The Rufiji Demographic Surveillance Area (DSA) extends between latitudes 7.47° and 8.03°S and longitudes 38.62° and 39.17°E. It is home to more than 97,000 individuals living in 38 villages. Rufiji District is one of six districts of the Coast Region, 178km south of Dar es Salaam (Figure 1). The district has an area of approximately 14,500 square kilometers and a population of 203,102 people. The district is largely rural though the population is clustered around Utete (District headquarters), Ikwiriri, Kibiti and Bungu townships. The population density for the district and Rufiji HDSS are 14 and 39 per square km respectively. The mean household size for the whole district is about 5 persons. A prominent feature of the district is the Rufiji River which divides the district into approximately equal halves. The Rufiji HDSS is on the northern side of the river where the majority of the population lives and is more easily accessible throughout the year while communities south of the river as well as those in the delta may be inaccessible for varying periods during long rains.

There are several ethnic groups in Rufiji District. The largest is the Ndengereko (believed to be the original inhabitants of the area); other groups include the Matumbi, Nyagatwa (concentrated in the delta area), Ngindo, Pogoro and Makonde. The population comprises mainly Muslims with few Christians and followers of traditional religions. The main language spoken is Kiswahili. English is not commonly used in the area. Around 30% of the population aged 7 years and above have never been to school. 84% of the literate population has attended primary education with only 2% having tertiary education.

Among the males aged 7 years or above, 30% are farmers, 15% are self employed, mainly small scale traders, 36% are students and 4% are unemployed. For females aged 7 years or above, 45% are farmers, 6% are small scale traders, 31 are students and 4% are unemployed. The household heads in Rufiji HDSS are considered as the bread earners. The households in Rufiji HDSS are mostly (67.3%) male-headed and only 32.7% are female-headed.
The main economic activity of the people in Rufiji is subsistence farming relying on the periodical flooding of alluvial soil for rice and maize farming. Other crops that are found include cassava, millet, sesame, coconut, cashew nuts and fruits that grow mostly on elevated land. Animal husbandry and associated farming practices have started to emerge with the influx of Sukuma people from the Western and Lake zones.

**Figure 2: Male and Female Population by Age and Sex, Rufiji HDSS 2011**
Objectives
The primary purpose of this surveillance system is to evaluate the impact of interventions with equity focus and generate relevant health, demographic and socioeconomic information for policies and programs, and for further research.

Priority research areas
Health systems research, aim to test a community health worker model for providing community-based health services and emergency referral to strengthen these connections between communities and health facilities and determine impact on child mortality, particularly newborn mortality. To research on safety and effectiveness on new antimalarial drugs so as to provide policy makers evidence as a basis for malaria treatment policy in Africa and in addition to monitor health care interventions and equity.

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- Ministry of Health and Social Welfare-Tanzania
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- Columbia University Mailman School of Public Health, New York, USA
- INDEPTH Net-work

Key Publications


Pictures of Rufiji HDSS Activities

Figure 3: Training session underway to Rufiji HDSS interviewers
Figure 4: Training on anthropometric measurements to Rufiji HDSS interviewers
Figure 5: A census interview underway in a homestead by a trained Fieldworker within the Rufiji HDSS
Figure 6: Rufiji HDSS field interviewer provides a news letter to the Rufiji HDSS member as part of feedback mechanisms