

PREVALENCE OF LIVER DISEASE IN *SCHISTOSOMA MANSONI*  
INFECTION IN SIAVONGA DISTRICT OF ZAMBIA

By

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of the requirements for the Degree of Master of Science in Parasitology.

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## ABSTRACT

The Siavonga District in the Southern Province has one of the highest prevalence of schistosomiasis in Zambia. The objective of this community based cross-sectional study was to determine the prevalence of liver disease due to *Schistosoma mansoni* infection amongst the population of Game Village, Siavonga District. The study was carried out from June to October 2007 on 269 individuals who were asked to submit stool and urine samples for schistosomiasis examination. Clinical, laboratory and ultrasound examinations, including the Knowledge, Attitude and Practices (KAP) questionnaire, were used to collect data. The prevalence of *S. mansoni* infection found on 269 study participants examined was 175 or 65% and was the most prevalent infections. Of the 175 cases of *S. mansoni* infections found, 61% were light infections, 34% were moderate infections and 5% were heavy infections. It was found that children had a higher chance of contracting schistosomiasis than adults. It was further noticed that females had a higher chance of contracting schistosomiasis because of the nature of activities they perform than males. The prevalence of liver disease due to *S. mansoni* infection as confirmed by microscopic examination of stool samples and ultrasound was 6 cases or 3.4% and mostly observed in the young between 12 to 24 years old regardless of the intensity of infection.

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## DEDICATION

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#### LIST OF ABBREVIATIONS

APPF-Advanced Periportal fibrosis

SCI-Schistosomiasis Control Initiative

HIV-Human immunodeficiency virus

KAP-Knowledge, Attitudes and Practices

MCL-Mid clavical line

MAL-Mid axillary line

PSL-Liver parasternal line

WHO-World Health Organization

GIT- Gastro intestinal tract

DALYs- Disability Adjusted Life Years

Epg- Eggs per gram of stool

GMEC- Geometric Mean Egg Count

EPPF- Early periportal fibrosis

MPPF- Moderate periportal fibrosis

STDEV- Standard deviation

MLNE- Monocytes, Lymphocytes, Neutrophils and Eosinophils

WARFSA- Water research fund for Southern Africa

NISIR- National Institute for Scientific and Industrial Research

DANIDA- Danish International Development Agency

ZBCP- Zambia Bilharzia Control Programme

MoH- Ministry of Health