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Chapter 1

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Epidemiological impact of cardiovascular diseases in women

Impacto epidemiológico de las enfermedades cardiovasculares

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INTRODUCTION

Cardiovascular disease (CVD) in women is a public health problem since it represents the leading cause of mortality and morbidity worldwide. It was responsible for 35% of all deaths in women in 2019.[1]

Cardiovascular conditions, including those related to the circulatory system, ischemic heart disease (IHD), and stroke, are estimated to cause 2 million deaths annually in the Americas, according to data from PAHO 2019.[2]

Latin America (LA) has experienced rapid but uneven economic and social changes in recent decades. Although the general health status of the population, especially women, has improved, there is a marked difference between low- and middle-income countries.[1]

The epidemiological transition, with the consequent population aging, the growth of cities, and the increase in the prevalence of unhealthy lifestyles, have contributed to the rise in CVD morbidity and mortality in women.[3] Many factors contribute to this scenario. The existing inequity in preventing, detecting, and managing CVD in both sexes is relevant.

CARDIOVASCULAR MORBIDITY IN WOMEN

Regarding morbidity, IHD and stroke are the leading causes of Disability Adjusted Life Years (DALYs) in women *(Figure 1)*.[2]

We must consider that other causes of heart disease are important in Latin America, such as Chagas disease and rheumatic fever, which cause myocarditis, cardiomyopathy, and arrhythmias. These conditions have a high prevalence rate that varies between regions such as Argentina and Costa Rica (10/100,000 inhabitants).[2] Notably, approximately 1,125,000 women of reproductive age are infected with Chagas disease.[4,5]

Rheumatic heart disease is also endemic in Latin American countries, presenting DALY rates per 100,000 inhabitants ranging between 137 in Bolivia, 85 in Brazil, and 5.2 in Colombia, affecting women during their childhood and reproductive life.[2-6]

In addition to traditional and non-traditional cardiovascular risk factors, socio-cultural factors specific to the region must be considered in women as aggravating risks for their health. For example, the change in the conventional role of women as mothers and homemakers to workers out of the home has created an additional barrier to maintaining a healthy lifestyle, adding a high-stress load in both work areas.

On the other hand, access to health care is inequitable. Latin American indigenous women or women of African descent have worse health outcomes and shorter life expectancy than non-indigenous or Afro-descendant women due to poor quality of medical care.[1]

CARDIOVASCULAR MORTALITY IN WOMEN

CVDs cause the greatest mortality burden in the Americas, among men and women,

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being the most critical specific pathologies, coronary heart disease, and stroke. Age-adjusted CVD mortality rates in women decreased from 203.3 deaths (95% CI: 176.0 to 227.1) per 100,000 population in 2000 to 137.2 deaths (95% CI: 110.3 to 165.5) per 100,000 population in 2019. In general terms, in recent decades, in most countries, there has been a decrease in the mortality rate, attributable to the reduction in smoking[3] and improved access to diagnosis and treatment, except in the Dominican Republic, where it has increased.[3]

If we compare the ten leading causes of mortality in women in the Americas in 2019, we found ischemic disease as the first cause with a rate of 95.8 per 100,000 inhabitants, in third place, stroke (50.3 per 100,000) and ninth place, breast cancer (21.2 per 100,000).[7]

Coronary or ischemic heart disease is the most important specific cause of death in women, also presenting a marked variation between countries (180.4 per 100,000 in Haiti and 24.8 per 100,000 in Chile).[7]

The mortality rate of rheumatic disease per 100,000 inhabitants varies between 12.6 in Haiti and 3.6 in Bolivia, being lower than 0.5 in other countries such as Chile, Argentina, Colombia, and Venezuela *(Figure 2)*.[7]

CONCLUSION

CVDs are a public health problem in women in the Americas, which must be approached from a perspective of social determinants with particular emphasis on the inequalities that are observed depending on the level of development of the countries.

We are concerned that morbidity and mortality from different cardiovascular causes affect mainly women who live in poorer areas, so we believe that it is necessary to focus actions and resources on campaigns that improve prevention and access to therapies that address all stages of the female life cycle.

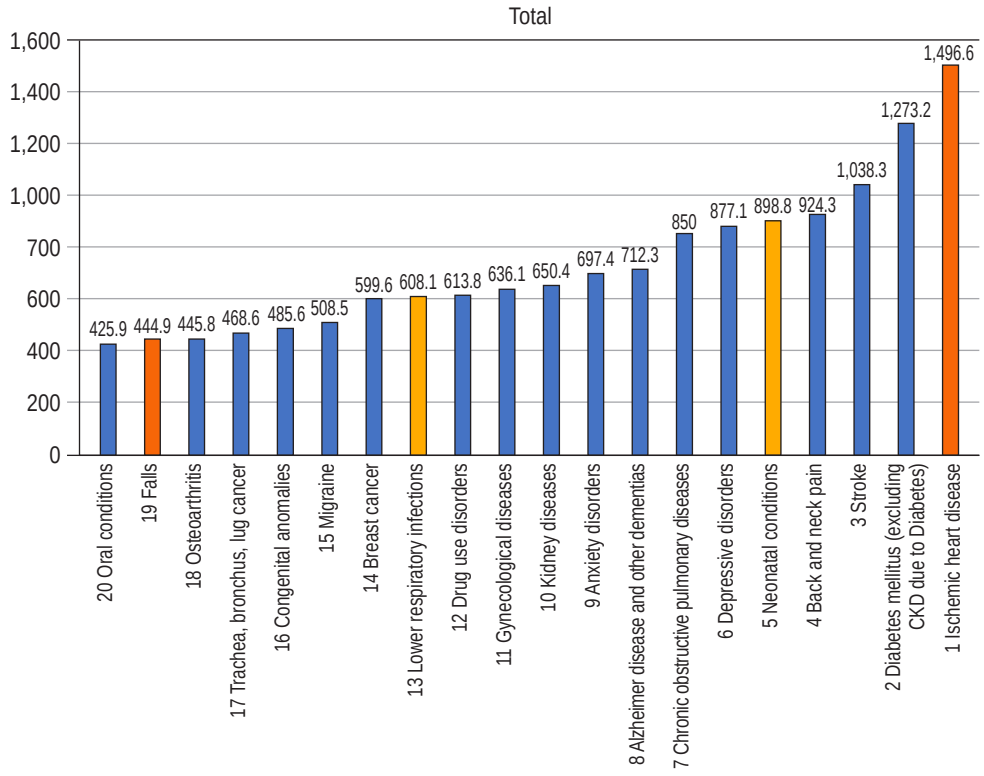

Figure 1: Cardiovascular disease mortality rates in women adjusted for age in Latin America, 2019. Adapted from: Pan American Health Organization; 2021.[2]

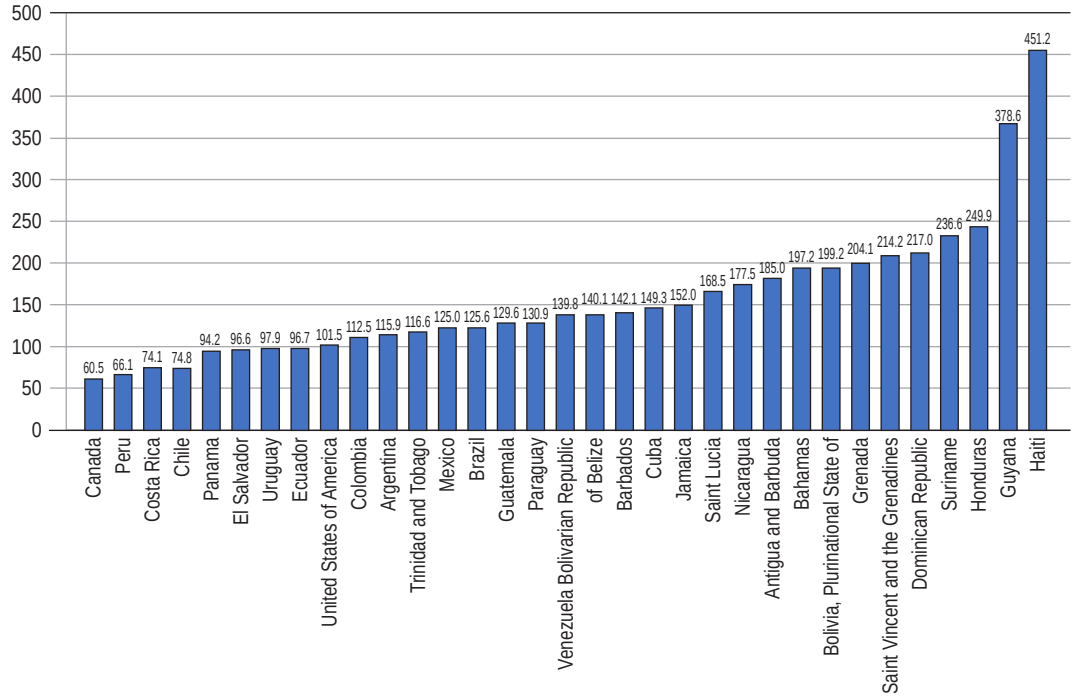

Figure 2: Cardiovascular disease mortality rates in women adjusted for age in Latin America, 2019. Adapted from: Pan American Health Organization; 2021.[2]

REFERENCES

1. Vogel B, Acevedo M, Appelman Y, Bairey MCN, Chieffo A, Figtree GA et al. The *Lancet* women and cardiovascular disease commission: reducing the global burden by 2030. The Lancet. 2021; 397: 2385-2438.
2. OPS. La carga de las enfermedades cardiovasculares en la Región de las Américas, 2000-2019. Portal de Datos de NMH. Organización Panamericana de la Salud; 2021. Disponible en: https://www.paho.org/es/enlace/carga-enfermedades-cardiovasculares
3. OECD/The World Bank (2020). Panorama de la Salud: Latinoamérica y el Caribe 2020, OECD Publishing, Paris. Disponible en: https://doi.org/10.1787/740f9640-es
4. Chagas disease in Latin America: an epidemiological update based on 2010 estimates. Wkly Epidemiol Rec. 2015; 90 (6): 33-43.
5. Bern C. Chagas' disease. N Engl J Med. 2015; 373 (5): 456-466. doi: 10.1056/NEJMra1410150.
6. Zipes DP, Libby P, Bonow R, Mann D, Tomaselli G. Braunwald. Tratado de cardiología. Edición: 11º. Editors: España. Elsevier, 2019.
7. Pan American Health Organization/World Health Organization. Leading causes of mortality and health loss at regional, subregional, and country levels in the Region of the Americas, 2000-2019. ENLACE data portal. Pan American Health Organization; 2021. Pan American Health Organization/World Health Organization. [Access August 8, 2022] Available in: https://www.paho.org/en/enlace/leading-causes-death-and-disability

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