Childhood cancer in developing countries—a growing health threat that could be easily managed

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Across the developing world, childhood cancer is on the rise, and mortality is high. Once thought of as a rich world disease, cancer is a growing health threat across low-income and middle-income countries (LMCs). A major new Lancet Oncology Series by some of the world's most eminent cancer experts outlines the biggest challenges to treating childhood cancer in developing nations and proposes strategies to improve care for children and young people.

According to recent WHO estimates, cancer claims the lives of around 100 000 children before the age of 15 every year worldwide. 94% of these deaths occur in low-income countries. Developing countries are already home to nearly 90% of the world's children and this proportion continues to rise.

"The stark reality is that access to treatment is very poor in LMCs. An unknown proportion of children with potentially curable cancers never receive treatment—not even palliative treatment—and most of those who do receive some form of treatment still die"*, says Professor Ian Magrath from the International Network for Cancer Treatment and Research, Belgium, one of the lead authors.

In many LMCs, a lack of awareness about cancer and poor availability of basic healthcare means that children often present with late-stage disease. Doctors in developing countries are often not well trained in cancer diagnosis and may only see a handful of childhood cancers during their entire careers. Moreover, treatment is often poor or non-existent, or too costly for patients to afford. In Africa, for instance, the proportion of cancers that occur in children is roughly 12 times higher than in Europe, but 80% of people in Africa have no access to radiotherapy, cancer surgery, or the infrastructure needed to deliver basic cancer care.

According to Series leader Professor Kathy Pritchard-Jones from the Institute of Child Health, University College London, "Some challenges seen around the world...are not entirely dictated by income or spend on health care, but also by the motivation of politicians to create and develop sustainable infrastructure that recognises the specific needs of children with cancer." In Mexico, for example, children's abandonment of cancer treatment has been reduced from 35% to 4% by a combination of the introduction of insurance for the most socioeconomically deprived families (50% of the population), the development of standard treatment protocols, and the accreditation of 49 programmes for childhood cancer.

Investment in health-care systems and capacity (including equipment and drugs), more and better-trained health professionals, and the establishment of regional hospital networks and international collaboration are essential to improving outcomes. In particular, twinning programmes between developed and developing countries, and different regions, can provide international mentoring, medical education, access to up-to-date treatments, and increase participation in international clinical trials.

Additionally, cancer registries (often the only unbiased source of information on cancer burden) are urgently needed to assess the situation within each country and support decision making. In Africa, for instance, only 1% of the population is covered by population-based cancer registries providing data on cancer incidence, compared to more than 80% in North America and Oceania, and 33% in Europe.

"Measurable 5-year survival outcomes, even if substantially less than those of high income countries at first, will help to create a dynamic that
is not easily ignored by politicians", say the authors.

Finally, they add, strategies to dispel the myth that developing countries cannot afford to treat children with cancer are needed. "Because children have their entire lives ahead of them, saving the lives of children has a much greater effect on economic development than does cancer care for older people", explains Magrath, "Treatment of curable childhood cancers is highly cost effective, even if it is only possible in a few institutions."

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