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New study shows high incidence of lymphoma in Latin America and the Caribbean among children younger than 15 years

Lyon, France, 27 February 2024 – A new study from the International Agency for Research on Cancer (IARC) presents the geographical patterns (for 2001–2010) and time trends (for 1993–2012) of cancer incidence in children aged 0–19 years in Latin America and the Caribbean. The study, published today in the special issue on childhood cancer of the *Pan American Journal of Public Health*,¹ shows that children aged 0–14 years in Latin America and the Caribbean have a higher incidence of lymphoma compared with the combined global data. The lymphoma excess may be explained by increased exposure of young children to certain viruses that are linked with lymphoma and are common in Latin America and the Caribbean: Epstein–Barr virus, Kaposi sarcoma herpesvirus, and human T-lymphotropic virus.

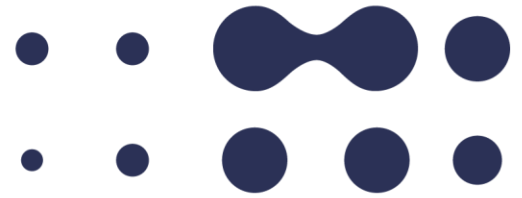
Key findings

The researchers set these findings in the context of global patterns for the period 2001–2010. After an adjustment for differences in age composition, in each year there were approximately 133 new cases of cancer per million children in Latin America and the Caribbean. The corresponding rate was 141 per million for all the other populations with available data combined. Although the overall incidence was lower in Latin America and the Caribbean, certain cancer types were more prominent in this region than the global average.

Children younger than 15 years

In children younger than 15 years, the most frequent cancer types were leukaemia (49 new cases per million children per year), central nervous system neoplasms (23 per million), and lymphoma (17 per million). Leukaemia is the most frequent cancer type in most populations (the global average is 46 per million). Central nervous system neoplasms are usually the second most frequent type in high-income countries (the global average is 30 per million). Central nervous system neoplasms present with non-specific symptoms, and their detection requires advanced imaging technology, which may be unavailable in some areas of Latin America and the Caribbean. Therefore, it is possible that the underlying incidence of central nervous system neoplasms in this region is higher than that observed in this study if some cases are not diagnosed. These reported differences in incidence rates are relatively small but statistically significant.

¹ De Paula Silva N, Colombet M, Moreno F, Erdmann F, Dolya A, Piñeros M, et al. (2024). Incidence of childhood cancer in Latin America and the Caribbean: coverage, patterns, and time trends. *Rev Panam Salud Publica*. Published online 27 February 2024; <https://doi.org/10.26633/RPSP.2024.11>



Children aged 15–19 years

In children aged 15–19 years, the overall cancer incidence in Latin America and the Caribbean (152 per million) was lower than the global average (191 per million). The incidence was also lower for several cancer groups, including lymphoma (30 vs 41 per million) and central nervous system neoplasms (14 vs 26 per million), whereas the incidence of leukaemia and some other cancer groups was similar to the global data. The observed differences may be due partly to missed diagnosis or registration, although variation in exposure to risk factors cannot be excluded. For example, although the overall cancer incidence was lower, leukaemia was as frequent in Latin America and the Caribbean as in the combined world population. The relatively high frequency of leukaemia in Hispanic populations has been linked to Amerindian ancestry, and the highest leukaemia incidence rate was reported in the Hispanic population in the USA.

The only cancer group for which the incidence was higher in Latin America and the Caribbean than the global average was the group of other and unspecified tumours. This group includes tumours such as carcinofibroma, mesothelioma, and melanotic neuroectodermal tumour. These are very rare types, but most of the cancers in this group are poorly defined because of inadequate diagnostic methods or lack of access by cancer registries to medical records.

The researchers observed an increase in overall cancer incidence rates by 1.0% per year during the period 1993–2012 in children younger than 20 years. This increase indicates an improvement in access to care and cancer registration, as well as changing exposures, as countries pursue their overall socioeconomic development. The observed patterns provide the baseline to assess the status and evolution of childhood cancer occurrence in the region.

“These findings call for continued surveillance of patterns and trends. More timely and complete data are needed to better understand these patterns and support the development of effective strategies for childhood cancer control,” says Dr Eva Steliarova-Foucher, a scientist in the Cancer Surveillance Branch at IARC.

The study also highlights the inadequate coverage of Latin America and the Caribbean by the population-based cancer registries that are able to provide comparable data to the collaborative studies, such as [International Incidence of Childhood Cancer](#). The reported results are based on only 16% of the population aged 0–14 years and only 10% of the population aged 15–19 years in the region. Much larger coverage is required to improve the precision and usefulness of the collected data.

“Extended and sustained governmental support of cancer registration is required to improve the coverage of the childhood population by cancer registration and to provide the comparable data that are required for childhood cancer control in Latin America and the Caribbean, to benefit current and future patients with childhood cancer,” says Dr Steliarova-Foucher.



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The International Agency for Research on Cancer (IARC) is part of the World Health Organization. Its mission is to coordinate and conduct research on the causes of human cancer, the mechanisms of carcinogenesis, and to develop scientific strategies for cancer control. The Agency is involved in both epidemiological and laboratory research and disseminates scientific information through publications, meetings, courses, and fellowships. If you wish your name to be removed from our press release emailing list, please write to com@iarc.fr.