

# NIMR develops formula to curb waterborne diseases

**By Guardian Reporter**

THE National Institute for Medical Research (NIMR) has developed a new water treatment formula and device

which will significantly minimize chances of contracting waterborne diseases, particularly diarrhea.

According to a new study, the newly-designed formula

has proved to be effective in reducing episodes of diarrhea by 54 percent.

The water disinfectant dubbed 'Takasamaji' literal translation for 'purify water' developed by NIMR under its

safe water project, can also prevent bacterial contamination in water by 80 percent and reduce turbidity level by 70 percent.

"A year-long study conducted in Mkuranga

district, Coast Region has provided a breakthrough in efforts to reduce child deaths caused by diarrhea," NIMR Principal Research Scientist, Dr Kijakazi Mashoto said on

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Wednesay when unveiling the findings of the study in Mkuranga.

The findings of the study are titled 'The use of a simple technology to treat and store water: A strategy to prevent diarrhea in rural Tanzania.'

"The main objective of the research was to assess whether a combination of drinking water, safe storage container and 'Takasamaji' technology is effective in preventing diarrhea," she said when revealing the findings, adding that lack of access to safe drinking water, inadequate sanitation and consumption of contaminated

water to a great extent contribute to diarrhea.

The study involved 3,197 individuals, including 849 children under five years of age who live in the 599 surveyed households in 32 villages of Panzuo and Nyamato wards in Mkuranga district.

During the study, she said, a baseline survey showed that 6 percent of the children under five years of age contracted diarrhea.

According to Dr Mashoto, the research was prompted by the fact that despite availability of several local and imported Household Water Treatment and Safe Storage (HWTS)

technologies, none of them proved to be suitable for rural areas.

"Lack of disinfection methods as well as unhygienic handling and preservation of water in rural areas are significant factors behind water contamination," she said. For his part, NIMR Director of Research, Coordination and Promotion, Dr Julius Massaga said despite the need to improve the formula, he is optimistic that the technology will help thousands of children from dying of diarrhea across the country.

"We are targeting to scale up the research countrywide after we reexamine and

improve the formula. However, this will depend on availability of funds," he said, noting that the research was funded by Grand Challenges Canada at a tune of 100,000 Canadian dollars which is equivalent to 151.38 million.]

According to him, NIMR is looking forward to embark on phase two of the research after improving the 'Takasamaji' formula.

Speaking at the occasion, Mkuranga District Commissioner, Mercy Sila commended NIMR for developing the formula and 'Takasamaji' technology, saying it is a great step towards country's efforts to reduce child mortality.