

# Latin America and the Caribbean Code Against Cancer: Developing Evidence-Based Recommendations to Reduce the Risk of Cancer in Latin America and the Caribbean

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Latin America and the Caribbean (LAC) has a population of more than 650 million inhabitants (8.5% of the world population),<sup>1</sup> with a cancer incidence of more than 1.4 million new patients and more than 670,000 deaths in 2018. These figures will increase by 78% by 2040 to more than 2.5 million people diagnosed with cancer each year, and these patients will require medical attention, care, and support. However, many of these new cancer diagnoses can be prevented through public policies, supportive environments, and lifestyles that promote health and prevent cancer (Fig 1).<sup>2</sup> In the LAC region, there are many organizations and institutions providing information on cancer prevention, including national cancer institutes, cancer societies and foundations, and public health agencies. Nevertheless, the information is frequently confusing, overwhelming, or even contradictory. The scientific source and credibility, as well as the primary message, differ according to the type of organization that provides the information (eg, patient organization, scientific or governmental institution).

The International Agency for Research on Cancer (IARC), the agency of the WHO that specializes in cancer, has led a European Union initiative to update the European Code Against Cancer, providing an authoritative source of advice to individual citizens on how to reduce the cancer risks by means of 12 recommendations.<sup>3,4</sup> The European Code Against Cancer was based on the evaluation of the latest scientific evidence by leading scientists from across Europe and tailored to the cancer situation in European populations. The provision of such science-based recommendations as a key cancer prevention tool is critical to inform people and guide health education to promote healthy behaviors and support the development of public policies. However, to be extended to other regions under the framework of a World Code Against Cancer,<sup>5</sup> the recommendations should be adapted to specific cancer patterns,

associated risk factors, cultural characteristics, and health systems capacity. The impact of the European Code resulted in national promotion and dissemination activities coordinated by the Association of European Cancer Leagues,<sup>6</sup> and in addition, several European countries have adopted the structure proposed by the European Code in their respective comprehensive National Cancer Plans, in some cases even including specific objectives for each of the recommendations of the Code.<sup>7</sup>

For the LAC region, a coalition of institutions and international organizations has joined forces to adapt the European Code to the cancer risks and situation in the LAC region. This involves collecting, analyzing, and evaluating the scientific evidence to support suitable cancer prevention recommendations to the LAC context. A multistakeholder participation in the project is a key approach to ensure that all players will be owners of the Code and true promoters. The coalition is composed of the Pan-American Health Organization (PAHO; also part of the WHO) and the IARC as leading international organizations; a Scientific Committee of senior researchers and distinguished leaders in cancer prevention from LAC; and an Advocacy Group representing important organizations in LAC, including the Latin American and Caribbean Society of Medical Oncology, the Network of Latin-American Cancer Institutes, the Healthy Caribbean Coalition, and the Association of Latin American Leagues Against Cancer. With financial support of IARC and PAHO, the coalition met first in April 2017 and again in Lima, Peru, in June 2018.

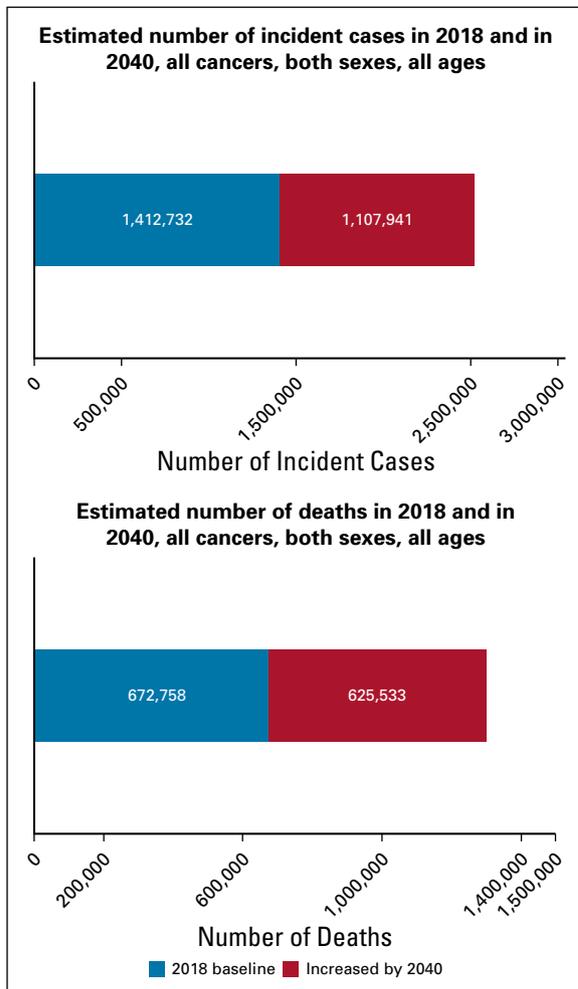
Under the scientific leadership of IARC and the secretariat of PAHO, the coalition nominated the previously mentioned Scientific Committee to adopt the IARC methodology with the purpose of developing recommendations for the LAC region, similarly to the process followed by the development of the European Code. Over a period of 2 years, under the guidance of

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**FIG 1.** Projected cancer incidence and deaths from cancer in 2018 and in 2040 in Latin America and the Caribbean.

IARC and PAHO, experts from LAC in epidemiology, life-styles, environmental and occupational risks, infections, medical interventions, and communication plan to define cancer prevention priorities and develop a set of region-specific, evidence-based recommendations and supplementary information founded on the best available and most recent scientific evidence on causes of cancer and their prevention, reflecting the social, economic, and environmental determinants of cancer in LAC. The recommendations and related additional information would then be approved by the Scientific Committee to secure the highest acceptance and ownership by both the public and

those working in the health system and advising on public health. The end product would be a set of cancer prevention messages directed to the general public and to health providers in Spanish, Portuguese, and English and delivered to the Ministries of Health in the respective LAC countries. These recommendations, adapted to the specific needs of the region, will complement national cancer control plans and strategies and become an effective tool to reduce the risks for cancer.<sup>8</sup>

## FINAL WORDS

Latin America struggles with huge disparities in health system capacity to address the growing burden of cancer and other noncommunicable diseases, especially among smaller economies of the Caribbean and Central America<sup>9</sup>. The conspicuous scarcity of trained specialists coupled with the absence of resources for a robust primary care structure result in late diagnosis and higher rates of advanced, often incurable disease. The Code is urgently needed to stimulate public policy and health system changes toward cancer prevention and as an instrument that has a broad impact on diverse populations and is applicable irrespective of the status of the health care system.

This collaborative project among LAC partners will improve cancer control through the following ways: by promoting effective communication of current critically appraised and scientifically validated evidence on clear messages for cancer prevention; by stimulating the empowering of the individual and the community while offering a good framework for cancer prevention education programs; by offering a strong evidence base and data on cancer risks and burden to adapt recommendations to the LAC region; by facilitating ownership and political impact through the endorsement of the countries of a region; and by providing a united voice to call for cancer prevention under consistent messages and sustain them over the long term.

It is guaranteed that a united and powerful voice, supported by leading regional and international cancer and public health organizations, with data based on the latest scientific evidence and originated in the region, will be extraordinarily helpful for cancer prevention. In addition, a clear guide for the public, health care providers, policymakers, and governments will be highly valuable. In addition, this example of collaboration will serve as a model of collaborative project development in the LAC region.

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## REFERENCES

1. Worldometers: Latin America and the Caribbean population. <http://www.worldometers.info/world-population/latin-america-and-the-caribbean-population/>
2. International Agency for Research on Cancer: Global Cancer Observatory. <https://gco.iarc.fr>
3. Schüz J, Espina C, Villain P, et al: European Code Against Cancer 4th Edition: 12 ways to reduce your cancer risk. *Cancer Epidemiol* 39:S11-S19, 2015 (suppl 1)
4. International Agency for Research on Cancer: European Code Against Cancer. <http://cancer-code-europe.iarc.fr/index.php/en/>
5. Espina C, Herrero R, Sankaranarayanan R, et al: Toward the World Code Against Cancer. *J Glob Oncol* 4:1-8, 2018
6. Association of European Cancer Leagues: The European Code Against Cancer: 12 ways to reduce your cancer risk. <https://www.europeancancerleagues.org/cancer-prevention-the-european-code-against-cancer/>
7. Espina C, Soerjomataram I, Forman D, et al: Cancer prevention policy in the EU: Best practices are now well recognised; no reason for countries to lag behind. *J Cancer Policy* 18:40-51, 2018
8. Cazap E: Recent challenges and achievements in cancer care in Latin American societies, in Silbermann M (ed): *Cancer Care in Countries and Societies in Transition*. Cham, Switzerland, Springer, 2016, pp 375-398
9. Goss PE, Lee BL, Badovinac-Crnjevic T, et al: Planning cancer control in Latin America and the Caribbean. *Lancet Oncol* 14:391-436, 2013

