Retrospective mortality survey in the MSF catchment area in Fizi health zone, South Kivu, Democratic Republic of Congo

Retrospective mortality survey in the MSF catchment area in Fizi health zone, South Kivu, Democratic Republic of Congo

---

Survey proposal

Draft	11 December, 2013
Revisions	
Study design	Retrospective mortality survey
Study period	3 months
Study site	Randomly selected villages within Fizi Health Zone, South Kivu, DRC
Principal investigator	Annick Lenglet, Epidemiology Advisor, OCA Tél. : +31 (0) 20 5208009 E-mail : annick.lenglet@amsterdam.msf.org
Co-investigators	Karla Bil, Health Advisor MSF-OCA Jantina Mandelkow, Medical Coordinator, South Kivu, DRC
Data collection and analysis by	MSF OCA
Protocol and study design	Annick Lenglet, Epidemiologist Karla Bil, Health Advisor Jantina Mandelkow, Medical Coordinator, South Kivu, DRC
Collaborating institutions	Ministry of Health DRC

CONTENTS

LIST OF ABBREVIATIONS

95% CI	95% confidence interval
CHW/Reco	Community Health Workers
CMR	Crude Mortality Rate
CTC	Cholera Treatment Centre
DRC	Democratic Republic of Congo
IDP	Internally displaced person
IMC	International Medical Core
MoH	Ministry of Health
MSF	Médecins sans Frontières
MSF-OCA	Médecins sans Frontières – Operational Centre Amsterdam
NFI	Non-food item
NGO	Non-Governmental Organisation
U5MR	Under 5 mortality rate (mortality rate in children under 5 years of age)
WHO	World Health Organization

1. INTRODUCTION

1. CONTEXT

Since its independence in 1960, the Democratic Republic of the Congo (DRC) has continued to face a series of internal political and armed struggles. According to the World Health Organisation (WHO) life expectancy at birth is 49 years, and the under-five mortality rate (U5MR) is 168 deaths per 1000 live births. Between 2000 and 2010, the main causes of death in children under five years were malaria (21%), acute lower respiratory infections (18%), and diarrhoeal disease (13% of deaths) (World Health Organisation (WHO), 2013).

The territory of Fizi has been a hotbed of violence for many decades and the region remains unstable. The protracted nature of the conflict is fed by the presence of many armed groups in the territory: FARDC, MONUSCO, FRF, MM Yakatumba, FNL, and FDLR (the last three often working in coalition with each other). On March 28th 2013, the Security Council adopted resolution 2098 to create an "intervention brigade". At the time of writing the 'intervention brigade' has begun operations in North Kivu, but how this will affect the context in South Kivu is uncertain. Though sustained displacement is uncommon in South Kivu, there are frequent temporary displacements in response to clashes between FARDC and rebel groups as well as ethnic clashes. Displacement is mainly seen around Sebele and in the Moyen Plateau north of Fizi.

Due to the lack of integrated surveillance in South Kivu, a clear picture of the main morbidities and causes for mortality are unclear. However, data suggests that the highest levels of morbidity and mortality are from malaria, malnutrition, diarrhoeal diseases, HIV and TB infection. Vaccination coverage rates are low, and outbreaks from vaccine preventable diseases, particularly measles, are common. Cholera is known to be endemic, with cases reported on an annual basis from across the health zone.

Over the years, a number of retrospective mortality surveys have been carried in South Kivu (though not specifically in Fizi health zone). Unfortunately, only a handful of these surveys and their results are available in the public domain and they were conducted at very different times during the conflict in eastern DRC. In 2004, the International Rescue Committee (IRC), conducted nationwide retrospective mortality surveys in DRC and determined that the CMR was 2.1 deaths/10,000/day, with mortality rates being higher in eastern provinces than elsewhere (Coghlan et al., 2004). In May 2009, Action Contre la Faim (ACF) conducted a nutritional and mortality survey in children under five years in the health zone of Kalonge (Sout Kivu, north of Fizi) and determined that the CMR and U5MR were under emergency thresholds at 0.44 and 1.26 deaths per 10,000 persons per day respectively (Guliko, Samy, & Mukanya, 2009).

2. MSF-OCA IN SOUTH KIVU, DRC

MSF has been present in Baraka since 2003, and has been providing free integrated health care to the general population in collaboration with the Bureau Centrale de Zone de Sante (BCZS) de Fizi since 2005 (see Figure 1). At present, the project in South Kivu, provides a large number of services: primary healthcare, secondary healthcare, reproductive healthcare, care for malnutrition, cholera, HIV, TB and MDR-TB services. These are delivered by the presence of MSF-OCA in Baraka Hospital, Baraka Health Center (HC), Baraka Cholera Treatment Center (CTC), Katanga Health Center, Sebele Health Center and Sebele Cholera Treatment Center. MSF-OCA is the only health actor working in the health zone that provides free medical care.

In 2013, the Baraka project saw 72,659 and 101,959 consultations in the outpatient department (OPD) in children under 5 years and persons >5 years of age respectively. Inpatient department (IPD) admissions were 7,246 and 2,872 in those same respective age groups during the year. The most important morbidities in the OPD consultations are shown in Figure 2 and Figure 3 with

confirmed malaria, acute watery diarrhea, acute upper respiratory infection and parasitic infections common between the two age groups.

Figure: Map of South Kivu showing the location of Fizi Health Zone.

Source: Foundation D. Mugangu, Pour un Futur Soutenable dans un Congo Démocratique (FONDAMU)

Figure 2: Proportion of top five consultations in children <5 years of age, Baraka Project, South Kivu, 2013.

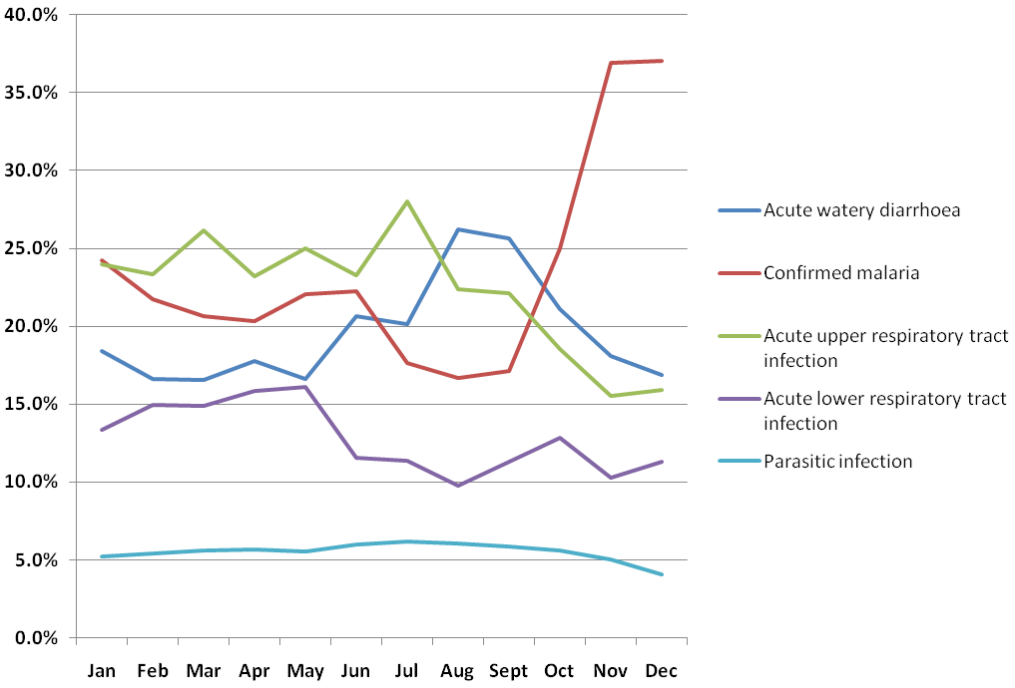
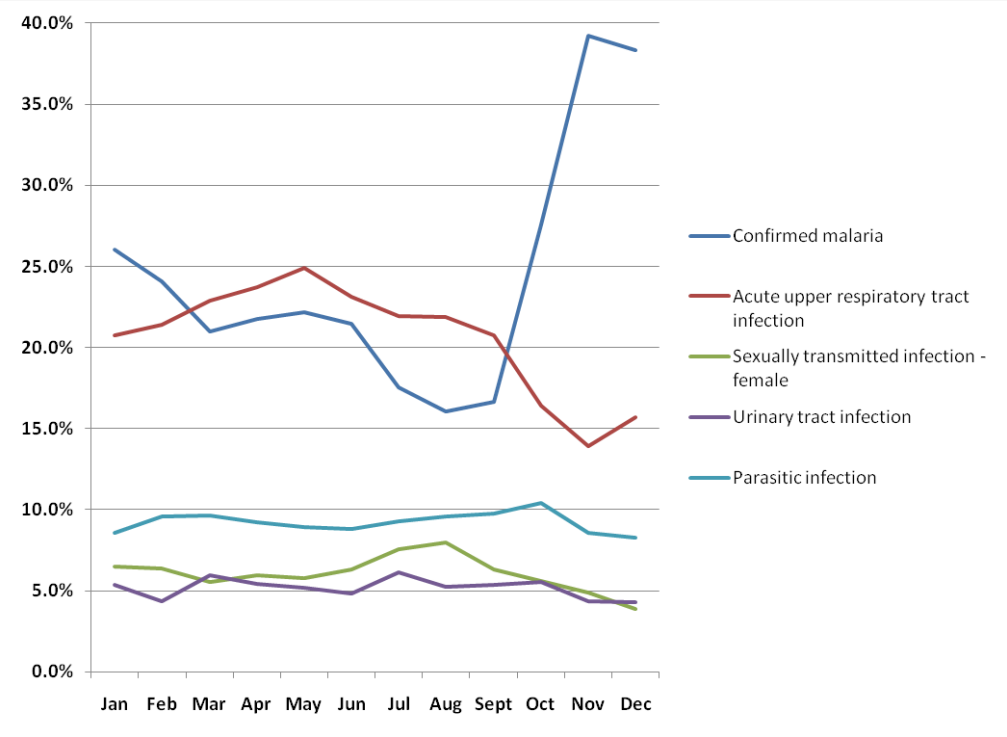


Figure 3: Proportion of top five consultations in persons ≥5 years of age, Baraka Project, South Kivu, 2013.



3. BACKGROUND - JUSTIFICATION FOR THE STUDY

The Baraka project has taken on a 'stable' format in recent years, considering the almost 10 year presence in the health zone. In 2014, the project would like to revise the current activities within the context of the existing health needs of the population of the health zone. This will also entail understanding better what is occurring in communities that are beyond those that have easy access to the hospital in Baraka or MSF supported health centers. Conducting a retrospective mortality survey throughout the health zone will be the first step to gain a deeper understanding and evidence of the ongoing health problems that affect morbidity and mortality in the wider community. Additionally, the planned expansion of the Community Health Worker (CHW) project will provide additional insight into the above mentioned issues. Using both sources of information it is intended to adapt and re-focus MSF-OCA's medical activities, where needed to continue to be relevant and of added value in this part of DRC.

2. OBJECTIVES

2.1. PRIMARY OBJECTIVES

To estimate the crude mortality rate for the total population (host and IDP) and for children under five years of age in the health zone of Fizi, South Kivu, DRC, in order to understand the current health status of the population in this catchment area.

2.2. SECONDARY OBJECTIVES

- To determine the prevalence of self-reported morbidities in the two weeks preceding the survey in household members;
- To determine the frequency and reasons for displacement;
- To assess access to health care;
- To determine the main causes of deaths during the recall period;
- To measure the incidence and types of direct violence experienced by the civilian population;

- To evaluate household ownership of basic non-food items;

3. STUDY DESIGN

Retrospective mortality survey using a two-stage cluster sampling methodology as an adaptation of the standardized method recommended by the World Health Organization (WHO)[1].

4. STUDY AREA AND PERIOD

The study will be conducted in the catchment area of the health zone of Fizi in South Kivu. Population estimates from the 2013 from the Ministry of Health indicate that the cumulative population of this health zone is of estimates per village of the zone place the total population at 311,295 persons.

5. STUDY POPULATION

The study population includes all people living in the villages which are situated in Fizi health zone. This catchment area is where MSF-OCA monitors the humanitarian and the epidemiological situation.

5.1. INCLUSION AND EXCLUSION CRITERIA

A person will be included in the study if s/he satisfies all of the following criteria:

- Living in the randomly selected household *and*
- Informed consent *has* been given by the head of the household

A person will be excluded from t*he study* if s/he satisfies one of the following criteria:

- Refusal to participate in the study

or

- Inability to locate the potential participant after two attempts to trace him/her

6. DEFINITIONS

6.1. HOUSEHOLD DEFINITIONS

Definition of household

A household will be defined as a group of people who were under the responsibility of one person or head of household, regularly sleeping under the same roof and eating together. The whole household will be included, no matter the age of the household member or the relation with the other members.

Definition of head of household

- The head of household is defined as follows:
- Adult household member (15 years or more), *and*
- Can give accurate information on all demographic and mortality issues in his/her household (can describe with reasonable accuracy the events that occurred during the recall period), *and*

[1] Henderson RH, Sundaresan T. Cluster sampling to assess immunisation coverage: A review of experience with simplified sampling methodology. Bulletin of the World Health Organization 1982(60):253-60

- Has lived in the household the entire recall period, *and*
- Is present at the time of the survey

A household will be excluded from the study if none of the household members fulfil all criteria of the above mentioned definition.

Definition of permanent member of the household

A permanent member of the household is defined as a person who is part of the household according to the household definition and is present at the moment of the study or slept in the house the previous evening.

6.2. Recall period for reported deaths

For this survey the start of the main recall date will be Christmas of 2013. We intend to implement the survey between April and May of 2014, which will be approximately 150 day recall.. A secondary recall date is linked to questions of occurrence of disease in the members of the household. This recall period will refer to the 14 days (two weeks) prior to the date of the survey being carried out.

The end of the recall period will be the day before the start of the interviews in the field. Together with the field team an events calendar will be generated for the chosen recall period in order to determine more accurately the times of the occurred deaths.

6.3. OTHER DEFINITIONS

For the purpose of this survey the following definitions will be adhered to:

- Displaced person: a person that is currently not living in their place of permanent residence due to reasons of war or internal upheaval.
- Returned person: a person currently living in their place of permanent residence, but who was previously living as a displaced person elsewhere.
- Permanent person: a person living in his place of permanent residence.
- Disappeared person: a person who is no longer present in the household (whether displaced or permanent) for who the destination or status (alive/dead) is unknown.
- Absent person: a person who is not present in the household (whether displaced or permanent) but who is known to be alive.

7. SAMPLE SIZE AND SAMPLING

7.1. SAMPLE SIZE

The sample size was calculated using ENA for SMART software (http://www.nutrisurvey.de/ena/ena.html). The criteria listed in Table 1 were taken into consideration for the calculation of the sample size.

As it is likely that the population in this part of DRC is very heterogeneous, we have chosen to increase the design effect of the sample size calculation to 4 to account for this factor.

A total of 5336 persons will need to be sampled. With an average household size of 5 persons, we aim to visit 50 clusters of 28 households for a total of 1400 households. The precise sample size will be adjusted at the time of the survey to account for minor changes in recall period etc.**Table 4** Criteria for the calculation of the sample size, Fizi health zone, South Kivu, DRC, 2014

Criteria	
Expected mortality of 10 000/day	1.0

Precision of 10 000/day	0.4
Design effect	4
Recall period in days	150
Non-response rate	10%
Nr. population to be sampled	6403
Average household size	5
Number of households to be surveyed (assuming average household size of five persons)	1423
Number of clusters	50
Number of households per cluster	28

7.2. SAMPLING

A two-stage cluster sampling methodology will be chosen as an adaptation of the standardized method recommended by the WHO[2].

The survey will address Fizi health zone. This survey will obtain a representative sample of 50 clusters in the health zone. Therefore cluster allocation will be done by systematic sampling with probability of allocation proportional to the respective population size of each village (probability proportional to size or PPS). Table 5 shows the villages in Fizi health zone, their respective population sizes, the cumulative population and the randomly selected 50 clusters from this sample.and Kibua

[2] Henderson RH, Sundaresan T. Cluster sampling to assess immunisation coverage: A review of experience with simplified sampling methodology. Bulletin of the World Health Organization 1982(60):253-60

Table 5: Villages, population estimates and cluster allocation for Fizi health zone retrospective mortality survey.

Aire de Santé (Préciser le Nom)	VILLAGE (Préciser le Nom)	Population Actualisé	Cumulative population	Cluster
AS1: Baraka	MWEMEZI II	3561	7029	1
AS1: Baraka	MWEMEZI III	2905	9935	2
AS1: Baraka	AEBAZ II	4050	17612	3
AS1: Baraka	MATATA	5973	25183	4
AS1: Baraka	KIBONJWA	5685	32424	5
AS2: Bibogobogo	BIKIRIKIRI I	868	34884	6
AS3: Buma	BUMA KIREWA	2227	41892	7
AS3: Buma	KILUMU	309	46535	8
AS3: Buma	BUYENZI	361	52619	9
AS4: Bwala	KADEGU	1124	59308	10
AS5: DINE	KALONGWE	1521	60829	11
AS6: FIZI	CENTRE COMMERCIAL	1628	71595	12
AS6: FIZI	AV KALEMBELEMBE	1120	77261	13
AS6: FIZI	AV SOUS HOPITAL II	1028	83231	14
AS6: FIZI	AV KITONGO	1394	89939	15
AS7: Kafulo	ALENGA	711	95660	16
AS8: Kalunja	KALUNJA I	1340	102628	17
AS9: Kananda	KANADA II	1267	107648	18
AS10: Kandali	KIKWENA	2114	114127	19
AS11: Katanga	KATANGA III	1492	120734	20
AS11: Katanga	KATANGA VII	1350	127168	21
AS12: Katenga	MSOMBOZI	776	131901	22
AS13: Kazimia	NGUMA	734	138488	23
AS13: Kazimia	TANGANYIKA	1210	145170	24
AS13: Kazimia	MWELENDA	323	150327	25
AS15: Kikonde	LEKESHA	291	156543	26
AS16: Kilicha (Milimba I)	KALUNDU I	2005	164173	27
AS16: Kilicha (Milimba I)	KABILABILA	1363	169315	28
AS17: Lumanya	ITENDELO	611	174618	29
AS18: Malinde	MULONGWE	1959	181961	30
AS19: Mshimbakye	MWANDGA I	2084	188618	31
AS19: Mshimbakye	MWANDIGA III	2565	194187	32
AS19: Mshimbakye	MWATEMBO	1203	199417	33
AS20: Mukera	MUKERA II	6126	210790	34
AS21: Mwangaza	MAJENGO II	5877	217005	35
AS21: Mwangaza	KALINGA SUD	4433	221438	36
AS21: Mwangaza	KIBONJWA	3713	225151	37
AS21: Mwangaza	KALINGA NORD	4465	233231	38
AS21: Mwangaza	MALALA II	2730	235961	39
AS22: Mwayenga	MWAYENGA	2472	243929	40
AS22: Mwayenga	BWENGE	618	248453	41
AS23: Nemba	NEMBA II	832	254347	42
AS24: Rubana	CHANGWENA	990	261185	43
AS25: Sebele	SEBELE	6241	269707	44
AS25: Sebele	BUZIMBA	1451	273028	45
AS26: Simbi	SIMBI CENTRE	2980	281698	46
AS27: Some	KARUNGA	464	285157	47
AS29: Umoja	KALIMWEMA	247	291185	48
AS29: Umoja	KIKUNDA I	949	297156	49
AS30: Yungu	KISANU	764	303910	50

In the second stage, the standard WHO/EPI methodology will be used to select the allocated households within a cluster: Accordingly, a pen will be thrown on the ground in the central point of the cluster, and a line will be drawn in its direction towards the edge of the cluster. Households along this line will be counted, and one of these will be selected using a random number table as the first to be interviewed in the cluster.

The next household following in order of physical proximity will then be interviewed until the desired cluster of all allocated households will be completed.

Physical proximity is defined as being the household which front door is closest to the front door of the household that was just interviewed.

If all households of a selected cluster are included in the study before completing the required number of households, the cluster will be continued by selecting the (geographically) closest village. The standard WHO/EPI methodology will again be used in the closest village to select the first household in the village.

If for unforeseen reasons a selected cluster cannot be visited, it will be replaced by selecting the (geographically) closest village. The standard WHO/EPI methodology will again be used in the closest cluster to select the first household in the village.

NB: depending on availability of time resources and satellite imagery, we might adjust the selection of the first household in the survey from WHO/EPI methodology to using Geographic Positioning Systems (GPS) technology. In this way we will identify the selected villages on satellite images of Fizi health zone, and use GPS software to randomly choose 28 GPS points within the pre-marked boundaries of the chosen villages. Survey teams will then use GPS machines to sample the households closest to those randomly selected GPS points.

8. DATA COLLECTION

Selected clusters according to the sampling (see chapter 7.2.) will be informed before the survey teams will visit them. Each village or section head will be informed that the survey will take place 2 days before the scheduled day of arrive of the study team.

The heads of the villages will be visited the day of the survey and the purpose of the study will be explained before conducting interviews in their villages. Furthermore it will be clearly explained to the heads of the villages, that they are freely allowed to decline the participation of their village without any consequences or penalty. In this case it will be replaced by selecting the (geographically) closest village. The number of village heads that refuse participation of their village in the survey will be documented for the final report as this might suggest a limitation of the sampling methodology.

In the households randomly selected according to the above methodology, the purpose of the survey will be explained to the head of the household in the language he or she is familiar with and written consent obtained to conduct the interviews (see chapter 10.1).

The household interviews will be based on a household/mortality questionnaire that consists of the following sections:

- Questionnaire for the household level addressing questions on the origin of the household, the condition of their goods and house in their place of origin, access to non-food-items, access to health-care and limitations to access healthcare services for the household;
- Questionnaire that includes all members of the household:
    - Age and sex of all persons who had arrived, had left, were born or had died in the household during the recall period of the survey;
    - Cause of deaths and time of deaths (e.g. rainy or dry season) for all deceased persons in the household;
    - Number and types of episodes of violence experienced during the recall period.

The questionnaire for the household level and the individual (household member) level are available in Annex 3 and 4 respectively. The questionnaire will be translated into French and Swahili and back-translated from Swahili into French to ensure consistency of the questions. In Fizi health zone there are also many people who speak Kinyarwanda and Kibembe. We will ensure that all teams are familiar with the questions in all languages in order to ensure the most appropriate form of questioning.

The questionnaire will be pilot tested with a convenience sample of 10 households (in easy access from the MSF-OCA office in Baraka) to ensure consistency of language and flow of the questionnaire. Any necessary adaptations will be made accordingly,

9. DATA ENTRY AND ANALYSIS

Data will be entered into Epi Data by the field epidemiologist supervising the survey and if possible a second data entry clerk. Data cleaning will be done to check for inconsistencies in data entry and responses. Data analysis will be conducted using ENA for SMART, Epi Data, Excel and STATA 10 (StataCorp, College Station, TX, USA) where necessary.

No name-related data will be collected during the survey; therefore no participants will be able to be identified after the survey has been completed. An electronic database will be generated from the paper questionnaires and this database will be password protected. The paper versions of the questionnaires (paper versions) and the electronic database will be stored at the MSF-OCA Headquarters in Amsterdam for the duration of 5 years after the survey. Access to the electronic and paper version of the survey will be restricted to the co-investigators of the study and the Medical Coordinator. After 5 years the paper copies of all the questionnaires will be destroyed/burned.

All indicators (i.e. sex and age of the survey population) will be calculated as proportions with 95% confidence intervals (95%CI). Estimates of actual design (cluster) effect will also be calculated for each variable and those with effects greater than 1 will be reported. Where appropriate, differences in proportions will be measured using Pearson $\chi 2$ test and p-value (p) will be presented.

The end of the recall period will be calculated individually for each member of the household present at the start of the recall period or born within the recall period. The recall period will end either with the day of the study or the day of death of the household member. An average of all recall days will be taken.

Denominators for mortality rates will correspond to the mid-period population sizes, assumed to be the total population at the end of the period minus half of persons joining the sample during the recall period (newborns and new household members) plus half of persons leaving the sample during the recall period (deaths or absenteeism). Ninety-five percent confidence intervals will be calculated and adjusted for the design effect.

10. ETHICAL ISSUES

The study will be conducted in accordance with the World Health Assembly of 1975 concerning ethical aspects in human tests, and with the Helsinki declaration[3].

The study protocol will be submitted to the Ethics Review Board of MSF. It will also be presented to the Ministry of Health of the Democratic Republic of Congo for permission to conduct the study.

Authorities and communities (such as village heads, religious leaders, and opinion makers) in the study area will be informed about the purpose of the study and their endorsement will be sought.

MSF-OCA commits to sharing study results with the communities who have participated in the study. This will be done through meetings with village heads and village once the survey has been completed and the results are available.

A detailed information sheet about the study and its objectives will be read to each household to inform them about the survey (Annex 2). Written consent will be sought from all heads of

[3] [http://www.wma.net/en/30publications/10policies/b3/](Accessed 26 September 2012)

households participating in the study prior to administering the questionnaire. A written consent form can be found in Annex 1.

All data will remain anonymous throughout the data entry and analysis process. Nominal data will not be distributed outside the study location, or appear in any report or publication. All subjects included in the surveys will have the investigations explained to them in a language with which they are familiar. Everyone will be offered the opportunity to refuse participation in the study at any time without penalty and no incentives or inducements will be provided to any respondents. Everyone is completely free to participate or not.

10.1. Risks and benefits of the study and contingency plans

a) Benefits

As the Baraka project aims to better define future objectives for health services in Fizi Health zone, , this mortality survey will facilitate to measure the impact of the recent violence in the population and understanding existing barriers to access appropriate healthcare.

A better understanding of the rates and causes of mortality in the area will allow better tailored programming and more efficient use of resources. Accurate data on mortality and estimates regarding causes of mortality are of tremendous importance for advocacy on national and international level.

b) Risks

To interviewees: The retrospective mortality survey does not cause any physical harm to participants. Nevertheless, asking the heads of households for details of recent deaths of household members may be upsetting, relatively intrusive and in village contexts there may be limited privacy. Using local staff and careful training on interview-techniques can mitigate this, specifically all interviewers will be trained in psychological first aid. In the event that a person responding to the questionnaire develops visible and acute psychological effects from the interview, we will refer them together with the interviewer to our hospital in Baraka for follow up. There will be an international Mental Health Officer in the project in case that any identified psychosocial needs arise in the surveyed population to ensure that these issues are adequately addressed.

Outcome constraints: If unacceptable levels of mortality are determined to be due to violence, there might be constraints on using the outcomes of the survey in a more public setting. This can affect both MSF as well as the displaced and host population.

Operational constraints: Due to the insecurity context the survey might have to be delayed, interrupted or cancelled, this cannot be predicted in advance. In order to ensure that we can easily ask questions about sexual and gender based violence during this survey, we will try to aim to have at least 50% representation of female interviewers in the team.

11. COLLABORATION & DISSEMINATION

a) Collaboration

This study will be carried out in collaboration between MSF-OCA and the MoH of DRC.

MSF- OCA is the study sponsor and is responsible for the funding. It is in charge of the field part of the study, the analysis and report writing. The MoH will provide approval for the survey and will be requested for any input into the analysis and writing up of the results.

Study results will belong to MSF- OCA and the MoH of DRC.

b) Dissemination

The study results will be included in a formal report about the survey, written by the epidemiologist in the field with support from the team, the Medical Coordinator and in Amsterdam the Health Advisor and Epidemiologist.

The outcome of the survey will be used in the overall strategy of MSF-OCA to speak out on the effect of violence on the population and advocate on behalf of the population and lobby where needed with other actors for possible increased interventions, either on the protection side or on other needs.

The aim for MSF is to publish a report both nationally as internationally.

12. IMPLEMENTATION OF THE STUDY IN THE FIELD

12.1. SELECTION AND TASKS OF THE STUDY TEAMS

The task of the interviewers will be to collect the necessary data for the study.

Each study team is composed of two interviewers. On average one team can visit one cluster in a full day's work. In order to complete 30 clusters in 5 days, we would need at least 6 teams of trained interviewers (i.e. 12 staff). Of these 12 staff, two persons will be identified as the coordinators/supervisors to allow teams to split the clusters amongst them in two groups. At least 6 persons in the team should be female.

General selection criteria for all interviewers:

- Able to read and write in French *and*
- Fluent in the Swahili, Kinyarwanda and Kibembe
- Available for the ENTIRE time of the study (training and interview days), *and*
- Willing and able to work on Saturdays and Sundays during the survey time (see chapter 12.5. for a possible timeframe in the field), and
- Motivated to participate in the study, *and*
- Not biased in expectations of the outcome of the study
- Experience with interviews in difficult settings and study populations would be an advantage

12.2. SUPERVISION

The principal investigator is responsible for the quality of the research, the data analysis and report writing. He/she will implement and closely supervise the field component of the study. It is possible that the recruitment of interviewers is initiated by project staff prior to the arrival of the Epidemiologist.

The tasks of the principal investigator are as follows:

- Preparation of all necessary documents (protocol, questionnaires, informed consent forms) for the study
- Preparation of the field component of the study (recruitment and training of the study teams, logistics, materials) together with the MSF team in the field
- Follow-up of the field component of the study
- Data entry
- Data analysis
- Report writing

12.3. SUGGESTED MSF SUPPORT IN THE FIELD

For this survey a specific support from a Logistic officer will be included. Therefore the below mentioned tasks may follow under him/her:

- Administrative support for study preparation at the field level prior to the survey: the South Kivu team will have to present the protocol of this mortality survey to the Ministry of Health in order to obtain their approval.
- Administrative support during field part of the survey: this will include payment of field workers etc.
- Human resources support, such as facilitating the hiring of the study team members, ensuring their contracts are in place etc.
- Logistic support for study preparation at the field level: photocopies, purchasing of needed equipment and supplies, ensuring transportation and drivers are available for the duration of the study, ensuring communication tools are available to the study teams.

Logistic support during the study implementation: any additional photocopies and ensuring transport plans and communication plans are functioning for the duration of the survey.

12.4. TRAINING OF THE STUDY TEAM AND PRE-TESTING OF THE QUESTIONNAIRES

Two days training will be given to all interviewers to familiarise them with the background of the study, the questionnaires, the information sheet and the informed consent form. The training will be given in French by the principal investigator. It consists of an intensive review of the questionnaires and the information sheet including role-plays. As the interviews will be held in the local language, the principal investigator should ensure that all interviewers are using the same and correct wording for providing information to the households and for the interviews.

The 2-days training will be finished with a pilot study in a place, which is outside of the study area. The pilot study allows for the testing and possible final adaptation of the questionnaires and informed consent to field conditions.

Annex 5 includes a draft agenda for the training of the field interviewer teams.

12.5. TIMEFRAME IN THE FIELD

- Hiring of staff and finalisation of study protocol in the field (6 days):
    - Hiring of staff and interviews
    - Defining of final study areas
    - Finalisation of sample size and sampling strategy (including discussions on appropriate recall period, different recall periods etc.)
    - Back translation of questionnaires into French and correction of words/sentences where needed;
    - Planning of survey days
    - Planning of vehicle movements
    - Coordination with project team
    - Definition of working conditions of the selected interviewers: working hours, per diem (food and water during survey) and payment;
    - Survey materials: photocopying of questionnaires, purchase of pens/markers etc.
- Training of field staff including pilot study (see Annex xxx for the sample template for this training) – 2 days
- Conducting the survey – assume one team of interviewers can do one cluster per day worked – between 10 days of work
- Buffer days for unexpected events – 3 days

- Data entry, analysis and report writing – 14 days
-

REFERENCES

Coghlan, B., Brennan, R., Nagoy, P., Dofara, D., Otto, B., & Stewart, T. (2004). *Mortality in the Democratic Republic of Congo: a nationwide survey*. Retrieved from http://www.rescue.org/sites/default/files/migrated/resources/DRC_MortalitySurvey2004_RB_8Dec04.pdf

Guliko, F., Samy, S., & Mukanya, C. (2009). *Rapport d'Enquête Nutritionnelle Anthropométrique, Zone de Santé de Kalonge, Province du Sud Kivu, République Démocratique du Congo Mai 2009*.

World Health Organisation (WHO). (2013). Child mortality by cause, by country, 2000-2010 : Distribution of causes by country. Retrieved December 02, 2013, from http://apps.who.int/gho/data/node.main.ChildMortDistCountry?lang=en