

Parasitic Infections among Children and Adults in Maputo households: a community study between 2018 and 2020

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Introduction

Intestinal parasitic infections (IPIs) are one of the public health problems affecting Low-Middle-Income-Countries including Mozambique. The national survey conducted from 2005 to 2007 showed that 53.5% of schoolchildren were infected with soil-transmitted helminths (STH) in Mozambique. According to the same survey, 37.1% were in Maputo.

Aim: To determine the burden of intestinal parasitic infection in adults and children at household environment in Maputo, Mozambique.

Methods: This data is a community sub-analysis of the cohort study conducted in Maputo between 2018 and 2020. The present analysis included individuals older than 1 year of age, stratified as less to 6 years of age as children, 7 to 17 years of age as schoolchildren and more than 18 years of age as adult. Stool samples were collected and examined by Kato-Katz (KK), formol-ether concentration (FEC) and modified Ziehl-Neelsen (mZN) to diagnose intestinal parasitic infection (IPI). Socio-demographic and economic data were collected using a questionnaire. The data were analysed using STATA version 15.1.

Findings: In total, 142 households were visited and a total of 464 individuals enrolled. Among them, 45.5% (211/464) were children, 17.0% (79/464) schoolchildren and 37.5% (174/464) adults. The median age observed was 8 (IQR 2 – 24 years). Stool samples were collected from 229 individuals. Overall, 34.9% (80/229) were infected with at least one IPI. Children were the most infected (63.8%, 51/80) followed by adults (23.8%, 19/80) and schoolchildren with 12.5% (10/80). Among the infected, single infection was common with 58.8% (47/80) than mixed infection (41.3%, 33/80). *Giardia intestinalis* was only observed in children (8.8%, 7/80). Geohelminths were observed in 38.8% (31/80) in children, 15.0% (12/80) in adults and 6.3% (5/80) in schoolchildren.

Conclusions: Our findings showed that intestinal parasites remain a public health problem in Mozambican families. This infection should also be addressed in adults and not only in children and schoolchildren. The presence of geohelminths suggests that more efforts should be consider such as improving sanitation, sensibilization of the community to adhere to the individual and collective hygiene.

Keywords: intestinal parasite infection, households, children, adult.