

# Treating childhood cancer in developing countries less expensive than believed

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(Medical Xpress)—The assumption that childhood cancer in developing countries is prohibitively expensive to treat is challenged by new research contributed to by the University of Sydney.

"Our findings mean it is time to re-evaluate [global health](#) policy," said Dr Alexandra Martiniuk from the University's School of Public Health and The George Institute. Dr Martiniuk is an author on the study, just published in the [Archives of Disease in Childhood](#).

Worldwide an estimated 175,000 children are diagnosed as having cancer each year, approximately 90 percent of them living in low- and middle-income countries (LMIC).

"The issue of which [childhood diseases](#) should have their treatment prioritised in the [developing world](#) is a confronting one," said Dr Martiniuk.

In Australia, America and other high-income countries, about 90 percent of children with the most common [types of cancer](#) survive long term. In LMIC the [survival rates](#) drop to between five and 40 percent.

"Resource-intensive medical services, such as chemotherapy and [hospitalisation](#), are needed to cure childhood cancers so financial constraints are often cited as a barrier to their treatment in LMIC," said Dr Martiniuk.

"But this study confronts that thinking by using case studies in Brazil and Malawi to show treatment of childhood cancer can, using accepted world standards, be considered very cost effective."

The researchers investigated the balance between health gains and financial costs by calculating the cost effectiveness of treatment of two kinds of [childhood cancer](#): acute lymphocytic leukaemia in Brazil and Burkitt lymphoma in Malawi.

"Examining the actual costs to treat a child with cancer in Brazil and Malawi using globally recognised comparison ratios we determined that the cost of treating a child with leukaemia in Brazil at US\$16,700," said Dr Martiniuk.

"This is well below the globally recognised 1:1 ratio considered very cost effective."

The medical response for childhood cancers in the developed world includes intensive treatment, extensive support care and multiple hospital stays and is often considered prohibitively expensive for developed countries.

The study contradicts this assumption by showing that when a short course of treatment was used in Malawi for one month, 48 percent of children were cured. The cost of chemotherapy and supportive care drugs in this instance was reported as less than US\$50 a child, representing less than one percent of the World Health Organisation's calculated threshold for very cost effective treatment.

"Ultimately the decision about whether to treat childhood cancers in LMICs is complex and does not depend solely on costs. Many childhood cancers are curable but the overall burden of these diseases for a country is often less visible than, for example, HIV or tuberculosis," said Dr

Martiniuk.

"This is probably due to many factors including a diagnosis of the child with cancer being delayed or never being made."

"Many LMIC governments cannot implement cost effective interventions because of limited resources. Whether the funds used to cure one child with cancer could have saved more lives if they had been spent on other medical treatments is a question each country must consider."

**More information:** [adc.bmj.com/content/early/2012 ...  
ild-2011-301419.full](http://adc.bmj.com/content/early/2012/12/03/adc.2011-301419.full)

Provided by University of Sydney

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