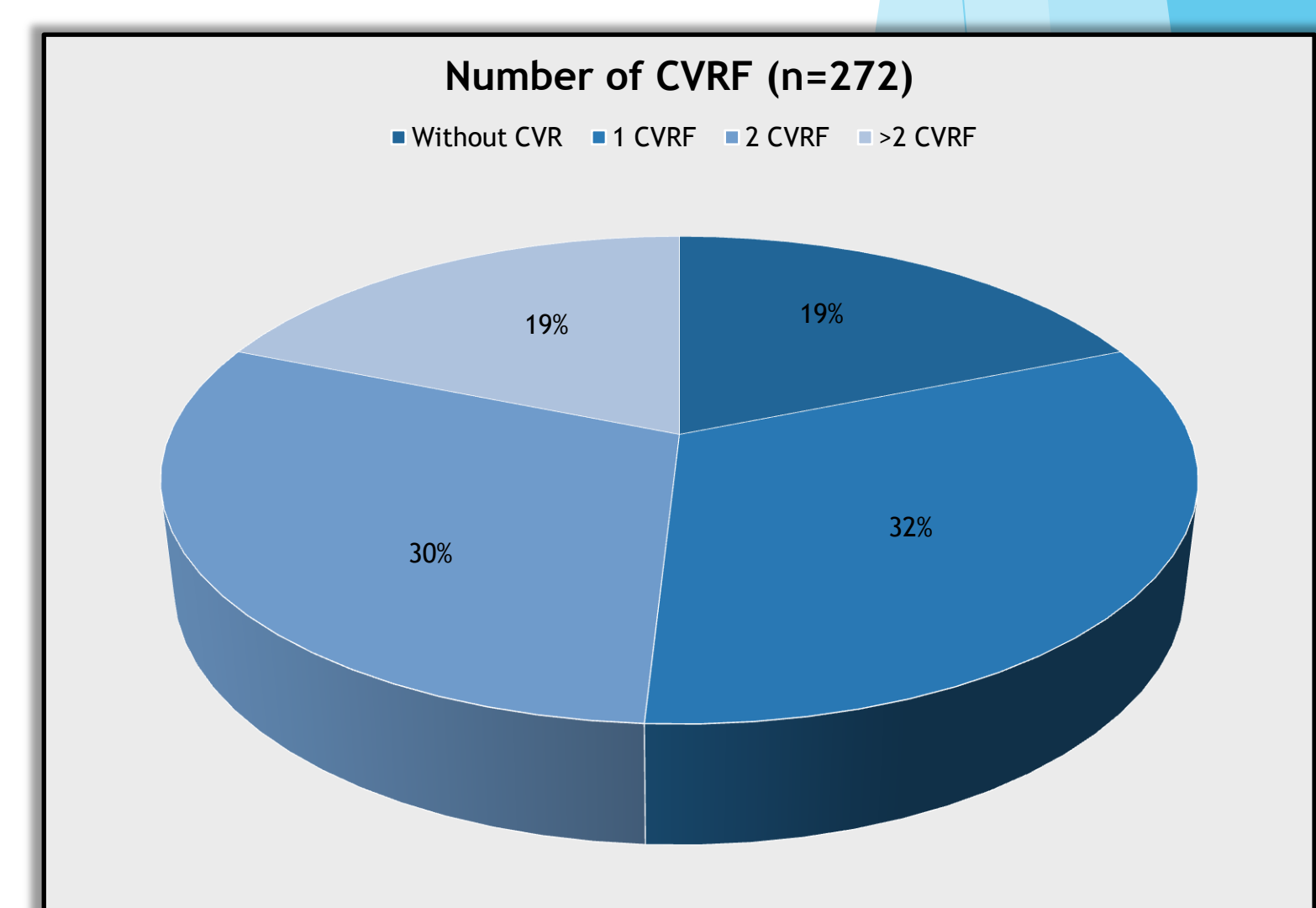
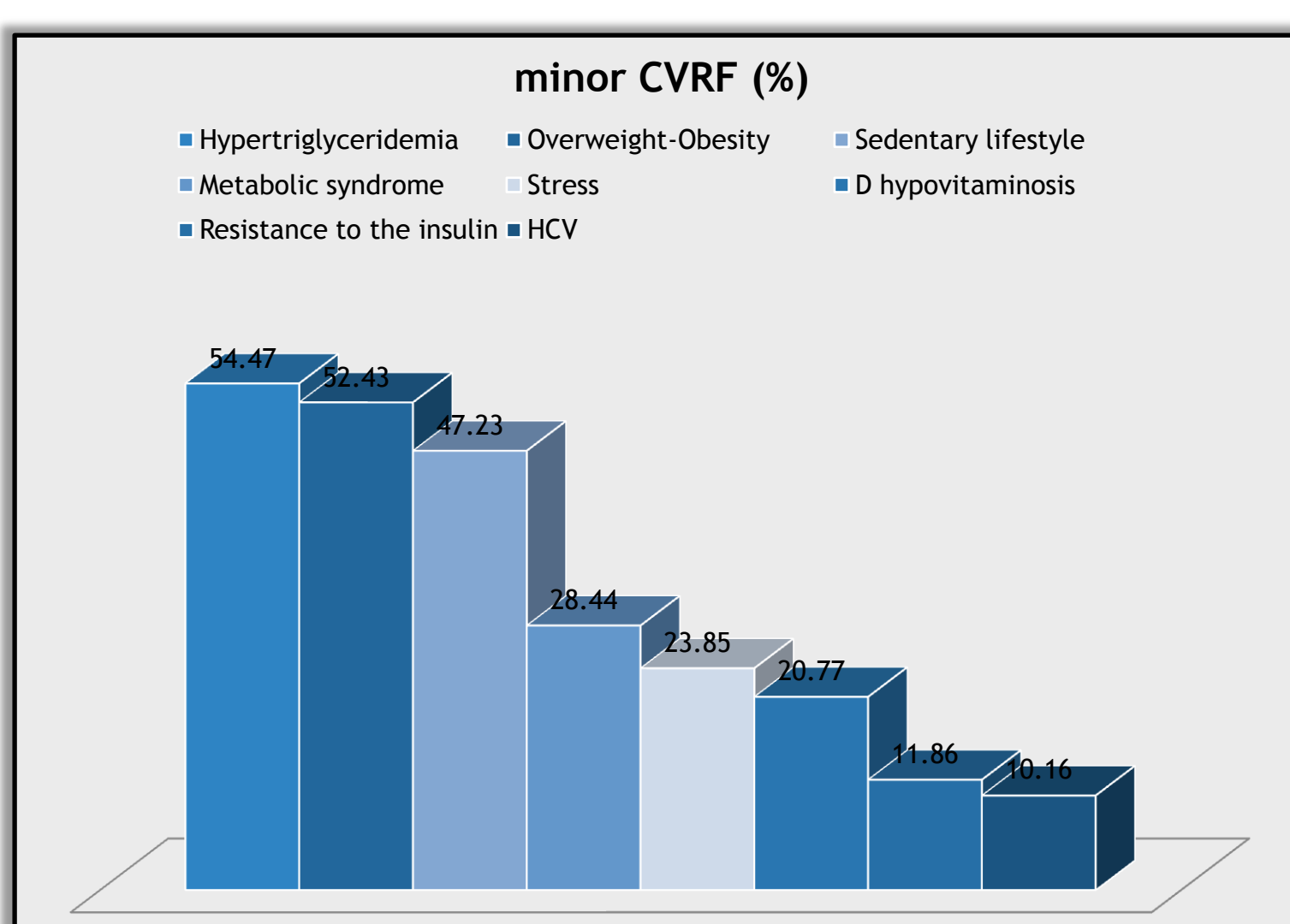
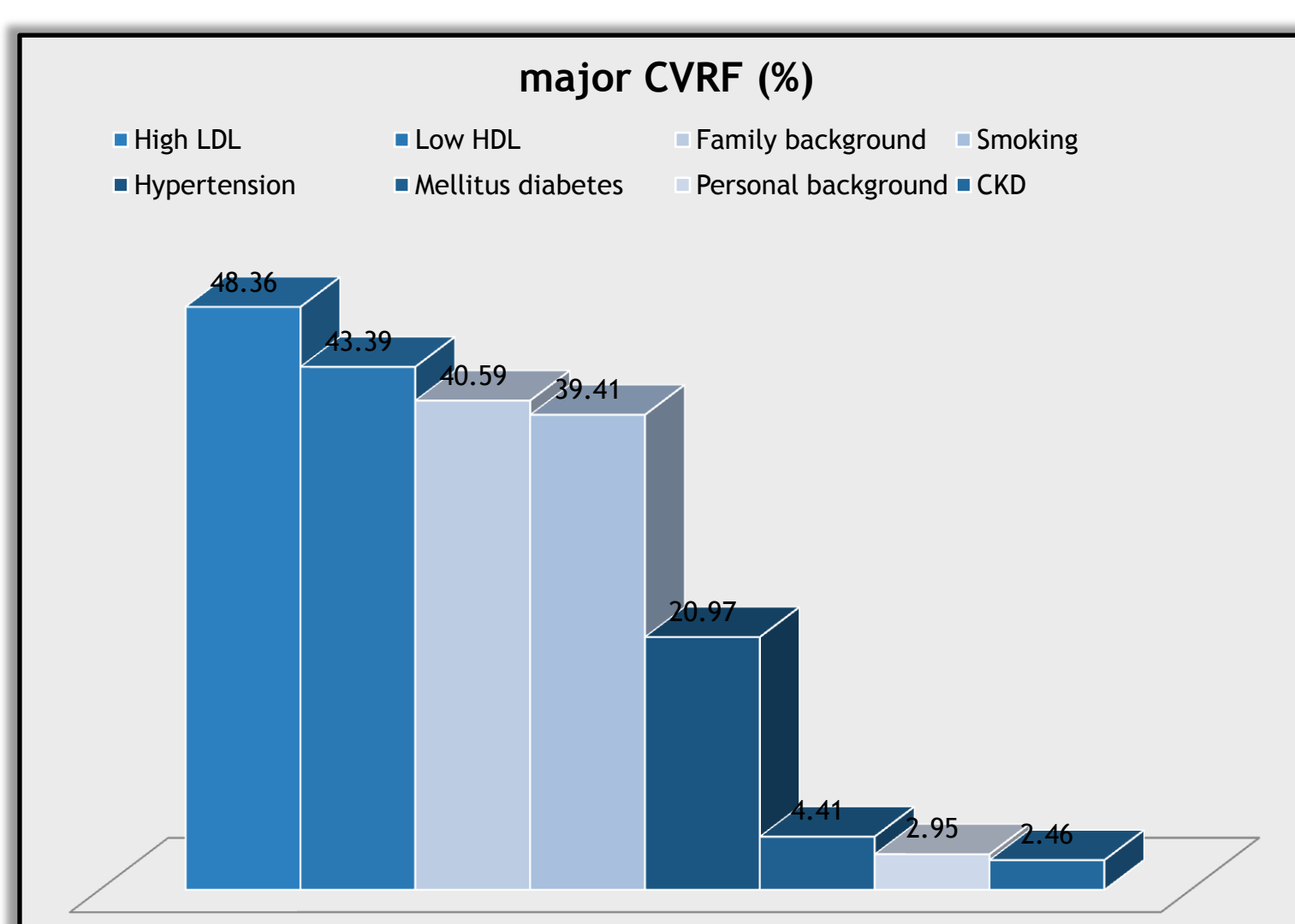
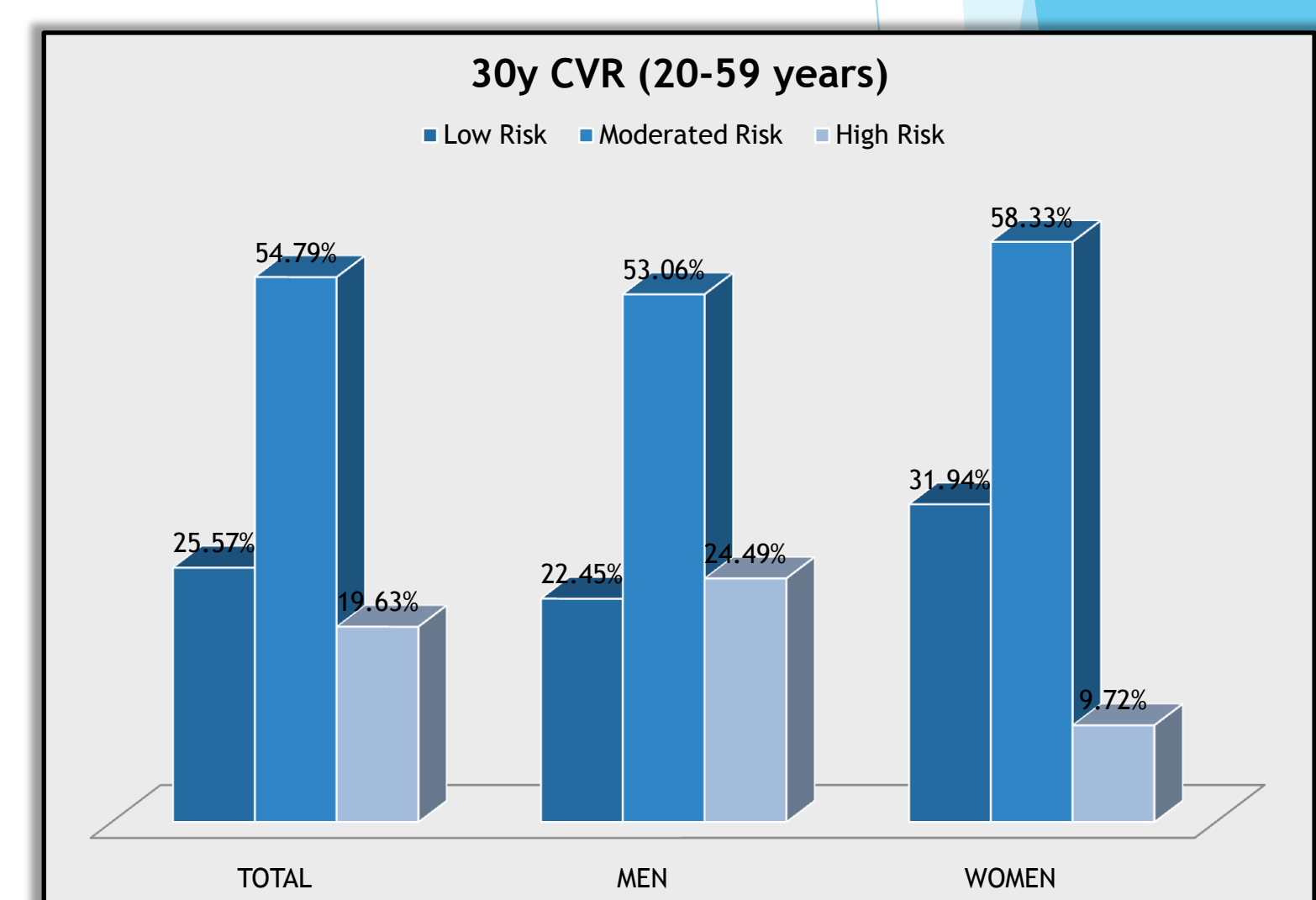
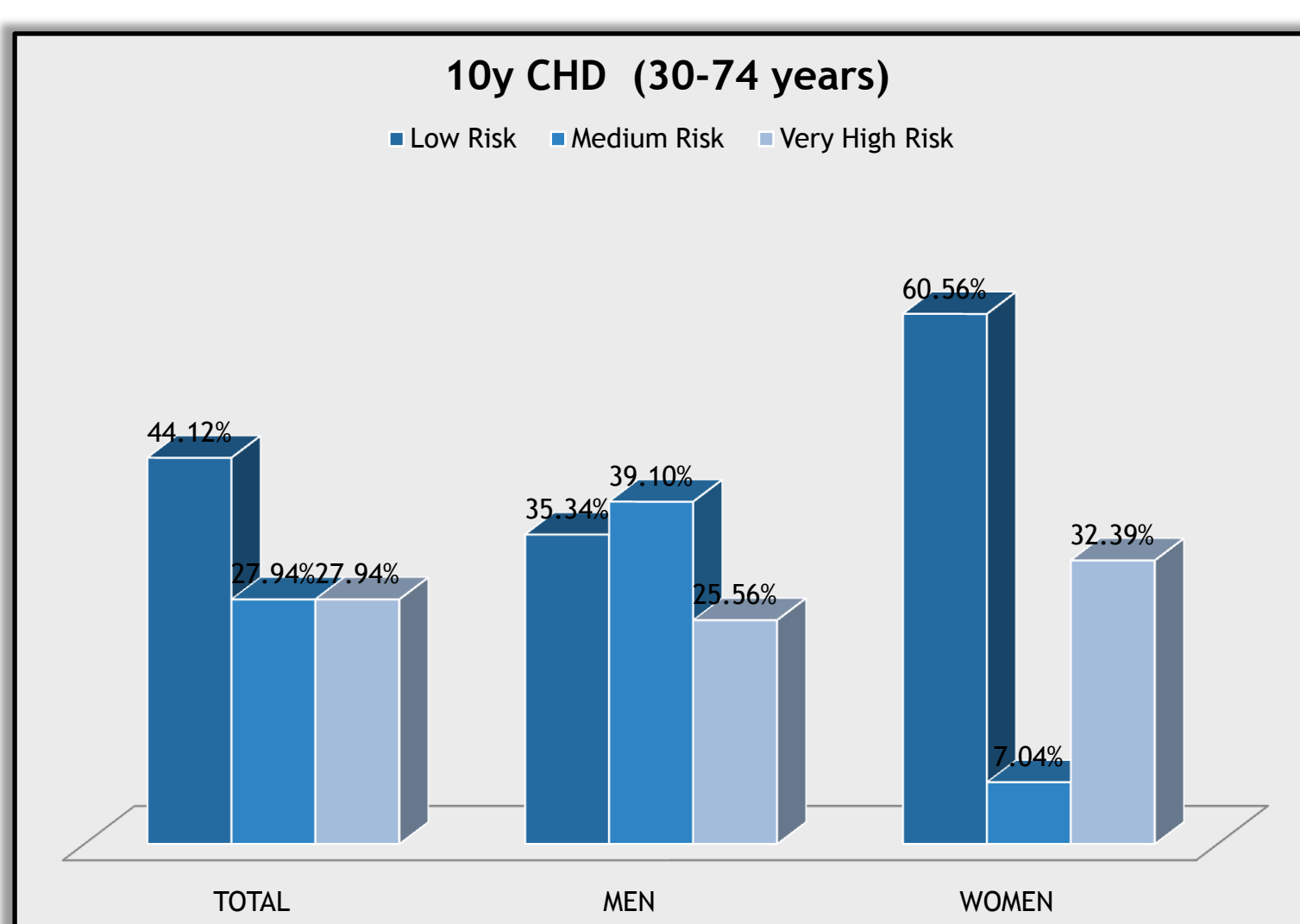
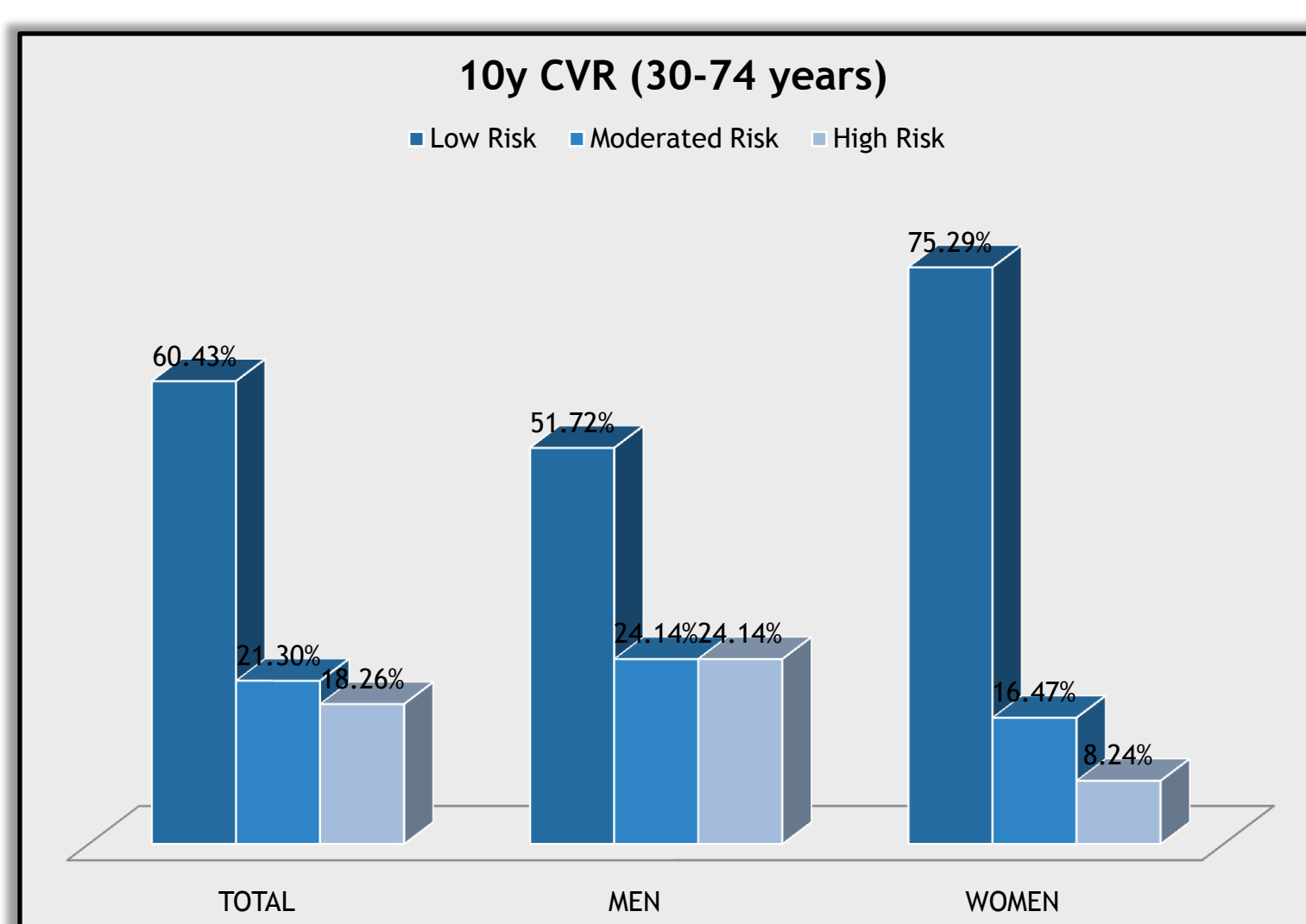
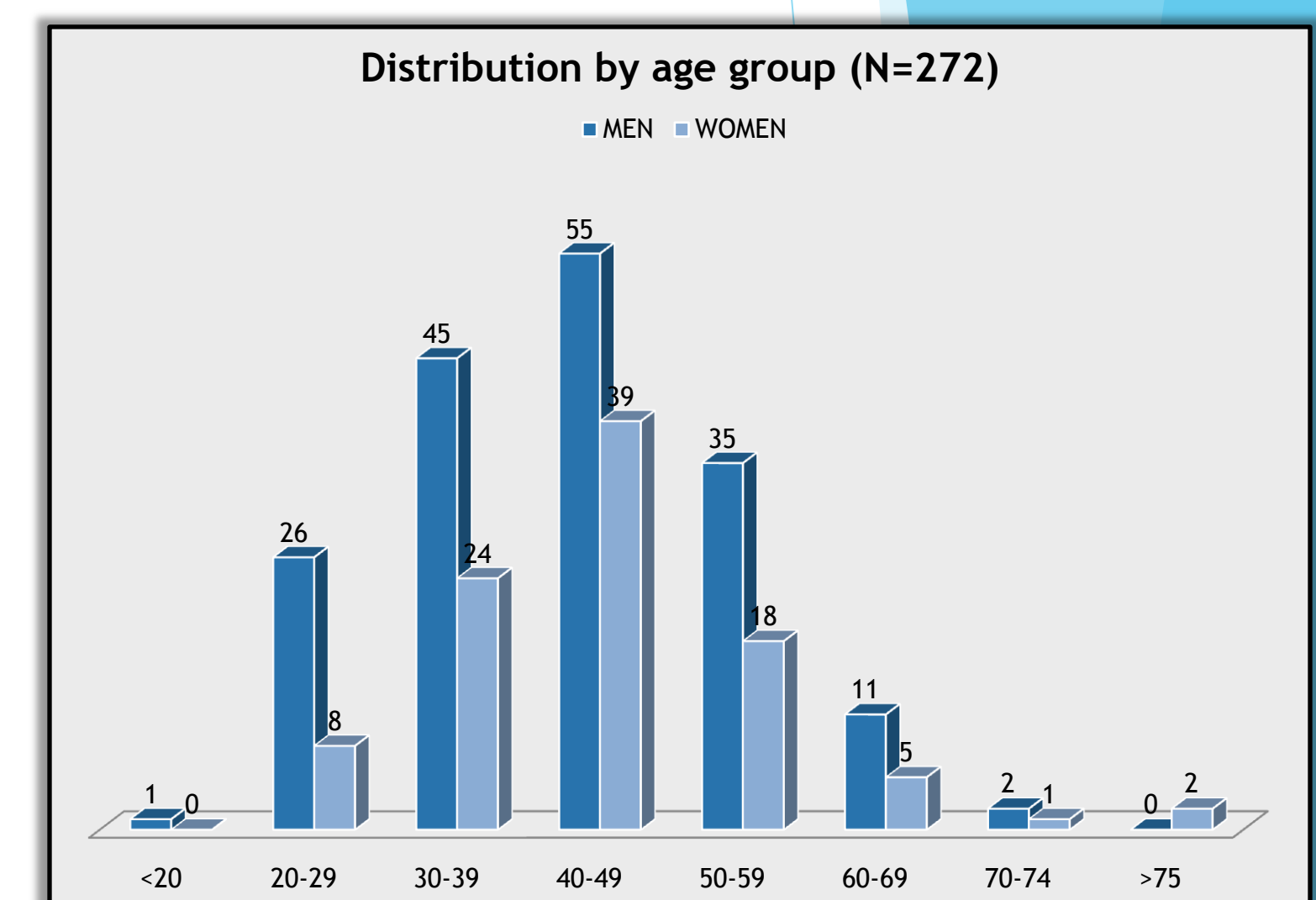
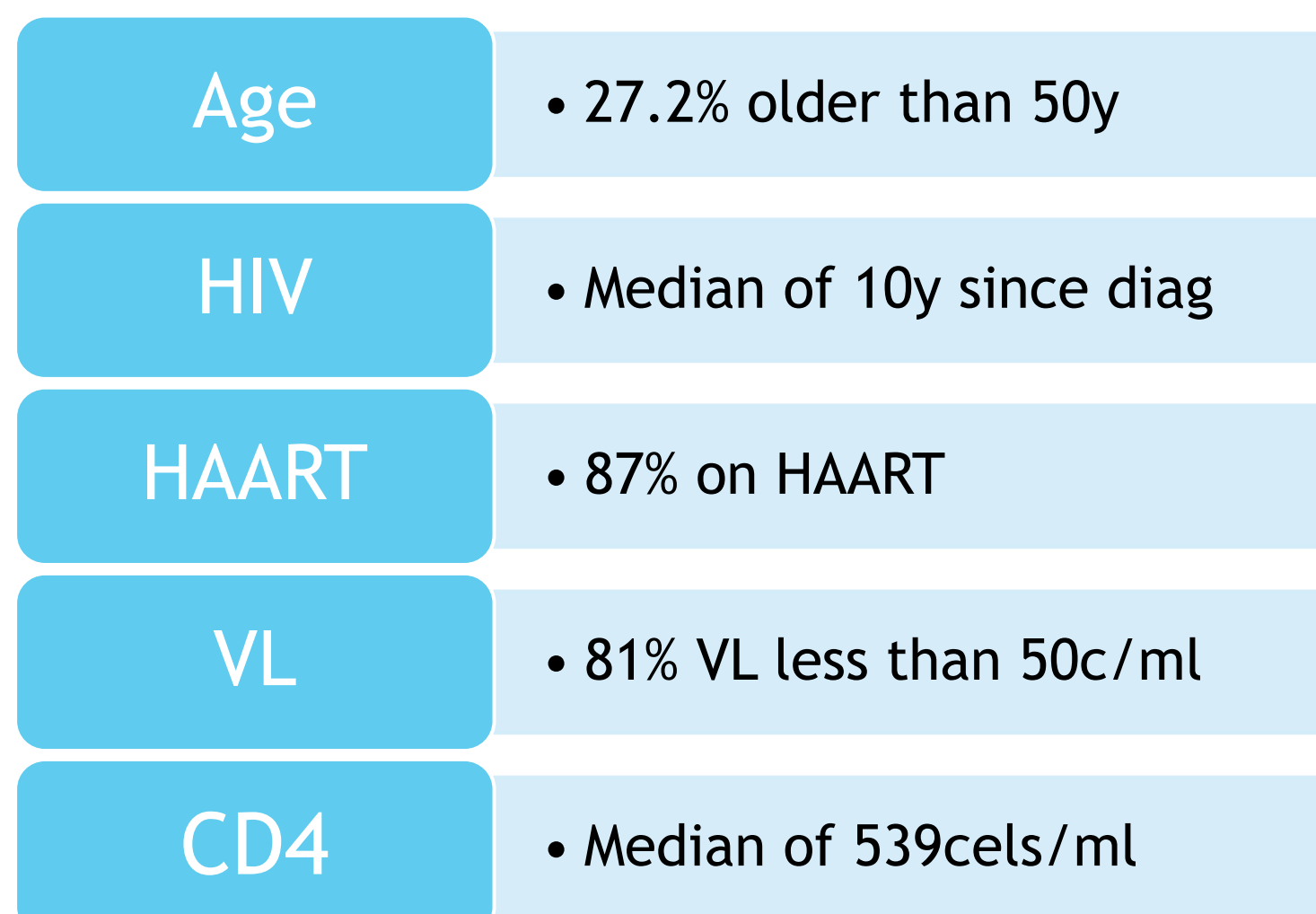
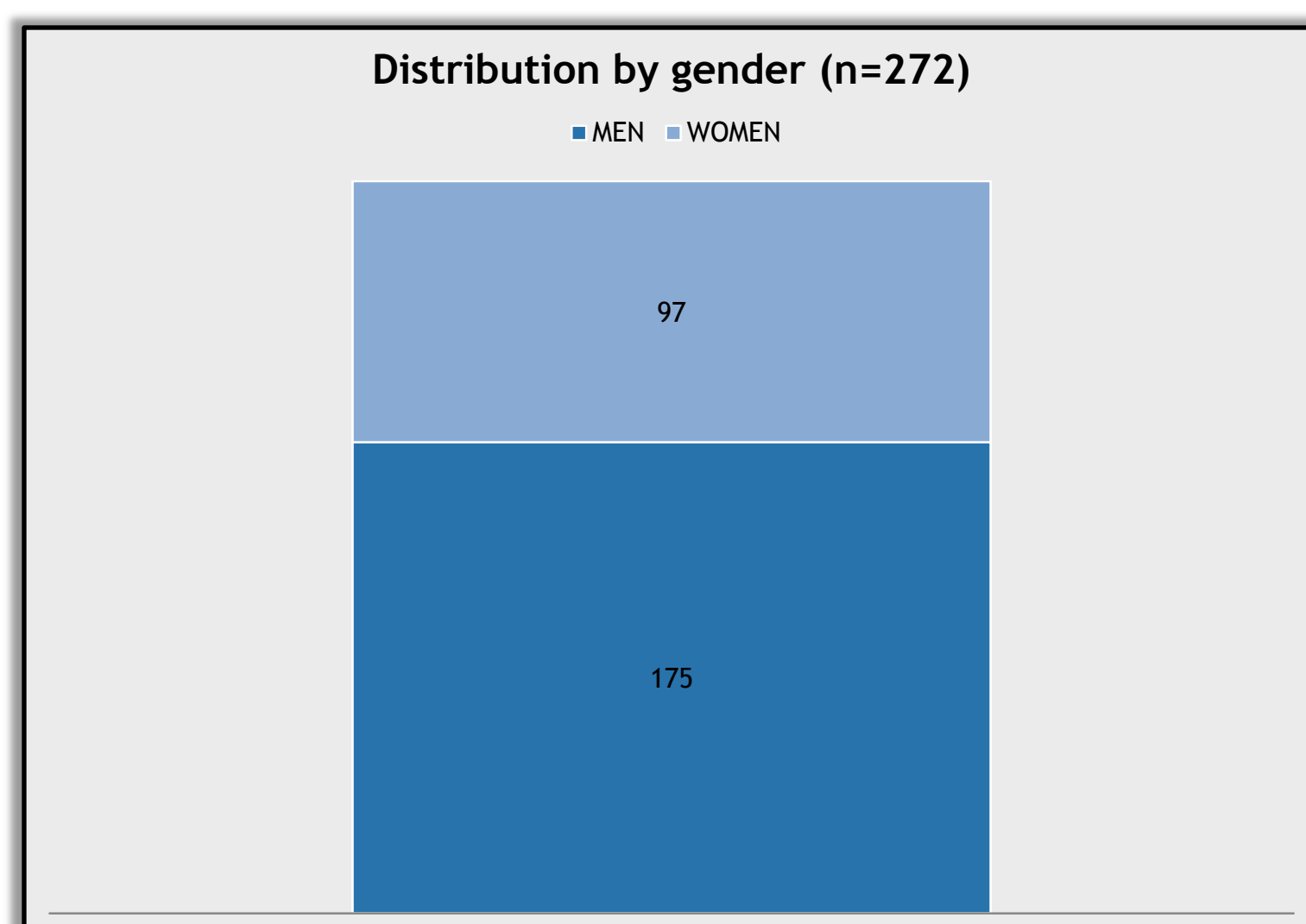
Since the introduction of antiretroviral treatment, both life expectancy and quality of life of HIV patients have improved to the level of being similar in certain groups to that of the general population; however, different studies show an increase in cardiovascular disease in these patients, representing 8-22% of deaths. Although the impact of HIV and its treatment on the aging of patients with HIV is well known, as well as that cardiovascular risk factors (CVRF) are more prevalent in this population, data on these factors in HIV patients is scarce in Argentina. A cross-sectional study was conducted in population of HIV+ patients assisted in a public hospital of Buenos Aires in order to assess cardiovascular risk using Framingham scores at 10 and 30 years in that population.

## Materials and methods

Cross-sectional observational study by means of a questionnaire, physical examination and laboratory data in patients over 18 years of age who are HIV positive and with at least one year of follow-up. The selection of participants was made by selection for convenience, offering to participate sequentially to any individual who attends for medical attention for HIV care regardless of the reason for consultation, either in scheduled consultation or in emergencies.

## Results

We included 272 individuals (64.2% men) with a median age of 43 years (35-50), being 27.2% older than 50 years, having a median years since the diagnosis of HIV of 10 years (4-16), 87% being found in ART, 81% with viral load HIV <50 copies / ml, with a median CD4 of 539 cells / ml (326-770). A 10-year high cardiovascular risk was observed in 18.2% (24.1% in men and 8.24% in women), a 30-year high cardiovascular risk in 19.6% (24.4% in men and 9.72% in women) and a risk of coronary heart disease at 10 years very high in 27.9% (25.5% in men and 32.3% in women), hypercholesterolemia 48.3%, low HDL 43.4%, TBQ 39.4%, HT 20%, hypertriglyceridemia 54.5%, sedentary lifestyle 47%, overweight 25% and metabolic syndrome 28.4%. Only 19.4% have no CVRF and 51% have 2 or more CVRF. 45% with hypercholesterolemia and 41% with DBT were diagnosed in the study.



## Conclusions

We confirm that our population is aging, evidenced by a considerable proportion of patients older than 50 years, we also observe high prevalence in both sexes of modifiable CVRF, high proportion of patients with 2 or more CVRF and a high prevalence of patients with high cardiovascular risk at 10 years (24.1% vs. 12% in the expected population in men and 8.2% vs. 1% in women respectively) and 30 years and with very high risk of coronary heart disease at 10 years regardless of age. These data, added to the underdiagnosis of CVRF in infectious well controlled patients reinforce the need to sensitize health personnel in the detection and modification of CVRF in people with HIV of any age following the recommendations for that purpose.

- Fedele F, Bruno N, Mancone M 2011 Cardiovascular risk factors and HIV disease. AIDS Rev 13:119-129
- Soliman E, Sharma S, Arasteh K, Wohl D, Achhra A, Tambussi G, O'Connor J, Stein J, Duprez D, Neaton J, Phillips A 2015 Baseline cardiovascular risk in the INSIGHT Strategic Timing of AntiRetroviral Treatment (START) trial. HIV Med 16 Suppl S1:46-54
- Stein H 2010 Evaluating and managing cardiovascular disease risk factors in HIV-infected patients. Top HIV Med 18:164-168
- Stein JH 2012 Cardiovascular risk and dyslipidemia management in HIV-infected patients. Top Antivir Med 20:129-133; quiz 123-124
- Prasad P, Kochhar A 2015 Interplay of vitamin D and metabolic syndrome: A review. Diabetes Metab Syndr
- Grinspoon SK 2014 Cardiovascular disease in HIV: traditional and nontraditional