



# The Brotherhood of Cholera In Morogoro Municipal

19. Kilakala

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## Introduction:

Water is vital to life and an important requirement to humans for drinking and other domestic uses but if is contaminated may be a threat to human health.

This study on *"The Brotherhood of Cholera in Morogoro Municipality, Tanzania"* was conducted in March to May 2016 aimed at finding out the possible reasons for persistence of cholera in Morogoro Municipality regardless of government efforts to overcome the disease. The study involved four selected wards namely Kichangani, Kilakala, Tungi and Kihonda.



## Method:

The study involved four selected wards namely Kichangani, Kilakala, Tungi and Kihonda. Methods of data collection included interviews, structured questionnaires, direct observations, focus group discussions, review of records (retrospective data) and water sampling for laboratory analysis using standard methods. It was found that there is scarcity of safe and clean water supply in Morogoro Municipality due to limited capacity of MORUWASA.

Several alternative water sources are used which are not safe. Episodes of cholera in Morogoro region occurred between 2015 and 2016 which affected 585 of which 88% (n=515) of patients were from Morogoro Municipality. Among the possible causes of cholera that were established include contaminated water, lack of toilets, improper settlement near water sources, water shortage, laziness and negligence, bad cultural practices and poverty.

We conducted focus group discussions in different schools in the municipal. These schools were St. Peter's Junior Seminary, Kilakala Secondary School and Morogoro Secondary School. The aim of conducting focus group discussion was to know whether there have been cases of cholera in schools, the possible causes of cholera, seriousness of students on the disease and the measures in place to prevent occurrence of cholera in schools.



## Results:

Laboratory results of water sample analysis revealed that 4/5 (80%) water samples were positive of coliforms with the count that ranged between 1100 and above per 100 mL that suggest faecal contaminations in water sources. Up to 80% of the samples had microbial contamination with the count of up to  $28 \times 10^{-4}$  CFU/100 mL signifying of heavy pollution. The dominant bacteria were *Escherichia coli* which were isolated from 4/5 (80%) of all the samples analysed implying that there was faecal contamination. *Giardia lamblia* trophozoites were isolated in 3/5 water samples (60%) implying that giardiasis is also a problem in Morogoro Municipality. These were among the factors for cholera persistence and hence the brotherhood of cholera in Morogoro Municipality. It is hereby recommended that the supply of piped water should be increased, public education on hygiene and sanitation should be provided and each household should possess and use toilets/pit latrines. Water treatment at MORUWAS and household level should be mandatory so as to overcome the waterborne diseases like cholera.



Ward	Number of treated wells	Number of closed wells
Mwembe Songo	08	20
Tungi	12	11
Kihonda	36	05
Mbuyuni	00	01
Mkundi	05	02
Mafisa	04	04
Kilakala	04	00

## Conclusions

Based on the findings of this study, it is concluded that:

There is scarcity of safe and clean water supply in Morogoro Municipality due to limited capacity of MORUWASA

There is several alternative water sources for drinking and other domestic uses which are always not safe and may be the sources of waterborne disease in the municipality like cholera

The recent episodes of cholera in Morogoro were between 23/01/2016 and 23/03/2016 affected 585 and 88% of the patients (n=515) were from Morogoro Municipality and all these were linked with drinking water that was contaminated with human faeces

Among the possible causes of cholera that were established include contaminated water, lack of toilets, improper settlement near water sources, water shortage, laziness and negligence, bad cultural practices and poverty

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## Acknowledgments

We give our sincere gratitude to the following people who gave their contributions which made this project to be successful:

Dr. Nonga, H.E. and Mr. Ndaki, L. of Sokoine University of Agriculture

Mr. Godfrey Kavenuke, the Academic Teacher and a guide for this project from Kilakala Secondary School

The Headmistress and the General Administration of Kilakala Secondary School