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## Comment

# The urgent need of public policies for promoting cardiovascular health in Latin-American women



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The Ideal Cardiovascular Health (ICVH) is a construct created by the American Heart Association Strategic Planning Task Force [1] and is defined as the simultaneous presence of four favourable cardiovascular behaviours (nonsmoking, body mass index (BMI) < 25 kg/m2, physical activity at target level and a diet consistent with current guideline recommendations) and three ideal health factors (untreated total cholesterol <200 mg/dL, untreated blood pressure <120/<80 mmHg and untreated fasting glucose <100 mg/dL). This approach, as opposed to looking at risk factors, reveals an even more alarming reality, concerning healthy lifestyles. Since the introduction of this construct, many studies around the world have reported on the prevalence of ICVH and its association with risk factors, disease, disability, and mortality. However, reports from South America are scarce. A study from Peru showed that none of the 3058 participants met all 7 ICVH metrics and 10.5% had ≤1 metric [2]. Another study involving more than 5,000 participants from Argentina, Chile, and Uruguay showed that only 0.1% met the seven criteria that define the ICVH, having a healthy diet being the least prevalent health behaviour, at 5% [3]. Finally, a study conducted in Brazil reported that only 7.8% of participants had 5 or more ICVH metrics [4].

In this context, the study conducted by Acevedo et al. [5] has an added value to what is known about the low prevalence of ICVH in Latin America and their determinants: the strong association of ICHV with the level of education and the major impact of BMI and healthy diet in achieving ICVH goal in a cohort of women.

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Previous studies have shown a higher prevalence of ICVH in women than in men, but it is still a worryingly low prevalence. In this study, 14.3% of women were reported to have ICVH, but none of them had an ideally healthy diet and only 22.6% had an ideal BMI [5]. Given this new information, the concern should not only be about what a low prevalence of ICVH in itself means for women's health but also the risk of major health events such as more fatal heart attacks, as pointed out in the article. This low prevalence should also be of concern because of what it could mean for the health of women's offspring. It is accepted that a woman's obesity, before or during pregnancy, is a factor associated with overweight or obesity in her children and their subsequent development of chronic disease. This possibility is supported by research showing that CVD risk may be predetermined by the early life environment [6]. Additionally, the results of Acevedo et al. that establish among the predictors of ICVH the absence of preeclampsia or gestational diabetes, both conditions related to pregestational obesity, support the impact of ICVH in offspring [7].

Another relevant aspect reported by Acevedo et al. [5] is that the main predictor for ICVH in women is educational level, which is not surprising when we observe this variable frequently present as an important factor associated with chronic diseases or the presence of risk factors for them. While the educational level is a predictor in itself, we must considerer this variable as a proxy for socioeconomic status, highlighting that limited access to education and social inequalities are a problem in the Latin American region that impact on health as well as in other sectors of development. In this scenario, governments need to implement and evaluate public policies that promote an enabling environment for healthy lifestyles, going beyond intervention models based on education and individual choice and responsibility [8]. Thus, taking that 12,897 deaths could be prevented over 10 years in Chile [9] thanks to the full implementation of tobacco control measures proposed by the WHO (The Framework Convention on Tobacco Con-

Abbreviations: ICVH, Ideal Cardiovascular Health; BMI, Body Mass Index; WHO, World Health Organization.

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trol), decisive policies targeting the food environment should be designed, approved, implemented and evaluated with urgency. The Chilean law of food labelling and advertising (Law 20.606) implemented in consecutive phases from 2016 to 2019 [10] is one step, but many more will be needed to tackle the obesity epidemic in Chile and the region.

The findings reported by Acevedo et al. [5] highlight the urgent need for strong interventions and research aimed at overcoming social and gender inequalities. Future research, as well as primary prevention and public policy actions, should consider women throughout the life cycle and vulnerable groups as target populations. Interventions should also differentiate by gender and social and educational diversity.

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The authors report no conflicts of interest.

#### REFERENCES

- [1] Lloyd-Jones DM, Hong Y, Labarthe D, Mozaffarian D, Appel LJ, Van Horn L, et al. Defining and setting national goals for cardiovascular health promotion and disease reduction: The american heart association's strategic impact goal through 2020 and beyond. Circulation 2010;121(4):586 e613. doi:10.1161/CIRCULATIONAHA.109.192703.
- [2] Benziger CP, Zavala-Loayza JA, Bernabe-Ortiz A, Gilman RH, Checkley W, Smeeth L, Malaga G, Miranda JJ. Low prevalence of ideal cardiovascular health in Peru. Heart. CRONICAS Cohort Study group 2018;104(15):1251–6 Aug. doi:10. 1136/heartjnl-2017-312255.
- [3] Seron P, Irazola V, Rubinstein A, Calandrelli M, Ponzo J, Olivera H, Gutierrez L, Elorriaga N, Poggio R, Lanas F. Ideal Cardiovascular Health in the southern cone of Latin America. Public Health 2018;156:132–9 Mar;. doi:10.1016/j.puhe.2017. 12.017.
- [4] Machado LBM, Silva BLS, Garcia AP, Oliveira RAM, Barreto SM, Fonseca MJM, Lotufo PA, Bensenor IM, Santos IS. Ideal cardiovascular health score at the ELSA-Brasil baseline and its association with sociodemographic characteristics. Int J Cardiol 2018 Mar 1;254:333–7. doi:10.1016/j.ijcard.2017.12.037.
- [5] Acevedo M, Varleta P, Casas-Cordero C, et al. Prevalence and determinants of ideal cardiovascular health in a latin women cohort: a cross-sectional study. The Lancet Regional Health - Americas 2021;4:100071 Dec;. doi:10.1016/j.lana. 2021.100071.
- [6] Voerman E, Santos S, Golab BP, et al. Maternal body mass index, gestational weight gain, and the risk of overweight and obesity across childhood: An individual participant data meta-analysis. PLoS Med 2019;feb 11;16(2):e1002744. doi:10.1371/journal.pmed.1002744.
- [7] Poston L, Caleyachetty R, Cnattingius S, et al. Preconceptional and maternal obesity: epidemiology and health consequences. Lancet Diabetes Endocrinol 2016;4(12):1025–36. doi:10.1016/S2213-8587(16)30217-0.
- [8] Bambs C, Bravo-Sagua R, Margozzini P, Lavandero S. Science and Health Policies to Tackle Chronic Diseases in Chile. Trends Endocrinol Metab 2020;31(2):67–70 Feb;. doi:10.1016/j.tem.2019.11.010.
- [9] Bardach A, Rodríguez MB, Ciapponi A, Augustovski F, Andrea A, Soto N, Virgilio S, Reynales-Shigematsu LM, Roberti J, Pichón-Riviere A. Smoke-Free Air Interventions in Seven Latin American Countries: Health and Financial Impact to Inform Evidence-Based Policy Implementation. Nicotine Tob Res 2020;22(12):2149–57 Dec 12;. doi:10.1093/ntr/ntaa133.
- [10] Villalobos Dintrans P, Rodriguez L, Clingham-David J, Pizarro T. Implementing a Food Labeling and Marketing Law in Chile. Health Systems and Reform 2020;6(1):1-8. doi:10.1080/23288604.2020.1753159.