

New analysis details devastating toll of neglected tropical diseases in sub-Saharan Africa

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An analysis published August 25 in the open-access journal *PLoS Neglected Tropical Diseases* sheds new light on the toll that neglected tropical diseases (NTDs) take on sub-Saharan Africa (SSA), with an estimated 500 million people suffering from these debilitating and sometimes deadly diseases. Helminth infections account for approximately 85% of the NTD burden. Overall, the NTD burden may be equivalent to more than double that caused by tuberculosis and up to one-half of SSA's malaria disease burden.

"It is appalling that helminth infections and other NTDs are having such a devastating impact on the poor in sub-Saharan Africa, given that we have effective treatments to alleviate their sufferings," said Peter Hotez, co-author of the analysis, President of the Sabin Vaccine Institute, and Distinguished Research Professor at George Washington University. "For \$200-\$400 million a year over five years, we could significantly reduce the burden of helminth infections and other NTDs from much of sub-Saharan Africa. That's a minimal investment with maximum returns."

While the prevalence of helminth infections has diminished elsewhere in the world, it has remained relatively constant in SSA. Between one-quarter and one-third of SSA's population is affected by one or more helminth infections, with children, especially school-aged children, disproportionately affected. Helminth infections, like other NTDs,

produce profound physical and mental deficits in children. In addition, a high percentage of pregnant women are also affected.

The authors note that NTDs in SSA may produce a level of disease equivalent to, or as much as, one-half and one-third of the region's malaria and [HIV/AIDS](#) disease burden, respectively, suggesting that the NTDs represent a formidable [public health](#) challenge in the region. Given that treating NTDs could be achieved at affordable costs, the authors conclude that "helminth control should continue to be prioritized by public health experts, health ministries, and global policy makers."

The authors also say that high priority must be placed on examining the impact that reducing helminth infections might have on malaria and HIV/AIDS. In many parts of SSA, helminths are co-endemic with malaria, worsening the course of the disease; in others, schistosomiasis causes genital lesions and may increase a woman's susceptibility to HIV/AIDS.

"A full analysis of all Africa's NTDs is an essential step towards prioritizing these conditions relative to ongoing HIV/[AIDS](#) and malaria control efforts supported by private foundations and the Group of Eight nations," the authors concluded.

More information: Hotez PJ, Kamath A (2009) [Neglected Tropical Diseases](#) in Sub-Saharan Africa: Review of Their Prevalence, Distribution, and Disease Burden. *PLoS Negl Trop Dis* 3(8): e412. [doi:10.1371/journal.pntd.0000412](https://doi.org/10.1371/journal.pntd.0000412)

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