Wealth Predicts Survival, Not Incidence: Sociodemographic Disparities in the Global Burden of Burkitt Lymphoma, 1990–2023

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INTRODUCTION

Burkitt lymphoma (BL) is a rapidly proliferative B-cell malignancy with marked geographic heterogeneity related to endemic infections, immunodeficiency, diagnostic capacity, and access to curative therapy. Although outcomes have improved in high-resource settings, the global relationship between sociodemographic development, incidence, and fatal burden remains unclear. Population growth may obscure progress when trends are reported only as absolute counts. A contemporary, equity-focused assessment is needed to distinguish changing detection from inequities in mortality and premature life loss worldwide.

AIM

To determine whether national sociodemographic development is associated more strongly with Burkitt lymphoma survival than with disease occurrence. We hypothesized that, despite variable and potentially rising reported incidence across SDI strata, higher-resource settings would demonstrate lower age-standardized mortality, DALYs, and YLLs, reflecting more equitable access to timely diagnosis and curative treatment.

METHOD

We utilized global burden of disease study 2023 framework on BL burden (1990–2023) encompassing incidence, prevalence, deaths, DALYs, and YLLs absolute counts and age-standardized rates (ASR) per 100,000 stratified by SDI quintile and seven GBD super-regions AAPC was estimated using log-linear regression.

CONCLUSIONS

BL absolute burden more than doubled globally while age-standardized rates broadly decline, reflecting improved diagnosis and treatment access. Persistently rising ASR mortality in South Asia and Low-middle SDI nations demands urgent pediatric chemotherapy access and targeted HIV-associated BL prevention strategies.

Doubling Counts, Declining Rates: Global Burden of Burkitt Lymphoma, 1990–2023

GBD 2023 Analysis | All Ages, Both Sexes | SDI-Stratified | Incidence +105.5%, but ASR rates broadly declining