

**Epidemiology of intestinal parasitic diseases in  
Nepalese children**

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**Background**

Intestinal parasite diseases are infections of the human intestinal tract related to poverty and poor sanitation. These infectious diseases mainly occur in children, adversely affecting their physical and cognitive development by acting on several fronts. The most prevalent intestinal parasite diseases are the Soil-transmitted Helminthiases (STHs). Nepal is one of the Asian countries where STHs are highly endemic. This study aims to provide data about the prevalence of the major intestinal parasitic diseases in Nepal.

**Methods**

Data were collected from grey literature (papers and digital dissertations provided by Tribhuvan University of Kirtipur) and scientific papers. Prevalence for the main intestinal parasitic diseases on the Nepalese territory were calculated and metanalysis performed. The study was carried out on the pediatric population and assessed different prevalence rates by age, sex, land use (urban, peri-urban and rural) and ecological "belt" (terai, hills, mountain).

**Results**

The prevalence rate of intestinal parasitic diseases was found to be 37.46% in the Nepalese children, 40.17% in school aged children and 35.84% in pre-school aged children. Males are more affected than females (odds-ratio: 1.18 with CI 95%: 1.07 – 1.30). Intestinal parasites were found to be more common in urban and suburban areas rather than in rural ones. The creation of prevalence maps highlighted the current epidemiology of intestinal parasitic diseases in 19 Nepalese districts.

**Conclusions**

The high prevalence rate of intestinal parasitic diseases suggest that the pharmacological approach alone, through preventive chemotherapy, is not strong enough to effectively prevent the transmission of these diseases. This is particularly important in urban and peri-urban areas of Nepal, because the poor sanitary conditions found in slums and overcrowded environments represent the basis for high infection and re-infection rates.

**Key messages:**

- The high prevalence rate of STHs found in the Nepalese pediatric population, highlights the importance of a multi-disciplinary intervention to promote children health.
- The pharmacological approach alone, through preventive chemotherapy, is not strong enough to effectively prevent the transmission of these diseases.