

Intestinal parasite infection amongst preschool-age children in the Democratic Republic of Congo: A multilevel analysis

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Abstract

Intestinal parasite (IP) infections, such as hookworm infection, constitute a public health concern in less developed countries. Little is known about the epidemiology of IP infection in preschool-age children in the Democratic Republic of Congo (DRC). This study explored the epidemiology of IP infection in preschool-age children from the DRC and investigated whether the unobserved variations of this infection were between households or communities. Demographic Health Survey (DHS) collected data on preschool-age children with/without a record of a drug prescription for IP infection were used. Multilevel logistic regression analysis was applied due to the hierarchy nature of the data. The prevalence of IP infection was significantly different amongst the 11 regions and was higher in urban areas in the DRC. The random effect model showed that there were significant variations of IP infection due to unobserved household level factors. High prevalence of IP infection is a public health concern in the DRC and can remain a national health threat for as long as poverty persists.

Keywords: intestinal parasite infection, ascaris lumbricoides, strongyloides stercoralis, larvae, multilevel logistic regression, random effect.