VILLAGE RESPONSES TO EBOLA VIRUS DISEASE IN RURAL CENTRAL SIERRA LEONE

An interim report to the SMAC program, DFID Freetown

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January 12th 2015

Executive Summary

1. Ebola Virus Disease in Sierra Leone is spread by human-to-human contact. Most infection takes place through contact with body fluids of sick patients by those caring for them in the final "wet" phase of the disease or through handling the corpse in preparation for burial.

2. Programs are in place to block both infection routes. Patients are encouraged to report early (in the first three days of initial symptoms) for palliative care in biosecure treatment facilities, thus increasing chances of survival, e.g. through rehydration therapy, and reducing transmission rates by attenuating risks to family carers during the last and most virulent phase of the disease. Families who have suffered an Ebola bereavement are required not to handle the corpse themselves, but to request the help of a trained burial to carry out a safe burial.

3. Both early isolation and safe burial have suffered from logistical problems. Initially, there was a shortage of treatment places as the epidemic surged, and "safe burial" teams were often slow to respond, due to overwork and lack of key facilities, such as vehicles. Teams have been expanded, and vehicles supplied, and as a result there is a prompt response to 95% of calls for assistance.

4. But there are other obstacles to be overcome - that patients do not report early enough, and "safe burials" clash with local cultural norms for decent burial. Delay in reporting has complex roots. This is partly because the symptoms of Ebola in the "dry" phase are not easily distinguished from other more common diseases such as malaria and typhoid. Testing for Ebola takes several days, and the holding and treatment centers were not always biosecure. Patients reporting with malaria and typhoid were at risk of cross-infection with Ebola.

5. Slow reporting also stems from other, more obdurate social and geographical factors, on which the present report throws light. It is the norm for many villagers to wait two or three days (sometimes more) before seeking medical help for any serious condition. Primarily, the report shows, this is for economic reasons, though sheer geographic isolation is also a factor in villages without road or phone access.

6. Patients lack the money to pay for transport or eventual treatment, for any medical conditions. A wait-and-see approach is mandated by extreme rural poverty. Several days are taken in assessing a case, and making arrangements to borrow necessary funds. Experience teaches that the patient has often either begun to recover or may (if the case has proved very serious) have died in the meantime.

7. A waiting interval of several days is thus described as almost normative for many of the poorest rural families. In the case of Ebola, the waiting interval eats up the dry phase during which it would be relatively safe to transport a patient to a roadside pick-up point from which an Ebola ambulance could operate.

8. Home nursing then spreads the disease among the immediate family. Burial procedures - mainly preparing the corpse for a funeral - can spread the disease further, among groups of friends or sodality members who participate in washing the corpse (as the case-study material presented below documents).

9. The study, reported in part, in the following pages covers 25 villages in all three provinces of rural Sierra Leone, aligned along a traverse from Tonkolili to Kenema District. Five of the 25 villages have experienced local Ebola outbreaks.

10. In all five cases, transmission has been stopped, and it was a purpose of the study to find out how this was achieved. The basic answer is by a combination of robust intervention (extraction of cases by Ebola ambulance, imposition of quarantine and safe burial) and local learning concerning the disease, rapid and well-founded enough to bring about a degree of local acceptance of the special measures adopted.

11. Local learning seems also to have contributed some effective improvised measures for protecting against infection when the risks posed to families and burial parties were thoroughly understood. This local learning was often facilitated by community health workers with a good grasp of infection risks and local practices.

12. The resulting picture seems surprisingly positive. Infection cycles have been ended, and neighboring communities with no direct experience of the disease are shown to have acquired a sound practical understanding of what they need to do to protect themselves. Draconian, government-mandated controls on movement have been intensified by local action and local bye-laws.

13. An emerging danger is that lock-down is now in some cases so tight that local livelihoods are at risk through lack of mobility and lack of trade. A national debate about sensible ways of loosening restrictions in areas clearly free of the disease seems an urgent necessity. It is (as our report shows) something currently being demanded by villagers.

14. Widespread acceptance of the need for "safe burial" does not make the actual procedures any more acceptable to grieving families, and the focus groups transcriptions published below suggest there may be scope to improve "safe burial" by training local teams to carry it out. As informants suggest, burial - however much changed to conform with biosecurity requirements - must be, if at all possible, carried out by those who knew and cared about the deceased.

15. The hesitation of the poor to commit to early treatment on grounds of poverty must be overcome by removing the costs associated with bringing a patient within range of an Ebola ambulance or Ebola holding facility.

A NOTE ON RESEARCH METHODS AND FORMAT OF THE REPORT

Research was undertaken by a team of social scientists from Njala University, led by an anthropologist. The 25 villages (Fig. 1) were purposively sampled to represent a segment of the middle part of the country during which the epidemic became established from June to October, and where we might reasonably expect to detect evidence of adaptive response. Most communities were chosen because they had been recently and extensively surveyed at the household level by research teams from Njala and Wageningen Universities. These household data sets will eventually provide us with detailed background and baseline material against which to interpret some of the emerging patterns of Ebola response. The research for the present study was undertaken by trained field-teams previously deployed on the Njala-Wageningen study. In particular, some of these teams were familiar with a methodology developed to undertake focus group interviews in a rigorous way designed to help interface group findings with quantitative data sets compiled from randomized questionnaire surveys and experiments. For each village 30 randomly selected men and women were interviewed and all adult villagers were encouraged to participate in one of three parallel focus group sessions, for male and female elders (*ta gbakoi*, in Mende) and younger people/commoners. Findings for five villages (three connected by the Ebola outbreak that emerged in the village of Fogbo , Kori Chiefdom in August/September 2014, and two "control" villages, without Ebola). The three Ebola affected villages were located in Southern Province, and were Mende-speaking. One of the control villages is a Temne village from an adjacent location in Northern Province. Data were scrutinised for ethnic variation. For each of the five village cases we present a write-up of quantitative results from the questionnaire survey (focused on mobility, health-seeking behavior, and knowledge of and response to Ebola), and an edited transcript of the three parallel focus group sessions, which mainly concentrates on local ideas and practices concerning burials and infectious diseases (Ebola specifically). Each village analysis "package" is accompanied by a Google Earth image of the village in question. The analysis and write-up of data for the remaining 20 villages is ongoing. The present report provides a sample of that larger body of material. Reading ahead in the data, it seems that the findings discussed below are typical for the larger data set. The data provide a clear sense of how and why the epidemic is coming to an end in many districts.

PAUL RICHARDS, 11th January 2015

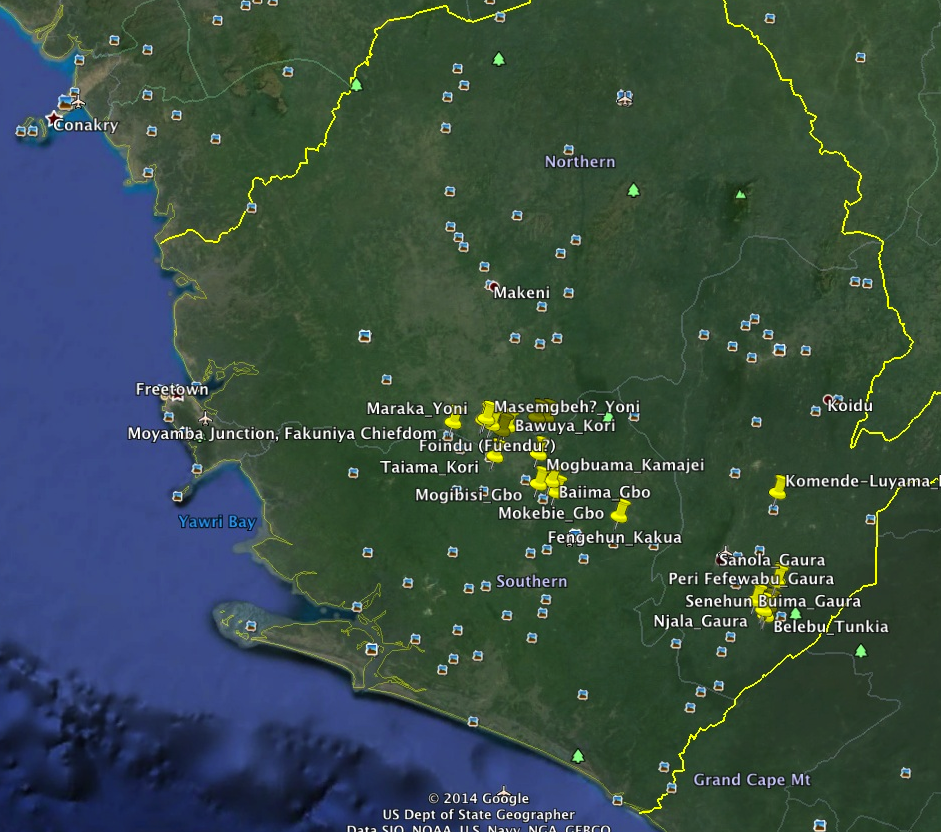


Fig. 1: 25 villages in Tonkolili, Moyamba, Bo and Kenema Districts surveyed as part of the Njala SMAC Ebola impact study

**VILLAGE RESPONSES TO EBOLA IN RURAL SIERRA LEONE**

**(No. 1: Survey results for Bawuya, Kori chiefdom, Moyamba District)**

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**Abstract**

Bawuya is a small, isolated Kpa-Mende farming village about 3 hours walking time from Taiama, headquarters of Kori chiefdom in Moyamba District, Southern Sierra Leone. Bawuya experienced an Ebola outbreak in September 2014, in which 9 people died and 3 infected persons survived, connected to a prior outbreak in a neighboring village, Fogbo. No further cases have since occurred. Bawuya serves as a representative example of how an isolated rural community becomes infected, and how such outbreaks end, where outside intervention or assistance is limited. The report analyzes randomly-sampled questionnaire data situating Ebola within the context of village social networking and patterns of health seeking behavior. Changes are documented in local understanding of Ebola, from earlier media-led conceptions of an epidemic driven by bush-meat consumption towards an experience-based understanding of the risks posed by body-to-body contact. The case makes clear that transmission of Ebola can be ended by local acceptance of a range of externally-determined and locally self-imposed restrictions on movement and contact with dead bodies. A brief discussion is included of questions raised by the community about how and when current restrictions on social interaction can be eased. Local views on these restrictions (including imposed modifications of funeral rituals and routines) are further elaborated in an appended transcript of three parallel village focus group sessions held with male elders, women and young people.

**Introduction**

This is the first of a series of reports summarizing results from a questionnaire-based survey (December 2014) of local understandings of and responses to Ebola in southern and eastern Sierra Leone, undertaken as part of the DFID-supported SMAC initiative. Here, data are presented on the village of Bawuya, in Waima Section, Kori Chiefdom, Moyamba District. The report is issued with an edited transcript of a focus group session held in Bawuya on 13th December, 2014 (see appendix). The questionnaire results provide a picture built from individually expressed answers to direct questions about diseases, and about Ebola Virus Disease specifically. The focus group session provides a picture of public viewpoints aired in response to a general "starter" question - "what sicknesses, if any, has this community suffered in the past 3 months?"

**Results**

Bawuya is a small off-road village of Kpa-Mende people on the left bank of the Taia river, 3 hours walking distance (c. 9 miles) north of the town of Taiama (Figs. 2a and 1b). The main occupation is subsistence rice farming. Sampling was based on randomly selecting male household heads, and a matching number of adult females, from among a total of 18 households in the village. In the event, 12 males and 13 females were interviewed. (The full study included 25 villages in Kenema, Bo, Moyamba and Tonkolili Districts - total sample size = c. 1000.)

A majority of interviewees (23 out of 25) was engaged in making upland rice farms, averaging 2.1 "bushels" (a bushel of seed plants approximately one acre). Six interviewees were "strangers" (5 women, 1 man). Under customary law, a "stranger" (Mende: *hota*) is a person living in a community in which they were not born, and living under the protection of a "citizen" (*tali*); the other 19 interviewees were citizens.

Most strangers in Mende farming villages are women, who have married in from another village. In Bawuya, three of the six strangers came from local chiefdoms, but three came from further afield (two from Bo District and one from Kailahun). This is an important fact for understanding Ebola infection patterns, since it explains some of the long-distance inter-village social movements connected to funeral attendance that have served to spread the disease.

The first case in Bawuya was that of an elderly man who visited Fogbo, a larger village on the banks of the Taia river (Fig. 1b), to sympathize with a woman infected with the disease by her brother, a man from Kenema District, who had come to secure her medical help (she was a noted healer). Further spread in Bawuya was mainly limited to members of the old man's family who cared for him in his final days. In all, twelve people from Bawuya, including several children of carers, contracted the disease, and 9 died. All three survivors were included in the questionnaire sample.

The questionnaire collected information on typical social and economic network patterns linking this small, isolated village to the rest of the country. These data offer clues concerning the propensity for Ebola to spread beyond local hot spots, via socio-economic networking. First we asked about recent movements out of Bawuya (within the previous month). The village was forcibly quarantined (soldiers were posted there for a time). No further cases occurred and strict quarantine was subsequently relaxed. But villagers became convinced that social interaction was a major hazard, and continued a kind of self-imposed self-quarantine. Thus recent movement patterns must be atypically low.

Three interviewees had traveled out of the village in the reference period. One person (a female citizen of Bawuya) had visited the neighboring settlements of Fogbo and Taiama 3 and 7 times respectively, to arrange about a marriage. A female "stranger" had visited Freetown once (on family business). The third case was that of a male citizen, who had visited Taiama once, to buy and sell items, and to settle some family business. But he also reported he had been in Moyamba and Bo. This, it turned out, was in connection with him having caught Ebola. Seemingly, his period of convalescence overlapped the reference period.

We also asked about movements by children and young people. The question was not time-constrained as in the previous question. Three households reported four children, from three local villages and one village elsewhere in Moyamba District, had been sent to Bawuya for care by a grandmother and three aunts. Thirteen households reported movements out of the village by 28 children and young people: 22 for school, 3 for care, 3 for marriage, and one for an apprenticeship. Destinations were Bo 10, Taiama (chiefdom HQ) 7, Freetown 2, Kenema 1, other villages within Kori chiefdom 3 (Fogbo 1), and other villages within Moyamba District 4.

The parents of those sent out for schooling often send or carry food to the child's location, and children may return how during school holiday periods, thus tracing out a two-way pathway for potential spread of infection.

The questionnaire inquired into recent serious sickness (in the last 3 months), and asked about use of medical facilities for treatment. Eight cases of serious sickness (including three of Ebola) were reported. Six cases involved seeking treatment in medical facilities, including two of the Ebola cases.

The first Ebola patient reached a holding facility by a combination of walking, canoe, okada (motorcycle taxi) and ambulance. The second patient reported traveling by okada and ambulance. Both patients traveled alone. The third case weathered the disease at home, and claims not to have been able to move (or be moved) due to prevailing restrictions on movement.

Further questions explored patterns of help, and cases in which patients were too sick to be moved. In seven cases of serious sickness, help was provided by a grandchild, a daughter (x 2), a neighbor, a wife, and a sister. In one case, a son helped his father sick with Ebola, and caught the disease. The father died, though the son survived.

When asked directly about their own experiences ("had they ever been too sick to seek help outside the village?") nine people answered "yes". Lack of money and quarantine restrictions were the major reasons given.

This set of answers included all three Ebola survivors, two of whom had earlier described reaching an Ebola facility. The final stage of both journeys was in an Ebola ambulance. Consignment to an Ebola facility may not have been their intention but a decision by the authorities.

Overall, these data remind us that the expense and sheer difficulty of moving from an interior village to seek medical help should not be underestimated.

Interviewees were asked whether, if a member of their household had a fever, which of 3 statements was more likely to be true: take them to a hospital immediately, wait for some time to see if they get better, never take them to a hospital. Early reporting of Ebola cases is crucial to improved chances of survival. Only 7 respondents would act immediately. Seventeen would wait. There was one missing answer.

We then asked about how long people would wait if the case involved a child, an adult, or an old person. Respondents provided estimates in terms of days or fractions of days they would spend in waiting.

For a child the waiting time ranged from one hour to 7 days (average = 1.2 days). For an adult the time was longer, ranging from one to 8 days (average for adults = 2.1, and for older people 2.0).

Reasons were given to explain these differences. Children, it was frequently argued, were weaker than adults, and could die more quickly. Views on older people were split. Some thought that they should be taken for treatment as soon as possible, but one person reckoned that they would delay by a day for a child, three days for an adult, and a week for an old person, commenting that "old people are always sick". Another person thought there should be no difference between children, adults and the elderly ("all are humans"). Even so, this respondent would still wait a day before committing to the task of seeking help.

All 25 interviewees said they had heard about Ebola; 20 said they had gained information about the disease from the radio, 12 from community health workers, 12 from family and friends and 4 from the chief (includes more than one source per person). Symptoms were accurately described by 23 interviewees. Two could not describe the disease.

Causes were listed as follows (again, multiple answers were accepted): eating bush meat 17, human-to-human contact 8, part-eaten fruit 3, denial 1, public gatherings 1, visits to quarantined households 1, washing corpses 1. The predominance of bush meat factors in these media-related answers should be noted.

When asked about ways the interviewee could protect her/himself against Ebola infection 17 options were mentioned 47 times by 25 interviewees (Table 1). Over half of all reasons (26/47) concerned avoidance of body contact. Avoidance of bush meat and of washing dead bodies were mentioned only once (each):

|  |  |
| --- | --- |
| **Prevention** | **Times mentioned** |
| avoid contact with the sick | 13 |
| avoid body to body contact | 9 |
| no visits to quarantined houses | 4 |
| no visits to burial houses | 4 |
| avoid dead bodies | 3 |
| wash hands, wash your body | 3 |
| avoid burials | 2 |
| avoid gatherings | 1 |
| avoid washing of corpse | 1 |
| no sex, faithfulness to partners | 1 |
| no lodging of stranger | 1 |
| avoid bush meat | 1 |
| prayers | 1 |
| heed government advice | 1 |
| take sick to hospital promptly | 1 |
| report all deaths to the authorities | 1 |
| TOTAL | 47 |

**Table 1: Local ideas about self-protection from Ebola in a village affected by cases of EVD (Bawuya, Kori Chiefdom, Moyamba District).**

When asked what others should do to limit risks of Ebola infection answers (perhaps understandably) adhered closely to the self-protection advice just listed. But when the question was posed in terms of what the community could do, answers were different. Interviewees were asked both what should be done, and what had been done, at the community level.

Local bye-laws were advocated by ten people, and five advocated the provision of chlorine, soap, and buckets. Cleaning the village, and awareness raising activity each attracted four responses. Other answers included prayer, travel bans, reporting sick people to the chief, no lodging of strangers, and (most interestingly) "cooperation with Fogbo", the much larger village from where the infection had earlier spread.

When asked what had actually been achieved, seven people mentioned hand washing and bye-laws, six stated that there was now no lodging provided for strangers, and declared that social visiting had ceased. Implementation of check points, quarantine, reporting of strangers, reporting of deaths, no travel outside the village, and acceptance that Ebola was real were each reported once.

In a final section of interviewees were asked where they had first encountered Ebola. Twelve said in Bawuya village, and one person had first encountered it in Freetown. Two survivors stated that they had first seen the disease when passing through the Moyamba holding center, and then in the Bandajuma MSF treatment center in Bo. Eight persons said they had not actually seen the disease for themselves. It seems important to emphasize that even in a quite small village not everyone is an eyewitness to the disease.

This part of the questionnaire provided a different context to repeat an earlier question about causes of Ebola. Now, interviewees were asked specifically for their own idea about how the disease spreads.

The earlier question was posed in the context of a question about media sources of knowledge concerning Ebola, and bush meat figured high in the list of reported causes.

The second set of answers shows a very different pattern. Body contact with a sick person or a corpse now accounts for 13 answers. Seven interviewees frankly say they do not know how Ebola is caused. Others specifically mention visiting sick people, shaking hands, body fluids and sex with survivors as transmission pathways. Only one person mentions bush meat. This suggests that this presumed cause is a media artefact extinguished by contact with the reality of the disease.

Finally, five persons responded an offer that we would report any general questions they might have about Ebola. One was an enquiry about help to build a church (perhaps because prayer had been offered as a potential cure for the disease), but the other questions were of more direct practical relevance: "will you help us get food, as everyone is starving?", "as a survivor I was promised a package from government, but it has not been received; what is happening?", "how did this sickness come about?", and "when will this infection end?"

**Discussion and Conclusion**

The above data bring out very clearly how much ideas, attitudes and actions have changed in response to direct contact with the disease. Respondents had listened to, and could repeat, official messages about Ebola (including the dubious claim that Ebola was caused by consumption of bush meat). But explanations of spread changed when interviewees were encouraged to give their explanations, based on direct experience. Here, body contact with infected people and with corpses of Ebola victims were stressed, and bush meat was minimized as an explanation.

(Analysis in later reports will consider whether this result can be confirmed for four other villages in the sample with direct experience of the disease, when compared with 20 other sampled communities where experience of Ebola is only indirect.)

The Bawuya case suggests that behavior has also been strongly modified, to avoid direct contact with Ebola sufferers, and corpses of Ebola victims through acceptance of quarantine, and imposing local bye-laws on movement, and through temporarily curtailing a range of social activities including large gatherings such as markets and funerals.

The role of outside intervention seems to have been limited in the Bawuya case. Military imposition of quarantine and some WFP food aid was mentioned. Informants also indicate that a community health worker helped create awareness of the biological risks associated of Ebola Virus Disease.

The role of the 117 emergency phone system for calling Ebola ambulances and safe burial is less clear. Only two of the three Ebola survivors in the sample reached an Ebola treatment facility, apparently by a circuitous route. The focus group data (appendix) suggest that Bawuya has phone coverage; burial teams were said to have been called several times. But they did not arrive promptly, presumably due to lack of road access.

It is important to note that although inaccessible and apparently isolated, Bawuya has a number of active social linkages with urban centers (Moyamba, Bo, Kenema and Freetown). These are mainly interactions over family matters and schooling. Some linkages now appear to be in abeyance, but this raises questions of how long this isolation should continue, and with what consequences. The community (rightly) raises a number of key questions (about the real causes of the disease, food security, and the likely length of the Ebola emergency period).

Clearly policy attention needs to be turned to these concerns. The epidemic was arrested in Bawuya, and apparently partly, or perhaps largely, by local agency, but advice is still limited on what to do while waiting for (or on the non-appearance of) ambulance and safe burial teams, should the epidemic return.

Equally pressing, people need to be regularly updated about how long the current emergency constraints on normal social life and patterns of economic interaction need to be maintained.

According to the 42-day criterion for further cases, Bawuya and neighboring communities are now Ebola-free, but restraints on normal activity are still firmly maintained. Which can now be relaxed?

It will be important to keep in place restrictions on inter-regional movement (e.g. the ban on hosting strangers) since a village like Bawuya has active links to Freetown and some other centers of current Ebola transmission, but would it now (or soon) be safe to allow (or encourage) other more local network interactions, such as farm labor sharing, family visiting at chiefdom or section level, and resumption of normal funeral procedures? When can local markets re-convene? Is there how good is the evidence that large gatherings other than funerals, or casual bodily contact, such as hand shaking, do spread Ebola?

If it can be further confirmed from the other case study material collected by the present study, and awaiting processing, that Ebola control in the rural interior has been significantly a matter of local self-realization and self-control, this achievement should not be taken for granted. Rural people do not deserve further, prolonged isolation, but should become part of a serious, two-way national discussion between government and Ebola responders on the one hand and local communities on the other about the best possible management of the epidemic in its declining phase. Issues of local food security, in the movement-limited landscape described above, should be a matter for serious concern, and local voices about how this can be best achieved should be listened to carefully.

In sum, it can be concluded that survivors have meaningful advice as well as anti-bodies to offer to the wider community as tools for Ebola mitigation, and provision ought to be made to access this advice and make it widely available. The process should include gathering the lessons derived by Ebola-affected communities, as well as listening to the voices of individual survivors.

**Table 2: PEOPLE WHO DIED AND RECOVERED FROM EBOLA IN BAWUYA VILLAGE**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Those Who Died | Ages | Survivors |
| 1 | MY (f.) | 53 yrs | 1 BY (m.) |
| 2 | EY (f.) | 76 yrs | 2 FB (f.) |
| 3 | MY (f.) | 41 yrs | 3 MY (f.) |
| 4 | MY (f.) | 9 yrs |  |
| 5 | BY (f.) | 4 yrs |  |
| 6 | MY II (f.) | 96 yrs |  |
| 7 | HG (f.) | 42 yrs |  |
|  |  |  |  |
| 8 | MY (m.) | 35 yrs |  |
|  |  |  |  |
| 9 | SY (m.) | 3 yrs |  |



Fig. 2a: Bawuya village, Kori chiefdom, Moyamba District



Fig 2b: Bawuya, Fogbo, and Moyamba Junction

**APPENDIX: FOCUS GROUP INTERVIEW RESULTS**

**BAWUYA, KORI CHIEFDOM, MOYAMBA DISTRICT (13/12/2014)**

**Paul Richards, Joseph Amara, Alfred Mokuwa, Esther Mokuwa, Roland Suluku, and team,**

**NJALA UNIVERSITY 30th December 2014**

1. The data below illustrate our focus group methodology and the emergent findings of a study of local responses to Ebola Virus Disease currently being completed of 25 villages in four districts of Sierra Leone. The approach is based on 3 separate focus group sessions for male elders (responses beginning A, in col. 2), female elders (B) and young people of both genders (C).

2. The categorization "elders" and "youth" has a specific meaning in Sierra Leone, and needs to be explained. In effect, it is not closely tied to age, but to social seniority. "Strangers" (persons born in other chiefdoms), clients and persons not initiated into the rural sodalities are considered social juniors, irrespective of age. For our work, we ask people to sort themselves into the group to which they consider they belong.

3. Comments are made and documented anonymously, but the pattern of speaking in each session is tracked by a card system (col. 2). The card system documents the status of the speaker, the order in which each speaker entered and re-entered the discussion, the number of times each speaker addressed a topic, and by summation (col. 1), the number of distinct topics covered, as assessed by the facilitators.

4. Facilitators have a short list of topics to be used as prompts where discussion flags. This list is not addressed in a strict order. Items are checked off as they are encountered in the flow of conversation. Participants are encouraged to shape the flow of discourse to their own concerns.

5. RAs are also trained to try and avoid leading questions, but they can turn to the prompt list for help in keeping the conversation within a relevant range. The protocol suggests that the topic of Ebola be approached through asking participants first to list serious diseases, and then to choose which disease topic they wanted to focus on.

6. The results extracted here came from an early fieldwork session and the protocol was not fully followed for the first session, held with male elders (session A). The topic of Ebola was broached directly. However, it transpired this was the topic all participants wanted to focus on since there had been an actual outbreak of EVD in this village. Later sessions approached in a more open manner brought forward additional health concerns - malaria, hernia and animal diseases included.

7. Some key remarks that appear of direct policy concern, e.g. regarding the work of burial teams, have been highlighted in bold type.

8. Bawuya is a Kpa Mende community. Local cultural conventions generally require senior figures to speak first, though those with executive power often hold back, since they have to summarize and make decisions. The discourse tracking system (col. 2) allows the reader to assess the kinds of people speaking, and the order of their interventions, without identifying speakers by name.

9. One speaker in the 3rd focus group (Youth, C) has been bolded in column 2, to identify a specific string of responses, since this speaker was an Ebola survivor (all responses Cc).

10. In response to a direct question about Ebola Aa (an imam) noted (response Aa2) that the community could not tell, because people fell sick, ambulances arrived, and the community never heard, definitively, that the people taken away (to Moyamba, the district HQ) had been diagnosed with Ebola, or that they had died.

11. In the other focus group sessions specific information was supplied on how the infection was transmitted (by a man who had attended a family funeral in the village of Fogbo, four miles distant). A list of 9 dead and 3 survivors was supplied, and names have been reduced to initials. The original nominal data suggest that all the victims, bar one, came from a single lineage (*ndehun*), as indicated by its shared *sii* (family name).

13. These data suggest that Ebola infection is locally confined within families, as a result of close contact with patients in the final stage of the disease and at burial. But it can be noted, also, that not all family members involved in nursing or handling bodies acquired the infection, and that no further cases occurred in Bawuya after a 21-day quarantine period.

14. However, an important exception should be noted. Corpse preparation and burial of leading members of the locally powerful Secret Societies are matters for the sodalities. There procedures are secret. These sodality funerals seemingly serve to network the disease between different village families, and between different villages, since they are attended by members of "lodges" in other villages.

15. Communities quickly understand the nature of the risk, and act in ways to minimize spread. The local perception now is that new cases arise only when infected persons "escape" from quarantine in towns (especially from Freetown and some of the mining centers).

16. This exactly reverses the perceptions documented by other surveys, where sampling has been oriented towards educated elites and local officials. One such survey provides evidence that local elites commonly entertain the idea that rural areas "hide" large numbers of unreported cases, and that night-time illegal burials are common (Focus 1000, November 2014).

17. Villagers particularly objected to the mode of practice of official Ebola burial teams. Having understood the Ebola infection risks, the villagers cannot understand why they are not equipped and trained to do safe burials for themselves. Some respondents even said they would do the work without payment, since it is a duty they accept to undertake freely in normal times. Burial team guidance has undoubtedly been recently improved, as evidenced in the recent WHO burial protocol. However, this protocol fails to address a key issue; from a village perspective, burial is a task that should only be undertaken by those who knew and cared about the deceased.

**(A.) MEN: ELDERS Village: Bawuya, Kori Chiefdom, interviewers: Samawoh & Moifory, date: 13/12/14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Card no. | Age | Status | Economic activity | Questions | Responses |
| 1 | Aa1 | 65 | Imam | Mixed rice farmer | Have you heard about Ebola? | We have heard of Ebola |
| 1 | Aa1 | 65 | Imam | Mixed rice farmer | What are the signs and symptoms of Ebola | Fever, diarrhea, vomiting |
| 2 | Ab1 | 70 | Town chief | Mixed rice farmer | How do you prevent people from contracting Ebola? | 1. Don’t touch 2. No contact between two people |
| 2 | Ab1 | 70 | Town chief | Mixed rice farmer | What causes Ebola? | Bush animals transfer the sickness to man (monkey, baboon, bats), eating fruit remains that monkeys/ bats have eaten. Ebola sickness is on the monkeys; eating those transfers the sick to others. |
| 3 | Ac1 | 45 | Youth leader | Mixed farmer | How do you protect yourself and others from contracting the disease? | Avoid to visit the home of someone that has died of Ebola.  Fear the sick people or those infected with Ebola. |
| 4 | Ad1 | 80+ | Chief elder | Inactive service care for | How do you protect yourself and others from contracting the disease? | 1 prayer  2 be careful about the sick  3 dissociate yourself from the sick and dead of Ebola  4 not to visit the homes of the sick and dead.  We can’t tell but people were dying, and teams were called. They buried the dead without saying whether they died of Ebola or not. |
| 5 | Aa2 | 65 | Imam | Mix Farmer | Did anyone die here of Ebola? | **We cannot tell, but people were dying and Ebola burial team was called on several occasions, They came and took people without asking whether they died of Ebola or not** |
| 6 | Ab2 | 70 | Town chief | Mixed rice farmer | How was the body prepared for burial? | **Not happy with the way bodies were handled. The burial team, upon arrival, put the body in the bag without washing or dressing, and it was taken to the grave without relative/friends and dumped in the hole, and covered with soil. Sometimes they come with their shovel. The man is buried with the cloth he died in.** |
| 7 | Ab3 | 70 | Town chief | Mixed rice farmer | What can you recommend as to burying the dead? | 1, opportunity to wash 2, opportunity to pray on the body the Muslim way or the Christian way as the case may be, 3,also Government to allow us help bury our people. |
| 8 | Aa3 | 65 | Imam | Mix Farmer | How to prevent transfer of infection by washing Ebola corpses? | **Govt. to help us: to equip us in the community enough to enable us bury our people without getting infected from washing of burial. Another bone of contention: waiting 4-5 days before a body is buried by a burial team** |
| 8 | Aa4 | 65 | Imam | Mix Farmer | How did you formerly bury the dead? | If it’s a female, a woman with integrity will handle the washing and the dressing.  If a male a man with integrity will handle the washing, dressing, and burying the corpse. Prayers offered during the process. We believe the dead will depart with joy. |
| 9 | Ab4 | 70 | Town chief | Mixed rice farmer | How do they wash the corpse? | The dead is reported to chief  1, The body is taken to the wash yard at the back for washing  2, The body is laid on the board and wash with soap and *sapo* [a local scrubbing material] with bare hands.  3, The body is taken to the house and dressed.  4, The body is handed over to the Muslim Jamat if Muslim and pastor if Christian.  5, We believe in the blessing of the dead during burial. |
| 9 | Ab4 | 70 | Town chief | Mixed rice farmer | What do you do with the mud remaining water and during washing? | **Cover the ground of washing with the bucket, the soil under the bucket is taken and this is rubbed on the woman or the man and washed. It is believe that this will prevent the man from appearing to the partner.** |
| 10 | Aa4 | 65 | Imam | Mix Farmer | What are your views about of having a rescue center in the village? | **It will be a welcome idea if it is from government. Constraints of having a rescue center are that road repair is poor, and all i[we have] s a footpath – travelling on foot with a hammock and lack of incentive**. |
| 10 | Aa4 | 65 | Imam | Mix Farmer | What about having a helicopter land in your vicinity? | If informed ahead of time, we will come out.  If not informed, we will get scared and may be go into hiding. |
| 11 | Ab5 | 70 | Town chief | Mixed rice farmer | What happens when the first child died? | Called *mboe loi* (in Mende)  1, Laid in the veranda or by the home after death.  2, Buried in the dustbin around the town.  3, The mother pushes the dirt with her waist at the grave site  4, The grave is dug there, the child is buried.  5, The mother again first push the dirt before is put back |
| 12 | Aa6 | 65 | Imam | Mix Farmer | What are the signs of cholera (*Agbo-abali*) | Vomiting and diarrhea, if urgent treatment is not given, the person dies immediately |
| 12 | Aa7 | 65 | Imam | Mix Farmer | How do you treat people infected with cholera? | *Mbao kaka*, as an individual; *omole* –local gin - was taken and the vomiting/diarrhea stopped. |
| 12 | Aa8 | 65 | Imam | Mix Farmer | How many people died of cholera? | Several people died from the sickness 13 years ago. |
| 12 | Aa9 | 65 | Imam | Mix Farmer | What disease affects goats in this community? | Diarrhea of goat |
| 12 | Aa6 | 65 | Imam | Mix Farmer | What other disease affect people in this town? | Chicken pox (*tete lea*), but was brought under control. |

**(B.) WOMEN: ELDERS Village: Bawuya, Kori Chiefdom, interviewers: Idrissa Sesay & Francis B. Johnson, date: 13/12/14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Card no. | Age | Status | Economic activity | Questions | Responses |
| 1 | Ba1 | 48 | Societal leader | Farmer | Which major sickness has disturbed you in this village? | Ebola |
| 1 | Ba2 | 48 | Societal leader | Farmer | Where did you hear about Ebola? | I heard it from the radio |
| 1 | Ba3 | 48 | Societal leader | Farmer | What are the signs of Ebola? | Fever, head ache, vomiting of blood, stomach upset. |
| 1 | Ba4 | 48 | Societal leader | Farmer | Has Ebola affected any person in this town? | Yes |
| 1 | Ba5 | 48 | Societal leader | Farmer | Is that person still alive? | No |
| 2 | Bb1 | 48 | Assistant Societal Head | Farmer | How many people died of Ebola in this village? | Nine people died of Ebola in this village. |
| 2 | Bb2 | 48 | Assistant societal leader | Farmer | How many people died of Ebola in this village? | Three people were affected with the disease; one died and two survived |
| 2 | Bb3 | 48 | Assistant societal leader | Farmer | What is the name of the person who died of the disease? | MY (m.), age 35 |
| 2 | Bb4 | 48 | Assistant societal leader | Farmer | Where did he die? | In this village |
| 2 | Bb5 | 48 | Assistant societal leader | Farmer | How did this disease come to this village? | I did not know how the sickness came but a woman in this village fell sick named MY, age 53 years |
| 2 | Bb6 | 48 | Assistant societal leader | Farmer | Where did she get Ebola? | In this village |
| 2 | Bb7 | 48 | Assistant societal leader | Farmer | How did you know that she was having Ebola? | She was feeling cold, vomiting and stomach pain. |
| 2 | Bb8 | 48 | Assistant societal leader | Farmer | Who was taking care of her when she was sick? | MY (f.) age 53, EY (f.) age 76, MY (m.), MY II (f.) age 41, MY III (f.) age 9, and MDY (f.). |
| 2 | Bb9 | 48 | Assistant societal leader | Farmer | How many people became infected? | 12 infected  9 dead  3 survived |
| 2 | Bb10 | 48 | Assistant societal leader | Farmer | How did they survive? | I was using drugs like ORS, Flagyl, Panadol. |
| 2 | Bb11 | 48 | Assistant societal leader | Farmer | Who came with this disease? | MDY from Forgbo, Kori Chiefdom, Moyamba District |
| 2 | Bb12 | 48 | Assistant societal leader | Farmer | How can people contract Ebola? | Touching of dead, greeting a person who has the disease |
| 3 | Bc1 | 50 | Elder | Farmer | How can you prevent yourself from contracting Ebola? | 1, if a sick person drinks water, don’t drink the remaining  2, don’t embrace with a sick person  3, don’t touch any body |
| 3 | Bc2 | 50 | Elder | Farmer | Was your village quarantine? | Yes, the village was quarantined for 21 days and (WFP) provided food during the quarantine. |
| 3 | Bc3 | 50 | Elder | Farmer | Who quarantined the village? | The village was quarantined by military soldiers |
| 4 | Ba6 | 48 | Societal head | Farmer | How was the sick person cared for, two days before death? | She was taking care of by her daughter age 59 years, she was the one who was taking care of her feeding, clothing, and giving her medicine. |
| 4 | Ba7 | 48 | Societal head | Farmer | After death who cover her eyes and mouth? | She died with no part open |
| 4 | Ba9 | 48 | Societal head | Farmer | Was there a special place in your village to wash the corpse? | No, a private place was prepared for her to be washed |
| 4 | Ba10 | 48 | Societal head | Farmer | How many women washed her? | She was washed by three women; two people were scrubbing while one was pouring the water. Because she was a Christian no zakat was remove from the water. |
| 4 | Ba11 | 48 | Societal head | Farmer | How many children did she have? | The woman who died was having one son, but that son died and the remaining children were her sister’s children. |
| 4 | Ba12 | 48 | Societal head | Farmer | How many women took her to the church? | After the washing she was also taken by six women to the parlor for final preparation. |
| 4 | Ba13 | 48 | Societal head | Farmer | How many people dug the grave and with how many items of equipment? | The grave itself was dug by four youths using one pickaxe and two shovels in rotation. |
| 4 | Ba14 | 48 | Societal head | Farmer | How many people took her to the cemetery? | She was later taken to the grave by 4 young men, and followed by a group of people including her family members. |
| 4 | Ba15 | 48 | Societal head | Farmer | What happened in the cemetery? | When we reached the cemetery, we all stand and watch while the men were busy cutting the sticks and leaves. |
| 4 | Ba16 | 48 | Societal head | Farmer | What happened at the grave side? | Later three men enter the grave and three other youths take the corpse and give it to three who were inside the grave. The corpse was put into the grave facing the East as it is their tradition. After putting the corpse into the grave, the sticks were laid on top of the grave. The leaves were put on top of the stick by different type of people including women. According to them, the tradition permits for women to participate in burial process. After the above process, the hole (grave) was filled with the mud dug, and after filling the grave, two short sticks were placed on the grave, one on the head side and the other on the foot side. |
| 4 | Ba17 | 48 | Societal head | Farmer | What did the women do who stayed at home? | The other women who were at home will fetch two buckets of water for those who went to bury the corpse, to wash their hands and feet before each and every one of them will enter the town/village. |
| 5 | Bc4 | 50 | Elder | Farmer | What did your tradition say with regards those who accompanied the corpse to the grave? | Our tradition said whosoever reaches the town without washing his/her foot especially when he/she has the mud on his/her foot, that will cause another person to die in the same compound of that village. |
| 5 | Bc5 | 50 | Elder | Farmer | What happens in a Muslim home after burial? | After buried, if the person is a Muslim, the family member will soak the rice and beat it in the form of flour and sieve it. They will later put water in it and mold it. The flour will be given by family members. |
| 6 | Bb6 | 48 | Assistant societal head | Farmer | If you were sitting and unexpectedly saw a helicopter, what will you do? | We will run away into the bush. |
| 6 | Bb7 | 48 | Assistant societal head | Farmer | But if you saw one of your village member e.g. the chief, will you run? | No, if he/she gives us the confidence not to run we will wait. |
| 7 | Bc13 | 50 | Elder | Farmer | **If a community rescue center is constructed in this section, what will be your constraints?** | **Lack of good roads, the community area has many tributaries connected to the Taia river and no good boards for crossing.** |

**(C.) YOUTH Village: Bawuya, Kori cheifdom, interviewer: J. Johnny, date: 13/12/14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Card no. | Age | Status | Economic activity | Questions | Responses |
| General discussion answers, no card used | | | | | What are the diseases affecting human in this village? | Fever, headache, cough, diarrhea, cholera, Ebola. |
| What are the diseases affecting goat and chicken in this community? | PPR, Newcastle, diarrhea, skin disease. |
| 1 | Ca1 | 18yrs | Student | Farmer | What are the causes of diarrhea in this village? | Go hungry for days without food. |
| 2 | Cb1 | 32yrs | Youth | Farmer | What are the causes of diarrhea in this village? | Flies |
| 3 | **Cc1** | 26yrs | Youth | Farmer | What are the causes of diarrhea in this village? | Worms can cause diarrhea |
| 4 | Ca2 | 18yrs | Youth |  | What are the symptoms of diarrhea? | Weakness, fever, cold and stomach pain. |
| 5 | Cb2 | 32yrs | Youth | Farmer | What are the symptoms of diarrhea? | Frequent stooling, waterish stool. |
| 6 | Cc2 | 26yrs | Youth | Farmer | How do we prevent diarrhea in our community? | Avoid contact with infected person  Avoid stool  Wash hands regularly |
| 7 | Cd1 | 29 | House wife | Farmer | How do we treat someone with this sickness? | Clean your environment  Drinking water must be free from faeces. |
|  | **Ce1** | 50 | Town crier | Farmer | How do we treat someone with this sickness? | Take the patient to the hospital. |
| 8 | Cf1 | 25 | Women Youth Leader | Farmer | How do we treat someone with this sickness? | Take sick individual to hospital  Treat sick with local herbs like guava leaves, *kolafefe*. |
| 9 | Cb3 | 32 | Youth | farmer | How do we treat someone with this sickness? | Use local herbs like rusty plum leaves and chew with white colanut. |
| 10 | Ce2 | 50 | Town crier | farmer | Has this sickness affected any member of this community? | Yes, my first son, JT. |
| 10 | Ce2 | 50 | Town crier | farmer | How many people have been affected by this disease? | I know of only 4 people: MA (m.), VV (m.), MP (f.) and AK (f.). |
| 11 | Ca3 | 18 | Student | farmer | Who was taking care of the sick? | In case of my mother, I was taking care of her. Usually the father, mother, brothers, and sisters will provide care for the sick. |
| 12 | Cd2 | 29 | House wife | farmer | If sick person does not have immediate family members in this village? | Usually the elderly men in the village will help males and women will help sick females. |
| 12 | Cd3 | 29 | House wife | Farmer | When your son was sick with this disease how was he treated and where? | **Son was treated at home not in hospital because money was not available. He was given local herbs to drink**. |
| 13 | Cf2 | 25 | Women youth leader | Farmer | How do you transport sick people to seek medication outside the village, since there is no hospital in this village? | **Sick people are taken to Forgbo or Taiama by hammock or okada, where hospitals are available.** |
| 14 | Cg1 | 40 | Teacher | Trader | How do you transport sick people to seek medication outside the village, since there is no hospital in this village? | If patient is not seriously sick he/she has to walk the distance with family members to accompany him/her |
| 15 | Ch1 | 38 | Youth | Blacksmith | Has the sickness killed any member of this village? | No, this disease has not killed anybody in this village. |
| 16 | Ci1 | 33 | Youth | Trader | Has the sickness killed any member of this village? | This disease has not killed anybody because we use lots of local herbs to treat it. |
| 17 | Cb4 | 32 | Youth | farmer | What causes the Ebola sickness? | Bush animal (monkey, giant rat, bat mouth fruit) |
| 18 | Ce3 | 50 | Town crier | Farmer | What causes the Ebola sickness? | Monkeys, chimpanzee, body fluid of infected people. |
| 19 | Ca4 | 18 | Student | Farmer | What are the sign and symptoms of this sickness? | Headache, nasal discharge, fever, joint pains, tiredness |
| 20 | Ce4 | 50 | Town crier | Farmer | How do we prevent ourselves from this disease? | Wash hands frequently.  Limit body contact with infected people.  Do not wash dead bodies. |
| 21 | Cb5 | 32 | Youth | Farmer | What is the treatment for this disease when someone is infected? | Separate sick people from other family members.  Take patient to hospital.  Call 117. |
| 22 | **Cc3** | 26 | Youth | Farmer | Has this sickness affected anybody in this community? | Yes, **(survivor)**  MY (m.). |
| 23 | Ca5 | 18 | Student | Farmer | How many people were affected in this village? | I know of only 4 people. |
| 24 | Cj1 | 23 | Youth | Tailor | What are the names of those affected by this disease? | 1. EY (m.) 2. MY (m.) 3. MY (f.) 4. FY (f.). |
| 25 | Ck1 | 28 | Youth | Mason | How many died and how many survived it? | 2 died  2 survived. |
| 25 | Ck1 | 28 | Youth | Mason | How many died and how many survived it? | MY (m.) survived  FY (m.) survived  EY (m.) died  MY (f.) died |
| 26 | **Cc4** | 26 | Youth | Farmer | How did you come in contact with this disease? | **My father (EY) was sick, I was taking care of him. It was after his death that I fell sick.** |
| 26 | **Cc5** | 26 | Youth | Farmer | How your father did contacted this sickness? | A relation of his was sick in Fogbo village, whom he used to visit and care for. He later died. After a week or two my father became ill. |
| 26 | **Cc6** | 26 | Youth | Farmer | When you were sick in the village, who was providing care for you? | While I was in the village, sick, my brother's wife NY was caring for me. |
| 26 | **Cc7** | 26 | Youth | Farmer | Was NY affected by this sickness? | No, she was not affected and she is still in this village. |
| 27 | Cf3 | 25 | Youth | Farmer | Where did they bury those who died of Ebola, and how? | EY (m.) was buried in this village by the burial team in a separate place, different from the village cemetery. |
| 27 | Cf3 | 25 | Youth | Farmer |  | MY (f.) died on her way to Moyamba, so she was buried in Moyamba by the burial team. |
| 28 | Cj2 | 23 | Youth | Tailor | How did you handle dead individuals in this community before the advent of Ebola? | When a man/woman dies, the eyes and mouth of the dead are closed by the first child; if first child is absent then the oldest |
| 28 | Cj3 | 23 | Youth | Tailor | How did you handle dead individuals in this community before the advent of Ebola? | Family member is permitted to do it;  **chief is then informed about the death of the individual, chief then gives permission for the body to be prepared for burial.** |
| 29 | Ck2 | 28 | Youth | Mason | What happens to the body after the chief has been informed? | Body is then transferred from the bed to the mat in the room by 4-6 people, prayers are said and body is taken outside for washing. |
| 29 | Ck3 | 28 | Youth | Mason | What happens to the body after the chief has been informed? | Before washing prayers are offered for both christian and muslim. After prayers, elders in the mosque are the ones who will do the washing.  . |
| 30 | Cg2 | 40 | Teacher | Trader | How is dead washed? | Hot water is used to wash dead according to the islamic regulations. Hands and feet are washed first before washing other parts of the body. |
| 31 | Ch2 | 38 | Youth | Blacksmith | What happens after the dead is washed? | -. This is according to islamic regulation  -Body is then taken inside for dressing  -Body is wrapped with white satin for burial. |
| 31 | Ch3 | 38 | Youth | Blacksmith | What happens after the dead is washed? | Body is taken to the mosque for prayers. If christian, cloth is usually a jacket then dead is place in a coffin and taken to church for prayers |
| 32 | Cl2 | 33 | Youth | Trader | How many people carry the dead from church/mosque to the grave? | Grave is prepared by by 4-5 people usually young men  -After prayers, body is carried to the grave by 4-6 very close family members.. |
| 33 | Ce5 | 50 | Town Crier | Farmer | What is the role of the children in the burial of father and mother? | At the grave side, the youngest child removes the cloth that was used to cover the dead mother/father to the stream, he/she [child] is washed. |
| 33 | Ce6 | 50 | Town Crier | Farmer | What is the role of the children in the burial of father and mother? | Child is washed including the cloth; child then walks home and the cloth is dried. The reason why the last child is washed with the cloth is to prevent the dead from visiting the child after burial and protect the child from death |
| 34 | Cf4 | 25 | Women youth leader | farmer | What happens when body is placed in the grave? | Body is placed in the grave, prayers are said, first earth on the dead is done by husband/wife or oldest child. |
| 35 | Cl3 | 33 | Youth | Trader | What is the instrument used to dig grave, and do those who attend funeral services wash hands and feet before entering into the house? | Instruments used to dig grave and and all those who attended the funeral wash their foot at the river or bucket of water placed at the entrance of the village. |
| 35 | Cl4 | 33 | Youth | Trader | What is the instrument used to dig grave and those who attend funeral service wash hand and feet before entering into the house? | This is done so that the grave soil will not enter into the house which is believed to lead to another dead in that same family or house |
| 36 | Cg3 | 40 | Teacher | Trader | What happens when a society member dies? | Societal members are handled by members of their society. |
| 37 | Ch3 | 38 | Youth | Blacksmith | What ceremony is done to a wife/husband who loses his or her first partner? | **If it is the first time the wife/husband lost a parner, the remaining wife/husband is washed ceremonially with part of the grave soil with water to avert bad luck/misfortune from the remaining partner** |
| 38 | Cc8 | 26 | Youth | Farmer | Are you pleased with the Ebola burial team? | **We are certainly not pleased with the way Ebola team buried our loved ones.** |
| 39 | Cj3 | 23 | Youth | Tailor | What practices of the burial team activities are you not pleased with? | **1. Dead body is not washed**  **2. Dead body is not dressed**  **3. Body is placed in plastic/rice bag.**  **4. Dead is not placed gently into the grave, but pushed to fall into his/her grave.**  **5. Lots of chlorine spraying gives us headache.** |
| 40 | Cb6 | 32 | Youth | Farmer | What do you expect the government to do with regards these burial practices | **1. Handling of the dead body must be done according to the practices of the community.**  **2. We are willing to handle burial if we are trained and supervised and monitored.** |

**VILLAGE RESPONSES TO EBOLA IN RURAL SIERRA LEONE**

**(No. 2: Survey results for Fogbo, Kori chiefdom, Moyamba District)**

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**Introduction**

Sierra Leone had 1000 confirmed Ebola cases by mid-August 2014. At that stage more than 80% of cases were confined to two eastern districts - Kailahun and Kenema. Much of the middle part of the country was free of the disease. But a significant outbreak began in that month, when a Kenema resident, AS, caught the disease from his son, who had been on a visit to Kailahun District. The son was taken to the Ebola holding facility at Kenema hospital, and died. AS tried to escape the same fate. Feeling unwell, he slipped the Kenema quarantine cordon and travelled to a village, Fogbo, in Waima Section, Kori Chiefdom, in the centre of the country. His sister (AY), a noted healer and elder of the of women's secret society (Sande), was married in Fogbo, and AS thought she might have "native" means to cure him. Instead he infected the sister, and they both died. The village people sought advice, but burial teams were slow to arrive. Meanwhile, the woman had been buried with honor, as custom demanded. A good number of the women attending her corpse became infected.

Infection also spread to a small interior village, Bawuya, when an old man from there visited AY in Fogbo to sympathize, and to an important market center on the Freetown road, Moyamba Junction, when a visitor to Fogbo caught the disease at the funeral of AY and sought the help of a local pharmacist PB, in Moyamba Junction. PB died, but his wife is reported to have resisted attempts by burial teams to dispose of the corpse, until members of his "lodge" in Freetown could attend the funeral. A number of people caught Ebola as a result of this second development.

Fogbo and Bawuya (see above) are usefully contrasted. The latter was an outbreak spread by nursing of the sick old man. Infection was mainly confined to his immediate kin group and affines. The Fogbo outbreak was mainly spread by funeral activity. Funeral activity was also the multiplier event in the larger settlement (Moyamba Junction). The data suggest that robust action by health workers and burial teams, imposition of quarantine, and rapid social learning by villagers faced with clear evidence that family nursing and burials spread the disease, seems to have rapidly halted the epidemic in its tracks. None of the three settlements has had further cases since September/October. According to the 42-day criterion they are effectively Ebola free.

**Results**

Data are presented for Fogbo derived from a questionnaire survey, and supported by transcripts from three parallel focus groups held with male and female elders, and younger people (appendix). The sample method was same as that described for Bawuya (popn. c. 100-150), but the sample for Fogbo (popn. 400-600) was increased to n = 30 (15 adult men, 15 adult women). A majority (83%) said their main livelihood activity was rice farming; 24 were citizens (*talisia*) and 6 (3 male, 3 female) were strangers (*hoteisia*). The female strangers were married from local villages. The men came from Taiama, the chiefdom headquarters.

In terms of recent movements outside the village (in the month, from mid-November) none was reported. Fogbo underwent a double (42-day) quarantine period, and this appears to have since become habitual. No announcement has been made about the ending of either Ebola or restrictions, and the need to prevent any recurrence is paramount in local minds, trumping the demands of economic life (see focus group transcripts).

We mapped the social connectivity of children and young people over a longer period. Eleven out of 20 interviewees reported on 18 children (9 male, 9 female) sent to Fogbo for care. Seven came from Kori chiefdom, 6 from Freetown, Bo and Kenema, and 5 from other chiefdoms in Moyamba District, including Moyamba Junction and Gbangbatoke. The incoming children were sent to a grandmother (10), to an uncle (4), to an aunt (3), and to a birth mother (1). Fourteen interviewees reported on the outward mobility of 27 children (including young adults) - 19 for education, 6 for care, and 2 for marriage. Ten had been sent to Freetown, 6 had gone to regional urban or mining centers, and 7 had moved locally (within the chiefdom - four to Taiama).

The section of the questionnaire on health-seeking behavior produced few positive answers, primarily because the questions were focused on constraints associated with external movements. Fogbo has a health center, and it apparently dealt with minor ailments during the quarantine period. As noted, Fogbo villagers accepted the ban on movements outside their village for the period necessary to limit further spread of Ebola.

Decisions to wait before seeking medical help were reported by 17 interviewees, however, and the results vary somewhat from those obtained for Bawuya. Average waiting times, before seeking medical help, would be similar for both children and adults (one 1.1 and 1.0 days), but somewhat longer for older people (2.1 days). Lack of money was offered as a reason to delay in two cases. Once again one person openly voiced the idea that older people are "always sick", so it is impossible to respond to every incident. The somewhat longer hesitation times in Bawuya probably reflect the fact that the village is three hours from help in Taiama, whereas Fogbo has its own medical post.

Information on Ebola was again mainly gleaned from radio, though family, friends and chiefs were also significant sources. Bush meat consumption was single most cited presumed cause, closely followed by contact with a sick person (Table 3).

|  |  |  |  |
| --- | --- | --- | --- |
| **Source of information about Ebola** | **No. interviewees (multiple answers accepted)** | **Presumed causes of Ebola** | **No. interviewees (multiple answers accepted)** |
| Radio | 28 | Bush meat | 15 |
| Community health workers | 7 | Contact with sick person | 14 |
| Family | 7 | Part-eaten fruit | 4 |
| Friends | 7 | Don't know | 3 |
| Chief | 1 | Washing dead bodies | 2 |
| Project | 1 | Social gatherings | 1 |
|  |  | Sex | 1 |
|  |  | Virus | 1 |
| **TOTAL** | **51** |  | **41** |

**Table 3: Sources of information and presumed causes of Ebola in Fogbo (n=30)**

Again, not all Fogbo interviewees had seen actual cases of Ebola. Direct witnesses to the disease comprised 13/30 (43%) of those interviewed. On the other hand, 26 interviewees stated that there had been deaths due to Ebola in Fogbo (four persons said there were no cases, or that they could not tell). When (in the context of this information) people were asked for their own explanations of Ebola (as opposed to those they had learnt or had been told via media) "contact with sick people" now accounted for 18/30 explanations, and "eating bush meat" only accounted for five. Other explanations included sex, travel, and contact with strangers.

The questions the team were asked were again thought provoking. One questioner thought that since villagers had been asked not to eat bush meat they should be provided with a substitute for what is an important dietary resource in isolated, bush communities. Options for schooling also attracted comment. Again, the dynamics of Ebola were a focus of concern ("what brought it about?", "when would it end?", "how can it end?", and "can government eradicate it?"). Finally, the issue of food relief, promised but not delivered, was raised ("three supplies were promised, but only one has been received").

**Discussion and conclusion**

Fogbo and Bawuya represent two different Ebola infection pathways - funerals and care of the sick. In the case of Fogbo, the spread of infection was especially associated with a group of secret society women involved in preparing the body of an elder for burial. The disease was brought to Fogbo by AS. His sister, a society elder, was infected through her attempts to care for him. The next nine names on the list (Table 4) are reported to be the women society elders who took part in washing her corpse. In Bawuya the sickness was brought to the village by an old man who had visited Fogbo to sympathize with the sick society elder. The first six names on the list are all members of the man's immediate family, who contracted the disease while caring for the old man (Table 5). The Bawuya outbreak faded out at this point. The Fogbo outbreak spread to a nearby market centre (Moyamba Junction) when someone infected in Fogbo sought medical help from a dispenser. The funeral of the dispenser, apparently a Freemason, spread the disease further when it was attended by a large number of people, including visitors from Freetown.

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Names** | **Gender** | **Ages** |
| 1 | AS | M | 65 |
| 2 | AY | F | 48 |
| 3 | TB | F | 40 |
| 4 | GE | F | 50 |
| 5 | NM | F | 61 |
| 6 | MK (mother of AY) | F | 72 |
| 7 | AK | F | 45 |
| 8 | AN | F | 47 |
| 9 | BLM | F | 36 |
| 10 | MY | F | 65 |
| 11 | MS | F | 45 |
| 12 | AN | M | 44 |
| 13 | SS Jr | M | 8 |
| 14 | MF | M | 7 months |
| 15 | HK | F | 1312 |
| 16 | SM | F | 10 |
| 17 | TN | M | 52 |
| 18 | MT | F | 2312 |
| 19 | SK | M | 20 |
| 20 | LT | M | 28 |
| 21 | BN | M | 9 |
| 22 | EM | F | 68 |

**Table 4: PEOPLE WHO DIED OF EBOLA IN FOGBO**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Names** | **Gender** | **Ages** |
| 1 died | MY I | F | 53 yrs |
| 2 died | EY | F | 76 yrs |
| 3 died | MY II | F | 41 yrs |
| 4 died | MY IV | F | 96 yrs |
| 5 died | HG | F | 42 yrs |
| 6 died | MY V | M | 35 yrs |
|  |  |  |  |
| 7 died | SY | M | 3 yrs |
| 8 died | MY III | F | 9 yrs |
| 9 died | BY | F | 4 yrs |
|  |  |  |  |
| 1 survivor | BY | M | ? |
| 2 survivor | FB | F | ? |
| 3 survivor | MY | F | ? |

**Table 5: PEOPLE WHO DIED OF (AND RECOVERED FROM) EBOLA IN BAWUYA**

Data for Fogbo reinforce the results from Bawuya in regard to presumed and perceived causes of Ebola. When people report causes in terms of what they had been told, bush meat stood much higher than when they reported causes on the basis of experience. In this second case body contact is seen to be the major factor involved in spread of disease. While the Fogbo questionnaire data show that beliefs concerning bush meat still persist the focus groups showed no evidence that such beliefs are of any consequence. No one in Fogbo stated that they felt protected from Ebola because they abstained from bush meat consumption, for example. People know, by contrast, that the local outbreaks were ended by avoidance of contact with the sick and abstaining from handling corpses, even though they lament about the behavior changes that have been required.

Fig 3: Fogbo village, Kori chiefdom, Moyamba District



**APPENDIX: FOCUS GROUP INTERVIEW RESULTS**

**FOGBO, KORI CHIEFDOM, MOYAMBA DISTRICT (12/12/2014)**

**Paul Richards, Joseph Amara, Alfred Mokuwa, Esther Mokuwa, Roland Suluku, and team,**

**NJALA UNIVERSITY, 30th December 2014**

The focus group sessions for Fogbo employed the methodology described for Bawuya. Three separate sessions were held simultaneously for male and female elders, and younger people. This ensures that the three accounts can be read as independent sources of information. No great inconsistencies were apparent between the separate accounts, but important differences of emphasis were apparent (e.g. detailed information from elder women about corpse washing). Infection pathways for Ebola are well explained. It is worth noting that the decision to place Ebola within the context of other diseases paid especial returns in bringing out the hidden significance of neglected but life-threatening conditions such as hernia, a problem affecting young men heavily engaged in the back-breaking work of subsistence agriculture in particular. Discussions of smallpox (sometimes recorded in translation as chickenpox) and animal epidemic diseases were also especially enlightening. Both involved practices of quarantining the sick (either human or animals). Quarantining is not an alien practice in Mende village life, and has been readily re-adopted as a means of coping with the terrible threat posed by Ebola. But quarantine has livelihood implications, and local perspectives express concern with issues such as food supply and schooling during periods of quarantine. These topics require wider discussion and response, granted the evident success of the externally imposed but locally accepted programme of quarantine restrictions. As with the Bawuya data set, the Fogbo data leave little doubt that communities with real experience of Ebola quickly adopt a realistic understanding of the disease

**MALE, ELDERS - Fogbo\_Kori, December 2015**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Card No.** | **Age** | **Status** | **Economic activity** | **Question** | **Response** |
| 1 | Aa1 | 65 | Elder | Farmer | What are the sickness affecting houses whole in this community? | Chickenpox, Cholera, Malaria, Convulsions, **Ebola**, Diarrhoea and Hernia |
| 1 | Aa1 | 65 | Elder | Farmer | What are the sickness affecting your animals? | Newcastle disease, PPR, diarrhea and skin diseases of goat |
| 1 | Aa1 | 65 | Deputy Chief | Farmer | What are the causes of cholera? | Flies and humans, through careless dropping of waste |
| 2 | Ab1 | 55 | Headman | Farmer | What are the causes of cholera? | Lack of tap water, drinking from polluted rivers, lack of toilet facilities |
| 2 | Ab2 | 55 | Head man | Farmer | What are the signs and symptoms of cholera? | Fever, vomiting, weak body, frequent stool, with blood, stomach pain |
| 3 | Ac1 | 40 | Section Speaker | Farmer | How do we prevent ourselves from this disease? | Drinking clean water, eating good food, wash hands frequently, proper disposal of faeces |
| 4 | Ad1 | 35 | pastor | Farmer | What kind of treatment do we normally take for this sickness? | Good sleeping place, clean environment, avoid drinking polluted water, |
| 5 | Ac2 | 40 | Section Speaker | Farmer | What kind of treatment do we normally take for this sickness? | Use of local herbs and roots like guava leaves, chew with kola nuts, take sick to hospital. |
| 6 | Aa3 | 65 | Vice Chief | Farmer | What kind of treatment do we normally take for this sickness? | Use of local herbs like, mashing the last part of the banana fruit mixed with salt, and drink |
| 7 | Ae1 | 68 | Chief | Farmer | What kind of treatment do we normally take for this sickness? | Use *malumbo* leaf mixed with water and drink |
| 8 | Af1 | 70 | Chief | Farmer | What kind of treatment do we normally take for this sickness? | Eating a mixture of ripe banana and orange |
| 8 | Af2 | 70 | Chief | Farmer | Did this sickness affect anybody in this community? | Yes, it really affected members of this community |
| 8 | AF3 | 70 | Chief | Farmer | How many people were affected? | Can't be exact, but over 10 |
| 9 | Ag1 | 52 | Member | Fisherman | How many people died or survived this sickness? | We know many people survived, but 3 people died of the disease. |
| 10 | Ac3 | 40 | Section Speaker | Farmer | Can you name the people that died? | MS (m.), MUJ (f.) and MJ (f.) |
| 11 | Ac4 | 40 | Section Speaker | Farmer | Did they receive treatment from hospital when they were sick? | MS and MUJ did not receive hospital treatment; by then there was no hospital in the community. |
| 11 | Ac4 | 40 | Section speaker | Farmer | Did they receive treatment from hospital when they were sick? | MJ (f.) was taken to the hospital but died 3 days later |
| 12 | Ab3 | 55 | Head man | Farmer | Who provided health care when MS was sick? | He was cared for by his wives MJ and DJ. |
| 13 | Ah1 | 45 | Elder | Trader | Who cares for the elderly man when wife and children are not around? | Extended family members in the village. |
| 14 | Ag2 | 52 | Elder | Fisher man | When the sickness affected this village, where they separated from their family members? | In this community, sick people stay with their family members for proper care. |
| 15 | Al5 | 40 | Section Speaker | Farmer | What were your normal burial practices in this village before the coming of Ebola? | Normally when a woman dies, women attend to her body before burial, the same is true for men [*men attend to the body*] |
| 15 | Ac5 | 40 | Section Speaker | Farmer | What were your normal burial practices in this village before the coming of Ebola? | Death is reported to the chief of the village after members have finished initial crying. The chief enquires whether the dead has family members |
| 15 | Ac5 | 40 | Section Speaker | Farmer | What were your normal burial practices in this village before the coming of Ebola? | Chief then gives permission for the dead to be buried |
| 16 | Ah2 | 45 | Elder | Trader | What will happen if dead person has no family members in the village? | The body becomes the property of the chief; he then appoint elders to attend to the body for burial |
| 16 | Ah3 | 45 | Elder | Trader | How is the body prepared for burial after death? | The dead body is transferred from the bed to the mat in the room after a kola [*gift*] of Le 1000.00 is given to the husband or wife as a consent to allow those washing the body to set eyes on the nakedness of their partners. |
| 16 | Ah3 | 45 | Elder | Trader | How many people lift the dead from the bed to the mat? | 4-6 people |
| 17 | Ag3 | 52 | Elder | Fisherman | How is the dead washed for burial? | The dead is taken from the mat to the backyard for washing. Head is positioned towards the rising of the sun and foot towards the setting of the sun. This is because they believe the spirit of the dead travels to eternity in the direction of the sun. If positioned wrongly, the spirit remains on earth inflicting pains on family members |
| 17 | Ag3 | 52 | Elder | Fisher man | How is the dead washed for burial? | In washing a container or bucket is turned upside down where the feet of the dead was. |
| 18 | Ad2 | 35 | Pastor | Farmer | Why is the bucket turned upside down where the foot of the dead was? | The soil from that position is collected and mixed with some herb (leaves). This mixture is rubbed all over the body of the wife or husband before burial. He or she sleeps with it until the next day when he or she will be washed ceremonially. This is done to separate the living from the dead so that the dead will have no power to inflict pain or ill-luck on the remaining members of the family |
| 19 | Ad3 | 35 | Pastor | Farmer | What happens after this process? | The dead is taken to church or mosque by 4-5 of his children or close family members. Sorrowful songs are rendered during this part. |
| 20 | Ae2 | 68 | Chief | Farmer | What happens to the body from the church or Mosque? | After prayer, the body is carried to the burial site by 4 to 6 members of the village, while others will be singing songs at the grave side. |
| 20 | Ae2 | 68 | Chief | Farmer | What happen to the body from the church or Mosque? | Dead is placed in the grave and prayer if offered, the pastor or imam throws the first soil on the body in the grave and the second soil is thrown by a family member |
| 20 | Ae3 | 68 | Chief | Farmer | What is expected of the children of the dead at the graveside? | In this case it is expected of the last child, that one of the best clothes of the dead is taken to the graveside by a family member (sister or brother) during burial. Part of the soil from the grave is placed on the cloth and placed on the head of the last child. The child then takes this clothes and run with it to the river or waterside crying. Both the cloth and child are washed in the water. The soil is then thrown into the river indicating the end of a life, as the soil is carried away by the river. The child takes the cloth home and dries it. The cloth belong to the child and she or he can use it for any purpose they desire’s |
| 21 | Ab4 | 55 | Head man | Farmer | What happen to the dead body of a societal member? | Dead body of society member belongs to the society. They process the body of the dead in their own way. Family member of the deceased will have to pay some money before the body is given to them for burial. If they want to take the body to a church or mosque they should also pay a second fine. |
| 21 | Ab5 | 55 | Head man | Farmer | How will you handle the dead body of a chief when they die? | Chief's dead body is treated with respect. Community people handle the body in the same manner as for individuals. |
| 22 | Aii | 56 | Chief | Farmer | What causes Ebola? | Dirt and contact with dead bodies. |
| 23 | Aji | 28 | Iman | Farmer | What causes Ebola? | Bush meat (monkey, bats and baboon [*chimpanzee*]) |
| 24 | Al1 | 40 | Elder | Trader | What causes Ebola? | Illiteracy and lack of sanitation |
| 25 | Ai2 | 56 | Chief | Farmer | What are the symptoms of Ebola? | Fever, headache, running nose, Blood from ear |
| 26 | Ac6 | 40 | Section speaker | Farmer | What are the symptoms of Ebola? | Bloody stool, vomiting, body pain, blood from ears and pores |
| 26 | Al2 | 40 | Section speaker | Trader | What are the symptoms of Ebola? | Diarrhoea, rash |
| 26 | Al7 | 40 | Section speaker | Farmer | How can one avoid contracting Ebola? | Avoid body contact with others, wash hands regularly with soap. Avoid sharing sharp objects with others. |
| 27 | Ah4 | 45 | Elder | Trader | How can one avoid contracting Ebola? | Observe medical advice and the law of the land |
| 28 | Ab6 | 55 | Head master | Farmer | What are the treatments for Ebola? | Call 117, or take patient to hospital |
| 29 | Al2 | 28 | Imam | Farmer | Has the sickness affected any persons in the village? | Yes |
| 30 | Ab7 | 55 | Head mater | Farmer | How many people were affected by this sickness in the village? | 2 people  AY (f.), 50 years  NB (f.), 38 years |
| 31 | Ai3 | 58 | Chief | Farmer | Where did you buried those 2 people who died of Ebola? | AY was buried in the village cemetery, while NB was buried at the treatment center in Moyamba. |
| 32 | Ak1 | 48 | Town crier | Trader | Why was AY buried in the village when she died of Ebola? | She was sick and blood samples were collected, but result came late and the Community Health Officer advised us to bury her using chlorine and government gloves |
| 32 | Ak2 | 48 | Town crier | Trader | Why was AY buried in the village when she died of Ebola? | Government [*forbids*] handling dead bodies. By the time the test result arrived, it was positive for Ebola |
| 33 | Aj3 | 28 | Imam | Farmer | How many people wash bodies and how many take it to the grave? | Body was washed by 4 people and 6 people took her to the grave, |
| 34 | Aj4 | 28 | Imam | Farmer | Who was taking care of AY when she fell sick? | She was cared for by her female daughter MY |
| 35 | Ak2 | 48 | Town crier | Trader | Was MY affected by this sickness? | No, she was not affected by Ebola |
| 35 | Ak3 | 48 | Town Carrier | Trader | Who took care of NB? | Her daughter GB was taking care of her sick mother. |
| 36 | Aj5 | 28 | Imam | Farmer | Was GB affected by the sickness? | No |
| 37 | Ad4 | 35 | Pastor | Farmer | What happened in the village when it was reported that AY died of Ebola? | The entire town was quarantined for 21 days |
| 37 | Ad5 | 35 | Pastor | Farmer | What happened during the quarantine period? | During this period, 9 people fell sick and were taking to Moyamba, where they remained and died |
| 37 | Ad8 | 35 | Pastor | Farmer | Can you give names of those sick during quarantine period? | This is sensitive to us as we are still mourning their death, we did not see their bodies and hence [are] not comfortable to call names. |
| 38 | Aa4 | 65 | Vice Chief | Farmer | Are you pleased with the work of government burial teams? | No, we are not pleased with the manner in which the burial team treat our dead relative |
| 38 | Aa5 |  | Vice Chief | Farmer | Which aspect of the burial team's work are you not pleased with? | Death are buried without clothes (clean descent cloth). Family members in most cases do not witness the death of their love once.  No form of religious prayers was offered. Burial teams are all men, burying both men and women |
| 39 | Aj 6 | 28 | Imam | Farmer | Which aspect of the burial team's work are you not pleased with? | Dead bodies are dumped into the grave without care and respect |
| 40 | Ad6 | 35 | Pastor | Farmer | Which aspects of the burial team's work are you not pleased with? | Cultural issues are neglected |
| 41 | Ai 4 | 56 | Chief | Farmer | Which aspects of the burial team's work are you not pleased with? | The grave is not sufficiently covered. |
| 42 | Ak4 | 48 | Town Crier | Trader | Any suggestions you would like to make? | That government trains burial team at chiefdom level, so that they will honour and respect the dead |
| 43 | Al3 | 40 | Elder | Trader | Any suggestions you would like to make? | We are willing to be trained, and equip us to do the work with care. Tribal and regional differences should be taken into account |

**WOMEN, ELDERS, Fogbo, interviewer: Idrissa Sesay, date: 12/12/14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Card no. | Age | Status | Economic activity | Questions | Responses |
| 1 | Ba1 | 75 | Societal Head | Farmer | What serious sicknesses that have affected your community in the past 12 months | Ebola. The first victim was AY who stayed in this village. She contracted the disease here. |
| 2 | Bb1 | 50 | Nurse | Nurse | Where did this sickness come from? | Mr. AS came from Kenema to Fogbo and met with AY, a sister who took care of him. A later tested positive after AS died. |
| 2 | Bb1 | 50 | Nurse | Nurse | How many people died of Ebola in this town? | 22 people died in all. |
| 2 | Bb1 | 50 | Nurse | Nurse | How did you detect that A had Ebola? | Her blood was collected and sent to Kenema for test. The result tested positive, but was sent only after A had died. |
| 2 | Bb1 | 50 | Nurse | Nurse | What did the people do with her dead body after she died? | The body was sprayed with chlorine by the nurse, and she gave gloves to the towns people who volunteered to wash her |
| 3 | Bc1 | 76 | Elder | Farmer | How many people washed her? | She was a societal member, so I don’t know how many people washed her. All those who buried her are still in the town |
| 3 | Bc1 | 76 | Elder | Farmer | How many people took her body for washing? | She was a societal member. Not everyone was allowed to enter where she was washed; only members of her society. |
| 4 | Bd1 | 48 | Elder | Farmer | Apart from Ebola, which other disease affects you in this community? | Dysentery |
| 4 | Bd1 | 48 | Elder | Farmer | Signs of dysentery? | Passing blood in faeces and stomach pain. |
| 4 | Bd1 | 48 | Elder | Farmer | How do people get dysentery? | From waist pain, stomach upset, feeling [*they need*] to use the toilet and their stomach. |
| 4 | Bd1 | 48 | Elder | Farmer | What can you do to stop dysentery? | Drink clean water, eat good food and use properly toilets in town. |
| 4 | Bd1 | 48 | Elder | Farmer | Where can you bury person who died of Ebola? | I don’t really know how she was buried because she was buried by men |
| 5 | Be1 | 59 | Elder | Trader | Where did your understanding of Ebola come from? | Radio |
| 5 | Be1 | 59 | Elder | Trader | How does Ebola spread? | Through touching, eating wild animals like bats, monkeys |
| 5 | Be1 | 59 | Elder | Trader | Signs of Ebola? | Frequent bleeding, frequent vomiting, fever, frequent headache, etc. |
| 6 | Ba2 | 75 | Societal head | farmer | What can you do to prevent yourself from [*catching*] Ebola? | Continuous washing of hands, listening to medical laws. |
| 7 | Ba2 | 75 | Societal head | farmer | What can you do to prevent yourself from [*catching*] Ebola? | Stop touching the body of sick persons, stop gatherings, sick person must be reported to the nearest health center, stay away from (sex) with a person who has survived from Ebola until after three months. |
| 8 | Bc2 | 76 | Elder | Farmer | Which other sicknesses (not Ebola) have killed a person in this town? | Elephantiasis; AK (f.) was the one who died of elephantiasis. She was 60 years old and died in this village. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 8 | Bc2 | 76 | Elder | Farmer | Signs and Symptoms | Swelling of foot and pain in bones. The skin became rough, frequent headache and fever. |
| 8 | Bc2 | 76 | Elder | Farmer | When she was sick, who was taking care of her? | She was taken care of by her sister. |
| 8 | Bc2 | 76 | Elder | Farmer | Who was washing her when she was sick? | Her sister assisted her |
| 8 | Bc2 | 76 | Elder | Farmer | What happened [about her care] two days before death? | She was assisted by her sister |
| 9 | Bd2 | 48 | Elder | Farmer | When she died, what happened? | Each and every morning she prayed, but it came a time when her sister also goes for prayers, she came and met her dead and shouted "my sister is dead". |
| 9 | Bd2 | 48 | Elder | Farmer | Who closed her eyes and mouth immediately after death? | Her mouth was not open during her death. |
| 9 | Bd2 | 48 | Elder | Farmer | How many people took her from the room to the toilet [*washing place*]? | She was taken by four women, because she’s a woman. |
| 9 | Bd2 | 48 | Elder | Farmer | What is her religion? | She was a Christian. |
|  |  |  |  |  | What did you do before washing her? | Two people removed her cloth from her |
| 9 | Bd2 | 48 | Elder | Farmer | How many people washed her? | Two people washed her; while one was pouring the water, the other was scrubbing her. |
| 9 | Bd2 | 48 | Elder | Farmer | Did they dress her after washing? | Yes, she was dressed there by the woman who washed her. |
| 9 | Bd2 | 48 | Elder | Farmer | How many people moved her from the above place to the parlor? | Four women took her to the parlor. |
| 9 | Bd2 | 48 | Elder | Farmer | How many children did she have she? | She has four children, three boys and a girl. |
| 9 | Bd2 | 48 | Elder | Farmer | How many people took her to the church for her final prayer? | Four young men took her to the church for her final prayers. |
| 9 | Bd2 | 48 | Elder | Farmer | How many people dug the grave? | The grave was dug by male youths but I do not know the exact amount because I was not there. |
| 9 | Bd2 | 48 | Elder | Farmer | How was she buried? | She was not buried with casket. |
| 9 | Bd2 | 48 | Elder | Farmer | How many people took the mat from the church to the grave? | Four people (young men) |
| 9 | Bd2 | 48 | Elder | Farmer | How many people put her in the grave? | Two people, including the pastor. |
| 9 | Bd2 | 48 | Elder | Farmer | Was she cover with any cloth (*lappa*)? | Yes, she was covered with a *lappa* [*Krio: wrapper, from Dutch "lappen"*] |
| 9 | Bd2 | 48 | Elder | Farmer | What do you do with the lapper covering her? | It was given to the last child; [the cloth] is drawn from the grave mud, and is placed on the head of the last born of the family, and they will run with to the waterside or stream. |
| 9 | Bd2 | 48 | Elder | Farmer | After drawing the lapper, what would you do? | The last child after drawing the cloth from the corpse, will go to the stream without turning back and the cloth will be placed in the stream. One person accompanying him / her and the soak cloth will be taking to the house and dried under sun.. |
| 10 | Ba3 | 75 | Societal head | Farmer | After you knew it was Ebola, what happened? | The entire village was quarantined for 21 days. The town was full with soldiers and police. |
| 10 | Ba3 | 75 | Societal head | Farmer | After the town was quarantined, was there any help from the government? | Yes, WFP provided rice, oil, beans and salt, during our first quarantine without security. |
| 10 | Ba3 | 75 | Societal head | Farmer | How many times was the village quarantined? | The village was quarantined two times |
| 10 | Ba3 | 75 | Societal head | Farmer | If the government wanted to build a rescue center in this village, will there be any difficulty? | We will be very happy but the road network is very poor and there is no good boat for fast transporting of people [*Fogbo has road access by a bush road from the highway to the Taia river, but the village is over the river*] |
| 10 | Be2 | 59 | Elder | Trader | If any helicopter comes without notice, what would you do? | We will run and enter the bush with our children |
| 10 | Be2 | 59 | Elder | Trader | If it comes with a member of the village, will you run? | We will run and ask one of our village member with guts to speak with him |
| 10 | Be2 | 59 | Elder | Trader | How many people died of Ebola here? | 9 people have died of Ebola in this village |
| 10 | Be2 | 59 | Elder | Trader | How many males died of Ebola here? | 2 adult men and a boy aged 9 years. |
| 10 | Be2 | 59 | Elder | Trader | How many women died of Ebola? | 6 women died |
| 10 | Be2 | 59 | Elder | Trader | How did you bury them? | They were buried by the burial team |
| 11 | Bf1 | 98 | Societal head. | T.B.A | How did you want to bury them? | We really wanted to bury our members as we used to do it |

**YOUNG PEOPLE - FOGBO\_KORI, 12/12/2014**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Card no. | Age | Status | Economic activity | Questions | Responses |
| 1 | Ca1 | 37 | Assistant  Youth leader | Rice and cassava farmer | PPR signs: | Mucus excretion, diarrhoea, hair loss. In 2013 over 50 goats died; all the goats died and that stopped the spread |
| 2 | Ca2 | 32 | Youth Leader | Rice farmer mixed with and cassava | Newcastle disease (*gbegbe*) signs | Infection is throughout the year, unlike previous years, when it was seasonal. |
| 3 | Cb1 | 54 | Youth | Cassava farmer, processor and marketer. | Measles signs | Redness of the arms, very high fever, sleeping continuously, swollen skin, rotten of the mouth. |
| 3 | Cb2 | 54 | Youth | Farmer | Treatment | While in the stomach (early), native herbs (leaves of pigeon peas), rubbing ashes, and leaves of lime ground with clay and rubbed. Eyes get hurts (blindness) through continuous sleeping. Dry season (colonial days), no death was experienced. |
| 4 | Cc1 | 24 | Youth | farmer | Control | Isolation in daytime - in an old farm house. Now controlled by vaccination. |
| 5 | Cd1 | 36 | Youth | Petit Trader | Dysentery: signs | Starts with bowel movement. Frequent stool followed by blood. Griping of the stomach. |
| 5 | Cd1 | 36 | Youth | Petty Trader farmer | Causes: | Eating sweets, etc. |
| 5 | Cd1 | 36 | Youth | Petty Trader farmer | Prevention | Cleanliness of food, water and the environment. |
| 5 | Ce1- | 45 | Youth | Petty Trader, Rice farmer | Hernia: signs | Noise of the stomach, vomiting, constipation, stomach twists down and then comes pain, cold, swelling of the stomach. |
| 5 | Cf1 | 23 | Youth | Rice farmer mixed | Hernia | Fall down and go unconscious |
| 6 | Cg1 | 30 | Volunteer well body | Monthly stipend and gardener | Treatment | Wild yam roots boiled and water drunk, traditionally. Controlled by surgery. |
| 6 | Cg1 | 30 | Volunteer well body | Monthly stipend and gardener | Prevention | Avoid cold water, stop taking heavy loads |
| 7 | Ch1 | 48 | Youth | Mixed rice farmer | Ebola: signs | Diarrhoea, vomiting, swelling of head, redness of eyes, very high fever. |
| 7 | Ch2 | 48 | Youth | Mixed rice farmer | Ebola: causes | Eating meat of monkey, bat, baboon, touching dead bodies, the sick, persons with signs of Ebola, burying victims of Ebola. |
| 8 | Cl2 | 21 | Youth | Carpenter trainee | Ebola: spread | Don't touch the sick, the dead, eating the fruit remains of birds, eating food dropped on the floor, eating the flesh of dead animals, the sick. And washing of dead bodies. |
| 9 | CJ | 29 | Youth | Mixed rice farmer | Ebola: protection | Don’t touch others, wash dead bodies, disallow visitors from staying, and wash hands with soap and water. |
| 10 | Cg2 | 30 | Volunteer | Monthly stipend | Any death from Ebola here? | Yes 9 people died, took the blood of one for testing and confirmed positive after a week. Instructed not to go near the house. Don’t take used gloves from the hospital. Use gloves to work for washing and burial of dead person in town, hence need for the people to bury their relatives. All 8 people who touched and washed the corpse died. |
| 10 | Cg2 | 30 | Volunteer | Monthly stipend and gardener | Who buried the dead at Moyamba Junction? | The burial team from Moyamba buried the deceased |
| 10 | Cg2 | 30 | Volunteer | Monthly stipend and gardener | How did the first person become infected? | We really can't tell |
| 11 | Cb2 | 54 | Youth | Cassava processor and Marketer | How was the dead buried? | The burial ceremony did not follow the Muslim procedures, such as washing; no gathering, and guests not invited |
| 11 | Cb2 | 54 | Youth | Cassava processor and marketer | What are the other ways burial is practiced in this town? | Family members will gather, decisions are taken, and report is made to chief. Chief approves burial. The body is washed by Muslims or Christians. The body is dressed and the people cry. The body washing is done by a Christian or Muslim, and sometimes family members. People dig the grave and Muslims conduct burial on Muslims whilst Christians do the same |
| 11 | Cb2 | 54 | Youth | Cassava processor and Marketer | How do the Muslims bury? | They pray on the corpse and take the body to the grave site. The grave is overlaid with sticks and grass placed on top of the stick. Soil is added and the people will offer the final prayer |
| 12 | Cl1 | 44 | Youth | Mixed rice farming | Who cares for the sick? | The husband is cared for by his wife, and the wife is cared for by her husband. The unmarried man and woman are cared for by their parents |
| 12 | Cl1 | 44 | Youth | Mixed rice farming | What happens when the wife/husband dies? | When the young wife or husband dies, the parents will support; the parents will support the burial on behalf of their daughter. |
| 13 | Ce2 | 45 | Youth | Petty Trader Rice farmer | What happens if sickness cannot be cured here? | The Nurse will refer the case to Moyamba, Kowama or Taiama. |
|  |  |  |  |  | How will you transport the sick? | By hammock, vehicle or okada |
|  |  |  |  |  | Who will take the decision to travel with the sick? | Parents or relatives of the sick |
|  |  |  |  |  | What if a proposal for a clinic is made? | We will appreciate it 100% and with some remuneration we will offer our services |
|  |  |  |  |  | If helicopter lands unannounced will you run? | Yes, because fear will grip us and we will run into the bush |

**VILLAGE RESPONSES TO EBOLA IN RURAL SIERRA LEONE**

**(No. 3: Survey results for Moyamba Junction, Fakuniya chiefdom, Moyamba District)**

Paul Richards, Esther Mokuwa, Roland Suluku

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**Introduction**

Moyamba Junction is a trading settlement where the road from Moyamba and the rutile mining area meets the Freetown-Kenema highway (Fig. 4). It is a stopping point for many vehicles, and in normal times has a busy produce market. Population is about 700-800. Ebola reached Moyamba Junction in early September, from the outbreak in Fogbo, an interior village some eight miles to the east. Estimates of numbers infected vary, around a range of 10-20. Road access is good, and health workers and ambulances arrived quickly. The settlement was then quarantined, and the market was closed. By October further transmission had ceased.

**Results**

Thirty adults were sampled (16 females, 14 males), including 13 strangers (3 from Guinea, three from towns elsewhere in Sierra Leone, and the remainder from villages in Fakuniya and Kori chiefdoms). Sixteen were traders, three practiced a craft, and seven were full-time rice farmers. A total of ten full-time and part-time rice farmers had planted an average of 2.4 acres of rice each.

Three persons had traveled out of Moyamba Junction during the previous one month - one to villages in Fakuniya chiefdom on family business, and two on business to other towns (in one case to Freetown, and in the other to Bo, Moyamba and Njala).

Thirteen interviewees reported receiving 25 children (14 teenagers) from outside Moyamba Junction, including eight from other parts of Fakuniya chiefdom, four from neighbouring chiefdoms, and six from more distant locations, including Freetown, Lunsar and Kailahun.

Seventeen persons reported 40 young people (10 children, 19 teenagers and 11 older than 20) sent out from Moyamba Junction to a range of places (Freetown 14, Waterloo 9, Kori chiefdom 5, Moyamba 4, Njala 2, others 6) mainly for purposes of education (32) and care (4).

Five cases of sickness in the previous three months were reported. Two required external treatment. One was a case of Ebola, treated at Bandajuma (Bo). The other was a serious bone problem, treated in a village two hours distant (travel costs Le 15,000) by a local specialist.

Persons interviewed also reported helping eight people (four adults, three younger people, and one old person, in cases of serious sickness. In all but one cases the person helped was a close relative. The exception was a case of Ebola, where the carer described the Ebola victim as her "best friend".

Four interviewees mentioned conditions where they had been too sick to move - blood pressure, malaria, jaundice and a fall from a palm tree (a recurrent hazard for young men). Eight people cited cases in which a family member had been too sick to travel for medical help (these included cases of typhoid, cancer, stomach pains, kidney disease and Ebola).

Seventeen interviewees differentiated between children adults and old people in terms of the waiting interval before deciding to seek medical help. Twelve interviewees would wait for between one and four days before taking a child to hospital, though four would take a child almost immediately it became sick.

Waiting times were almost the same for adults, though it was several times commented that children cannot express the urgency of their need, while adult sufferers can. The need to have money to move a patient was mentioned as a factor in two cases.

With older people there was a modal split - five out of seventeen people thought there should be no delay at all, whereas the balance would wait anything between one and five days before taking a decision to seek help. Those favoring urgent action noted that older people were weak and could not help themselves.

When asked about access to information on Ebola 30 interviewees supplied 58 courses. Again, radio was the single commonest source (28 cases), followed by community health workers (11). Friends (10) were a more important source than family (6). Five persons claimed to have learnt about Ebola by seeing cases in transit. Chiefs were mentioned in three instances. Finally, one person cited reading a newspaper, a not uncommon sight in this main-road settlement.

Causes (when asked in the context of media sources of information) were said to be touching or washing sick persons or dead bodies (27), eating bush meat (8), interacting with strangers (1), showing sympathy to sufferers (1) and failing to report the disease (1).

The disease could be avoided by not touching sick people or dead bodies (22), not visiting the sick or people in quarantine (11), washing hands (9), avoiding gatherings (8), barring strangers (4), preventing children from playing (2), obeying health workers or bye-laws (2), going to hospital immediately (1), avoiding funerals (1), drinking clean water (1) and avoiding love affairs. No interviewee mentioned bush meat.

The main community actions deemed necessary to reduce threat of the disease were community awareness (10), avoiding and reporting strangers (9), imposition of bye-laws and fines (9), banning of social visits or gatherings (7), reporting all sickness to the chief (3), and providing buckets and soap for hand washing (2). Quarantine, curfew on locals, listening to health workers, not keeping the sick at home, not washing the sick, and community checks for sick people were all mentioned once each.

Despite an outbreak of up to 30 or more cases only 18 people had actually seen an Ebola case (17 in Moyamba Junction and one in Bandajuma-Bo), but 29 people acknowledged that there had been deaths from Ebola in Moyamba Junction. Estimates of deaths varied (4 to 30, with an average from 24 people of 13.8 deaths in total).

Interviewee's own ideas of causes of Ebola (in the context of questions asking about direct experience of the disease) were "touching victims or corpses" (15), "body contact" (5), and "visiting the sick or quarantined houses" (3). "Lying a non-Ebola person in an Ebola patient's bed", "disbelief", "free movement" and "attending funerals" were causes given by one person each. Two people had "no idea", but only one person thought that "eating bush meat" was a relevant cause.

**Discussion and conclusion**

The broad similarity of responses (including focus group responses) should be noted across all three villages, despite differences of size, accessibility and occupational structure. Once Ebola is experienced, the true cause of infection readily becomes apparent, and people are ready to accept the constraints they and health workers deem necessary to remove the disease.

Messaging is still a problem, especially misleading information about bush meat. As in the other two villages examined above, people in Moyamba Junction cite the message about bush meat mainly in connection with questions about sources of information. When the question about causes of Ebola is placed in the context of experience, bush meat drops out of the equation.

The data on "normal" waiting times before deciding to take a sick person for medical treatment form a consistent pattern across all three villages, despite manifest differences of accessibility. Moyamba Junction is the highway between Freetown and Bo, and vehicles pass all the time. Even so, people delay taking patients for medical help for the same number of days as in the off-road settlements Bawuya and Fogbo. These hesitations are basically related not to accessibility but to the idea that many ailments are self-righting, and to the risks and financial demands associated with moving for medical help.

The data on delay intervals are relevant to assessment of the likely impact of community-level Ebola care and holding centres. Few patients (it seems) would present within the first 2-3 days of becoming symptomatic, since normal hesitation would prevail. The disease has by then progressed to its "wet" phase, and people are too sick to move, even when means of movement lie to hand.

To attain their objective of separating out Ebola patients at the earliest stage local holding centers will have to persuade families of the need to move for medical help more promptly than they normally would. Making clear (over radio) that all treatment would be free, and offering treatment options for other major diseases, and not just Ebola, may be necessary to overcome the normal hesitation period apparent in these data.

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**Fig. 4: Moyamba Junction, Fakuniya Chiefdom, Moyamba District**

**APPENDIX: FOCUS GROUP INTERVIEW RESULTS**

**MOYAMBA JUNCTION, FAKUNIYA CHIEFDOM, MOYAMBA DISTRICT (10/12/2014)**

**Paul Richards, Joseph Amara, Alfred Mokuwa, Esther Mokuwa, Roland Suluku, and team,**

**NJALA UNIVERSITY, 30th December 2014**

Moyamba Junction is a trading center, and Ebola-related constraints on mobility are of especial concern in a village in which more than half of the questionnaire sample gave their occupation as "trading". Issues relating to quarantine were raised in some of the focus group sessions, and are bolded in the edited transcript below, along with other passages raising matters not covered in sessions in Bawuya and Fogbo.

**FOCUS GROUPS, MALES, ELDERS: Moyamba Junction, Enumerator:** Francis Baigeh Johnson **Date: 10/12/2014**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Age | Status | Occupation | Questions | Responses, Elderly men |
| Aa1 | 66 | Zonal head | Plumber | 1. What serious sicknesses have affected your community in the past 12 month  2. What are the signs and symptoms of Ebola?  3. Has anybody been infected with Ebola?  4. How many were infected and died?  5.What were their ages? | 1. Ebola  2. The sign are frequent stool, vomiting, bleeding, weak  3. Yes  4. 9 infected (5 adults and one child, dead and 3 survivors)   1. ID (m.) – 40yrs 2. Y (f.) – 35yrs 3. MM (f.) – 63yrs 4. S (m.) - 30yrs 5. FS Jr. (m.) – 10yrs |
| Ab1 | 1945 | Family head | Farmer | How can we prevent Ebola? | Do not go to someone's house  Wash your hands always |
| Ac1 | 45 | Divisional head | Farmer | How can we prevent Ebola? | Do not touch the sick person  Do not touch or wash a dead person  Do not bury the dead  Wash your hands with soap after using toilet  Avoid body contact. |
| Ad1 | 1970 | Town speaker | Citizen,  Power saw operator | 1. If somebody dies of Ebola, what will happens to the body?  2. How did Ebola enter the town? | 1. The Ebola team takes the body and buries it in the cemetery not very close to the dwelling houses.  PB got sick and died, his body was tested and proved positive.  2. All those who touched his dead body got infected. A child also was infected and the mother and father contracted the disease, the mother survived, the father died. |
| Ae1 | 65yrs | Tribal authority | Stranger, farmer | **1. Is there any other sickness that has taken lives?**  **2. How do people get hernia?**  **3. How can someone tell that they have hernia?**  **4. Has there been death of hernia here?** | **1. Hernia**  **2. By doing hard work. Straining to lift up load or object. Forcing to get to where you want to be or by climbing, etc.**  **3. Begins by having swallowed the scrotum, stomach-ache**  **4. Yes, but not actually diagnosed.** |
| Af1 | 63 | Zonal head | Citizen, Farmer | Is there any other sickness resulting in death in which you took part in the burial? | Yes, chronic stomach pain |
|  |  |  |  | 1. What was his name and age?  2. What did you do with his corpse until his burial? | 1. JM (m.) – 70 yrs  2. His brothers’ sons suspected his death and pronounce his death to his friends and family. His body was reported to the chief whilst still on the bed and the chief allowed his body to be taken. Three people took his body from the bed to wash and all 3 washed his body. Five people dressed the body with white cloth and laid his body on a mat. Five people came back with the body into the house. Four people dug the grave, youth offered prayer. Due to the distance to the cemetery, 4 people started taking the corpse to the cemetery in a casket (*magudia*) 2 others help at the back |
|  |  |  |  | 1. How did the Muslim burial process take place? | 1. 2 people step into the grave. Three people handed the body to the two inside the grave as a support. The same two people laid the dead on his side and laid sticks slanted, placed leaves and covered with mud. Before going for burial, a bucket of water will be placed at the burial/funeral house. All who go for the burial, place or drops in a stone in the bucket of water, and the stones will be counted; that will tell whether the dead is going to heaven and/or means you were a prayerful person |
|  |  |  |  | How many shovels and pickaxe were used and by how many people? | - 2 shovels and 2 pickaxe  - 4 people used them |
| Ac2 | 45 | Divisional head | Citizen, Farmer | Is there any other comment about this Ebola? | **Yes, we are no longer working, and people are not doing things to keep life moving. No business, and we last received supply on the 3rd and 21st [October]. We have not received for the past 3 months.** |
| Ad2 | 44 | Town speaker | Citizen, Power saw operator | Have you ever had supply or help from any organization? | **During the 21 days [quarantine] we had supply from World Food Program; since then no other help. We are very poor. Red Cross also registered us but has not given supply since.** |
| Ad3 | 44 | Town speaker | Citizen, Power saw operator | If a community rescue centre is constructed what are the constraints? | Increase of sick people moving to the centre. |

**WOMEN, ELDERS: Moyamba Junction, enumerator: Moiforay/Samawoh DATE: 10/12/2014**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NO. | AGE | OCCUPATION | QUESTION | RESPONSES, ELDERLY WOMEN |
| Ba1 | 50 | Farmer (groundnut, rice), Muslim women's leader | **1. What diseases affected you most in the last 12 months?**  **2. How many people died?** | **1. Ebola**  **2. More than 20 people were infected and up to 20 people died.** |
| Bb1 | 50+ | Gardening, swamp and upland rice church women leader | What are the signs and symptoms of Ebola? | Fever, headache, red eyes, vomiting, chronic dysentery followed by weakness, hopelessness and death |
| Bc1 | 60+ | Trading, and Chairlady of Mosque | How many people died in this town? | **In one family 14 people**, and 11 other people died also. I can’t tell the exact figure. |
| Bd1 | 50 | Gardener, and Sectional Leader | 1. How did the disease spread  2. How do we stop the spread? | 1. By attending funerals, which brings many people together, thereby spreading the disease and killing many people  2. By staying at home, avoiding contact, no shaking of hands; frequent washing of hands; stopping walking around |
| Bb2 |  |  | **1. What happens when someone dies of Ebola?**  **2. Are you happy with the way your people were buried?** | **1. Call burial team 117. No Ebola patient died in this town, they all died in Moyamba, Kenema or Bandajuma [Bo].**  **2. No, we are completely dissatisfied; no washing, they put them in plastic bags; no Christian or Muslim ceremonies performed.** |
| Bc2 |  |  | If a person dies without Ebola, what do you do? | In Islam, women wash the body.  If the body is light, only women will carry it, wash and put on the first dress, and wear the *kasanka* on top and spray the body with perfume when taking it to the grave. |
| Bb3 |  |  | Who carries the corpse to the gravesite? | Four men, 2 in front and 2 at the back. If it’s a Muslim all the 4 people should be Muslim. |
| Ba2 |  |  | 1.T o whom will they report death?  2. Who prays on the corpse?  3. Who digs the grave?  4. Who goes to the grave site? | 1. In the case of Muslims, it is reported to the Jamaat. The Muslim Jammat men will report to the family after washing the corpse.  2. The imam  3. The gravediggers remain in the grave. The family digs the grave.  4. Everyone will go, but the women will have to stay behind some distance from the burial site, because the Muslim law will not permit that. |
| Be1 | 79 | Rice farm swamp, petty trading section women's leader (Moyamba road) | 1. What happens when your husband dies?  2. How do they wash the woman? | 1. The bereaved wife sits on a mat for 7 days. She is washed after 7 days there; after (*finagole*) stays at home to take of the children.  2. Some soil is taken from the graveside and rubbed on the wife to impose strain [stress?]. Old widows holding a walking stick bowed, leads the bereaved wife round in front of the house. The widow calls her husband at 7 p.m. Sometimes the widow sees a shadow/spirit of the true husband, if the wife did wrong to the husband. The spirit would come to take the stick from the wife, meaning that if the stick is taken, the wife would die. So the old widows would protect the wife, and the sister –in-laws will speak to their brother not to take the woman away, because of the children. This would calm the spirit. Because of the bad ways of the wife, the people would put the wife near a hot fire through out the night. In the morning they would take a chicken, mat, rice, and kola to the riverside as agreed by all. A ceremony is performed where all items are placed on a mat and concoction is rubbed on the chicken. If the chicken eats the rice from the palm, hand and foot and other parts of the widow’s body instantly, it means peace and satisfaction, but if the chicken refuses, it means bad relationship and the need to appease the dead. |
| Be1 |  |  | Who cares for the sick? | The mother is cared for by the daughter  The husband is cared for by his wife and elder son  The man without a wife is cared for by his brother and caretaker  The woman without husband by her sister or caretaker |
| Be3 |  |  | 1. Who cares if the person is a Muslim or a Christian having no money?  2. Where do you have the nearest hospital [health centre]? | 1. The Muslim Jamaat intervenes if a Muslim and the church if a Christian.  2. Moyamba Junction, Bo or Moyamba |
| Be4 |  |  | 1. Chicken pox (*Bumbui*)  2. What are the symptoms of Chicken Pox?  3. How do you prevent spread?  4. How is it treated? | 2. Symptom - hard boils, pus, pain, fever, headache, closed eyes  3. Isolation to a bush in the day time to prevent spread and return to home at night  4. leaves/herbs were used, ground into paste and rubbed, some deaths were experienced, although recovery rate was higher |
| Bd2 |  |  | Tuberculosis:  1. How many deaths have you had from TB?  2. What are the signs of TB?  3. How is TB treated in this community?  4. How does the disease spread?  5. How is it prevented? | 1.One death of a matured young adult male.  2.Signs: coughing endlessly without any mucus coming out as cough, vomiting with blood to the worsening stage.  3. Treatment: Mende medicine (herbs of trees) is eaten periodically. Now the patient is taking to the hospital.  4. Spread: easily spread by sharing cups, stepping on spittle,  5. Prevention: isolation to a room, preventing sharing |
| Bf1 | 50+ | Newcastle disease:  *Sowei* (Bondo head) | 1. What diseases affect chicken?  2. What are the symptoms?  3. How can we prevent and control the disease?  4. How do you treat it? | 1. Newcastle disease (*kpekpe*)  2. Symptoms: standing quiet, diarrhea, death within 2-3 days;  3. Slaughtering before the symptoms become worse; dispose of the intestines in the toilet  4. Treatment: none for now |
| Bf2 |  |  | 1. What disease affects goats?  2. What are the signs and symptoms of PPR?  3. How can it be prevented? | 1. PPR  2. Mucus on the nostrils, sore on the mouth and around the nose, swollen stomach, diarrhea.  3. We don’t know, we only call a vet |

**YOUNG PEOPLE: Moyamba Junction, ENUMERATOR: Jonathan Johnny, DATE: 10/12/2014**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NO. | AGE | OCCUPATIONS | QUESTION | RESPONSES, YOUNG PEOPLE |
| Ca1 | 27 | Teacher | What are common sicknesses in this community? | Malaria, cholera, TB, Ebola |
| Cb1 | 32 | Blacksmith | What are common sicknesses in this community? | Hernia, hypertension, ulcer and diarrhea, |
| Cc1 | 25 | Carpenter | What are the common diseases affecting goats and chickens | Newcastle, skin disease, diarrhea. |
| Cb2 | 32 | Blacksmith | What are the causes of malaria? | Mosquito, stagnant water, scattered rubbish, blocked drainage |
| Cd1 | 25 | Carpenter | What are the causes of malaria? | Female mosquito. |
| Ce1 | 32 | Teacher | What are the signs: symptoms of malaria? | Fever, loss of appetite, fatigue, yellow urine |
| Cf1 | 32 | Trader | What are the signs: symptoms of malaria? | Body pain, joint pain, vomiting, weakness |
| Ca2 | 27 | Teacher | What are the signs: symptoms of malaria? | Headache, fever, joint pains |
| Cg1 | 35 | House wife | What are the usual treatments employed to combat malaria? | Pepper doctor [untrained and unlicensed]; take sick person to the hospital. Local herbs like *gbangbanya*, sweet sop etc. |
| Ch1 | 22 | Cattle herder | How can malaria prevented? | Clean environment, clean drainages, empty all stagnant pools, create public dust bins |
| Cc2 | 25 | Carpenter | How can malaria prevented? | Sleep under treated net; treatment should be free |
| Ch2 | 28 | Cattle herder | How many been sick of malaria? | Yes, very common |
| Ch3 | 28 | Cattle herder | How many been sick of malaria? | Many, can’t give exact figure |
| Ch4 | 28 | Cattle herder | Did any one die of malaria in your community? How many? | Yes,  Many, I can’t give exact figure |
| Cl1 | 24 | Trader | If an adult women is sick who takes care of her? | Husband if married, [or] children, sister/other family members |
| Cl2 | 24 | Trader | If an adult man is sick who will take care? | If married, wife, children |
| Cj1 |  |  | If the women/men are not married who will take care for them. | Their families/brother and sisters/mothers, fathers |
| Cc3 |  |  | What happens if sickness cannot be treated at home? | Sick person is taken to health center in Moyamba town by wife, husband, or children as the case may be |
|  |  |  | If there is no money immediately? | Local herbs will be used until one can afford money to [go to] hospital |
| Ch5 |  |  | What happens if a sick person dies? | Dead body is taken from the bed by 3-5 people (men and women) respectively if dead is a man or women) and placed on a mat. If dead was a prayerful Muslim, elders in the mosque will wash him/her. If dead was not praying, then, no washing of corpse. Washing water of the dead is thrown in a [?], this is done by elderly women or men. Likely 5-6 people will dress the dead |
| Cl1 | 24 | Trader | What happens if a sick person dies? | If dead is Mende with children the last child is normally required to remove the grave-cloth from the dead when corpse is at the grave side. Town elders will ensure that the last child takes the cloth to the stream, where the child and the cloth were washed together and the child take the cloth to the burial home and [it is] dried in the sun. The cloth becomes the property of the last child. At the graveside the dead is placed in the hole by 4-6 people, depending on [body] size; stick and grass are then placed in the hole. Prayers are said for the dead family; earth is placed on the dead [person] by the eldest child in the family |
| Cj2 | 23 | Tailor | **What are the causes of Ebola?** | **Body contact with fluids of infected person,** **eating of bush meat** |
| Ch6 |  |  | What are the causes of Ebola? | Denial by people, washing of dead bodies |
| Cf2 |  |  | **What are the causes of Ebola?** | **Monkeys, bat, baboon, touching body fluids of affected person** |
| Ck1 | 28 | Mason | What are the symptoms of Ebola? | Very high fever, vomiting, diarrhea, joint pain |
| Cf3 |  |  | What are symptoms of Ebola? | Red eyes, skin rash, sore[ness] in mouth and throat, joint pain. |
| Cb2 |  |  | **What are the treatments for Ebola?** | **Isolate sick person in a separate area in the compound from other family members. Report the case to health facility; move sick person to holding center** |
| Cc4 |  |  | **If sick person is at home what do we do?** | **Appoint matured brother/sister who should protect him/her self to attend to the sick individual till they are taken to holding center** |
| Cb4 |  |  | How do we prevent ourselves from [catching] Ebola? | Wash hands frequently with soap  Use alcoholic liquids, chlorine and Dettol |
| Cj4 |  |  | How do we prevent ourselves from [catching] Ebola? | Avoid sharing sharp instruments  - avoid several sexual partners  - avoid body fluids of others  - survivors must avoid sex for 3 months  - avoid quarantine homes  - avoid public gatherings  - avoid washing dead bodies |
| Ca4 |  |  | Did you have people infected with Ebola in this community? | Yes, people were infected |
| Ca4 |  |  | How many people? | About 60 people |
|  |  |  | How many survivors in this community? | Not sure |
| Cf4 |  |  | **How many dead in this community?** | **Approximately 30 people** |
|  |  |  | How and who treated the sick Ebola people in this community? | We called the medical team |
|  |  |  | **How and who treated the sick Ebola people in this community?** | **Houses and homes were isolated with sick people before they were transported to holding centers. The sick were cared for by brothers and sisters around them; Ebola persons were sent to Moyamba treatment center** |
| Cd2 |  |  | **What happened to some who dies of Ebola in this community?** | **House is closed and flagged with red tap. None is allowed to enter the house until the body is buried and the house sanitized for 3 days** |
| Cd3 |  |  | Where did you bury the dead Ebola bodies? | Buried in the village cemetery; 4 people buried in this village are:  - ID (m.)  - MJ (m.)  - AS (f.)  - YT (f.)  Those who died in the holding centers were buried in the holding centers |
| Ca5 |  |  | Are you pleased with the way the burial team handles the burial of community members? | No, we are not pleased with the way they buried our members |
|  |  |  | **What are you not pleased with?** | **- dead are not handled with care and respect**  **- male and female are [both] buried by male burial team; it is wrong**  **- instead of holding the body, sticks are used to push dead bodies on to the stretcher**  **- no time for family members to prepare for funeral** |
|  |  |  | **Are you interested to be part of the burial team?** | **Yes. We are willing to be trained. Let every chiefdom have a burial team** |
|  |  |  | **Do you have any other recommendation?** | **- Government should include societal members [members of Secret Societies] in the burial team**  **- Government should create a counseling team of pastors and imams to handle families who have lost loved ones to Ebola** |

**VILLAGE RESPONSES TO EBOLA IN RURAL SIERRA LEONE**

**(No. 4: Survey results for Njagbema, Kamajei chiefdom, Moyamba District)**

Paul Richards, Esther Mokuwa, Roland Suluku

Njala University

**Introduction**

Njagbema is a medium-sized village (c. 450 people) located just south of the provincial boundary between Southern and Northern Sierra Leone. It is located seventeen miles by bush path from Fala Junction on the Freetown-Bo highway. It lies about 10 miles ENE of Bawuya. As an isolated village without Ebola it offers a comparison for the isolated Ebola-affected communities, Fogbo and Bawuya. Njagbema has not been quarantined (unlike Bawuya and Fogbo) so patterns of mobility and health-seeking behavior are less attentuated. The nearest health centre is in Gondama, five miles to the south east.

**Results**

The questionnaire survey randomly sampled 30 adults in Njalgbema (15 men and 15 women). The main occupation of 29 was rice farming (average farm size 1.7 acres). The sample included 9 strangers (8 female), mainly in-marrying wives from Kamajei and neighbouring chiefdoms (Gbokolenken 3, Kamajei 2, Kori 2).

Four people had made visitis outside Njagbema in the last month (Gbonkolenken, 2 days, on family business, Kamajei, 8 and 4 days, on family business, and for a funeral, and Bo town, 2 days, on family business).

Nine persons reported a total of 11 children (5 girls) sent to be cared for in Njagbema (sources: Kamajei 5, Gbokolenken 2, Kori 1, Kokolova [chiefdom?]1, Bo 1, and Freetown 1). Carers were agnatic kin in 6 cases and cognatic kin in 4 cases).

Eighteen persons had sent a total of 34 children and young people (17 males, 17 females, in three age groups - children 9, teenagers 19, older young people 6) to be cared for elsewhere (Kamajei chiefdom 7, neighbouring chiefdoms 8, Freetown 5, Bo town 4, Kenema 1 and the mining centres Mokanji and Gbagnatoke, one each). Three purposes were stated (education 30, care 3, and marriage 1).

Seven persons (5 female) reported severe recent sicknesses (severe headache 2, vomiting 2, fever 1, stomach pain 1 and fever 1). Six out of seven cases (it will be noted) manifested one or other of the main early symptoms of Ebola, though no case was so diagnosed, and no deaths were reported. Four cases travelled (to Gondama (3), and to Bo (1) and received two treatments - local herbal medicine (2) and oral rehydration therapy (2). The sum spent in the case taken as far as Bo was Le 70,000 (about four times the daily laboring wage). Three patients were accompanied (in two cases by a son and in the third case by a husband).

Three persons reporting helping other sick persons during the period in question (a child with *makuru* helped by the mother, a wife with fever helped by her husband, and an older [person with chest pain helped] by her daughter0. Interviewees reported three incidents in which they had been too sick to move from the village (one case of stomach pain and two cases of miscarriage [but described as "abortion"]). They also reported four cases in which members of their family had been too sick to be moved (a mother with fever, and no money, a brother and a sister with stomach pains, and a son with jaundice - in all cases [financial] "help" was needed to cope).

Asked about whether sick patients would be taken for treatment immediately or whether those helping the person would wait, 13 interviewees said they never waited, but 17 said they would wait for a period (typically 1.5 days for a child and 2.9 days for adults, and 2.9 days for an old person).

Data on waiting periods for six settlements (Bawuya, Fogbo, Moyamba Junction, and three places without Ebola - Njagbema, Mobaiwa and Mogbuama) in neighbouring chiefdoms (Kori, Fakuniya and Kamajei) are compiled for comparative purposes in Table 6.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Wait** | **Never wait** | **n=** |
| **Bawuya** | 18 | 7 | 25 |
| **Fogbo** | 19 | 8 | 27\* |
| **Moyamba Junction** | 16 | 14 | 30 |
| **Njagbema** | 17 | 13 | 30 |
| **Mobaiwa** | 15 | 15 | 30 |
| **Mogbuama** | 17 | 13 | 30 |
| **TOTAL** | 102 (59.3%) | 70 (40.7%) | 172 |

\* 3 missing values

**Table 6: interviewees reporting decisions whether or not to wait before seeking treatment for a sick villager**

In NJagbema, eight persons reported that they would delay for some time, but did not differentiate among children, adults and older people in waiting times (averaging 1.4 days). Nine persons differentiated among cases. For children there was an average delay of 1.4 days. For adults the average delay was 3.9 days. For older people the average delay was 4.0.

Explanations were illuminating. One person thought they would wait one week and another would wait two weeks before seeking help for an adult. Children were generally thought to require more prompt attention since they could not express their feelings. Four people would wait for up to a week before seeking medical help for an older person.

A raw economic reality became readily apparent. When there is no money wait-and-see is a necessity. "Hardship makes for delay", one informant added. Three people thought the old "were always sick", and one summed up the economic realities of illness when noting that "old people are not too useful in the home". One interviewee commented on the burden of competing responsibilities, and several informants noted both that adults can express their needs (by implication, they will speak up when suffering is unbearable) and that they can self-medicate.

These figures (and the underlying poverty that makes medical care so unattainable for so many rural Sierra Leoneans) suggest that early reporting of Ebola patients is unlikely in at least 50 per cent of village households, where "wait-and-see" is a hardship-honed way of life. By the time the "wet" phase of the Ebola virus disease is reached movement of a patient will then be impossible in communities (like these) with little or no road access for an Ebola ambulance.

All 30 persons interviewed had heard of Ebola, and 27 could describe accurate symptoms, though no cases had been experienced. Information on Ebola came mainly from radio (25), community health workers (12), friends (7), family (5) and chiefs (5). Ideas about causes (Table 2), when asked in the context of media, were dominated by body contact (15) and bush meat (14). Washing corpses rose in significance (9) and bush meat dropped, but not to negligible levels (6, if one answer about the dangers of fruit half-eaten by animals is included) when the question was posed in terms of what the individual, personally, believed the cause to be (Table 7).

|  |  |  |  |
| --- | --- | --- | --- |
| **Causes of Ebola, in the context of question "how did you learn about Ebola?"**  (30 people gave 44 causes) | **Responses** | **Causes of Ebola, in the context of question "what do you believe causes Ebola?"** (30 people gave 49 causes) | **Responses** |
| Body contact, sick people | 15 (34.1%) | Body contact, sick people | 26 (53.1%) |
| Eating bush meat (bats, etc.) | 14 (31.8%) | Washing corpses | 9 (18.4%) |
| Contact with strangers | 3 | Eating bush meat (bats, etc.) | 6 (12.2%) |
| Visiting, movement | 2 | Visiting, movement | 3 |
| Washing corpses | 2 | Contact with strangers | 2 |
| Drinking from the same cup | 2 | Large gatherings | 2 |
| Shaking hands | 2 | Sex with survivors | 1 |
| Burial attendance | 1 |  |  |
| Large gatherings | 1 |  |  |
| Not reporting sickness | 1 |  |  |
| Polluted water | 1 |  |  |
| **TOTAL** | **44 (100%)** |  | **49 (100%)** |

**Table 7: Causes of Ebola, in context of media messages and personal beliefs**

**Discussion**

The bush meat message accounted for about one third of all responses when people were first asked about causes of Ebola, and this dropped to 12% when people were later in the interview asked about their own beliefs. This shift is not a negligible percentage. It suggests that a village peripheral to the Fogbo outbreak, and without direct experience of the disease, may have formed it own views of the evidence, independent of media guidance. Njagbwema has not had any Ebola cases, but it is only ten miles by bush path to Bawuya, and several Njagbwema families have marriage and family links with Kori chiefdom. Information on Ebola mediated by radio broadcasts, may have been "updated" by inputs from local community health workers (from Gondama) and by messages received from family and friends (a source as frequently cited as health workers) with direct knowledge about the outbreak in Kori chiefdom. This may help explain the surprisingly high level of concrete information about Ebola in this remote village, evidenced in the "fading out" of the bush meat message.

A very explicit knowledge of the implications of Ebola on local burial practices is a notable feature of the appended focus group interviews. This probably reflects the fact that burial teams operate across the region, and "normal" deaths are now widely handled as Ebola deaths. Njagbema interviews claim they only know about Ebola burial by repute, but one at least of the interviewees reports having attended a recent burial, so will probably have seen the new imposed practices at first hand. The complaints of the Njagbema people about these new burial norms hardly differ from the objections voiced by villagers in the three villages where Ebola cases have been experienced.

It is perhaps also important to discuss the implications for Ebola response of the data in Table 1. Nearly 60 per cent of villagers would wait an average of 2-3 days (and sometimes much longer) before seeking medical help for adult patients. This seems not to vary by accessibility. The figure is still over 50% in Moyamba Junction, a village on one of the best main roads in the country, with regular vehicle access to Bo and Freetown. Community-level Ebola facilities are being launched to try and encourage early reporting. These centers will have to reckon with typical village delays in referring all diseases, added to the logistical problems of reaching patients in off-road settlements. The primary reason for hesitation in seeking medical help is poverty (money to move the patient, and money to pay for treatment). Community-level facilities will have to convince care-givers that financial obstacles to early reporting have been removed.

**Fig, 1: Njagbema\_Kamajei chiefdom, Moyamba District**



**APPENDIX: FOCUS GROUP INTERVIEW RESULTS**

**NJAGBEMA, KAMAJEI CHIEFDOM, MOYAMBA DISTRICT (18/12/2014)**

**Paul Richards, Joseph Amara, Alfred Mokuwa, Esther Mokuwa, Roland Suluku, and team,**

**NJALA UNIVERSITY, 30th December 2014**

Njagbema is an isolated village, 17 miles by bush paths from the Bo-Freetown road at Fala Junction. It has not yet had any cases of Ebola, but the community is very well informed about the disease. The focus group discussions are explicit on burial procedures, and why the proposed Ebola burial will clash with local norms (though it has not yet been experienced). As in previous cases, animal diseases and other human infections are discussed as a way of approaching topics such as quarantine. Some especially relevant passages have been bolded. As in all other cases, the focus groups were run simultaneously for all three groups (male elders, female elders and youths) to ensure genuine independence of views expressed. Dominant voices can be tracked through the speaking card reference numbers. The questionnaire results and focus group reports should be cross-referenced by the reader.

**MEN, ELDERS: NJAGBEMA, INTERVIEWER: RAMATU SAMAWOH, DATE: 18/12/14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NO | Card No | Age | Status | Economic activity | Question | Responses |
| 1 | Aa1 | 30 | Tribal authority (T.A) | Rice faming | What serious sicknesses have you experienced during the past t 12 month? | The first sickness is measles and diarrhea, now it is Ebola |
| 2 | Ab1 | 35 | Ebola task force elder | Bike riding and farming | What serious sicknesses have you experienced during the past t 12 month? | Lassa fever, AIDS and Ebola |
| 3 | Ac1 | 33 | Imam | Tree crops, rice and groundnut farming | What serious sicknesses have you experienced during the past t 12 month? | Malaria, stomach pain and Ebola |
| 4 | Ad1 | 50 | Quarter chief | Tree crops and rice faming | What serious sicknesses have you experienced on animals during the past 12 month? | Goat diseases: rash on their body, hair lost, mouth flush |
| 4 | Ad2 | 50 | Quarter chief | Tree crops and rice faming | What serious sicknesses have you experienced on animals during the past 12 month? | Chicken disease: new castle (*kpekpe*) |
| 5 | Ab2 | 35 | Ebola task force elder | Bike riding and farming | Which of the disease should we start talking about? | **Let's start with Ebola** |
| 5 | Ab3 | 35 | Ebola task force elder | Bike riding and farming | **What causes Ebola?** | **Ebola is caused by touching an infected person, visiting Ebola burial homes and harboring strangers** |
| 6 | Aa2 | 35 | Ebola task force | Bike riding and farming | What causes Ebola? | **Touching dead bodies of Ebola victim, and washing the dead Ebola corpses** |
| 6 | Aa3 | 35 | Ebola task force | Bike riding and farming | What causes Ebola? | **Living with the sick Ebola person** |
| 6 | Aa4 | 35 | Ebola task force | Bike riding and farming | **Can animals cause Ebola?** | **Yes, bat, baboon, monkey can cause the sickness if touched or eaten** |
| 7 | Ae1 | 70 | Section elder | Tree crop and rice faming | What are the symptoms of Ebola? | High fever, headache and frequent stool |
| 8 | Af1 | 80 | Temne chief | Weaver and rice farming | What are the symptoms of Ebola? | Cold, stomach pain, rash on the skin |
| 9 | Ad2 | 50 | Quarter chief | Tree crop farming | What are the symptoms of Ebola? | Dysentery and vomiting. |
| 10 | Ab3 | 35 | Ebola task force | **Bike riding** and farming | **How do people protect themselves from Ebola?** | **Always used protective cloth when riding Honda with passengers**  **After riding wash the cloth. Report sickness immediately** |
| 11 | Af2 | 80 | Temne chief | Rice farming and weaving | How do people protect themselves from Ebola? | **Stop eating bush meat of all types, don’t even touch it** |
| 12 | Ac2 | 33 | Imam | Tree crop and rice farming | How do people protect themselves from Ebola? | **Avoid keeping sick people at home**  **Call 117 for burial**  **Don’t touch dead bodies** |
| 13 | Ag1 | 45 | T.A | Farmer | **How do they prepare the bodies of people who died of Ebola?** | **When somebody dies nobody is allowed to touch it. They call the burial team. The burial team prepared the body.** |
| 13 | Ag2 | 45 | T.A | Farmer | How do they prepare the bodies of people who died of Ebola? | **They put the corpse in a plastic bag. They go and bury the corpse in a grave that has been dug by the community.**  **After burying they stop people from entering the area for 21 days** |
| 14 | Ah1 | 30 | Assistance imam | Rice and groundnut farming | How do they prepare the bodies of people who died of Ebola? | **There will be no ceremony**  People will not be allowed into the house until after 21 days. |
| 15 | Ab4 | 35 | Ebola task force | Bike riding and farming | What will the burial team do before touching the corpse? | The burial team will first spray the room before going into wrap the body |
| 16 | Ad3 | 50 | Quarter chief | Tree crop and rice farming | **How do you feel about this burial** | **We are not happy about this burial** |
| 16 | Ad3 | 50 | Quarter chief | Tree crop and rice farming | **What is bad about this burial?** | **They don’t wash the corpse. No proper dressing of the corpse**  **Burning of properties owned by the diseased** |
| 17 | Ac3 | 33 | Imam | Tree crop and rice farming | What is bad about this burial? | **No prayer offered for or on the corpse. The burial team threaten people. They don’t bury bodies respectfully** |
| 17 | Ac4 | 33 | Imam | Tree crop and rice farming | What is bad about this burial? | **They throw the body into the grave. They are putting shame on the corpse by giving no fitting burial.** |
| 18 | Ad4 | 50 | Quarter chief | Tree crop and rice farming | **How do you want the burial to be done?** | **We want prayers to be offered for the corpse, ceremony to be performed let them allow societal people to bury societal person in their own way** |
| 18 | Ad5 | 50 | Quarter chief | Tree crop and rice farming | How do you want the burial to be done? | **Train community people on how to bury without affecting them**. |
| 19 | Aa3 | 30 | T.A | Rice farming | How do you want the burial to be done? | **Let the government and NGOs help us with protective gear that we can use to bury corpse so that we cannot catch the disease** |
| 20 | Ab5 | 35 | Ebola task force | Bike riding and farming | **Have people died of Ebola in this village?** | **No, nobody has died in this village, but we only get news of Ebola deaths from outside.** |
| 21 | Aa4 | 30 | T.A | Rice farming | What about other diseases affect you in this village? | Malaria is another disease that kills. |
| 21 | Aa5 | 30 | T.A | Rice farming | What causes malaria | Walking with bare feet  Exposing oneself to cool water or rain |
| 22 | Ab6 | 35 | Ebola task force | Bike riding and farming | What causes malaria | Mosquito bite; when a mosquito bites an infected person then bite another person, that person get malaria |
| 23 | Ac4 | 33 | Imam | Tree crop and rice farming | What causes malaria? | Black fly (worms) can cause malaria when it hits you. |
| 24 | Ai1 | 96 | Town speaker | Farmer | What are the signs and symptoms of malaria? | High fever, change of the eye color, loss of blood, yellow urine. |
| 25 | Ac5 | 33 | Imam | Tree crop and rice farming | What are the signs and symptoms of malaria? | Swollen body, joint pain and weakness. |
| 25 | Ac6 | 33 | Imam | Tree crop and rice farming | What are the signs and symptoms of malaria? | Dizziness, loss of appetite tiredness |
| 26 | Aj1 | 54 | Town crier | Farmer | How can you treat malaria? | Traditional herbs like *gbangba*, *yumbuyambei*, banana and plantain leaves, *nyelai* leaves, rice straw. These herbs should be cooked and you drink the water. |
| 27 | Ad3 | 50 | Quarter chief | Tree crop and rice farming | How can you treat malaria? | Country herbal rope (*dandai*) should be made with thread and tied on the waist |
| 28 | Aa5 | 30 | T.A | Rice farming | How do you prevent malaria? | Sleep under mosquito net  Always take *gbangba* water and drink. |
| 29 | Ai2 | 96 | Town speaker | Farmer | How do you prevent malaria? | To use insecticide.  Keep the environment clean. Close the toilet after use |
| 30 | Aj2 | 54 | Town crier | Farmer | Has anybody died of malaria this village? | This year, nobody has died of malaria |
| 31 | Ab7 | 35 | Ebola task force | Bike riding and farming | **How far away is the nearest health center?** | **It is about five miles**  **[*in Gondama*]** |
| 32 | Ad4 | 50 | Quarter chief | Tree crop and rice farming | What are the causes of animal sickness? | Chicken disease (*Kpekpe*) is caused by hot burning sun. Goat - they get it from bush |
| 32 | Ad5 | 50 | Quarter chief | Tree crop and rice farming | How are these diseases treated? | We treat the goat with lime and old battery (mix the battery with lime and then rub it on the body) |
| 32 | Ad6 | 50 | Quarter chief | Tree crop and rice farming | **Do you have any history about small pox?** | Yes, we have a history of it, we call it *tetelei* |
| 32 | Ad7 | 50 | Quarter chief | Tree crop and rice farming | What are the symptoms? | **Fever, rash, too much sleeping, blocks the eye to open** |
| 33 | Aa6 | 30 | T.A | Rice farming | What are the symptoms? | High fever, red mouth, sore in the mouth, stop stooling |
| 34 | Ai3 | 96 | Town speaker | Farmer | What is the treatment for small pox? | Native herbs will be given to the patient to toilet  They made thread from native herbs. |
| 34 | Ai4 | 96 | Town speaker | Farmer | **How were patients treated?** | **Stop other children from going close to the victim. Those not infected will be protected by tying a rope (thread) on their waist** |
| 35 | Ad5 | 50 | Quarter chief | Tree crop and rice farming | **Were people quarantined for this disease?** | **The patients were not isolated. As in the case of Ebola, they were asked not to come into close contact** |
| 36 | Aa6 | 30 | T.A | Rice farming | **If a rescue center is constructed in your chiefdom section in future, what would be constraints?** | **Dwelling accommodation for those that bring the sick people to the center.**  **Poor road network. There are some places where an *okada* cannot reach. So it will be difficult for people to come to the center.** |
| 37 | Ad6 | 50 | Quarter chief | Tree crop and rice farming | **What would people need for the center?** | **Vehicle for sick people’s transportation**  **Token payment (kola) for manpower; those who transport patients** |
| 38 | Ai4 | 96 | Town speaker | Farmer | **What would you do if you see a helicopter trying to land?** | **We will not be afraid because before this time, helicopters have been coming here.** |

**WOMEN, ELDERS: NJAGBEMA-KAMJEI, INTERVIEWEE: IDRISSA SESAY, DATE: 18/12/14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NO | Card No | Age | Status | Economic activity | Question | Responses |
| 1 | BA1 | 70 | Societal Head | Farmer | What serious sicknesses have you experienced in this town? | Cholera, chicken pox, fever, diarrhea. |
| 2 | Bb1 | 50 | Elder | Farmer | What serious sicknesses have you experienced in this town? | Eyes infection, toothache, dysentery |
| 3 | bc1 | 80 | Assistance societal head | Farmer | What serious sicknesses have you experienced in this town? | Malaria, small pox |
| 4 | Bd1 | 60 | Village singer | Farmer | Which sicknesses affect your animals in this village? | Goat sick and Newcastle, *kpekpe* (fowl sick) |
| 5 | Bb2 | 50 | Elder | Farmer | What are signs of this animal disease? | Goat. Their hair becomes rough (worms) and flush comes out of their mouth (PPR), their body become scratchy (mange) |
| 6 | Be1 | 35 | Elder | Farmer | How can you prevent them from this disease? | If the foot of the goat get a sow, we can apply petrol and some time buy panadol and mix it with water and give the animals that are ill |
| 7 | Bc2 | 80 | Assistance societal head | Farmer | But if this animal died what will you do with it? | We can eat the animal depending on its condition before death |
| 8 | Ba2 | 70 | Societal head | Farmer | Has any disease killed Anyone in this village? | Yea, malaria (*gbelui*) |
| 8 | Ba3 | 70 | Societal head | Farmer | What is the name of the person who died of this sickness? | BR (f.), age 90 yrs |
| 8 | Ba4 | 70 | Societal head | Farmer | What are the symptoms? | Urine yellow, loss appetite, joint pain, body becomes weak. |
| 8 | Ba5 | 70 | Societal head | Farmer | **What happens two days before she dies and who was taken care of her?** | **Three people were taking care of her, they were those who are feeding her, clothing her and responsible for her birth** |
| 8 | Ba6 | 70 | Societal head | Farmer | **After she died who first notice and enter her room?** | **BS (f.) who was sleeping with her was the one who first noticed.**  **She died at 5:00 am that is in morning.** |
| 8 | Ba7 | 70 | Societal head | Farmer | After she died who first noticed and entered her room? | **I was the one who covered her eyes and mouth immediately after her dead.** |
| 8 | Ba8 | 70 | Societal head | Farmer | **If she was lying on the bed how many people put her on the mat?** | **I was standing outside when about 6 people (women) took her to the mat, and I covered her with the *lappa*.** |
| 9 | Bf1 | 67 | Elder | Farmer | **What did they do before washing?** | **The women went to rent a board for us to lay her on it before washing.**  **Someone went to the tailor to sew the *kasanka* (white certain)**  **While the other people were busy boiling the water In a temporal kitchen**  **After boiling the water, no one is allowed to put his or her hand in it.** |
| 9 | Bf2 | 67 | Elder | Farmer | What did they do before washing? | The boil water is measure in a cup, for each 10 cups one cup is removed as a *zakat* according to Islamic tradition. |
| 10 | Bg1 | 64 | Societal head | Farmer | **How many people took her to the washing site?** | **Four people took her from the house to the washing site. Three people washed her.** |
| 10 | Bg2 | 64 | Societal head | Farmer | How many people took her to the washing site? | **The washing took place in the societal bush because she was one of the societal heads in the village**. |
| 10 | Bg3 | 64 | Societal head | Farmer | **Was she buried in the societal bush?** | **No she was buried inside the village by the women in the community**  **The grave was dug by the youth in the village**  **She gave birth to 5 children one boy and four girls** |
| 10 | Bg4 | 64 | Societal head | Farmer | **What did you do with the cloth that was used to cover the corpse?** | **I (MS f.) was the one who drew the cloth (*lappa*) and ran with it to the stream and fell into it. She was crying and at the same time running and saying my mother is dead! My mother is dead!** |
| 11 | Ba3 | 70 | Societal head | Farmer | **What are the processes that you perform after burial?** | **The woman was buried by the societal women in the village, but the family later came to the house of the woman, because she was a Muslim. The family then called the imam to say final prayers for the family.** |
| 12 | Bf2 | 67 | Elder | Farmer | **What other serious sicknesses that have affected you in the past 12 months?** | **Ebola is the serious sickness that we are hearing about and is disturbing us in this community.** |
| 13 | Bg2 | 64 | Societal head | Farmer | How did you heard about Ebola? | **I heard it from the radio that it is an infectious disease that can kill in a short time** |
| 13 | Bg3 | 64 | Societal head | Farmer | **What are the symptoms of Ebola?** | **Vomiting of blood, high fever, and serious headache** |
| 14 | Ba4 | 70 | Societal head | Farmer | **Is there any way to prevent this disease call Ebola?** | **We heard from the radio that one should not lodge strangers. One should not greet one another with his or her bare hands. One should not eat bush meat like monkey, or bat**  **According to radio one should wash his/her hands regularly** |
| 15 | Bh1 | 55 | Elder | Farmer | **What can you do to prevent yourself from getting the virus?** | **I cannot eat bush meat**  **I cannot lodge a stranger**  **I cannot [make] love [to] a stranger** |
| 16 | Bb3 | 50 | Elder | Farmer | What can you do to prevent yourself from getting the virus? | **We were told in this village that one should always wash his/her hands after toilet. One should not sleep with a stranger. One should not go to another person’s house, or touch a person who died of Ebola. I cannot wash a sick person. I cannot visit quarantined home** |
| 17 | Bi1 | 90 | Societal head | Farmer | What action does the community take to prevent the village from getting Ebola? | **The community implements laws**  **I.e. anyone who has left this village for one year is not allowed to sleep here.**  **All strangers must be reported to the chief.**  **The community provides rubbers (pump rubber [local buckets]) for hand washing** |
| 18 | Bc3 | 80 | Assistant societal head | Farmer | **Has anyone died here of Ebola?** | **No one has died in this village of Ebola** |
| 19 | Bh2 | 55 | Elder | Farmer | **What happens when someone died of Ebola?** | **I have not seen someone who died of Ebola, but according to what I heard from the radio, they said that the individual will be put into a plastic bag and buried. I heard that if someone died, the people will call the government people together, with the chief, and that individual's house will be quarantined for 21 days.** |
| 20 | Bj1 | 36 | Elder | Farmer | If you are here **unexpectedly saw an ambulance** without coming to collect a corpse here what will you do? | **I will run and enter the bush.** |
| 21 | Bk1 | 35 | Elder | Farmer | **If you are sitting and unexpectedly a helicopter lands in this village, what will you do?** | **I will call the villagers and run away** |
| 22 | Bk2 | 35 | Elder | Farmer | **But if you saw the chief of this village will you run away?** | **If we saw our chief we will not run away** |
| 23 | Ba5 | 70 | Societal head | Farmer | **If a community rescue center is constructed within this sections what are your constrains for the local communities?** | **Labor**  **Lack of good roads** |
| 24 | Bk2 | 35 | Elder | Farmer | **What will be your own community contribution if a rescue center is constructed in your community?** | **We the community people will provide food.**  **We will also fetch water for the contractors** |
| 25 | Be2 | 35 | Elder | Farmer | What will be your own community contribution if a rescue center is constructed in your community? | We will fetch water for the contractors to wash |
| 26 | Bf4 | 67 | Elder | Farmer | What will be your own community contribution if a rescue center is constructed in your community? | **We can contribute some amount of money and give the contractors for appreciation and do the work to perfection.** |

**YOUTH: NJAGBEMA\_KAMAJEI, INTERVIEWERS: SAIDU FAYA & JONATHAN JOHNNY, DATE: 18/12/14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NO | Card No | Age | Status | Economic activity | Question | Responses |
| 1 | Ca1 | 35 | Secti0n Youth Leader | Farmer | What are the diseases affecting your community in the past 12 months? | Newcastle disease, dysentery, headache, joint pain and stomach ache |
| 2 | Cb1 | 25 | Youth | Farmer | What are the diseases affecting your community in the past 12 months? | Goat disease, **hernia** and eye scratch |
| 3 | Cc1 | 30 | Youth | Farmer | What are the diseases affecting your community in the past 12 months? | Newcastle disease and malaria |
| 4 | Cd1 | 32 | Youth | Farmer | What are the diseases affecting your community in the past 12 months? | Body rash, chicken pox, coughing and makru |
| 5 | Cb2 | 25 | Youth | Farmer | What are the diseases affecting your community in the past 12 months? | **Ebola.** |
| 6 | Ce1 | 20 | Youth | Farmer | What are the diseases affecting your community in the past 12 months? | Child body rash |
| 7 | Ca2 | 35 | Section youth leader | Farmer | What are the diseases affecting your community in the past 12months? | **Ebola** |
| 8 | Cf1 | 25 | Youth leader | Farmer | **What causes Ebola?** | **Eating of partly eaten fruit, eating of bush meat (monkey)**  **Eating of dead animal** |
| 9 | Chi | 15 | Youth | Farmer | What causes Ebola? | **Greeting of sick people, body to body contact.** |
| 10 | Cg1 | 19 | Youth | Farmer | **What are the symptoms of Ebola?** | **Weakness, joint pain, frequent stool and vomiting.** |
| 11 | Ci1 | 21 | Youth | Farmer | What are the symptoms of Ebola? | **Cold, headache, vomiting and bleeding** |
| 12 | Cg2 | 19 | Youth | Farmer | **How do we Prevent Ebola?** | **No hand shaking, no washing of dead bodies, and no touching of sick people.** |
| 13 | Cb3 | 25 | Youth | Farmer | How do we Prevent Ebola? | **No eating of bush animals** |
| 15 | Cf2 | 25 | Youth | Farmer | How do we Prevent Ebola? | **Avoid visiting sick homes, avoid visiting Ebola places or patients** |
| 16 | Cf3 | 25 | Youth | Farmer | What is the treatment of Ebola/ | **Call 117 (Ebola team)** |
| 17 | Ca3 | 35 | Section youth leader | Farmer | **Have any one been affected by Ebola?** | No. |
| 17 | Ca4 | 35 | Section youth leader | Farmer | **Before Ebola how were your dead buried?** | **Crying and touching the dead**  **Take dead to mosque or church, and family can be called to wash the dead. Put dead on a board for washing with** **hot and cold water** |
| 17 | Ca5 | 35 | Section youth leader | Farmer | **What do you do with the water that was use to wash the dead?** | **Before washing the dead a pit can be constructed for the water to run into the pit.** |
| 17 | Ca6 | 35 | Section youth leader | Farmer | **Why do you dig a pit for the water to run in?** | **Because we don’t know which disease killed the dead** |
| 17 | Ca7 | 35 | Section youth leader | Farmer | **After washing of the dead what do you do next?** | **Take the dead in a room for dressing. Take the dead to church or mosque** |
| 18 | Cf4 | 25 | Youth | Farmer | **After praying in the mosque or church, what do you do next?** | **Take the dead to the grave**  **Call the name of God before digging the grave. Putting of stick in the grave for the soil not to touch the dead.** |
| 19 | Cn1 | 20 | Youth | Farmer | **Do you do anything before burying the dead?** | **Take the first soil that we remove from the grave and take the dead and put in the grave for burial and prayer offered for the dead. A bucket will be filled with water and each member from the burial drop a stone.** |
| 20 | Cf5 | 25 | Youth | Farmer | **Why do you put stones in the bucket?** | **To know the number of people present for burial.** |
| 21 | Ci2 | 21 | Youth | Farmer | **Do children play any role during the burial?** | **Yes, tying of thread around the body for seven days before the burial** |
| 22 | Ci2 | 21 | Youth | Farmer | **Why do you put white thread around their body?** | **For other people to know that they have lost their love once. Secondly the child takes the cloth from the dead and runs to the water for it to be washed and used by the child, for the dead not to come in contact with the child again.** |
| 23 | Ch3 | 15 | Youth | Farmer | **How do you bury now?** | **Call 117 (Ebola team)** |
| 24 | Ch4 | 15 | Youth | Farmer | **Are you happy with how the Ebola team buries people?** | **We have not seen it yet** |
| 25 | Cb4 | 25 | Youth | Farmer | **Will you be happy if the government decides to construct a holding center?** | **Yes** |
| 26 | Cb5 | 25 | Youth | Farmer | **What are the constraints?** | **Carrier for the sick**  **Transportation** |
| 27 | Cg3 | 19 | Youth | Farmer | **If a helicopter comes will you be happy about it?** | **Yes, because they are humans and we don’t know what they came for** |
| 28 | Ci3 | 21 | Youth | Farmer | Is there any other disease affecting the community? | Yes, makru |
| 29 | Ce2 | 20 | Youth | Trader | What causes makru? | When pregnant women don’t drink herbs |
| 30 | Cf6 | 25 | Youth | Farmer | What causes makru? | Cold |
| 31 | Ca5 | 35 | Section youth leader | Farmer | What causes makru? | Eating sugar foods, cold, high body temperature. |
| 32 | Cd2 | 32 | Youth | Farmer | What are the symptoms of makru? | Redness of legs, mouth frequent stool, body rash. |
| 33 | Cb7 | 25 | Youth | Farmer | What are the symptoms of makru? | Splitting of the head. |
| 34 | Ca6 | 35 | Section youth leader | Farmer | How do we prevent makru? | Take patient to hospital for test |
| 35 | Cd3 | 32 | Youth | Farmer | How do we prevent makru? | Drinking of herbs (*jigokui*)  Avoid breastfeeding child with makru. |
| 36 | Ci4 | 21 | Youth | Farmer | How do we Prevention makru? | Don’t breast feed child below six month. |
| 36 | Ci5 | 21 | Youth | Farmer | How do we Treat makru? | Take patient to hospital |
| 37 | Ck1 | 25 | Youth | Farmer | Has this diseases affected anyone? | Yes, many |
| 37 | Ck2 | 25 | Youth | Farmer | **Has this disease killed anyone** | **Yes, many (six people)** |
| 38 | Cg4 | 19 | Youth | Farmer | Names of the people who died of makru? | 1. EK (f.) 2. AK (m.) 3. KL (m.) 4. IF (m.) 5. MB (f.) 6. TS (f.) |
| 38 | Cg5 | 19 | Youth | Farmer | Who cares for people with makru? | Family (mother) |
| 38 | Cg6 | 19 | Youth | Farmer | Did makru affect the mother caring for the child? | No |
| 38 | Cg7 | 19 | Youth | Farmer | How do you bury people who died from makru? | Normal burial. |

**VILLAGE RESPONSES TO EBOLA IN RURAL SIERRA LEONE**

**(No. 5: Survey results for Foindu, Yoni chiefdom, Tonkolili District)**

Paul Richards, Esther Mokuwa, Roland Suluku

Njala University

**Introduction**

Foindu is a village in Yoni chiefdom, Tonkolili Distict, Northern Province. It is located on the right bank of the Taia river, a mile or two upstream from Fogbo (on the opposite bank). Foindu has had no cases of Ebola to date, though two interviewees had seen cases at the nearby village of Pujehun-Yoni. Curiously, no one said they had seen victims of the outbreak at Fogbo, despite provides the closeness of the two locations. The Taia river is not an important channel of communications. A track from the right bank of the river at Fogbo leads to Moyamba Junction. The vehicle track from Fogbo leads directly towards the transport hub at Mile 91.

Foindu is a Temne-speaking village. The Temne comprise about 40% of the population of Sierra Leone (roughly the same proportion as those speaking Mende). Temne culture is significantly different from Mende in a number of respects, perhaps most noticeably in the sacred status of the paramount chief and rituals associated with chieftaincy. Foindu is here presented as a comparative foil to the three Ebola affected villages discussed above (Bawauya, Fogbo and Moyamba Junction). This allows us to test for potential cross-ethnic variation. Few differences in patterns of care for the sick, burial procedures or Ebola awareness were detected, however. In understanding differences in burial procedure (for example) differences in religion (Islam and Christianity) seem to have more significance than differences in ethnicity.

**Results and analysis**

Thirty adults were randomly sampled in Foindu (14 females and 16 males). There were eight strangers (4 male and 4 female). Five came from neighboring chiefdoms. and the other three from Makeni, Lunsar and Freetown. Fewer interviewees gave their main occupation as rice farm (20) than in the Mende villages described above. Five stated they were cash crop farmers (cultivating groundnuts and tree crops such as mango) and five cited other main occupations, including trade. The average size of upland rice farms (3.1 acres) was somewhat higher than in the Mende speaking group of villages.

Twelve interviewees were caring fro 19 children sent to lodge in the village (13 under the age of 10). Nine were from Yoni chiefdom and 6 from neighboring chiefdoms. In eleven cases the children were being cared for by grandparents, and in four by kin of the mother (in local parlance "uncles"). Sixteen persons reported 31 children sent from the village to live elsewhere (17 females, 14 males). Eleven were teenagers and 10 were over the age of 20. In all, 24 were undergoing some form of education. Others had been sent out for care (3) marriage (2) or work (2). The major destinations were Freetown (8), Bo (5), Mile 91 (4), parts of Yoni chiefdom (5), and other provincial towns (7).

Only two persons suffered major sicknesses in the past 3 months (malaria and an eye infection). The malaria was treated with tablets in the village (at the village health centre). Four persons described instances in which they had been too sick to travel for help. One was a case of diabetes and another of paralysis due to witchcraft. Two people suffered severe hernias. One was treated with family help. One person described one case where a family member (a brother) had been too sick to move. This also was a hernia case. No treatment was available.

The very high expense and life-threatening nature of a hernia is elaborated in the focus group transcript. This complaint also figures quite prominently in other focus group transcripts. Seemingly, there is something of a epidemic of hernias among young men involved in the heavy work of subsistence agriculture.

Probably because Foindu has a health post, as many as 21 people said they never waited to send a sick person for treatment. Of the nine who would wait and see, they said they would wait an average of 1.3 days for a child, 1.8 days for an adult and 1.4 days for an old person. The lower delay for children was because they cannot decide for themselves, and are sometimes seen as especially weak and vulnerable.

All interviewees had heard of Ebola. Radio was the main source of information (24), followed by community health workers (15), chiefs (6), friends (6) and family (5). Projects informed two people and newspapers had informed none. Symptoms were accurately described by 27 people.

The two major causes were said to be "touching sick people or dead bodies" (13) and "bush meat" (10). These numbers changed when people were asked to provide their own explanations. Body contact with fluids or an infected person were cited by 19 and bush meat was mentioned by only two persons (47 explanations in total). The main community responses were said to be mounting security checkpoints (7), washing hands (6), bans on traveling out of or into the village (5) and enforcement of bye-laws, e.g. against housing strangers (5).

Points made to the team included a need for phone chargers, complaints that business had stagnated due to travel bans, recommendations to "continue sensitization", and a request for sanitary teams to help clean the village. Questions included a request for advice on how to deliver a case safely to a rescue center, whether medicine will be available soon, and whether the epidemic might be at an end early in 2015. One interviewee remarked that there had been "a lot of sensitization" and then asked (as if the sensitization had little perceived impact) "what could be done to end [the epidemic]?" More concretely, one interviewee demanded "help with livelihood".

**Discussion and conclusion**

The data on health-seeking behavior and Ebola awareness and response for Foindu (a Temne village) show a considerable similarity with the data presented for Mende villages associated with the Fogbo outbreak.

It seems from these data that that we should not expect major, ethnically-based, variations in local responses to the epidemic in rural Sierra Leone. Nor are there major differences apparent across the five sets of focus group data presented concerning the way burial is traditionally handled.

Foindu villagers had the least reluctance to despatch a patient for medical help, but this perhaps reflects the fact that there is a rural health centre located in the village. Better vehicle access from the major transport hub at Mile 91 may be a factor. Also, incomes may be higher, due to a higher level of involvement in farm business activity (Foindu has an agri-business centre [farmer cooperative] located in the village). Access to money seems to be a main reason why sick patients are slow to present in the other villages surveyed.

Foindu village, in common with the other villages examined, has a high level of awareness of the true causes of Ebola, and how risks can be mitigated. As in other cases, bush meat dropped out of the picture when people were asked for their own understanding of what caused the disease. Opinions appear to be divided about the current national emphasis on health messaging. One interviewee wanted "sensitization" efforts to continue. Another implied that "messaging" had yielded little, and was anxious now to know what really would make a difference to ending the epidemic. Once again - as on the other side of the Taia - livelihood considerations loomed large. ****

**Fig. 1: Foindu village, Yoni chiefdom, Tonkolili District**

**APPENDIX: FOCUS GROUP INTERVIEW RESULTS**

**FOINDU, YONI CHIEFDOM, TONKOLILI DISTRICT (11/12/2014)**

**Paul Richards, Joseph Amara, Alfred Mokuwa, Esther Mokuwa, Roland Suluku, and team,**

**NJALA UNIVERSITY, 30th December 2014**

**MEN, ELDERS Village: Foindu (Tonkolili District), ENUMERATOR? date: 11-12-14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Run  No | CARD  NO | AGE | STATUS | TOPIC | QUESTION | ANSWERS |
| 1 | Aa1 | 60 | Elder | Malaria | How many people are affected by malaria? | Everybody |
| 2 | Ab1 | 68 | Elder tribal authority |  | What are the signs of malaria: | Sweating, fever, frequent urination, constipation, loss of appetite. |
| 3 | Ac1 | 67 | Elder |  | What causes malaria? | Mosquito bite |
| 4 | Ad1 | 67 | Elder |  | Signs: | Fever |
| 5 | Ae1 | 68 | Elder |  | Other causes: | Unclean environment, uncovered foods, flies. |
| 6 | Aa2 |  |  |  | How are you Treating malaria: | Take herbal medicine locally made *gbangba*, *tumu*, *melke* (Temne) |
| 7 | Af1 | 65 | Elder |  | What treatment do you take for malaria?  Were there deaths? | Herbs for constipation; cannot go to hospital due to lack of money  This year we have seen no deaths among adults. |
| 8 | Ag | 56 | Youth chara TA |  | How do you prevent malaria? | Take care of the food – cover food to prevent flies, wash hands with soap after toilet, use mosquito net. Clean the surroundings |
| 9 | Ah1 | 54 | Elder | . | How do you prevent malaria? | Dig toilets and keep them clean |
|  | Ai1 |  | Town chief | Malaria | What causes malaria? | Poverty |
| 10 | Aj1 |  |  |  | What about children dying from malaria? | No deaths experienced this year due to accessibility of a hospital |
| 11 | Al2 |  |  | Hernia | **What causes hernia?** | **Hard work** |
| 12 | Ak1 | 70 | Elder |  | **What causes hernia?** | **Poverty** |
| 13 | Al1 | 58 | Elder TA |  | **What are the signs of hernia?** | **Stomach pain - mostly [results in] death; induces other body ailments, causing much pain** |
| 14 | Am1 | 74 |  |  | **How do you treat hernia?** | **Surgery, otherwise death** |
| 15 | Al3 |  |  |  | **What other signs do you know?**  **Did you experience any deaths?** | **Vomiting, tight veins, unable to walk, toilet frequently**  **Two deaths** |
| 16 | Aa3 |  |  |  | **Are there other signs you know for hernia?** | **Coughing** |
| 17 | An1 | 35 | Elders |  | **Other signs?** | **Stomach pain, 10yrs + unable to walk** |
| 18 | Ab2 |  |  |  | **How is hernia treated?** | **By surgery, costing Le1,500,000 at Makeni**  **Vehicle charter – Le 200,000**  **Transport vehicle – Le 50,000** |
| 19 | Ab3 |  |  | Ebola | What diseases are a threat to your community in the last 12 months?  What causes Ebola according to what you have heard? | Ebola, but [it] has not come to our village yet.  By greeting others, washing dead bodies. |
| 20 | Aj3 |  |  |  | How do you prevent Ebola? | God’s protection. I have not yet experienced it. |
| 21 | Ao1 | 55 |  |  | What causes Ebola? | (Media) eating monkey, bats, any wild animal –these are the sources of Ebola |
| 22 | Ah2 |  |  |  | What are the signs of Ebola? | According to information  Vomiting and toileting with blood, rash, shrinking of the body, inability to move |
| 23 | Af3 |  |  |  | Do you know other signs? | Dizziness |
| 24 | Am2 |  |  |  | What causes Ebola? | Virus |
| 25 | Ap1 |  | Tribal Authority |  | What causes Ebola? | Virus enters the body through sores, or mouth, nose, eyes, and ears; does not enter the body through the normal skin |
| 26 | Ag2 |  |  |  | How does the disease spread? | Visit to a burial house of Ebola patient, visiting those sick of Ebola, keeping the sick in the home. |
| 27 | An2 |  |  |  | Any idea about how Ebola spreads? | Unbelief/denial of the reality of Ebola. |
| 28 | Aa3 |  |  |  | Any idea about how Ebola spreads? | Touching, washing or burying dead bodies |
| 29 | Ao2 |  |  |  |  | Shaking hands, touching other people, etc. |
| 30 | Af3 |  |  |  | How do you prevent Ebola? | Avoiding crowds/gatherings, not stepping on/touching the fluids of victim |
| 31 | An3 |  |  |  | How do you prevent Ebola? | Stop denial of reality of Ebola |
| 32 | Ap3 |  |  |  | Why is denial bad?  How do you care for Ebola patients | Denial disregards the rules.  [But] I have no knowledge yet concerning care of Ebola patients. Treatment of symptoms is recommended according to information |
| 33 | Ai4 |  |  |  | How do you do burial for Ebola patients? | I have no knowledge about the process yet |
| 34 | Ah4 |  |  |  | How do you do burial for Ebola patients? | According to information, it involves placing the corpse in a plastic bag, spraying of the house, putting the corpse in the ambulance and taking it to the burial site - one pit for several bodies (10 and over). I am feeling bad |
| 35 | Af4 |  |  |  | What can you suggest concerning burial of Ebola victims in your community? | Washing the body and dressing for burial is preferred, but we have no choice, so accept government’s recommendation. |
| 36 | Ag4 |  |  |  | ditto | Let government agree what is good for us |
| 37 | Aa4 |  |  |  | ditto | Let the community be given the protective gear and advice so we can undertake the burial |
| 38 | Am3 |  |  |  | What was your usual practice of burial?  Who does the washing of the body?  Who carries the body to the wash yard and back? | Previously: send message to all families, then meeting where the following is decided: provide food at home, wash the body  Men wash men, women wash women  Bulky women are carried by men and small women can be carried by their women folk (*bulbumu* [Temne] and back to the house (on hand)  4) youths go and dig grave  5) prayer over the corpse and corpse taken to the grave site  6) *Walka* over the grave (board/stick) grave, the dirt after prayer |
| 38 | Ah4 |  |  |  | What happens when a wife dies? | The husband is asked to bless, forgive, and the imam offers general *duwao* (Arabic) asking for mercy. When Sick, sorcery is done to find out the cause of the illness. |
| 39 | An3 |  |  |  | Still what happens? | Report to the family the death and ask what should be done. The family grants permission to do the burial according to the religion |
| 40 | Ag4 |  |  |  | What about putting up a rescue centre in this area? | It will be a welcome idea if we follow the chiefdom protocols for a project like this |

**WOMEN, ELDERS Village: Foindu (Yoni chiefdom, Tonkolili District), ENUMERATOR: Francis. B. Johnson, date: 11-12-14**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Run  No | CARD  NO | AGE | STATUS | TOPIC | QUESTION | ANSWERS |
| 1 | Ba 1 | 42 | Teacher | malaria | Has malaria killed anyone here?  Where was she buried?  How did you detect the sick?  Was she receiving treatment?  What were the signs?  Where did she die, and how was the body handled? | Yes, my grandmum, 85yrs  In village.  I took her to the hospital, but thought it was just an old person sickness.  Yes.  Body pale, not eating, fever  In the hospital, don’t know how many took her for washing. 4 women washed and two dressed her for burial and 4 took her inside house. 4 men took her for burial. |
| 2 | Bb 1 | 45 | Ebola taskforce member | Ebola | How did you here about Ebola?  Do you know the names of those who died?  What are the signs of Ebola? | It killed 8 people in the next village. That was how I heard it. It started in Pujehun Yoni with K.  I know some but not all. K (f., 22), YK (f. 45), KK (f., 45) BK (?., 20) all from Pujehun Yoni village.  Frequent headache, bleeding, tears running from eyes and nostril running water |
| 3 | Ba 2 | 42 | Teacher | Ebola | How does it spread? | Through touching an infected Ebola person.  Visiting an infected person and washing an Ebola victim. |
| 4 | Bc 1 | 50 | Women’s leader | Ebola | How can people protect themselves from Ebola? | By washing of hands continuously  Not eating bush animals  Abstaining from visits |
| 5 | Bb 2 | 45 | Ebola taskforce | Ebola | How were these victims of Ebola buried? | They were not buried here, they called 117 and the ambulance came and collected the bodies. They were taken to Kailahun, where they were buried. We don’t know how it happened. |
| 6 | Bd 1 | 19 |  | Cleaning, 2 days before death  Cleaning  Medication | What happens to a person 2 days before death?  How is the sick person cleaned and who cleans her?  How do you medicate her? | 2 days before death, if a women, the daughter is the person by her  The daughter calls for help if needed or she can do the cleansing herself, by using the bare hand with towel and water.  The same daughter gives the medicine with her bare hand whilst she calls for help if needed. |
| 7 | Bb3 | 45 | Ebola taskforce member | Feeding | How do you feed the sick | The daughter calls for help (daughter-in-law or neighbors) to help the sick sit up before feeding. |
| 8 | Bc2 | 50 | Women’s leader | Dressing | How do you dress the sick? | The daughter-in-law or female neighbors help the daughter by wearing pants, *lappa* and blouse. |
| 9 | Be1 | 95 | T.B.A | Death | What happens when a person dies?  How many people take the corpse from the bed to the mat? | First close the eyes of the dead person by the one who had being helping or taking care while she was sick. Also the mouth is closed  2 women, excluding those who have been helping |
| 10 | Bb4 |  |  | Washing of corpse | How is washing of the corpse done? | 6 people take the dead for washing. 3 wash her with white cloth, gloves, hot water; if a Muslim zakat is given out from the cups of water, out of every 10 cups of water one is left as zakat. After the nine big cups of water are placed in the room for the dead, the corpse [is placed] on a board and undressed by three people/women, who wash the corpse in a Muslim way by means of *janaba*. |
| 11 | Ba3 |  |  | Child  Digging of grave | How do perform the *janaba*  What happens next?  Does the dead have children?  How many people dig the grave?  How many shovels are used?  What is the pattern of the grave dug? | The washing of the corpse starts from the right hand from the head to the feet, then start the on the left side. Those washing the corpse first undertake the *alwala*  After the body is washed, the corpse is moved to another board for dressing by the same 3 people, not to expose its nakedness. Outside the bathroom, 4 youths are then called upon to carry the corpse to the parlor and place it on a mat for some time, as a farewell by the family and friends. The 4 youths take the corpse from the mat to the casket/stretcher and take it to the mosque for prayers, or wait until 2-4pm for burial.  2 children, 1boy and 1girl  I am a women, so I don’t know the specific number because most people go in order to have a form of blessing  The same pickaxe and shovel are used by all  Some graves have rooms where the corpse is placed and some do not |
| 12 | Ba4 |  |  | Burial | What happens when the corpse is taken from the mosque to the grave? | 4 people take the corpse to the graveside followed by so many people. The corpse is placed by the grave; that is the time for final farewell by the husband who prays for his late wife. The last child collects the covering cloth from the corpse [and takes it] direct to the water place and washes it to tell the water place that her mum is dead; the same cloth is taken by the daughter to the town and can be used by her as covering dress. |
| 13 | Bc3 |  |  | Chiefs | If a chief is dead what happens? | Chiefs are by levels. We have paramount chiefs and they are taken to *kanta*, and other chiefs. When a paramount chief is dead all women are locked in the house [until] the burial process is done during the night hours. |
| 14 | Be2 |  |  | Societal head | What if a societal head dies? | When a societal head dies not all people will know of it but they will pronounce the person as being very sick. But the members will know what has happened. [They will] tell all that she has gone for work |
| 15 | Be2 |  | Farmer | Rescue center | If a community rescue center is constructed within this section or chiefdom, what are the foreseen? | One major constraint is [that] the road condition is bad to come, and bridges are not [sound] on those roads. |
| 16 | Bf1 | 50 | Farmer |  |  | Laborers to be paid to bring the sick |

**YOUTH, VILLAGE: Foindu, Yoni chiefdom, ENUMERATOR: Jonathan Johnny, DATE:11/12/2014**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Run  No | CARD  NO | AGE | STATUS | TOPIC | QUESTION | Answer (youth) |
| 1 | Ca1 | 36yrs | Farmer | Malaria | What are the causes of malaria | Dirty/polluted water |
| 2 | Cb1 | 28 | Farmer |  |  | Mosquito |
| 3 | Cc1 | 18 | Farmer |  |  | Bed bugs, mosquito |
| 4 | Cd1 | 28 | Farmer |  |  | Lack of toilet in the village |
| 5 | Ce1 | 38 | Farmer |  |  | Lack of tap/well water; drinking of stream river water; feces in the stream where villagers drink |
|  | Cf1 | 20 | Student |  | What are the symptoms of malaria? | Yellowish-red eyes |
|  | Cb2 | 28 | Farmer |  |  | Fever, joint and body pain |
|  | Cg1 | 24 | Farmer |  |  | Weakness  Lack of appetite |
|  | Cc2 | 18 | Farmer |  |  | Yellowish urine |
|  | Ce2 | 38 | Farmer |  | How do we prevent malaria? | By keeping our environment clean. Having toilets in this village. Constructing water wells |
|  | Cb3 | 28 | Farmer |  |  | By sleeping under mosquito nets |
|  | Ca2 | 36 | Farmer |  |  | By cleaning our compound and village; By taking/drinking local herbs |
|  |  |  |  |  | What treatment do we give to a person with malaria? |  |
|  | Cc3 | 18 | Farmer |  |  | Take patient to the hospital for English treatment |
|  | Cg2 | 24 | Farmer |  |  | By drinking ORS and salt  By drinking local herbs like *gbangba* and lime |
|  | Cb4  Ce3  Ck1 | 28  38  23 | Farmer  farmer |  | Has malaria affected anybody in this village? How many? | Yes, many people (can’t be exact)  Most people in this village |
|  | Cl1 | 25 | House wife | Malaria | Who cares for elderly sick women in this community? | Elderly sick women is cared for by the husband. If husband is absent/dead the female children will attend to her/sisters when the female children are not around |
|  | Cm1 | 30 | Farmer |  | Who cares for the elderly sick men in this community? | Elderly men are cared for by their wives, if wives are absent, the 1st /2nd sons assumes the responsibility. In the absence of children the community may come in. |
|  | Cn1 | 23 | Farmer |  | If sickness cannot be treated in the village, what happens? | Usually, if sickness can’t be treated in the village, patient is taken to the hospital |
|  | Cm2 | 30 | Farmer |  | Through what mean is the patient taken to the hospital? | A motor bike is usually hired, since vehicles are less likely to take patient to hospital in Mile 91 or Magburaka. |
|  | Co1 | 27 | Farmer |  | If the sick individual has no money on him/her? | Money will be borrowed from the chief, which should be repaid. In some cases the youth group will task themselves to provide the money to help members of this village. |
|  | Cp1 | 45 | Fisherman | Malaria | Has malaria killed any one in this village? | No, malaria has not killed any member of our village |
|  | Ch1 | 32 | Farmer | Ebola | What are the causes of Ebola? | Bush animal like bats, monkey. Denial of the existence of Ebola. Contact with body fluids of infected person. |
|  | Ce4 |  |  |  | What are symptoms of Ebola? | Vomiting, frequent stooling |
|  | Cl1 | 19 | Student |  |  | Blood in stool and high fever.  Red eyes, general body pain, rash on skin |
|  | Ch2  Cl3  Cc3  Cj1 |  |  |  | How do we protect ourselves from Ebola infection? | By restricting contact with people  By avoiding dead body of infected people  By washing hands with soap frequently |
|  | Ci2, Ch3 |  |  |  | What treatment is given to people infected with Ebola? | Patients with Ebola are taken to the hospital or holding centers  Call 117 to collect infected person from community |
|  | Cc5 |  |  |  | How is infected individual treated or cared for by community before taken to holding center? | **Infected person is placed in a house by him/herself while other members are moved away. An elder of the family is appointed to provide care for this individual, through the use of black plastic bags to protect face, hands and feet from coming into contact with individual. This individual provides encouragement, support for the infected until taken to the hospital. This elder may be very close family member (father, mother, child, or sisters, brothers) of the infected individual.** |
|  | Ci3 |  |  |  | Have you seen a patient with Ebola? | Yes, in Pujehun Yoni |
|  | Ci4 |  |  |  | Has any one in this community been infected by Ebola? | None has ever had Ebola in this community. |
|  | Cf2 |  |  | Ebola | How did people in this village prepared the dead for burial before Ebola? | When one is dead, female or male, family members will cry on the body, hold or touching the dead. After which the oldest of the family will inform the chief of the death. Chief then gives permission for the body to be prepared for burial. The eyes and mouth are closed by the wife/husband or eldest child because the person should be mature enough to keep the secrets of the dead The dead is transferred from the bed to a mat in the corner of the room by 4-6 individuals, either family members or elders in the community While corpse is on the mat, the wife/husband stays by the body to guide it. For Muslim and Christians the imam or pastor is called to an enclosure in the compound by 4-5 men, for washing; the water used to wash the dead is placed in a hole in an area where people will not step in it so as to avoid the sickness of the corpse spreading in the community. Body is dress with white cloth for Muslims, and for Christians a nice dress of the wife or her husband, [according to] the choice of the children. Grave site is prepared by 4-5 young men in community, in the village cemetery. Family members carry the body to the mosque or church for prayers. |
|  | Ci4 |  |  |  | If dead person was not a Christian/Muslim? | If the dead was not praying, the body is prepared in similar manner, except that no pastor/imam will pray on that body; he/she is buried without prayers. For Christians and Muslims, when the body is taken to the cemetery, by 4-6 able bodied men, corpse is placed in the hole by 4-6 men under the direction of the imam/pastors; prayers are offered at the graveside. Earth is placed on the body by the wife/husband/eldest child/closest family member. With Muslims sticks and leaves are placed over the dead in the hole before earth/dirt is placed on the body by a very close family member. Water is placed in a bucket outside the house where every one from the cemetery washes their hands and feet. |
|  | Ch4 |  |  |  | If dead was a societal member and Muslim/Christian | In such a case, immediate family member must perform all societal rites before the body can be handed down to them because the dead is legal property of the society. They [the family] also pay redemption fees (varies, based on the position in society) before body is taken to the mosque or church. |
|  | Cf3 |  |  |  | Are you in favor of the Ebola burial? | No, we don’t like it.  [The] dead should be buried with honor and respect. Empower community to bury our dead with full traditional rights. Train us to perform the burial process |