Perceptions and practices of an Ebola-affected population with regards to Ebola control in Sierra Leone

**Research Question:**

*What are the perceptions and practices of an Ebola-affected population to the external measures taken to control the disease in Sierra Leone since the onset?*

**Study Sites:** This study will take place in two sites in Sierra Leone: the rural setting of Tonkolili district and the urban setting of Freetown. Villages will be selected aiming to incorporate those affected since the beginning of the outbreak. Specific locations will be selected in line with any travel limitations and in compliance with IPC protocols.

**Proposed start date of data collection for study:** April 2015

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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CCC</td>
<td>Community Care Centre</td>
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<tr>
<td>EHF</td>
<td>Ebola haemorrhagic fever</td>
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<td>EVF</td>
<td>Ebola Virus disease</td>
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<td>EMC</td>
<td>Ebola Management Centre</td>
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<td>ETU</td>
<td>Ebola Treatment Unit</td>
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<td>IPC</td>
<td>Infection prevention and control</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<td>MSF</td>
<td>Médecins Sans Frontières</td>
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<td>OCA</td>
<td>Operational Centre Amsterdam</td>
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<td>UNMEER</td>
<td>UN Mission for Ebola Emergency Response</td>
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<td>VHF</td>
<td>Viral hemorrhagic fever</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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1. Background

In 1976, Ebola (named after the Ebola River in Zaire) first emerged in Sudan and Zaire. The first outbreak of Ebola (Ebola-Sudan) infected over 284 people, with a mortality rate of 53%. A few months later, the second Ebola virus emerged from Yambuku, Zaire, Ebola-Zaire (EBOZ), with the highest mortality rate of any of the Ebola viruses (88%), infecting 318 people. Despite the tremendous effort of experienced and dedicated researchers, Ebola's natural reservoir was never identified. The third strain of Ebola, Ebola Reston (EBOR), was first identified in 1989 when infected monkeys were imported into Reston, Virginia, from Mindanao in the Philippines. Fortunately, the few people who were infected with EBOR (seroconverted) never developed Ebola haemorrhagic fever (EHF). The last known strain of Ebola, Ebola Cote d'Ivoire (EBO-CI) was discovered in 1994 when a female ethologist performing a necropsy on a dead chimpanzee from the Tai Forest, Cote d'Ivoire, accidentally infected herself during the necropsy.

1.1 Ebola in West Africa

This is the twenty-sixth known Ebola virus disease (commonly known as “Ebola”) outbreak and the first major Ebola outbreak to occur in West Africa. As the most widespread of any Ebola epidemic it has swept across six West African countries causing significant mortality, with some case fatality rates reported as high as 70% and up to 60% among hospitalised patients. The outbreak began in Guinea in December 2013 before spreading to Liberia and Sierra Leone. Limited outbreaks of Ebola also occurred in Nigeria (20 cases), Mali (8 cases) and Senegal (1 case), all of which have since been declared Ebola-free. As of March 2015, the World Health Organization (WHO) and respective governments reported a total of 24,385 suspected cases and 10,019 deaths, though the WHO believes that this substantially understates the magnitude of the outbreak.

This crisis has been extraordinary both in terms of reaching epidemic status as well as in its impact on the social and economic functioning of the region. Whereas past outbreaks were brought under control relatively quickly - within a few months - this unprecedented event has challenged Governmental and non-governmental agencies to develop and adapt mechanisms for an extended response. Particular cultural practices coupled with extreme poverty, inadequate healthcare systems and in some countries fragmented relations between and with some government institutions and officials have been reported to have contributed to the delay in responding to the outbreak and subsequent failure to control the epidemic.

1.2 Ebola in Sierra Leone

The first confirmed case of Ebola in Sierra Leone was reported in Kalaihun district in late May 2014, the disease reportedly arriving in Sierra Leone from Meliandou, Guinea. Kailahun and the larger city of Kenema to its south formed the early epicentre of the outbreak and the focus for initial response efforts. On 6 August the President declared a national state of emergency (including militarily enforced quarantines) on hardest hit areas and households, and during the same month the government passed a law imposing a jail sentence of up to two years on anyone found to be hiding a patient.
In September, as the situation began gradually to stabilise in Kailahun and Kenema, there was a significant surge in cases as the virus gained a foothold in Freetown, along with Port Loko, Bombali, and Tonkolili districts. By mid-October more than 400 new suspected cases were reported each week, three times as many as in Guinea and Liberia combined and surpassing Liberia as the country reporting the largest cumulative number of cases. Freetown consistently accounted for around a third of the country’s cases. However as 2015 began, cases started to decline; in February 60-100 new cases per week were reported and in early March Sierra Leone reported fewer cases than Guinea for the first time since June 2014.

As of 15 March 2015 there have been 11,742 clinical cases and 3,687 deaths (3,321 confirmed), including a significant number of healthcare workers and prominent national (medical and non-medical) figures. Despite the recent decline in cases the situation remains volatile. As of the week of the 8 March, five districts had reported a total of 58 cases in a geographically contiguous arc around Freetown, and four districts (Bombali, Kambia, Port Loko and Western Rural) declared new cases.

Currently alongside the Government of Sierra Leone the key agencies engaged in the epidemic are the WHO; other UN agencies (including UNMEER, the first ever UN mission created by the UN Security Council for a public health emergency); various multilateral organisations; national governments; private companies and international NGOs. As of 18 January, the country meets WHO targets for required number of ETC and Community Care Centre (CCC) beds (1,150 and 437 CCC respectively). There are currently 20 operational ETCs, however not all meet minimum infection control standards, and 13 laboratories. Despite on-going calls for additional support and capacity, the overall response is acknowledged to have been too slow and overwhelmed by the scope of the epidemic.¹

1.3 MSF, Sierra Leone and the Ebola response
MSF has been working in Sierra Leone since 1986, latterly focussing on improving medical care for children and capacity to diagnose Lassa fever.

In response to the Ebola outbreak MSF established ETCs in Kailahun, Bo, Magburaka, Kissy and Freetown. In addition a malaria distribution was implemented in January for a target population of 1.8 million people. As of 10 February there is 157 international and around 1,750 national staff present.

Although the number of admissions to the MSF ETCs remains low, with Kailahun and Bo having reached zero patients admitted, in all districts outreach activities, surveillance, social mobilization, trainings, etc. remain a priority.

1.4 Community interactions with the Ebola control measures.

Dominant narratives of community perceptions of Ebola remain oversimplified and anecdotal. People living in disease-affected areas are generally portrayed as ignorant and unreasonable, mired in misguided tradition and dangerous cultural practices, consumed by rumours and
distrustful of the motives and mechanisms of the government and aid agencies. Similarly, national and international healthcare workers have tended to generalise cultural practices and beliefs as something to overcome. ‘Culture’ and human behaviour are often cited as key barriers to an effective response (1) linked to stories of people fleeing affected areas, hiding their sick and deceased community members, and rejecting – sometimes violently – healthcare services and teams, including attacks on screening and burial teams (1, 2). In this sense, rumours and negatives attitudes are understood to have had a counterproductive effect on health outcomes (2).

As has been noted during previous Ebola outbreaks (3, 4, 5) studies from Liberia show that in the initial phase of the response control mechanisms were found to be intrusive and offensive (documenting friendships and movements; forced removal of bodies and the ill; imposed ‘lock down’ and heavy handed control measures, often with inadequate food and water (2)) and treatment in health facilities perceived to be poor (lack of qualified staff equipped with the necessary knowledge and resources to tackle Ebola (6)). This is thought to have had an impact on subsequent access and acceptance of health care. Equally ETUs have been reported to be seen as ‘death traps’ (6) in part driven by rumours (such as patients not being treated or fed, killed for their body parts (7) or health facility staff injecting patients with Ebola or taking their blood for financial gain or magical power (8)), but again often rooted in negative experience. Patients have been ‘lost in the system’, perceived to have disappeared into ‘black holes’ (8) with relatives receiving limited information or feedback about which ETU they were taken to, their condition and treatment, and in some cases, when they had died (7).

Specific features of the Ebola response also jar with certain socio-cultural practices, values and understandings, specifically linked to the treatment of dead bodies and funeral practices. The distance the disease enforces between communities and their deceased has led to concerns and fears that bodies will be ‘thrown away’, or that cadavers might be used for experiments or macabre rituals (7).

Some evidence suggests that local-level understanding of Ebola and acceptance of control mechanisms in Sierra Leone has improved during the outbreak, but remains significantly divergent from the biomedical view (11, 12, 13). However this information is presented as quantitative, with limited in-depth analysis of how and why this has changed. Recent studies in Liberia have revealed that communities feel that certain elements of the response need to evolve in line with their changing understanding and needs (13). They perceive the importance of their own role within the Ebola response, and rather that inactive ‘beneficiaries’ want to take positive action. Again in Liberia, in situations where resources and information have equipped individuals with the means to protect themselves from the perceived threat of Ebola, this has restored a sense of ‘calm’ in place of the erstwhile ‘confusion’ (7). In the absence of recourse to such resources, local communities have been seen to devise their own (not always beneficial) preventive measures (14).
1.5 Rationale for the proposed study
Local acceptance and adoption of Ebola control mechanisms is essential to stopping the spread of the disease. However, this has proved a major challenge to an effective response and resistance continues to be reported. The voices of Ebola-affected communities themselves are notably absent from this discussion. Little in-depth information is known about local perceptions of the response, particularly in Sierra Leone, and analysis so far has been largely limited to and based on anecdotal feedback and observations.

It is clear that knowledge and practice is in fact diverse, flexible and dynamic and will evolve alongside the disease and its response. A deeper understanding of local perceptions is essential in order to learn lessons and potentially adapt ways that increase appropriateness, acceptability and so effectiveness of decisions and ongoing strategies. Just over one year into the outbreak in Sierra Leone, we have a valuable opportunity to learn more about how the external response has been experienced by affected communities, how this has affected knowledge and practice, and how this has changed over time: what has worked and what has not worked? How has contrasting knowledge and practice been negotiated? What are the gaps and needs? What has prompted/prevented changes in understanding and behaviour? In gathering opinions and suggestions to answer these questions at community level, this study aims to provide insights crucial to informing current and future Ebola response.

2. Study aim and objectives
This study aims to provide a better understanding of community interaction with the Ebola response in Sierra Leone in order to inform programme strategies:

- Describe community and local-level perspectives and attitudes toward the measures taken to control the Ebola outbreak, with consideration of how such measures may have been integrated into personal narratives over time;
- Document gaps, barriers and influences that impact control measures;
- Consider the subsequent value of control measures used to inform an effective future outbreak response.

2.1 Defining Concepts:

Control measures (15)
- Alter risk factors
- Prophylactic immunization
- Post-exposure management
- Diagnosis and treatment
- Infection control practices
- Case finding and isolation
- Contact tracing and quarantine
- Environmental control measures
- Identify and control infectious sources
Conventional responses to an Ebola outbreak have centred on Ebola treatment units (ETUs) for isolation and case management, with concurrent community education and social mobilisation efforts. MSF response focuses on six pillars of Ebola management:

1. Isolation and IPC
2. Outreach
3. Safe burials
4. Health promotion
5. Psycho-social support
6. Surveillance and contact tracing

This study will focus specifically on control measures that imply interaction with the communities affected by Ebola, implemented by both MSF and other actors. Such measures may include:

- **Patient identification (including triage in health centres, community surveillance and contact tracing with rapid diagnosis (through laboratory testing))**
- **Isolation of patients in holding/transit centres, ETUs and Community Care Centres (CCCs) where access to ETUs is limited**
- **Infection control in health facilities/to protect healthcare staff**
- **Safe patient and body transport/transfer systems (ambulances)**
- **Safe and dignified burials**
- **Environmental and household decontamination**
- **Swab teams (who take samples from dead bodies to be tested for Ebola)**
- **Quarantines, cordons sanitaires (of worst-affected populations) and travel restrictions**
- **Safe access to healthcare for non-Ebola patients (notably pregnant woman and children)**
- **Awareness raising, community sensitisation and mobilisation**
- **Distribution of protective kits**
- **National laws and informal ‘by-laws’ fining people for selling bush meat, conducting unsafe burials or sheltering patients**

### 3. Methodology

#### 3.1 Design

This study will be conducted using a qualitative, descriptive research design. Data collection in Sierra Leone will take place over a one month period (mid-April to mid-May 2015). A qualitative research design will enable a deeper examination and understanding of the perceptions of and interactions with the Ebola response. The research question aims to explore how community members perceive the national set up of control measures from all actors involved national, international and local; and any barriers, gaps or facilitators that they identify. Qualitative methods are most appropriate because they provide an approach for improved understanding into complex human behaviour and the interaction between people and disease (Draper, 2004; Marshall, 1996, Malterud, 2001).

The methods chosen for this study use flexible, iterative and participatory techniques to data collection, tailoring the research to the local context based on conversations with participants and allowing emergent themes (as well as discrepancies from majority themes) to be further explored and tested. The three main stages are:
1. Systematic literature review and mapping or topography of measures taken for disease control

This aims to give an overview of current thinking on community interaction with Ebola response and how this study relates to ongoing theoretical debate. Specifically it will consider (a) background to Ebola response in Sierra Leone; (b) what the control measures are (c) community perceptions of the response; (d) how these influence interactions with control measures in terms of access and compliance; (e) challenges, barriers, gaps and facilitators; and finally (f) how these factors impact the effectiveness of the response.

2. In-depth participant-led interviews:
   These will be conducted using flexible participatory techniques; based on a topic guide they will allow participants to focus on the issues they self-priorities, although all relevant components will be covered to ensure thematic comparison. Interview questions will be reviewed and refined during fieldwork in response to themes arising during the course of interviews conducted. Follow up interviews will be conducted to explore key concepts arising as needed. Key informant groups are identified as:

   i. People who have been cured and have a valuable perspective/experience of control measures and pathways to access and care as well as related barriers and enablers.
   ii. Family members of discharged patients, in order to understand the ‘second hand’ experience of those closely engaged with the response but interacting as a caregiver and not as a patient themselves. This will complement experiences of patients and healthcare staff, allowing also an analysis of differences in perception and explore similarities or differences in views and the reasons behind them.
   iii. Other key informants i.e.: Community members who have been exposed to the Ebola response but not directly affected, again in order to understand their perceptions. To include farmers and traditional healers to ensure fair share of participant perspectives.
   iv. Both frontline healthcare staff such as surveillance officers and managers responsible for response planning to provide contextual information regarding the response and to explore the health practitioner view with regard to community interaction with the control measures they implemented.

3. Participant observation and field notes: detailed observations and field notes will be documented by the researchers during fieldwork, detailing insights and observations that develop over time and through repeated analysis of events, activities, behaviours, and interactions. This aims to complement the method design by enhancing understanding of data collected through in-depth interviews and increasing the validity of results through the verification and triangulation of data. It will also highlight any discrepancies.
between what people say and what they actually do, so increasing the validity of the findings. An events calendar will be used to cross check recall for histories given during interviews.

3.2 Setting
Both rural and urban settings will be included where cases are not current. Recognising that different locations have been exposed to Ebola and its response for different periods of time as the disease has spread, this study aims to incorporate both villages where the community has been affected since the early phases of the outbreak and those affected more recently.

Tonkolili district (estimated population of 350,000). This district was heavy affected by the outbreak (454 confirmed cases till March 8; source MoH). The first confirmed case in Tonkolili was in July 2014, at its peak reporting more than 40 new cases in week 45-2014. At the time of writing the last confirmed case was reported on March 23 2015 and this patient is, at the moment of writing, still hospitalised. The intervention in Magburaka started as from the 15th of December 2014.

Freetown (population of approx. 5,700,000). The first Ebola cases were reported on 23 June 2014. Although new cases are declining they are still significant; 27 were reported in the week of 8 March 2015. Participants will be carefully chosen in this complex urban dynamic to comply with standard operation procedure.

3.3 Sampling and Recruitment Strategy
This study will rely on purposive sampling, allowing for the researcher to select key informants who will have a useful perspective on Ebola control and response. Participant selection will be based on the four main groups outlined above, and will be recruited through routine programme activities. Whilst the final number of participants will only be known once data saturation occurs, (Barney, Glaser and Strauss, 1967) in this instance at least 15 participants will be approached per key informant group, so we estimate the total sample size to be approximately 45 participants. Guest et al validate that saturation occurs for such research design “within the first twelve interviews, although basic elements for meta themes were present as early as six interviews, (2006: 73).

To enhance the credibility of this sampling, a maximum variation sample will be used to ensure the consideration of key demographic variables likely to have an impact on participant’s views, for example gender, age, ethnicity, and occupation. This aims to ensure that the sample is both diverse and representative of the communities in question, and so maximise a fair share of perspectives and views.

Interviews will be organised and conducted sensitively in order to minimise potential stigma by targeting communities as a whole, rather than only those who have been treated for Ebola. Participation in the study will be voluntary and participants will be recruited using local knowledge with support from community representatives and programme staff. Interviews will take place in private designated spaces convenient for the participant, acknowledging IPC rules.
Inclusion criteria
1. People who have had Ebola and been cured
2. Any people who have been subject to other control measures (e.g. screening, quarantine, surveillance) but not admitted as a patient
3. Any household members indirectly experiencing the response (e.g. as a family member or carer of category 1 and 2 above)
4. Any key community members with general knowledge of the outbreak (farmers, traditional healers, community leaders)
5. Staff members from MSF involved in the Ebola response from a cross section of positions, with a specific focus on frontline/community-facing workers

Exclusion criteria
Patients
- Do not consent to interview
- Active cases of Ebola or too unwell with fever or another illness
- Children (under 18)

Staff members
- Do not consent to interview

3.4 Data Collection and Analysis
A topic guide with prompts will be used to conduct the in-depth participant led interviews, which will be recorded and transcribed. Field notes will be taken throughout the fieldwork period and preliminary analysis will be carried out throughout the data collection.

Data analysis will start at the moment data is generated. Interviews will be transcribed verbatim and data coded and then rigorously and continuously reviewed and categorised. Emerging patterns, themes and relationships will be identified and labelled. In order to enhance reliability a subset of data will be analysed/coded by a second researcher. Data will then be triangulated in order to maximise validity, and cases that do not fit with conclusions (cases that deviate) will be reanalysed in order to test emerging theory and ensure that examples are not selected purely to reiterate desirable conclusions (Green & Thorogood, 2009). In addition, certain narratives or case studies will be drawn out to ensure the individual ‘stories’ are not lost and to explore how the themes interrelate in particular cases.

3.5 Interview Language
The interviews will be conducted in English when the person being interviewed feels comfortable doing so. Otherwise interviews will be conducted in Krio (or other appropriate language) with a translator. All interviews will be translated from Krio if necessary and transcribed into English.

3.6 Data Validation
As mentioned in the methodology, data is being collected from a variety of sources in order to compare and strengthen related conclusions. Negative cases will also be examined in detail
and explained in order to strengthen the analysis. 10% of transcripts will be shared with participants to cross check validity.

3.7 Limitations
This is a qualitative study, and therefore only concepts can be generalised to the Ebola response. It is acknowledged and will be lessened through interview technique as far as possible that communities will have been sensitised to various messaging about the disease which may influence their responses, for example a recent study of a community-based response to Ebola in Liberia observed that community leaders’ feedback was often an ‘ideal-typical’ representation, rather than a perspective account of how communities actually responded to Ebola (14). Equally the role of the researcher as part of the interventionist team may influence responses. This will be reduced through research profile as separate from operational responsibility. Care to choose communities that will not have been burdened by other surveys or assessments will be taken by cross-referencing with existing/ongoing research in Sierra Leone (as per research database compiled by WHO/UNMEER, IDS and John Hopkins) and seeking information from MSF in-country representatives.

There is a risk inherent in the use of a translator; s/he may not be trusted by the interviewee or may distort (inadvertently or expressly) the questions of the researcher or the responses of the participant. This will be mitigated by careful selection of translators and their practical training and quality control efforts. Adequate training and supervision of researchers involved in the data collection and the involvement of a supervisor with extensive research experience, as well as co-supervisors who will closely monitor and advise during the research process will increase methodological rigor.

4. Ethical Considerations
4.1 Social Value – potential benefits from the study
Benefits for participants might include an improved potential for dialogue and negotiation on behalf of the interventionists and the community to ensure control measures are optimised.

Project level benefits
There has as yet been no study of the communities’ perspectives of MSF’s Ebola response in Sierra Leone. By providing new insights of MSF’s interventions with regard to this topic it is hoped that related practical recommendations will inform future control measures leading to more effective programming with a positive impact on health outcomes.

Community level benefits
This study could facilitate the provision of important information to community leaders and key stakeholders that will be helpful for future Ebola interventions. The largest benefit being for future patients as barriers are removed and enablers are optimised in providing dignified and effective treatment. A two-way more acceptable and accessible pathway to care is envisaged as a result.
**National level benefits**

Whilst Ebola in Liberia has been the subject of more research, there are currently no studies specifically tackling the perceptions of the Ebola response in Sierra Leone that focus on the voices and experiences of the communities themselves. In this sense, it is hoped that this study will provide a valuable insight for the national emergency outbreak response coordination team and inform future control mechanisms. In giving an understanding of community perceptions and experiences, it aims to provide practical recommendations in order to minimise barriers, maximise appropriateness, acceptance and uptake, and so facilitate positive change in countrywide for Ebola control.

**International level benefits**

Concepts drawn from this study could also be comparatively analysed with neighbouring countries affected in order to optimise its impact. In this sense findings can contribute to the ongoing global review of Ebola response, informing future policy and best practice linked to control mechanisms. Also by contributing to a growing body of literature considering Ebola ‘from below’ we aim to promote a shift away from traditional interventionist approaches to incorporate the opinions and suggestions of affected communities in ensuring an appropriate disease response.

4.2 Potential Risks from the study

There is the potential for increased stigma and distress through the interview process. Selecting participants that were cured and those that were closely affected so as not to single out those with direct experience aims to mitigate this. Links with existing support teams will be made as needed and attention to expectations raised with regard to other health issues will be dealt with through strong linkage to existing services. There is a risk that participants may disclose actions that are contrary to the national guidance on control measures— for example unsafe burials. This will be dealt with prior to the interview by stating that any disclosures that pose a significant medical risk will be managed on a case-by-case basis, and in line with standard MSF protocol (e.g. contact tracing, referral for sensitisation) and seeking expert advice where appropriate. The research team will be especially mindful of anonymity of village and village chief as well as participants.

The moral responsibility of inviting people for interviews has been considered, and remunerations procedures will be as per the MSF standard. We do not anticipate people needing to travel for these meetings. Informed consent will be obtained and patient privacy and confidentiality respected. The main burden to interviewees will be the time taken for the interview. We have communicated with relevant authorities from the outset in order to ensure correct permission, courtesy, and access to the population.

To undertake the study should not substantially interfere with routine programmatic activities although it will require the support of the project team in terms of the time of selected health workers for interview, input into participant selection, and ensuring confidential space for the interviews.
Biomedical risks associated with Ebola will be managed as per current operational standard procedures.

4.3 Respect for recruited participants and study communities
Feedback mechanisms will be used to ensure participants are aware of the findings and outcomes of the study. Respondents can choose to opt in or out of this feedback process prior to interview commencement. Summary findings of the study will also be made available to all participants.

4.4 Informed Consent
Prior to their involvement, all participants will be given detailed information about the objectives and methods of the study (that there is no right or wrong answer; we would like to learn about good and bad experiences and hear how it may be possible to strengthen and improve the appropriateness of the Ebola response).

The consent process will ensure that participants are aware that participation is voluntary and they can change their mind about participating and/or terminate the interview at any point. It will also explicitly clarify that participation is in no way linked to receiving (or not receiving) services or other benefits. Consent will be briefly outlined verbally to ensure respondent comprehension, with voluntary written consent or common alternative then being obtained.

4.5 Data management and protection
We will ensure that all data collected (paper notes, audio files, transcriptions) is handled respectfully and confidentially, and used exclusively for the purpose of this study. After transcription all audio files will be destroyed in order to reassure participants and remove any risk of individuals’ identification (they are no longer required once transcribed). Information will be stored without any respondent-identifying information (with use of pseudonyms and removal of job title or other identifying information); and will be stored in a password-protected format. Data collected will not be shared with others, presented or published without consent of the Medical Director of MSF Operational Centre Amsterdam.

4.6 Confidentiality
Participant names will not be included in any of the project reports. Each respondent will be given a code that corresponds to the time they were interviewed so that only the researcher can identify whom they are, to maintain anonymity. Data stored on the computer will be password protected and patients’ files will not be left unattended. Care will be taken to ensure any quotes presented in the final report cannot be linked to individuals or places.

4.7 Independent review
The study protocol will be submitted to the Sierra Leone Ethics Committee for full ethical review prior to study commencement.
5. Study Implementation

5.1 Collaborative partnership
This study represents collaboration between the Ministry of Health of Sierra Leone and Médecins Sans Frontières. Within Médecins sans Frontières, the co-investigators are based in Freetown, Sierra Leone, the Operational Centre in Amsterdam (The Netherlands), and UK Programmes in London (UK).

5.2 Timeline
This study will be conducted over a 4 month period between March and June 2015 (comprising of approximately 1 month preparation, 1 month data collection in Sierra Leone (mid-April to mid-May) and 1 month data analysis and write-up). Dissemination is aimed to take place in June 2015.

5.3 Dissemination plan
An internal briefing paper will be produced highlighting key study findings and their relevance to programming, including any recommendations that emerge. These will be distributed to MSF field contacts and coordination teams. Findings will be shared and discussed with relevant contacts from the MoH in Sierra Leone. A summary of study findings will also be made available to participants, through field team members and/or the principle investigator. If possible a meeting will be held with community members to discuss the emergent findings and to gain their feedback and thoughts on these. A study manuscript will be produced and submitted for publication in a peer reviewed scientific journal. Discussions will be held with the MoH, MSF field contacts and coordination teams regarding implementation of study findings to future programme activities.

5.4 Budget and resources
The cost for this study is factored into existing budget lines.

Additional logistical support will be required from the MSF field team in terms of transport to communities and access to space to conduct interviews, as well as support to identify potential participants and translation costs. The funding for the Principle Investigator is covered within existing budgets. A breakdown of actual costs will be agreed beforehand.
6. **Reference list**


