






Abstract

Meeting the Diabetes and Hypertension Targets of the National Cardiovascular Program in the Most Rural Region of Chile (2018–2020) [†]

Solange Parra-Sotocar ^{1,*}, Yannara Maureira-Bustos ¹, Julio Parra-Flores ¹, Eduard Maury-Sintjago ¹,
Alejandra Rodriguez-Fernandez ¹, Carlos Celis-Morales ² and Natalia Bello-Escamilla ³

¹ Department of Nutrition and Public Health, Universidad del Bío-Bío, Chillan 3780000, Chile; yannara.maureira@cftsanagustin.cl (Y.M.-B.); juparra@ubiobio.cl (J.P.-F.); emaury@ubiobio.cl (E.M.-S.); alrodriguez@ubiobio.cl (A.R.-F.)

² School of Cardiovascular and Metabolic Health, University of Glasgow, Glasgow G12 8TA, UK; carlos.celis@glasgow.ac.uk

³ Department of Nursing, Universidad del Bío-Bío, Chillan 3780000, Chile; nbello@ubiobio.cl

* Correspondence: sparra@ubiobio.cl

[†] Presented at the 14th European Nutrition Conference FENS 2023, Belgrade, Serbia, 14–17 November 2023.

Abstract: Background: The national cardiovascular program includes medical, nursing, and dietetic interventions, which lack evaluation. Therefore, this study aims to evaluate the accomplishment of diabetes and hypertension targets in users of the national cardiovascular program in the Ñuble region between 2018 and 2020. Methods: A cross-sectional study was carried out on users enrolled in the national cardiovascular health program with T2D and/or HTA in the Ñuble region between 2018 and 2020. To evaluate the association between target goals (glycosylated hemoglobin (HbA1c) and blood pressure) and sociodemographic variables, linear and logistic regression were used. Results: More than 16,000 users were included. Men had higher HbA1c levels than women. Meanwhile, for age, people older than 65 years had lower HbA1c levels; a similar tendency was observed when comparing people older than 80 years. When the comparison was performed for rurality, people living in rural areas had higher HbA1c levels, and these levels were higher among people living in Itata province. This tendency was slightly different among HTA people; men continued to exhibit higher levels of Systolic Blood Pressure (SBP) through the years, older people had higher levels of SBP, and people living in rural areas had lower levels compared to people living in urban areas. Conclusion: The present study allows us to deliver the first results regarding the operation of the national cardiovascular health program in the Ñuble region, which allows us to determine if the goals of achievement for T2D and HTA have decreased in the period 2018–2020.

Keywords: diabetes; hypertension; cardiovascular health; public health; national cardiovascular program



Citation: Parra-Sotocar, S.; Maureira-Bustos, Y.; Parra-Flores, J.; Maury-Sintjago, E.; Rodriguez-Fernandez, A.; Celis-Morales, C.; Bello-Escamilla, N. Meeting the Diabetes and Hypertension Targets of the National Cardiovascular Program in the Most Rural Region of Chile (2018–2020). *Proceedings* **2023**, *91*, 146. <https://doi.org/10.3390/proceedings2023091146>

Academic Editors: Sladjana Sobajic and Philip Calder

Published: 2 February 2024



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Author Contributions: Conceptualization, J.P.-F., A.R.-F., S.P.-S. and Y.M.-B.; methodology, A.R.-F.; software, S.P.-S.; validation, S.P.-S. and A.R.-F.; formal analysis, J.P.-F. and Y.M.-B.; investigation, S.P.-S. and J.P.-F.; resources, S.P.-S.; data curation, Y.M.-B. and J.P.-F.; writing—original draft preparation, All authors; writing—review and editing, S.P.-S.; visualization, S.P.-S.; supervision, S.P.-S.; project administration, S.P.-S.; funding acquisition, S.P.-S. and A.R.-F. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by Universidad del Bío-Bío, grant number UBB20993.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Universidad del Bío-Bío Ethical Committee (23 December 2021).

Informed Consent Statement: Patient consent was waived because this research is under the Law 20584. Therefore the institution responsible gives us authorization to use the data and the ethical

committee takes responsibility due is retrospective data. The waiver of informed consent was approved by the Universidad del Bío-Bío Ethical Committee.

Data Availability Statement: Data is unavailable due to privacy restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.