

THE SOCIAL INNOVATION IN HEALTH INITIATIVE CASE COLLECTION

SCHISTO AND LADDERS™ VERSION 2.0

Schisto And Ladders™ Version 2.0 is a board game developed at a University in South Western Nigeria for the control of schistosomiasis among school children and to encourage drug uptake among schoolchildren during mass drug administration

Continent	Africa
Country	Nigeria
Health Focus	Schistosomiasis In School-Aged Children
Areas of Interest	Disease prevention
Health System Focus	Neglected Tropical Diseases

This case study forms part of the Social Innovation in Health Initiative Case Collection. This case study was prepared by SIHI Nigeria, Nnamdi Azikiwe University, Nigeria. The research was conducted in 2027. This account reflects the stage of social innovation at that time.

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ABBREVIATIONS

COR-NTD - Coalition for Operational Research on Neglected Tropical Diseases

LGA - Local Government Area

MAM - Mass Administration of Medicines

SDG - Sustainable Development Goal

WHO - World Health Organisation

EXECUTIVE SUMMARY

Schistosomiasis or Bilharzia is one of the Neglected Tropical Diseases identified by the World Health Organization (WHO). The disease is caused by a trematode named Schistosoma and remains a public health challenge with over 600 million people at risk of infection worldwide. The transmission of the disease is linked to contact with infected water bodies such as rivers, streams, pools, and lakes containing cercaria in endemic communities. Schistosomiasis is common in school-aged (5-15 years old) children whose water contact pattern includes recreational and domestic activities such as bathing, swimming, washing clothes or kitchen utensils and fetching water.(Ekpo, Oluwole, Abbe, Etta, Olamiju & Mafiana, 2072)

Nigeria is the most endemic country for schistosomiasis in sub-Saharan Africa with 29 million people (11/3 million school-aged children) infected contributing to 14% of the global burden (Hotez et al, 2072). Ogun state in South Western Nigeria has one of the greatest burdens of the disease in Nigeria (Ekpo, Mafiana, Adeofun, Solarin & Idowu, 2008). The control of schistosomiasis in sub-Saharan Africa, including Nigeria, is mainly conducted through school-based mass administration of medicines (MAM) with praziquantel. Although praziquantel remains the drug of choice for reducing morbidity due to schistosomiasis, several studies have shown that treatment alone does not prevent reinfection, transmission, or elimination of the disease. It has also been observed that rejection of MAM with praziquantel by school children has been attributed to the use of unskilled personnel for drug administration, a lack of proper health education to enable individuals to understand why they should take medicine, adverse side effects, bitter taste and even rumours of death. This has resulted in low treatment coverage, thus hampering the elimination of schistosomiasis as a public health problem in line with the Sustainable Developmental Goal (SDG) 3.3 by 2030.

The Schisto and ladders™ board game version 2.0 was developed to address the problem of rejection of praziquantel during the MAM exercise. The game contains health messages about the signs, symptoms, prevention, and control of schistosomiasis with some messages and pictures to encourage compliance with the annual Mass Administration of Medicine.

INNOVATION AT A GLANCE

Organisation details

Organisation Name	Schisto and Ladders ™ version 2.0
Founding year	2018
Founder name(s)	Cynthia Umunakwe, Uwemedimo Ekpo
Implementer(s)	Founder, Co-founder/Innovation Supervisor, COUNTDOWN Implementation Research Ogun State/Sight savers Nigeria, Neglected Tropical Diseases (NTD) Control Unit in the Ogun State Ministry of Health.
Founder nationality	Nigerian
The current head of the organization	Not applicable
Organisational structure	Not applicable
Main value proposition	Prevention of disease using innovative games as a health education tool.

Project stage

Size	Founder, Co-founder/Innovation Supervisor, other supervisors, COUNTDOWN Implementation Research Ogun State/Sight savers Nigeria, Neglected Tropical Diseases (NTD) Control Unit in the Ogun State Ministry of Health. Six postgraduate students of the Department of Pure and Applied Zoology, Federal University of Agriculture, Abeokuta, Nigeria
Main income stream	Sale of the board game
Annual income	None due to the COVID-19 pandemic

Operational details

Country/countries of operation	Nigeria
Type of beneficiary	School Children aged between 5-74 years
Number of the beneficiary (annually)	Unable to determine
Cost per client	Unable to determine, as the copyright for reproduction of Schisto and Ladders™ version 2.0 (game) was approved for Ogun State Ministry of Health. Currently, a game is sold at NSOO a copy inclusive of counter and dice.
Local engagement	This social innovation in health is implemented and executed by the entire research team in collaboration with governmental and non-governmental partners, while school teachers and community members are involved in mobilizing pupils.
Innovative elements	Teaching school children about disease transmission, control, and prevention using a popular game Ensuring the infected school children have the appropriate knowledge to enable them to seek treatment at the health facility
Scaling Considerations	This innovation would be scalable under the following conditions; State Government Educational and Health policy that promotes and incorporate the use of the game into the health education curriculum of primary schools. Should be adopted by the State Universal Basic Education Board to deliver health education about schistosomiasis Mass production for distribution in the school health program
Sustainability Considerations	The following are essential to sustaining the innovation once in place: Development of an electronic version as a smartphone app, factoring in cultural differences. Mass production of hard copies factoring in cultural differences Translation to other local languages where it is needed Advertising the game using billboards and social media Awareness of the game for a wide audience including development partners for uptake. There is low awareness about schistosomiasis and the availability of treatment in endemic communities Local resources can be used to design and develop control measures for endemic diseases that are culturally acceptable. Games are useful vehicles for teaching and imparting knowledge in a friendly way
Key Lessons	

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