

THE EFFECT OF RICE GROWING FIELD ON THE PREVALENCE OF MALARIA IN NYAGATARE DISTRICT

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ABSTRACT

With the increasing of cultivation area in Rwanda it was considered pertinent to conduct a study to determine how rice growing might have influenced the malaria burden. This study sought to determine whether rice growing in Rwanda is associated with increased malaria cases in an irrigated area (Rukomo Sector) in comparison with the non-irrigated area (Karangazi Sector) without rice growing activity both located in Nyagatare District. The study was retrospective involving a documentary review of health sector records for the last five years. Collected data were complemented with a cross sectional survey whereby 270 heads of households in Rukomo and 270 in Karangazi were interviewed concerning the type of malaria interventions they used. The data collected was later analyzed using SPSS for malaria key indicators according to the study objectives. According to the RHMIS the non-rice growing area of Karangazi had yearly prevalence of 9.6%, 25.9%, 38.8%, 26.6% and 26.6% from 2008 to 2012 vs Rukomo that had 13.2%, 24.8%, 21.7%, 23.4% and 27.3% prevalence during the same period which is irrigated area. By differences in prevalence rates of malaria which is high in irrigated than non-irrigated area of Nyagatare District. In view of the differences in prevalence rates of malaria which is high in irrigated than non-irrigated area of Nyagatare District it is concluded that in irrigated areas there is a higher risk of malaria transmission. The trend of malaria slide positivity rates among fever cases in the two study areas in 2012 Rukomo as rice growing place had 8411 and Karangazi having marshland without rice growing activity had 4722 almost a half that of Rukomo. In both sectors risk factors observed were non appropriate use of preventive tools for breaking malaria transmission. There is a need to sensitize households on sustained use of LLINs in order to optimize their role as a malaria control tool. The Ministry of Health, Malaria control managers, and partners need to continually determine the extent to which malaria preventive tools reach the poorest socioeconomic groups, and fashion strategies that will ensure that equity is always maintained. Conduct effective IRS to reduce life span of malaria vectors. It is important to maintain health insurance coverage and also to provide regularly malaria treatment.

Keywords: *malaria, rice growing, health, risk factors, prevention tools, Nyagatare District, Rwanda.*