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## Global incidence and prevalence of acute lymphoblastic leukemia: A 10-year forecast

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Acute Lymphoblastic Leukemia (ALL) incidence is increasing globally and the case burden is expected to rise among adults in whom the disease is particularly fatal. The aim was to estimate changes in ALL risk and disease burden globally over the next decade. Using data from country-specific cancer registries, incidence was estimated for 45 countries, representing approximately 90% of the world population. Increasing age and male sex were the non-modifiable risk factors with the largest effects. To account for additional risk factors such as the increasing adoption of Western lifestyles characterized by dietary changes and more sedentary lifestyles, the proxy measure of forecast gross domestic product (GDP) were used. Prevalence was also estimated as a cumulative incidence over the preceding 12-month period with adjustments for disease-specific and competing-cause mortality. In 2020, we estimate ALL incidences to range from 0.4 to 2 per 100,000 in Asia-Pacific and South American countries, respectively; while prevalence will range from 0.37 to 1.6 per 100,000 in these regions. In terms of case burden, when accounting for the approximate 10% of the world's population not covered by the 45 countries in which we forecast incident and prevalent cases, there were a total of 53,000 cases in 2016 worldwide. Incorporating the aforementioned risk factors into a forecast model using demographic and GDP data published by the United Nations and World Bank, respectively, this number should increase to 56,000 cases by 2020. Most of these cases are in the Asia Pacific region, representing 55% of the worldwide total.

### Biography

Bethlehem Solomon has completed her MPH, concentrating in both Epidemiology and Global Health from Boston University School of Public Health, USA. She is an Associate Epidemiologist with a focus on Oncology at Decision Resources Group, USA. She was a Visiting Scientist at the University of Cambridge/Wellcome Trust Sanger Institute, where she participated in the design and implementation of various studies focusing on non-communicable diseases, particularly in low and middle-income countries.

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