

## OMB Clearance Request

# A Sustainability Assessment of Community-based Interventions in Northwestern Tanzania

## Supporting Statement B

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## **B. Statistical Methods**

### **1. Respondent Universe and Sampling Method**

Sustainability of community based efforts of the CBRHP will be assessed using both qualitative and quantitative methods in the 10 villages that had a functioning VHW and emergency transport systems in place and 10 villages that had plans but no functioning transport system at the end of the project in 2002. The unit of assessment is the village. We plan to modify existing survey and interview tools to collect information on various aspects of community efforts. In particular we plan to assess collective community competence to identify and solve problems, changing roles of the VHWs and support/value for their activities, as well as participation of women in decision making using a Community assessment survey, the Key Informant interviews and VHW interviews (Appendix D, E, F). Village leaders, village health workers, and facility staff (Appendix G) located in these communities will be interviewed. These individuals will be selected in consultation with the CARE-Tanzania staff who work in these communities. Selection methods are purposive in nature and the unit of assessment is the village.

Existing data collected by the Zonal office will be examined to assess differences among the districts on maternal health indicators. Specific indicators in which data will be abstracted are outlined in Appendix H. Since majority of the data are qualitative in nature, we will analyze the data to look for emerging themes and will use EZ-Text software for analysis. For the quantitative aspects of the assessment, SAS statistical software will be used to examine the data.

### **2. Procedures for the Collection of Information**

There are several ways in which we will collect data to conduct this assessment. The community survey will provide specific information about the existence, maintenance, and use of emergency transport systems, VHW activities, decision making strategies used by the community, and women's participation in community meetings. Qualitative data collected using open-ended and guided interviews will provide details of how and why certain things worked, failed, or developed into new efforts. Existing data from health facilities may provide information about changes in service use patterns among the target population and villages. Both qualitative and quantitative data collection methods will be used for conducting this assessment. Qualitative methods will include focus groups, key informant interviews, VHW interviews, and a short community survey.

Key informant and community leader interviews, with the 10 communities that had a plan and a system in place, will be used to learn about their experiences with having a system in place, uses of such a system, community level organizing around health or other issues, and maintenance of the system over time. In the 10 villages with plans only we will examine their experiences in dealing with medical emergencies and health-related prevention activities.

Village health worker group interviews will be conducted to learn about their experiences in conducting community-level education, surveillance, and health promotion activities, as well as their efforts to organize themselves to economically sustain their work. We will assess reasons for continuation or non-continuation of these activities, and VHW satisfaction with their work.

Maternal health indicator data (e.g., number of deliveries, prenatal care initiation, birth outcome, etc.) will be abstracted from the existing records kept by the Zonal Medical Records Office. No personal identifiers are on these records.

The survey data will be concatenated to come up with an assessment at the village level. Given that we will have survey data from 100 people representing the villages that had a transport system in place under the CBRHP project and from 100 people representing 10 villages that had a plan but no system in place, we should be able to detect a significant difference between the two sets of village if the ones with plans had 50% sustained their effort (e.g., continued maintaining the emergency transport system, VHW activities) in maintaining these systems as compared to 30% among those who only had a plan at the end of CBRHP activities. There is an 89.9% power to detect this difference at the 95% confidence level. Even if we assume that villages are non-random and that there is potential for correlation across respondents therefore reducing the effective sample size to 85, we have a power of 85% to detect a difference in proportions of villages in each group with a transport system.

No individual identifiers will be collected and verbal consent will be obtained from the village leadership (Appendix I) prior to entering a village and verbal consent will be obtained from the individuals contacted. These are the customary procedures followed in these communities as most of the population is not able to read or write.

### **3. Methods to Maximize Response Rates and Deal with Nonresponse**

Each of the target communities or villages will be visited by CARE staff who is already working in these communities and the purpose of the assessment will be explained during a village meeting. Since CARE-Tanzania has an on-going presence in these communities and has solicited information on other topics successfully, we will be working very closely to ensure that non-response remains minimal. We have plans to visit each village several times to ensure 100% response rate. In addition, each village and individual representing the village will be informed ahead of time of our arrival with specific information on time, date, and place of meetings.

### **4. Test of Procedures or Methods to be Undertaken**

All data collection instruments and guides will be translated and tested for proper language and context of rural communities. As CARE has done previously, the English version of the questionnaires/interview forms will be translated into Kiswahili and then back translated to ensure proper language translation and then these will be tested among individuals from non-target communities to ensure the applicability of the data collection

forms to the local context/language. CARE-Tanzania has done this with multiple projects and staffs have much experience in pilot testing and revising data collection instruments.

## 5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

Several CARE and CDC personnel who participated in the CBRHP were consulted, in addition CDC Epidemiologists, Health Scientists and Behavioral Scientists, Statisticians were consulted on the data analysis plans and power analysis

**Data collection:** Data collection activities will be conducted by trained staff stationed in Tanzania under the direction of co-investigators and CARE-Tanzania Health Sector coordinator. The staff will be trained on using the data collection tools and methods by CDC in collaboration with CARE-Tanzania.

**Data analysis.** CDC, GSU, and CARE will collaborate in data collection and analysis. We plan to conduct both quantitative and qualitative data analyses. Quantitative data will be analyzed using either SAS statistical software packages. Descriptive analyses will be done comparing village level indicators. For qualitative data we plan to use CDC-software EZtext. Group and individual interview data will be analyzed to examine the central themes in sustainability assessment from multiple perspectives.

Below is a list of people consulted or will be involved in data analysis.  
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