

Leukemia mortality in children and adolescents from Latin America: Trends and predictions to 2032.

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Abstract

Background: Leukemia remains the leading cause of cancer-related death in Latin American (LA) children and adolescents. The aim is to evaluate leukemia mortality trends in children and adolescents (0-19y) from 13 LA countries in the last two decades and to predict mortality to 2032. Methods: We retrieved cancer mortality data through World Health Organization Mortality Database. Age-standardized (world standard population) rates were computed for 13 LA countries 2000–2017. Mortality trends were analyzed by Joinpoint regression, and Nordpred was utilized for the calculation of predictions. Results: Ecuador and Mexico had the highest mortality among LA countries. For boys, Ecuador continues to increase in 1.5% annually, while Mexico reported a decline by -0.3% annually. For both genders, Nicaragua showed a high rise, for boys (APC= +3.1) and for girls (APC= +2.3), while Puerto Rico experienced a large decrease, for boys (APC= -9.7), and girls (APC= -6.0). The comparison between the last observed and projected period showed a greater increase in the risk of death from leukemia in Ecuador and Argentina for boys, and Nicaragua and Peru for girls. In Puerto Rico, there was a reduction in the percentage of cases associated with changes in size and population structure, despite the increased risk of death from leukemia. Conclusion: Ecuador and Mexico continue to report the highest mortality for leukemia among LA countries. However, in the last years, Mexico has shown favorable changes in mortality. Special attention should be given to Ecuador due to the significant increase in mortality rates.

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