Follow-up Study on Public Knowledge, Attitudes, and Practices Relating to Ebola Virus Disease (EVD) Prevention and Medical Care in Sierra Leone

KAP-2

Final Report

December 2014

The Follow-up Study on Public Knowledge, Attitudes, and Practices Relating to Ebola Virus Disease Prevention and Care in Sierra Leone (Ebola KAP-2) was carried out by FOCUS 1000 with technical support from the US Centers for Disease Control and Prevention (CDC) and UNICEF. The study was funded by the CDC Foundation through e-Health Africa.

Ebola KAP is a household survey first developed by FOCUS 1000 in the midst of the Ebola outbreak in August 2014 as a scientific tool to guide the social mobilization efforts in the national Ebola response in Sierra Leone. The KAP-1 study provided baseline indicators on a range of knowledge, attitudes, perceptions, beliefs, and practices of the general population that could be monitored over the duration of the unprecedented Ebola outbreak. It served as the basis for developing a National Social Mobilization Strategy as well its Monitoring and Evaluation Framework.

The KAP-2 survey was administered during the period of October 13th to October 22nd 2014 in all four regions and fourteen districts in Sierra Leone with the objective of assessing changes in knowledge, attitudes, and practices as compared to the baseline KAP-1 – so as to identify barriers in halting the current transmission patterns. KAP-2 introduced additional indicators not captured in the baseline study.

We encourage partners in the national Ebola response to use these findings to inform their interventions, decision-making, and policies. A suggested citation is provided below. Please contact FOCUS 1000 for use or adaptation of the data collection instrument in a different survey.

Suggested citation:
FOCUS 1000, US Centers for Disease Control and Prevention and UNICEF. 2014. Follow-up Study on Public Knowledge, Attitudes, and Practices Relating to Ebola Virus Disease Prevention and Medical Care in Sierra Leone (Ebola KAP-2), Final Report. Freetown, Sierra Leone: FOCUS 1000.

Table of Contents

List of Tables

List of Figures

List of acronyms and abbreviations

Abbreviation	Definition
BCC	Behavior Change Communication
C4D	Communication for Development
CBO	Community Based Organization
CDC	US Centers for Disease Control and Prevention
CRS	Catholic Relief Services
CSO	Civil Society Organization
DHMT	District Health Management Team
EOC	Emergency Operation Center
EVD	Ebola Virus Disease
FBO	Faith Based Organization
FGD	Focused Group Discussion
FOCUS 1000	Facilitating and Organizing Communities for Sustainable Development
GoSL	Government of Sierra Leone
HBM	Health Belief Model
HHS	Household Survey
KAP	Knowledge, Attitudes, and Practices
MoHS	Ministry of Health and Sanitation
NERC	National Ebola Response Center
NGO	Non-Governmental Organization
OKD	Open Development Kit
PC	Paramount Chief
PPS	Probability Proportional to Size
SPSS	Statistical Package for Social Science
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Foreword

The US Centers for Disease Control and Prevention (CDC) joined forces with FOCUS 1000 and UNICEF to conduct a follow-up Knowledge, Attitudes, and Practices study (KAP-2) covering all four regions and fourteen districts in Sierra Leone. The objective of the KAP-2 study was to assess changes in knowledge, attitudes, and practices, as compared to the KAP-1 baseline study conducted in August 2014, so as to identify gaps and prioritize areas of urgent need.

The KAP-2 findings reveal that social mobilization efforts are having positive impact on the public's knowledge and behavioral intentions relating to the prevention and treatment of Ebola Virus Disease (EVD) in Sierra Leone. Compared to KAP-1, we now see an increased level of comprehensive EVD knowledge, decreased stigmatization of Ebola survivors, and more positive behavioral intentions to stay safe and seek early treatment. However, when we take a closer look at the data, we realize that more targeted efforts are needed in Western Area, Northern Province, and Kono districts. Similarly, special attention must be given to addressing gaps in knowledge, attitudes, and practices among women and young people aged 15-24 years.

Burials and funeral practices remain a significant risk for EVD transmission, and we should focus our communication to promote safe burials. With 32% of respondents rejecting non-traditional burial/funeral practices that avoid the washing or touching of the dead body, it is clear that intensified social mobilization efforts are required to promote the acceptance of safe burial practices. Likewise, we anticipate that improvements in service delivery will help translate the public's high knowledge and positive intentions into practice. In the continued fight against Ebola, we need to amplify our engagement with local communities.

While the KAP-2 report highlights some major achievements, it also reminds us that we have to intensify the momentum in our joint efforts to end EVD transmission in Sierra Leone. It is no easy task, but with a more data-driven and evidence-based approach, we will all be able to invest our resources in the areas with the most impact.

Sincerely,

Oliver Morgan, MSc, PhD, FFPH
Acting Country Director
CDC Sierra Leone

Acknowledgements

As we conclude the second KAP survey, we are extremely grateful to all household heads, women, and young people who participated in the research study for their willingness, time commitment and sincere responses. We thank the paramount chiefs, village chiefs, health workers, teachers, local councils, law enforcement authorities, and civil society groups who participated in the in-depth interviews and focus group discussions. The study would not have been possible without their full cooperation.

Likewise, we extend our sincere gratitude to the data collection teams and supervisors whose diligent efforts ensured reliable and quality outputs from the research study. We further acknowledge the invaluable support of our partner organizations – US Centers for Disease Control and Prevention and UNICEF – for their technical and financial support to the study.

In addition, we recognize the technical guidance and commitment of the Ministry of Health and Sanitation, the National Ebola Command Center and the Social Mobilization Pillar in ensuring that findings of the study continue to inform the National Social Mobilization Strategy and Action Plan, and other aspects of the National Response. We are confident that the KAP-2 data will continue to inform and guide our collective efforts to contain the spread of Ebola in Sierra Leone.

FOCUS 1000 remains firmly committed to supporting the Government of Sierra Leone, development partners, and civil society in generating data to inform evidence-based strategies and actions to halt the Ebola epidemic in the country.

Together, we will win the battle against Ebola.

Sincerely,

Mohammad Bailor Jalloh, MPH

Chief Executive Officer

FOCUS 1000, Sierra Leone

Background

As of September 15th 2014, when the KAP-2 study was being planned, Sierra Leone had recorded a total of 1503 confirmed cases of Ebola Virus Disease (EVD) with 325 cumulative survivors and 468 laboratory confirmed deaths[1]. In the same month, the US Centers for Disease Control and Prevention (CDC) projected that if the current epidemic is not contained by January 2015, there could be up to 1.4 million EVD cases in Sierra Leone, Liberia, and Guinea[2]. In Sierra Leone, the model estimated that cases would double on a monthly basis.

According to Sierra Leone Ministry of Health and Sanitation (MoHS), the cumulative number of confirmed cases stood at 6039 as of December 2nd 2014 – with Western Area accounting for the highest prevalence of confirmed cases as compared to the other three regions[3]. Amongst the other three regions, the Northern Province has recorded proportionally more new cases, as well as total number of confirmed cases.

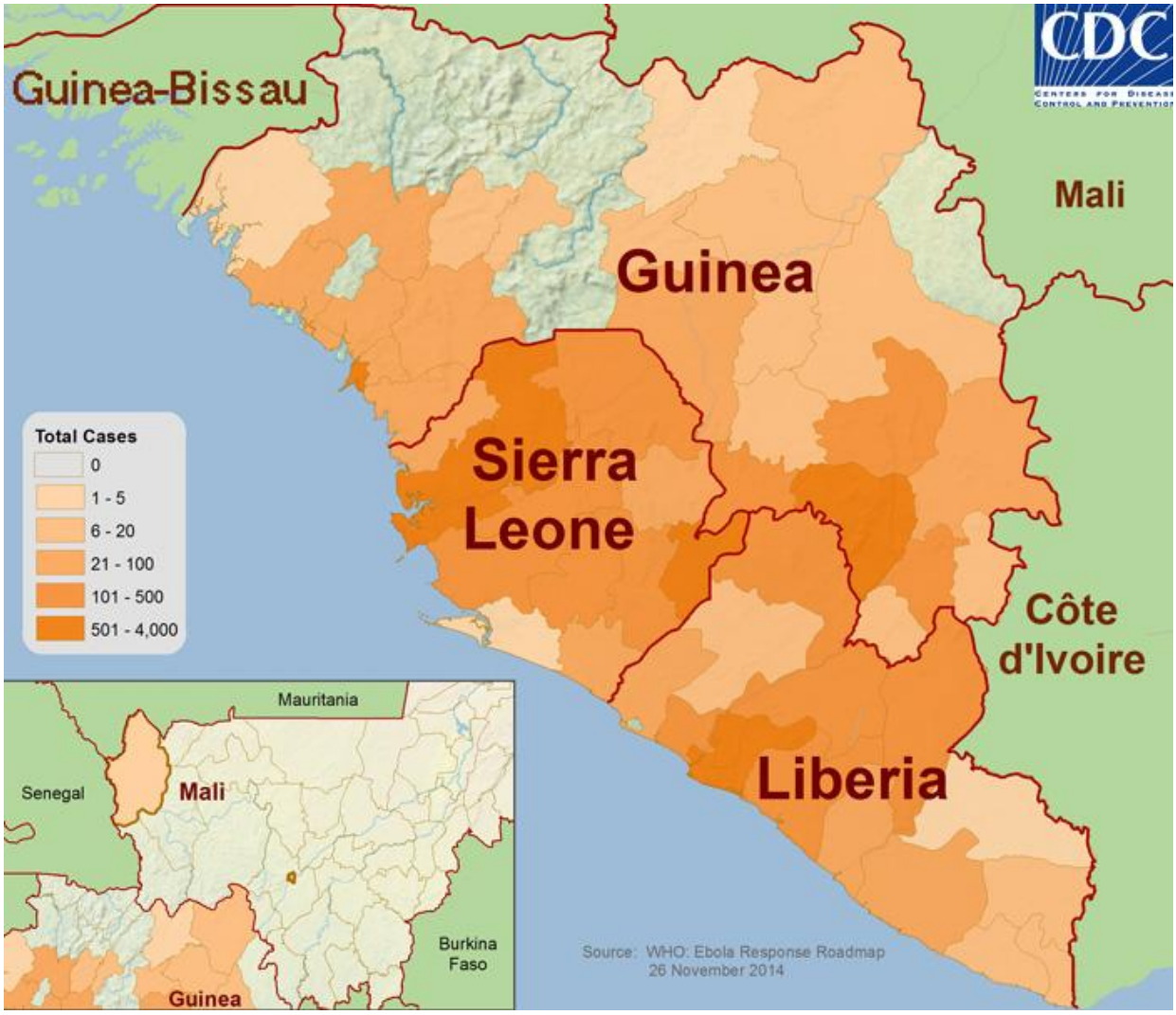
The KAP-1 study conducted in late August 2014 found that while there was universal awareness of the disease and nearly everyone (97%) believed that Ebola existed in Sierra Leone, there were serious misconceptions about EVD prevention and treatment. For instance, 42% of respondents believed that they can protect themselves against Ebola by washing with salt and hot water. Furthermore, about one-third of respondents believed that the disease is transmitted through mosquito bites. Only 39% of respondents had comprehensive knowledge of EVD. Another 19% of respondents reported that spiritual healers can successfully treat Ebola. Over 90% of respondents reported that they would like to receive additional information on Ebola – especially on prevention practices and medical treatment options for those infected. KAP-1 also indicated high level of stigma associated with EVD – with over 90% of respondents reporting discriminatory attitudes towards Ebola survivors.[4]

About three weeks after the KAP-1 study concluded, the Government of Sierra Leone launched a three-day "Ose to Ose Ebola Tok" campaign that aimed to: reach at least 75% of households in the country; understand the public's concerns; provide key prevention messages; reinforce hand hygiene by providing a bar of soap to each household; and take initial steps to establish community-based support groups. As of early October 2014, the campaign represented the largest, nationwide social mobilization campaign on Ebola in Sierra Leone since the first outbreak in Kailahun in May 2014.

Preliminary findings from KAP-2 were presented to the National Social Mobilization Pillar, National Ebola Response Center (NERC) and key partners as soon as they were available on 13th November 2014. These findings were used to immediately re-focus education, social mobilization, and service delivery efforts in line with the areas of need identified in the survey.

[1]Sierra Leone Ministry of Health and Sanitation – Emergency Operations Center (EOC),*Ebola Update.*September 15th2014.
[2]US Centers for Disease Control and Prevention (CDC)
[3]Sierra Leone Ministry of Health and Sanitation – National Ebola Response Center (NERC), *Ebola Update.*December 2nd 2015.
[4]FOCUS 1000, UNICEF, CRS, *Study on Public Knowledge, Attitudes, and Practices Relating to EVD in Sierra Leone*, September 2014.

Figure 1: 2014 Ebola Outbreak in West Africa - Outbreak Distribution Map, November 26th 2014



Objectives

1. Measure changes in the public's knowledge, attitudes, and practices related to Ebola Virus Disease (EVD) as compared to baseline (KAP-1);

2. Identify emerging barriers that hinder the containment of the EVD epidemic; and

3. Use the generated evidence to inform social mobilization and health promotion strategies for preventing the transmission of EVD and enhancing caring for those already infected and affected by the epidemic.

Methodology

Study design

The study employed a cross-sectional design to assess public knowledge, attitudes, and behaviors relating to Ebola Virus Disease (EVD) in Sierra Leone.

Sampling

The sample for KAP-2 was designed to produce national-level estimates for a range of indicators on knowledge, attitudes, beliefs, and practices related to EVD prevention and treatment. A multi-stage cluster sampling design with primary sampling units (PSUs) selected with probability proportional to their size (PPS) was used in the study. The survey sample comprised 2086 individuals from 1043 households from the14 districts in Sierra Leone. This sample size is beyond the minimum sample of approximately 800 in order to attain 95% confidence level and confidence interval of +/- 2.5% given the estimated population of about 6.3 million as per population estimates from the National Population and Housing Census (Statistics Sierra Leone 2004). The sample was not designed to yield district-level estimates. Sample weights are used to report on national-level estimates.

The KAP-2 survey had a 98% response rate with 2086 out of 2120 planned interviews completed in 1043 out of 1060 targeted households. The response rate was slightly lower in Western Rural, Kenema, Bo, and Port Loko districts.

Selection of clusters (enumeration areas)

The 2004 Census List of Enumeration Areas served as the sampling frame for the selection of enumeration areas (clusters). A total of 53 clusters were randomly selected from the four regions in Sierra Leone with probability relative to their size. In the three provincial regions (East, North, South), a total of 40 enumeration areas (clusters) were randomly selected while a total of 13 enumeration areas (clusters) were randomly selected in Western Rural Area (including Western Rural and Western Urban).The sample contained randomly selected clusters from all 14 districts in Sierra Leone.

Selection of households

Within each cluster, 20 households were selected using random walk method – a form of systematic random sampling – whereby the households were selected as follows:

- Identification of the centre of the sampled community;
- Throwing of a pen up in the air, allowing it to fall, and using the direction of the tip of the pen to identify the starting point of the random walk;
- Estimation of the number of households in the community and estimating the skip-interval defined as number of households divided by the sample for that community;
- The sampling interval (skip)was estimated by the research team in advance of the field work using census projections and provided to the respective data collection teams;

- Counting of the houses in the direction of the pen from the random starting point and selecting every k^{th} house (using the provided sampling interval) until the required sample of the assigned enumeration area is acquired.

Selection of interviewees

Interviews were conducted with two individuals from each randomly selected household. The household head was always selected given his/her influential role on the decisions and practices within the household. However, anticipating that a majority of the household heads would be older men, we randomly selected another participant from the household who was either a woman or young person between 15 and 24 years of age.

Training of data collectors

FOCUS 1000 recruited and trained 50experienced data collectors, 15 team supervisors, and 4regional supervisors during a three-day workshop on the proper administration of the piloted questionnaire. Each enumerator pre-tested the questionnaire in an assigned community. Feedback from the pretest was used to refine some items on the questionnaire.

The training focused on the following core areas:

- Overall research protocols and guidelines
- Informed consent and confidentiality
- Safety and security precautions
- In-depth review of survey items & translations to local languages
- Administration of questionnaire using Open Development Kit (ODK) app on Android-based Samsung Tab 3
- Quality control and assurance (QA/QC)

The trained data collectors and supervisors were subsequently divided into their respective teams (n=15). Each team was then assigned to specified geographic clusters in one of the 14 districts.

Survey administration

A total of 15 team supervisors were responsible to oversee the day-to-day collection of data by the trained enumerators. In addition to the team supervisors, senior FOCUS 1000and UNICEF staff served as regional supervisors to ensure maximal quality control and assurance. Data collection occurred during the period of October $13^{th}$to October 22^{nd}, 2014. Each enumerator completed about eight interviews per day. Each interview took about an hour to fully administer.

Given the potential risk of exposing enumerators to households with EVD patients, stringent security and safety protocols were put in place. Enumerators were continuously monitored by their team supervisors to ensure adherence to these protocols. FOCUS 1000 is delighted to report that none of

data collection team members reported signs/symptoms of Ebola twenty-one days after the field work concluded.

Use of mobile technology

Data collection was done using Android mobile devices (Samsung Tab 3) with Open Development Kit (ODK) application. A mirror of the paper-based data collection instrument was designed using ODK and subsequently installed on the mobile devices. At the end of each day, team supervisors were responsible for verifying the data and uploading them to Formhub's cloud-based data hosting server.

Data analysis

The collected data was downloaded from Formhub and imported into SPSS Version 22 for data tabulation and analysis. Data analysis was conducted by two separate analysts at FOCUS 1000 and cross-checked for reliability and accuracy. In addition, the data was reviewed and validated by partners from US Centers for Disease Control and Prevention (CDC) and UNICEF.

Limitations

The sample contained enumeration areas with high disease burden (such as the epicenter and hotspots for instance). These areas may have higher level of knowledge and better prevention practices relating to EVD as a result of their potential increased exposure to social mobilization and Behavior Change Communication (BCC) interventions.

Another limitation is that self-reported behaviors may not always be aligned with individuals' actual practices. It is possible that respondents may have provided socially desirable responses; especially due to the high awareness of EVD and heavy dose of sensitization and education being undertaken. However, it is expected that such bias – if present – would also be consistent in the baseline KAP-1 study. Therefore, for some indicators likely to yield socially desirable response, the trend over time may be more indicative of actual practices than the numerical estimates.

Socio-demographic characteristics of survey respondents

The geographic distribution of the stratified sample is representative of the population of Sierra Leone with the following minor limitations[5] (table 1):

- Western Area – slightly under-sampled (-4.5% differential compared to Census)
- Northern Province – slightly over-sampled (+3.6% differential compared to Census)

[5]To adjust for the over- and under-sampling, the data was weighted accordingly to reflect the proportional distribution of the population by geographic region.

- Eastern Province –slightly over-sampled (+2.5% differential compared to Census)
- Southern Province – slightly under-sampled (-1.9% differential compared to Census)

The distribution of the sex of the sampled respondents mirrors that of the general population, such that 53% were females. The proportion of respondents with some education is slightly higher than observed in the population of Sierra Leone, as per the 2013 Demographic and Health Survey. However, similar to the general population, female respondents were more likely to be uneducated (31.4%) compared to their male counterparts (21.3%).

Young people aged 15-24 made up 36% of the sample, which is proportionally higher compared to the general population of Sierra Leone. As a result, about one-fourth of the respondents were students (26.8%). Petty traders made up about one-fifth of those interviewed. The religious affiliations of the respondents mirror that of the population, such that Muslims made up 64.5% of the sample while Christians constituted 35.4%.

Table 1: Percent distribution of unweighted sample by region and district, Ebola KAP-2, Sierra Leone, 2014

Region	District	Frequency	Percent	Census Proportion [6]
Western Area	Western Rural	202	9.7	4.2
	Western Urban	320	15.3	16.4
		522	**25.0**	**20.5**
Northern Province	Bombali	160	7.7	7.8
	Kambia	120	5.8	5.4
	Koinadugu	115	5.5	5.3
	Port Loko	118	5.7	8.8
	Tonkolili	120	5.8	6.9
		633	**30.5**	**34.1**
Eastern Province	Kailahun	120	5.8	7.3
	Kenema	138	6.6	10.3
	Kono	162	7.8	5.1
		420	**20.2**	**22.7**
Southern Province	Bo	159	7.6	10.3
	Bonthe	116	5.6	2.7
	Moyamba	117	5.6	4.4
	Pujehun	119	5.7	5.3
		511	**24.5**	**22.6**
Total		**2086***	**100**	**100**

[6] Statistics Sierra Leone. 2004 Census Projections for 2014.

Table 2: Percent distribution of weighted sample by region and district, Ebola KAP-2, Sierra Leone, 2014

Region	District	Frequency	Percent	Census Proportion
Western Area	Western Rural	87	4.2	4.2
	Western Urban	343	16.4	16.4
		430	**20.6**	**20.5**
Northern Province	Bombali	162	7.8	7.8
	Kambia	112	5.4	5.4
	Koinadugu	111	5.3	5.3
	Port Loko	182	8.7	8.8
	Tonkolili	143	6.8	6.9
		710	**34**	**34.1**
Eastern Province	Kailahun	151	7.2	7.3
	Kenema	215	10.3	10.3
	Kono	106	5.1	5.1
		472	**22.6**	**22.7**
Southern Province	Bo	215	10.3	10.3
	Bonthe	56	2.7	2.7
	Moyamba	92	4.4	4.4
	Pujehun	110	5.3	5.3
		473	**22.7**	**22.6**
Total		**2086**	**100**	**100**

Table 3: Distribution of respondents by sex and education, Ebola KAP-2, Sierra Leone, 2014

Sex	Education								Total*	%
	No education	Some primary school	Completed primary school	Completed Junior Secondary School (JSS)	Completed Senior Secondary School (SSS)	Completed Diploma / Postsecondary Training	Completed Bachelors	Completed Masters / Doctorate		
Male	205 21.3%	44 4.6%	93 9.7%	209 21.7%	245 25.4%	127 13.2%	38 3.9%	2 .2%	963	46.5%
Female	348 31.4%	79 7.1%	144 13.0%	243 22.0%	207 18.7%	65 5.9%	20 1.8%	1 .1%	1107	53.5%
Total	**553** **26.7%**	**123** **5.9%**	**237** **11.4%**	**452** **21.8%**	**452** **21.8%**	**192** **9.3%**	**58** **2.8%**	**3** **.1%**	**2070**	**100%**

*Valid responses only; missing values (n= 16) excluded in cross-tab

Figure 2: Percent distribution of respondents by age category, Ebola KAP-2, Sierra Leone, 2014

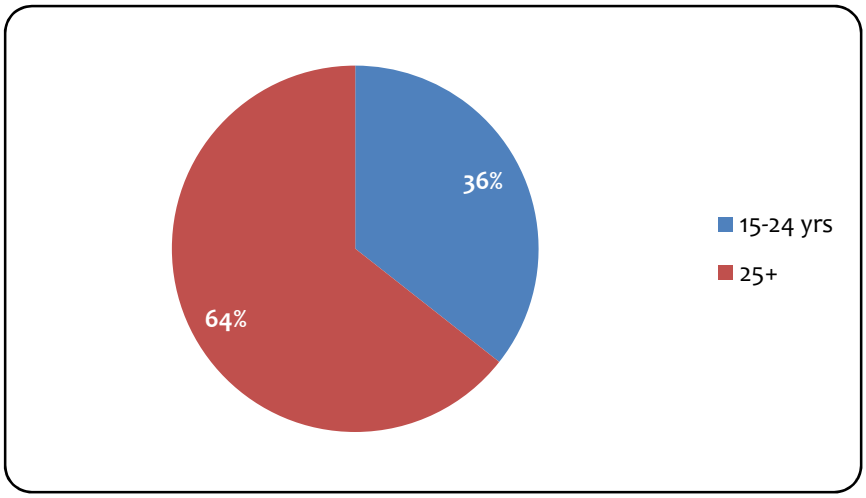


Figure 3: Frequency distribution of respondents by age, Ebola KAP-2, Sierra Leone, 2014

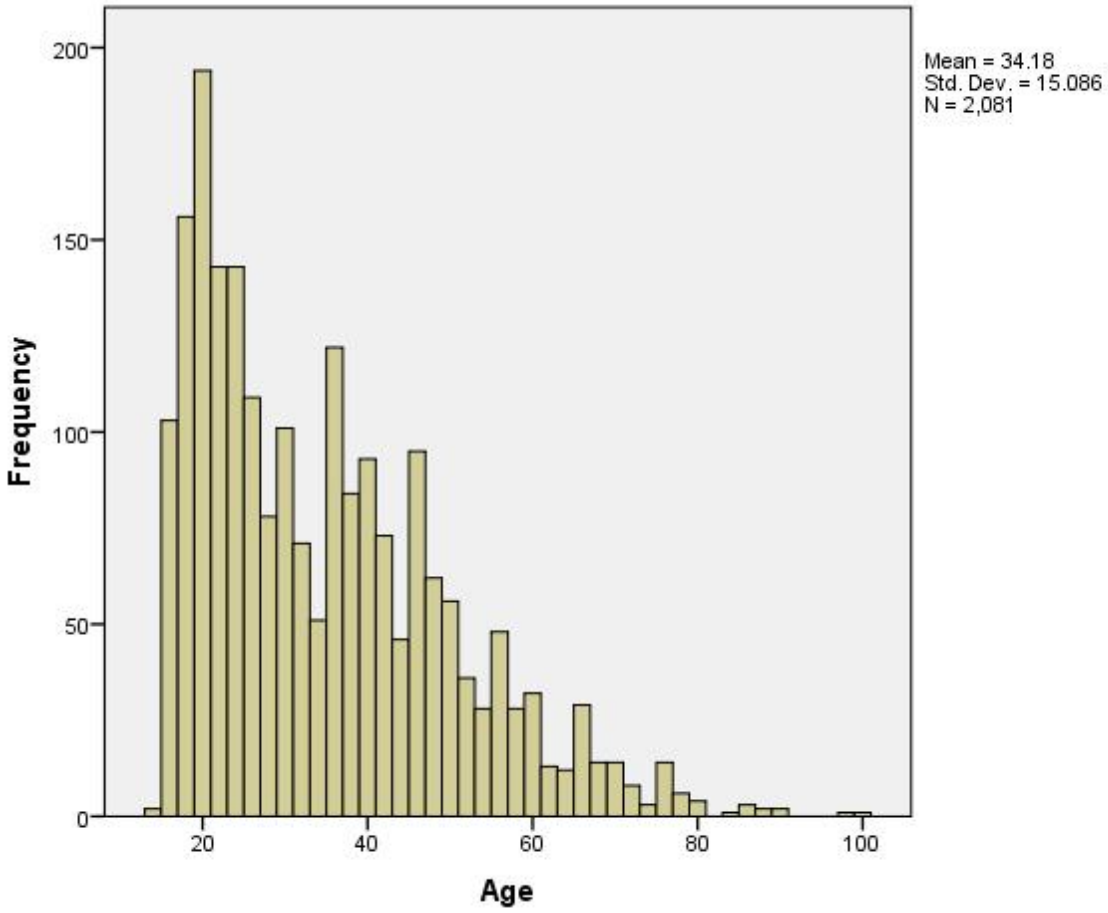


Table 4: Distribution of respondents by sex and occupation, Ebola KAP-2, Sierra Leone, 2014

Sex	Occupation											Total*
	Private business (excluding petty traders)	Plumber Carpenter Electrician	Petty Trader	Farmer	Teacher Lecturer Instructor	Driver	Okada rider	Medical or health worker	Other Gov't employee	Student	Unem ployed	
Males	84	98	72	137	111	32	19	13	60	256	87	969
	8.7%	10.1%	7.4%	14.1%	11.5%	3.3%	2.0%	1.3%	6.2%	26.4%	9.0%	
Female	86	6	323	105	43	2	1	29	32	300	181	1108
	7.8%	.5%	29.2%	9.5%	3.9%	.2%	.1%	2.6%	2.9%	27.1%	16.3%	
Total*	**170**	**104**	**395**	**242**	**154**	**34**	**20**	**42**	**92**	**556**	**268**	**2077**
	8.2%	**5.0%**	**19.0%**	**11.7%**	**7.4%**	**1.6%**	**1.0%**	**2.0%**	**4.4%**	**26.8%**	**12.9%**	

*Valid responses only; missing values (n=9) for occupation and/or sex excluded in cross-tab

Table 5: Distribution of respondents by religious affiliation, Ebola KAP-2, Sierra Leone, 2014

Region	Religion				Total Responses
	Islam	Christianity	Other	Hold no religious beliefs	
Western Area	55.2%	44.3%	.2%	.4%	522
Northern Province	74.1%	25.9%	0.0%	0.0%	632
Eastern Province	65.7%	34.0%	0.0%	0.0%	420
Southern Province	61.0%	39.0%	0.0%	0.0%	508
Total	**64.5%**	**35.4%**	**.0%**	**.1%**	**2082**

*Valid responses only; missing values (n=4) for religion excluded in cross-tab

Findings

Between KAP-1 (conducted in late August) and KAP-2 (conducted in mid-October), there were significant increases in knowledge, shifts in attitudes, and improvements in self-reported practices in relation to Ebola Virus Disease prevention and treatment in Sierra Leone. In addition, there were significant decreases in stigmatizing and discriminatory attitudes towards Ebola survivors. Table 6 provides a summary of the key indicators from KAP-1 and KAP-2. For each indicator, the significance of the difference between the two independent proportions is calculated using the **two-proportion z-test** and presented in Table 6.

Table 6: Summary of key differences in knowledge, attitudes, and practices relating to Ebola Virus Disease, Ebola KAP 1-2, Sierra Leone,2014

Indicator	KAP-1	KAP-2	Signif. (p)
AWARENESS			
Proportion of respondents who have heard of Ebola	100%	100%	N/a
Proportion of respondents who have heard of someone who survived Ebola	76%	84%	<.0001
KNOWLEDGE			
Proportion of respondents who attribute the cause of Ebola to a virus	41%	52%	<.0001
Proportion of respondents who cite the following as sign/symptom of Ebola:			
(1) Sudden onset of high fever	56%	64%	<.0001
(2) Diarrhea (with or without blood)	71%	82%	<.0001
(3) Vomiting (with or without blood)	81%	89%	<.0001
Proportion of respondents who have comprehensive knowledge on Ebola	39%	48%	<.0001
Proportion of respondents who accept three key means of preventing Ebola	79%	90%	<.0001
Proportion of respondents who reject three key misconceptions about Ebola	50%	53%	0.05
Proportion of respondents who accept that Ebola can be prevented by avoiding contact with blood and body fluids	87%	92%	<.0001
Proportion of respondents who accept that Ebola can be prevented avoiding funeral or burial rituals that require handling the body of someone who has died from Ebola	85%	94%	<.0001
Proportion of respondents who accept that one can increase their chance of surviving by immediately going to a health facility if suspected of having Ebola	91%	93%	<.05
Proportion of respondents who reported that Ebola can be transmitted by air	30%	24%	0.0002
Proportion of respondents who reported that Ebola can be transmitted through mosquito bites	30%	30%	N/a
Proportion of respondents who reject that Ebola can be prevented by bathing with salt and hot water	42%	36%	0.0006
Proportion of respondents who reject that traditional healers can successfully treat Ebola	94%	97%	<.0001
Proportion of respondents who reject that spiritual healers can successfully treat Ebola	81%	88%	<.0001
Proportion of respondents who reject safe alternatives to traditional funerals/burials	N/a	33%	N/a
ATTITUDES			
Proportion of respondents who would go to a health facility if they had a high fever	85%	92%	<.0001
Proportion of respondents who would go to a health facility if they suspect they have Ebola	93%	98%	<.0001
Proportion of respondents who believe it is possible to survive Ebola	76%	86%	<.0001
Proportion of respondents who hold at least one form of discriminatory attitude towards Ebola survivors	94%	46%	<.0001
Proportion of respondents who would not welcome back a neighbor after surviving Ebola	75%	14%	<.0001
Proportion of respondents who would not buy fresh vegetables from a shopkeeper who survived Ebola	67%	31%	<.0001
Proportion of respondents who believe that a pupil who has survived Ebola puts other pupils in their class at risk of Ebola	32%	20%	<.0001
BEHAVIORS			
Proportion of respondents who report avoiding physical contact with people suspected to have Ebola in order to prevent the disease	35%	36%	>0.05
Proportion of respondents who report avoiding funerals/burials involving the handling of the dead body in order to prevent Ebola	N/a	30%	N/a
Proportion of respondents who report washing their hands with soap and water more often in	66%	80%	<.0001

order to prevent Ebola			
Proportion of respondents who reported that they have participated in a funeral/burial in the past month	N/a	6%	N/a
Proportion of those respondents who participated in a funeral/burial in the past month that also touched the dead body during the ceremony	N/a	5%	N/a
Proportion of those respondents who participated in a funeral/burial in the past month that also washed the dead body during the ceremony	N/a	3%	N/a

Note: The trend analysis is restricted to the 9 nine-districts covered in both KAP-1 (Late August 2014) & KAP-2 (Mid October 2014):

1. Western Rural
2. Western Urban
3. Kambia
4. Koinadugu
5. Port Loko
6. Bo
7. Moyamba
8. Kenema
9. Kailahun

Tables

For most KAP indicators, estimates are provided by region, sex, age, and education. District-level estimates are not appropriate due to the sample design.

- **Total A**: national-level estimate for the unweighted total for the 14 districts in the sample
- **Total A Weighted**: national-level estimate for the weighted total (all 14 districts)
- **Total B**: national-level estimate restricted to the unweighted total for the 9 districts covered in KAP-1. This total is used for one-to-one comparisons with between KAP-1 and KAP-2.
    - Western Rural
    - Western Urban
    - Kambia
    - Koinadugu
    - Port Loko
    - Bo
    - Moyamba
    - Kenema
    - Kailahun

Awareness

There was universal awareness of Ebola among survey respondents; all respondents reported that they have heard of Ebola prior to the interview in both surveys. In KAP-2, however, there was significantly higher awareness (p<.0001) of people surviving the disease (84%) as compared to KAP-1[7] (76%).

Knowledge: Cause and origin

The cause/origin of Ebola was mainly attributed to bats, monkeys, and wild animals (77.1%) (Table 7). Association of the cause of the disease with the Ebola virus significantly increased (p<.0001) from 41% to 52% between KAPs 1 and 2. Similar to KAP-1, only a small minority of respondents attributed the cause/origin of EVD to God (3%), witchcraft (0.4%), evildoing/sin (0.6%), and curse (0.2%) in KAP-2. Knowledge of Ebola being caused by a virus was higher in the Southern Region as compared to the rest of the country. Similarly, respondents from the South were more knowledgeable of the association between EVD and bats/monkeys/wild animals. In addition, respondents with at least some secondary school education were more knowledgeable of the cause/origin of Ebola as compared to those with no education or only primary school education.

Table 7: Proportion of respondents who reported various causes/origins of Ebola by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Virus	Bats / Monkeys / Chimpanzees/ Other wild animals	God or higher power	Witchcraft	Evildoing/ Sin	Curse	Total responses
Region							
Western Area	51.1%	73.0%	2.3%	.2%	1.0%	.4%	522
Northern Province	43.1%	72.2%	2.5%	.6%	.2%	.0%	633
Eastern Province	47.4%	67.6%	5.2%	.2%	.2%	.5%	420
Southern Province	59.3%	86.3%	2.2%	.0%	1.4%	.4%	511
Sex							
Male	52.1%	75.8%	3.2%	.2%	.8%	.4%	970
Female	48.1%	74.2%	2.7%	.4%	.5%	.2%	1113
Age							
15-24	48.2%	80.3%	1.9%	.3%	.4%	.1%	741
25+	51.0%	72.0%	3.5%	.3%	.8%	.4%	1340
Education							
None	40.5%	70.3%	4.0%	.4%	1.1%	.7%	553
Primary	45.8%	74.7%	3.9%	.0%	.6%	.0%	360
Secondary +	55.7%	77.1%	2.2%	.3%	.5%	.2%	1157
Total A	**50.0%**	**74.9%**	**2.9%**	**.3%**	**.7%**	**.3%**	**2086**
Total A weighted	**51.2%**	**76.2%**	**3%**	**.4%**	**.6%**	**.2%**	**2086**
Total B	**51.5%**	**77.1%**	**2.9%**	**.4%**	**.9%**	**.3%**	**1409**

Total A: all 14 districts ; Total B: restricted to the 9 districts sampled in KAP-1
Note: Open-ended / unprompted / multiple selection

[7] FOCUS 1000, UNICEF, CRS, *Study on Public Knowledge, Attitudes, and Practices Relating to EVD in Sierra Leone*, September 2014.

Knowledge: Modes of transmission

The public's knowledge of EVD's correct modes of transmission (MOT) has generally increased as compared to the KAP-1 baseline. When asked in an open-ended, unprompted format about how the disease is transmitted, proportionally more respondents cited the following modes of transmission (MOT) in KAP-2 as compared to KAP 1: blood (30% to 36%), saliva (29% to 37%), sweat (46% to 47%), urine (24% to 32%), feces (17% to 20%). Compared to KAP-1, a lower proportion cited semen/vaginal fluid (17% to 13%).Across the 14 districts, the most frequently cited MOT in KAP-2 were: (1) eating bush meat, (2) sweat of an infected person, (3) shaking hands with an infected person, (4) other physical contact with an infected person, and (5) saliva of an infected person. Knowledge of transmission through an infected person's bodily fluids was generally lower in Western Area and the Northern Province; as well as among females and respondents with no education (Table 8).

Table 8: Proportion of respondents who reported Ebola transmission sources by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

						An infected person's:						
	Air	Bad odor or smell	Prepar-ing bush meat as a meal	Eating bush meat	Eating fruits likely to have been bitten by bats	Saliva	Blood	Sweat	Urine	Feces	Breast milk	Semen or vaginal fluid
Region												
Western Area	1.5%	.4%	18.8%	42.9%	26.1%	37.4%	38.9%	49.2%	31.4%	20.5%	2.5%	10.3%
Northern Province	4.9%	1.1%	22.6%	56.2%	27.6%	23.7%	20.5%	37.6%	16.6%	9.0%	3.3%	8.1%
Eastern Province	4.5%	1.2%	56.7%	33.3%	33.8%	40.5%	44.3%	49.0%	38.6%	21.4%	4.8%	10.2%
Southern Province	2.2%	2.9%	37.6%	65.8%	48.1%	58.1%	51.1%	62.2%	46.8%	29.0%	24.7%	26.6%
Sex												
Male	2.6%	1.4%	31.2%	52.5%	33.8%	39.2%	36.6%	49.5%	30.9%	20.9%	8.4%	15.4%
Female	4.0%	1.3%	33.0%	49.1%	33.2%	38.7%	38.1%	48.3%	33.2%	17.9%	8.9%	12.1%
Age												
15-24	3.1%	1.5%	30.4%	52.1%	36.2%	42.1%	38.6%	50.7%	33.6%	20.2%	7.2%	14.2%
25+	3.4%	1.3%	33.1%	49.9%	32.0%	37.1%	36.6%	47.8%	31.3%	18.7%	9.5%	13.3%
Education												
None	5.2%	1.1%	32.7%	48.8%	28.9%	28.6%	28.9%	36.5%	24.2%	12.3%	6.7%	9.4%
Primary	4.2%	1.9%	34.2%	49.7%	36.1%	35.0%	33.1%	44.4%	28.9%	19.2%	11.9%	11.7%
Secondary +	2.2%	1.4%	31.5%	51.8%	35.1%	45.4%	43.0%	56.3%	37.3%	22.9%	8.6%	16.4%
Total A	**3.3%**	**1.4%**	**32.2%**	**50.6%**	**33.5%**	**38.9%**	**37.4%**	**48.8%**	**32.1%**	**19.3%**	**8.6%**	**13.6%**
Total A Weighted	**3.5%**	**1.2%**	**34.1%**	**50.8%**	**35.1%**	**40.2%**	**38.5%**	**49.8%**	**33.5%**	**19%**	**8.6%**	**14.1%**
Total B	**2.6%**	**.5%**	**28.9%**	**51.0%**	**31.0%**	**37.0%**	**35.6%**	**47.2%**	**31.8%**	**19.8%**	**7.4%**	**12.8%**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Note: Open-ended / unprompted / multiple selection

Table 8: Proportion of respondents who reported Ebola transmission sources by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014 (contd.)

	Shaking hands of infected person	Other physical contact with person	God's will	Witch craft	Participating in burial ceremonies that involve the touching /washing of the dead body	Coming in contact with anything someone sick with Ebola has touched	Going to the hospital / health facility	Total responses
Region								
Western Area	47.9%	44.6%	2.3%	.2%	17.8%	16.7%	.4%	522
Northern Province	44.2%	50.6%	2.8%	.0%	14.8%	9.2%	.5%	633
Eastern Province	35.0%	42.1%	1.2%	.0%	24.8%	8.3%	.5%	420
Southern Province	62.0%	53.4%	2.5%	.2%	24.9%	19.2%	1.6%	511
Sex								
Male	48.2%	49.2%	2.3%	.0%	20.7%	14.6%	.5%	970
Female	47.2%	47.2%	2.3%	.2%	19.5%	12.2%	.9%	1113
Age								
15-24	46.6%	48.4%	2.3%	.1%	18.4%	14.2%	.7%	741
25+	48.3%	48.0%	2.3%	.1%	21.0%	12.8%	.7%	1340
Education								
None	43.9%	40.1%	3.4%	.4%	18.3%	7.8%	.4%	553
Primary	52.8%	51.9%	3.1%	.0%	20.3%	11.7%	1.1%	360
Secondary +	48.0%	50.7%	1.5%	.0%	20.9%	16.4%	.8%	1157
Total A	**47.7%**	**48.1%**	**2.3%**	**.1%**	**20.0%**	**13.3%**	**.7%**	**2086**
Total A Weighted	**47.6%**	**50.5%**	**2.3%**	**.1%**	**21.6%**	**14.3%**	**.8%**	**2086**
Total B	**51.7%**	**53.2%**	**2.3%**	**.1%**	**22.4%**	**15.5%**	**.9%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Note: Open-ended / unprompted / multiple selection

Similar to participant knowledge and perceptions of the origin/cause of Ebola, its modes of transmission were rarely linked to God or witchcraft. Furthermore, less than 1% of respondents cited health facilities as a possible mode of transmission. It should be noted that given the open-ended / unprompted format of this survey item, it is possible that respondents were not able to recall all possible known/perceived modes of transmission. It could also be that some data collectors did not probe sufficiently to obtain all known/perceived MOTs by the respondents. Therefore, the results in Table 6 should be interpreted as the MOTs that respondents were readily able to recall. Seeing that the question was posed in the same format in KAP-1, we are still able to draw reasonable conclusion that knowledge of the MOTs has increased based upon on the upward trend.

Knowledge: Signs and symptoms

Knowledge of key EVD signs and symptoms has significantly increased (p<.0001) as compared to KAP-1: sudden onset of fever (56% to 64%), diarrhea (71% to 82%) and vomiting (81% to 89%). In KAP-2 respondents were less likely to attribute "any fever" (23%) to Ebola as compared to "sudden onset of high fever" (62%). Potential early signs/symptoms of EVD such as muscle pain and weakness were cited by about one-third of respondents (29% and 32%) respectively. Only 6% cited lack of appetite and 19.1% cited sore throat as a symptom of Ebola.

Knowledge of key EVD signs and symptoms remains lower among those with no education or only primary education compared to those with at least some secondary school education (Table 9). Knowledge of the various signs/symptoms does not significantly differ across age-groups and sex (p>.05).

Table 9: Proportion of respondents who were able to cite various signs/symptoms of EVD by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Any Fever	Sudden onset of high fever	Severe headache	Muscle pain	Weakness	Diarrhea (with or without blood)	Vomiting (with or without blood)	Abdominal (stomach) pain
Region								
Western Area	14.8%	64.4%	39.3%	19.3%	26.2%	82.6%	88.3%	5.6%
Northern Province	27.3%	47.2%	31.9%	24.6%	21.8%	72.7%	84.5%	8.2%
Eastern Province	28.3%	65.2%	61.9%	30.7%	35.5%	85.0%	88.3%	11.7%
Southern Province	16.4%	74.6%	55.2%	35.4%	42.1%	89.4%	96.1%	9.8%
Sex								
Male	21.0%	61.3%	46.8%	29.4%	30.4%	82.3%	88.8%	8.2%
Female	22.4%	62.4%	44.5%	25.3%	30.9%	81.5%	89.6%	9.0%
Age								
15-25	22.3%	61.9%	43.0%	28.9%	33.1%	82.3%	91.2%	9.2%
25+	21.4%	61.9%	46.9%	26.3%	29.3%	81.6%	88.1%	8.4%
Education								
None	19.5%	53.5%	42.7%	19.3%	25.9%	74.5%	83.2%	5.4%
Primary	20.8%	62.5%	45.0%	22.8%	27.5%	83.1%	92.8%	8.6%
Secondary +	23.1%	65.9%	47.2%	32.4%	34.1%	85.2%	91.4%	10.2%
Total A	**21.7%**	**61.8%**	**45.5%**	**27.2%**	**30.6%**	**81.7%**	**89.1%**	**8.6%**
Total A Weighted	**22.7%**	**62.2%**	**47.7%**	**28.6%**	**32.0%**	**82.1%**	**89.2%**	**8.7%**
Total B	**21.2%**	**63.7%**	**45.3%**	**24.8%**	**28.6%**	**82.4%**	**88.9%**	**7.3%**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Note: Open-ended / unprompted

Table 9: Proportion of respondents who were able to cite various signs/symptoms of EVD by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014 (contd.)

	Lack of appetite	Sore throat	Rash	Difficulty breathing	Bleeding (internal or external)	Hiccups	Delirium/ Confusion	Total responses
Region								
Western Area	2.7%	18.4%	52.9%	1.1%	42.1%	.4%	.6%	522
Northern Province	2.4%	11.7%	45.8%	1.1%	33.3%	1.6%	.3%	633
Eastern Province	6.4%	15.2%	34.5%	3.3%	26.2%	1.4%	.0%	420
Southern Province	10.6%	28.2%	56.8%	4.3%	44.8%	1.8%	.0%	511
Sex								
Male	5.7%	17.6%	51.0%	2.7%	36.2%	1.1%	.2%	970
Female	4.9%	18.6%	45.5%	2.1%	37.6%	1.4%	.3%	1113
Age								
15-25	5.4%	19.7%	53.2%	2.4%	39.5%	.8%	.0%	741
25+	5.2%	17.3%	45.2%	2.3%	35.5%	1.6%	.4%	1340
Education								
None	4.5%	12.1%	36.0%	1.3%	25.7%	.5%	.4%	553
Primary	3.9%	16.1%	46.9%	2.2%	38.6%	.8%	.0%	360
Secondary +	6.1%	21.8%	54.3%	2.9%	42.2%	1.8%	.3%	1157
Total A	**5.3%**	**18.1%**	**48.0%**	**2.3%**	**36.9%**	**1.3%**	**.2%**	**2086**
Total A Weighted	**6.0%**	**19.1%**	**47.5%**	**2.6%**	**35.5%**	**1.2%**	**.1%**	**2086**
Total B	**5.6%**	**19.2%**	**48.0%**	**2.4%**	**34.7%**	**.6%**	**.3%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Note: Open-ended / unprompted / multiple selection allowed

Rash, an advanced sign of EVD, was cited by nearly half of respondents (47.5%). Bleeding was cited by 35.5% of respondents. However, the following advanced EVD signs/symptoms were less likely to be cited or recalled by respondents: difficulty breathing (2.6%), hiccups (1.2%), delirium/confusion (0.1%). It should be noted that social mobilization and public education efforts had been re-focused on emphasizing the most common EVD signs and symptoms in the month prior to the administration of the survey. For instance, educational materials had been redesigned to place less emphasis on bleeding (internal or external). This was contrary to the initial stages of the outbreak where the presence of blood in stool and vomit was emphasized as a key sign of EVD.

Perceived risk

The majority of respondents perceived themselves to be at no risk of contracting Ebola within the next six months (54%) while 44% perceived some level of risk (Table 10). Young people aged 15-24 were significantly ($p<0.001$) less likely to perceive no risk of Ebola as compared to adults aged 25 and above. One-fifth believed that they are at great risk of getting Ebola. Another 7% perceived medium risk, and 16% perceived a small risk. Many who perceived some level of EVD risk (n= 903) hold this perception because they believe "Ebola is everywhere" in Sierra Leone (83%). On the other hand, those who did not perceive themselves to be at no risk of Ebola (n = 1145) attributed such perception to: not eating/hunting bush meat or bat (48%), washing their hands with soap or other disinfectants (40%); not coming in contact with someone who has Ebola (36%); protection from God (34%); not living in an area where there is Ebola (32%); avoiding funeral/burials (32%); and avoiding unprotected contact with bodily fluids (31%). Compared to KAP-1, significantly fewer respondents ($p<.0001$) perceived themselves to be at some risk of contracting Ebola within the next six months (59% to 42%).

Table 10: Proportion of respondents who reported perceived risk of Ebola within the next six months by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	No risk	Some risk			Not sure	Total responses
		Small risk	Medium risk	Great risk		
Region						
Western Area	59.7%	10.6%	8.1%	19.0%	2.7%	521
Northern Province	30.7%	21.1%	12.8%	33.8%	1.6%	631
Eastern Province	68.3%	10.5%	2.6%	16.4%	2.1%	420
Southern Province	69.1%	19.4%	3.3%	7.8%	.4%	511
Sex						
Males	53.0%	17.6%	7.4%	20.7%	1.3%	968
Female	56.7%	14.4%	7.1%	19.9%	2.0%	1112
Age						
15-24	59.3%	16.5%	6.4%	16.8%	1.1%	740
25+	52.5%	15.5%	7.8%	22.2%	2.0%	1338
Education						
None	56.5%	10.5%	6.0%	24.1%	2.9%	552
Primary	64.1%	17.0%	2.2%	15.3%	1.4%	359
Secondary +	51.6%	18.2%	9.3%	19.8%	1.0%	1156
Total A	**55.0%**	**15.9%**	**7.2%**	**20.2%**	**1.7%**	**2084**
Total A Weighted	**54.0%**	**15.5%**	**8.0%**	**20.5%**	**1.9%**	**2084**
Total B	**56.0%**	**12.0%**	**8.0%**	**21.8%**	**2.0%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

The generalized fear that "Ebola is everywhere" appears to be the main driver of increased risk perception of contracting Ebola as opposed to unsafe practices such as washing and touching dead bodies, attending funerals, and living in the same household as someone who may be a suspected case. On the other hand, the reasons respondents cited for not perceiving any risk of Ebola in the next six months were a mix of taking preventive actions as well as relying on God for protection against the disease. It should be noted that eating bush meat was the most frequently cited mode of transmission (Table 7), and in Figure 4, avoidance of bush meat is also reported as the top reason for not perceiving any risk of Ebola in the next six months.

Figure 4: Percent distribution of reasons cited by respondents who perceive themselves to be at some risk of Ebola within the next six months, Ebola KAP-2, Sierra Leone, 2014[8]

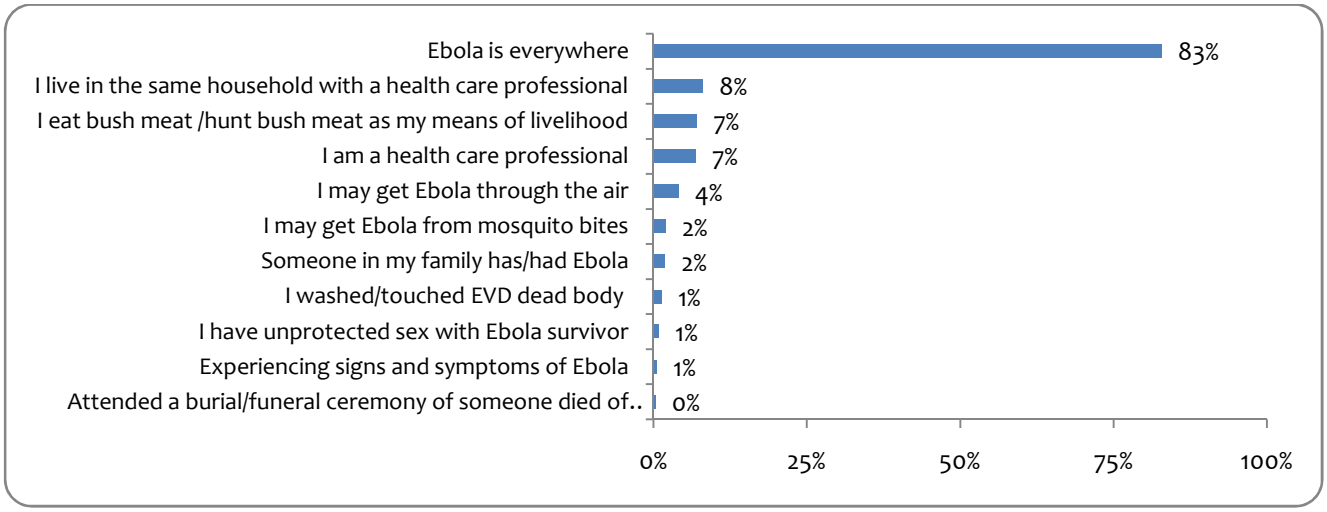
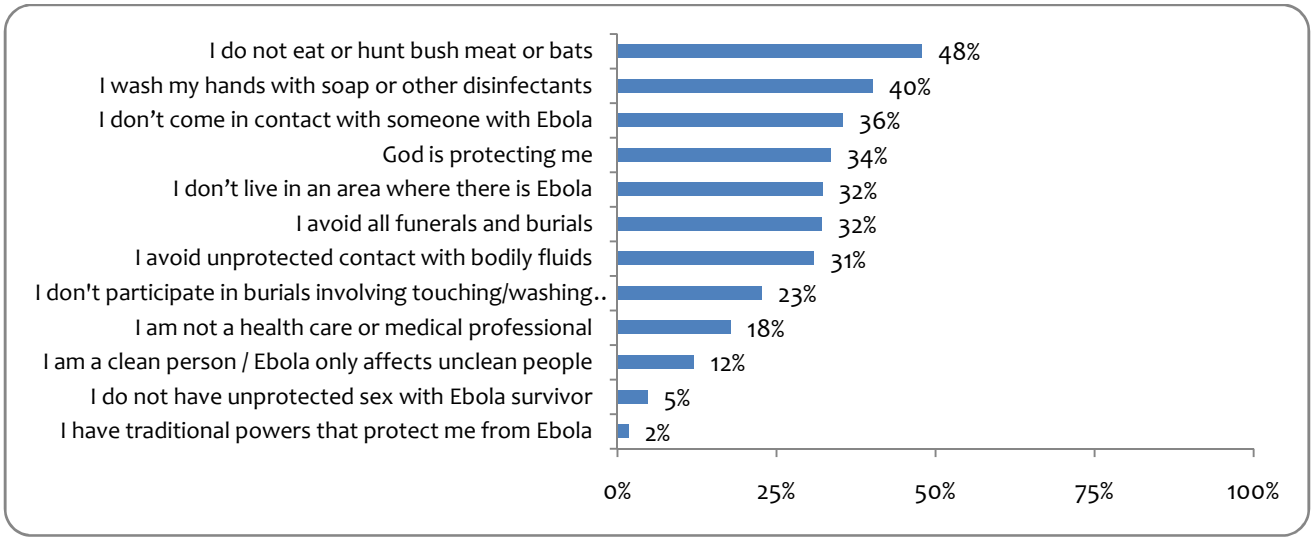


Figure 5: Percent distribution of reasons cited by respondents who do not perceive themselves to be at risk of Ebola within the next six months, Ebola KAP-2, Sierra Leone, 2014



[8] Multiple selection allowed (Figures 4 – 5).

Knowledge on prevention and medical care

In comparison to KAP-1, a greater proportion of respondents reported knowledge on prevention and medical care overall:

- Avoiding contact with blood and bodily fluids (87% to 92%; p<0.0001)
- Avoiding funeral or burial rituals that requiring the handling of dead body of someone who died of Ebola (85% to 94%; p<0.0001)
- Not touching anyone (83% to 92%; p<0.0001)

A high percentage of respondents across all demographic characteristics correctly identified primary means of EVD prevention (Table 11):

Table 11: Proportion of respondent who reported various correct means of EVD prevention by demographic characteristic, Ebola KAP-2, Sierra Leone, 2014

	Avoiding contact with blood and body fluids	Total responses	Avoiding funeral or burial rituals that involve touching or washing the dead body of some who died of Ebola	Total responses	Not touching anyone	Total responses
Region						
Western Area	88.5%	520	89.8%	522	91.0%	522
Northern Province	93.5%	630	96.2%	627	93.8%	630
Eastern Province	96.2%	420	95.9%	419	94.0%	420
Southern Province	94.7%	509	95.5%	508	90.7%	506
Gender						
Male	94.3%	967	95.6%	968	93.3%	969
Female	92.0%	1111	93.3%	1108	91.6%	1109
Sex						
15-24	92.4%	739	93.4%	738	92.7%	740
25+	93.4%	1337	94.9%	1336	92.2%	1336
Education						
None	92.2%	551	92.9%	551	88.9%	551
Primary	92.5%	360	95.0%	360	90.0%	359
Secondary +	93.8%	1154	95.0%	1152	94.7%	1155
Total A	**93.1%**	**2079**	**94.4%**	**2076**	**92.4%**	**2078**
Total A Weighted	**93.3%**	**2079**	**94.9%**	**2076**	**92.5%**	**2078**
Total B	**91.9%**	**1402**	**94.1%**	**1400**	**91.9%**	**1403**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Similarly, already positive attitudes towards early medical care further improved between KAP-1 and KAP-2 (p<.05) such that:

- 93% of respondents reported that if a person had Ebola, he/she has a higher chance of survival if they immediately go to a Health Facility -- compared to 90% in KAP-1.

- 93% of respondents reported that if a person with Ebola immediately goes to a Health Facility they will reduce the chance of spreading the disease to family/people living with -- compared to 91% in KAP-1.

Likewise, the vast majority of respondents believed that early treatment improves one's chance of survival and reduces the likelihood of spreading the disease to others. These beliefs did not vary significantly by demographic or regional characteristics (Table 12).

Table 12: Proportion of respondents who reported early treatment improves one's chance of surviving Ebola; and reduces the chance of spreading the disease to others by demographic characteristic, Ebola KAP-2, Sierra Leone, 2014

	If a person has Ebola he/she has a higher chance of survival if he/she goes immediately to a Health Facility	Total responses	If a person with Ebola goes immediately to a Health Facility he/she will reduce the chance of spreading it to family/people living with them	Total responses
Region				
Western Area	92.1%	520	92.7%	522
Northern Province	91.1%	631	93.2%	631
Eastern Province	95.9%	419	94.0%	419
Southern Province	95.1%	507	93.7%	508
Sex				
Male	94.4%	965	94.1%	970
Female	92.4%	1112	92.7%	1110
Age				
15-24	94.1%	741	93.0%	740
25+	93.0%	1334	93.6%	1338
Education				
None	89.3%	551	90.1%	553
Primary	92.2%	360	91.9%	359
Secondary +	95.6%	1153	95.5%	1155
Total A	**93.3%**	**2077**	**93.4%**	**2080**
Total A Weighted	**93.4%**	**2077**	**93.1%**	**2080**
Total B	**92.9%**	**1402**	**93.3%**	**1403**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Misconceptions

While misconceptions about Ebola prevention and treatment have generally decreased as compared to KAP-1, the following proportion of respondents reported in KAP-2 that (Table 13):

- Bathing with salt and hot water prevents Ebola (36%) – compared to 42% in KAP-1 (p<0.0001)
- Ebola is transmitted by air (24%) – compared to 30% in KAP-1 (p<.0001)
- Ebola can be treated by Spiritual Healers(12%) – compared to 20% in KAP-1 (p<0.0001)
- Ebola can be treated by Traditional Healers(3%) – compared to 6% in KAP-1 (p<0.0001)

The proportion of respondents reporting that Ebola is transmitted through mosquito bites remained the same between KAP-1(30%) and KAP-2 (30%) (Table 14).

Regionally, these misconceptions were slightly more prevalent in Western Area as compared to the rest of the country (though not statistically significant; p > .05). For instance, in Western Area, 22.5% of respondents reported that spiritual healers can successfully treat Ebola as compared to 8.4% in the Northern Province, 9.8% in the Eastern Province, and 13.2% in the Southern Province. Women and young people aged 15-24 were also more likely to hold misconceptions about EVD as compared to men and adults aged 25 and above. Misconceptions were significantly lower (p<.05) amongst those with at least secondary education, particularly around the transmission of Ebola through mosquito bites.

Table 13: Proportion of respondents who reported various incorrect means of EVD prevention and treatment by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

Proportion of respondents who reported that:	EVD can be prevented bathing with salt and hot water	Traditional healers can treat Ebola successfully	Spiritual healers can treat Ebola successfully	Total responses
Region				
Western Area	32.6%	2.3%	22.5%	521
Northern Province	34.7%	3.3%	8.4%	632
Eastern Province	36.2%	4.5%	9.8%	418
Southern Province	34.6%	2.8%	13.2%	509
Sex				
Male	32.1%	3.6%	12.5%	968
Female	36.5%	2.8%	14.1%	1112
Age				
15-24	37.3%	2.6%	13.0%	741
25+	33.0%	3.5%	13.6%	1337
Education				
None	41.8%	5.2%	13.4%	552
Primary	38.4%	2.8%	13.6%	360
Secondary +	29.8%	2.2%	13.3%	1155
Total A	**34.5%**	**3.2%**	**13.4%**	**2080**
Total A Weighted	**34.3%**	**3.1%**	**11.7%**	**2080**
Total B	**35.7%**	**3.0%**	**11.9%**	**1405**

Total A: all 14 districts; Total B: restricted to the 9 districts sampled in KAP-1

Table 14: Proportion of respondents who reported that Ebola can be transmitted by air or through mosquito bites by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

Proportion of respondents who reported that:	Ebola can be transmitted through the air	Total responses	A person can get Ebola from mosquito bites	Total responses
Region				
Western Area	27.9%	520	32.6%	521
Northern Province	25.8%	633	28.9%	630
Eastern Province	25.5%	420	34.5%	420
Southern Province	27.4%	508	32.8%	509
Sex				
Male	21.9%	968	29.2%	970
Female	30.7%	1112	34.3%	1110
Age				
15-24	24.6%	741	32.1%	739
25+	27.7%	1337	31.9%	1339
Education				
None	35.1%	553	40.0%	552
Primary	32.4%	358	39.4%	360
Secondary +	20.7%	1156	25.6%	1155
Total A	**26.6%**	**2081**	**31.9%**	**2080**
Total A Weighted	**24.4%**	**2081**	**30.2%**	**2080**
Total B	**24.1%**	**1404**	**29.9%**	**1403**

Total A: all 14 districts

Total B: restricted to the 9 districts sampled in KAP-1

Comprehensive Knowledge

In the seven-week period between KAP-1 and KAP-2, comprehensive knowledge[9] of Ebola significantly increased (p<0.0001) from 39% to 48%. Nine in 10 respondents were able to accept three correct means of preventing/treating Ebola. On the other hand, only 52.8% of them rejected three key misconceptions. Comprehensive knowledge was lowest among respondents' in Western Area (44%) as compared to the Northern Province (53%), Eastern Province (50%) and Southern Province (48%). Comprehensive knowledge was significantly lower among respondents with no education (40%) as compared to those with at least some secondary school education (54%). Young people aged 15-24 had significantly lower (p<0.05) level of Comprehensive knowledge (45%) compared to adults aged 25 and above (51%). Similarly, females had significantly lower comprehensive knowledge (p<0.05) level of CK (45%) as compared to their male counterparts (53%) (Table 15).

Table 15: Proportion of respondents who have comprehensive EVD knowledge by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Accept three key means of prevention/treatment	Total responses	Reject three key misconceptions	Total responses	Have comprehensive EVD knowledge	Total responses
Region						
Western Area	88.4%	465	48.8%	381	44.2%	353
Northern Province	90.3%	578	56.3%	504	53.1%	478
Eastern Province	92.5%	401	52.4%	359	48.9%	350
Southern Province	90.9%	485	52.4%	439	48.0%	421
Sex						
Male	91.6%	910	56.8%	804	52.6%	774
Female	89.4%	1019	49.0%	879	45.4%	828
Age						
15-24	87.7%	698	50.6%	624	44.6%	594
25+	92.1%	1229	53.9%	1057	51.4%	1006
Education						
None	90.1%	487	42.5%	395	39.9%	371
Primary	90.0%	330	48.5%	293	43.8%	276
Secondary +	90.8%	1100	58.2%	987	53.8%	948
Total A	**90.5%**	**1929**	**52.8%**	**1683**	**48.9%**	**1602**
Total A Weighted	**90.5%**	**1934**	**53.7%**	**1699**	**49.6%**	**1602**
Total B	**90.0%**	**1292**	**52.5%**	**1127**	**48.2%**	**1066**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

[9] **Definitions**

Three main means of prevention/treatment: (1) Accepts that Ebola can be prevented by avoiding contact with bodily fluids; (2) Accepts Ebola can be prevented by avoiding burials that involve the washing or touching of the body; (3) Accepts that a person with Ebola has a better chance of survival if s/he goes immediately to a health facility.

Three key misconceptions: (1) Rejects that Ebola can be prevented by bathing with salt and hot water; (2) Rejects that spiritual healers can successfully treat Ebola; (3) Rejects that traditional healers can successfully treat Ebola.

Channels of EVD information: Current and preferred

Radio was by far the channel with the widest reach such that 96% of respondents reported receiving information about Ebola through it. This was followed by the Ose to Ose Ebola Tok Campaign (28.8%), religious venues (22.3%), megaphone announcements (22.1%), and house visits by health workers (21.4%), and Ministry of Health and Sanitation (20.4%). The channels with the lowest reach were: Internet/blog/social media (5%), traditional leaders (6.0%), and mobiles phones / SMS (10.5%) (Table 16).

Table 16: Proportion of respondents reporting their current channels of receiving EVD information by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Radio	Television	Megaphone announcements	House visits by health workers	Church / Mosque / other religious venues	Other community meetings	Newspaper / Flyers / Brochures / Other print materials	Internet / Blog / Website / Social Media	Mobile phone / SMS	Ose-to-Ose Ebola Tok Campaign	Traditional leaders (chief, village headman, etc.)	Ministry of Health and Sanitation	Total responses
Region													
Western Area	92.5%	53.8%	9.8%	4.4%	6.8%	8.5%	12.8%	9.4%	2.4%	14.0%	1.3%	3.7%	431
Northern Province	96.3%	9.7%	23.5%	14.2%	18.4%	17.4%	12.7%	3.6%	7.1%	28.6%	9.3%	26.2%	710
Eastern Province	96.7%	4.4%	25.0%	49.6%	28.5%	14.2%	6.1%	2.2%	13.6%	25.8%	2.7%	25.7%	472
Southern Province	97.2%	22.9%	28.1%	19.5%	36.0%	29.0%	23.0%	5.7%	19.6%	45.4%	8.6%	21.6%	474
Sex													
Male	96.1%	21.2%	23.4%	22.4%	23.2%	18.9%	17.2%	7.6%	11.5%	29.4%	6.3%	20.9%	977
Female	95.9%	20.1%	20.9%	20.6%	21.6%	16.3%	10.4%	2.7%	9.5%	28.3%	5.8%	20.0%	1106
Age													
15-24	96.7%	23.4%	22.1%	21.3%	22.4%	12.8%	13.8%	6.1%	12.6%	25.4%	5.5%	21.1%	742
25+	95.5%	19.1%	22.0%	21.5%	22.3%	20.1%	13.4%	4.4%	9.3%	30.7%	6.3%	20.0%	1339
Education													
None	93.9%	7.7%	20.6%	20.3%	21.6%	20.0%	7.3%	1.9%	4.0%	29.6%	6.8%	17.1%	539
Primary	96.6%	16.7%	22.3%	25.8%	20.9%	20.9%	9.7%	2.0%	7.4%	30.8%	7.6%	15.6%	353
Secondary +	96.6%	27.5%	23.0%	20.8%	23.3%	15.3%	17.6%	7.3%	14.5%	28.1%	5.3%	23.6%	1176
Total A	**95.8%**	**19.9%**	**19.5%**	**18.6%**	**19.5%**	**18.8%**	**13.0%**	**5.2%**	**9.8%**	**28.8%**	**5.8%**	**15.6%**	**2086**
Total A Weighted	**95.8%**	**20.6%**	**22.1%**	**21.4%**	**22.3%**	**17.5%**	**13.6%**	**5.0%**	**10.5%**	**28.8%**	**6.0%**	**20.4%**	**2086**
Total B	**94.8**	**25.2%**	**19.2%**	**21.1%**	**20.0%**	**16.2%**	**12.5%**	**5.5%**	**8.9%**	**23.8%**	**4.4%**	**19.7%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1
Note: Open-ended / unprompted / multiple selection allowed

Radio was also the most preferred channel for receiving EVD information as reported by 90.1% of respondents; followed by Ose to Ose Ebola Tok (23.2%), Ministry of Health and Sanitation (19.1%), television (19.1%), visits by health professionals (15.8%), religious venues (13.5%), and megaphone announcements (13.5%). Television was more preferred in urban settings such as Western Area (50.6%) as compared to the rest of the country; as well as those with at least some secondary school education (25.2%) as compared to those with no education (8.8%) (Table 17).Of note, there was some discordance between current and most preferred channels of information. For example, 22.1% reported that megaphone announcement was a current source but only 13.5% preferred receiving information through megaphone announcements.

Table 17: Proportion of respondents reporting their preferred channels of receiving EVD information by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Radio	Television	Megaphone announcements	House visits by health workers	Church / Mosque / other religious venues	Other community meetings	Newspaper / Flyers / Brochures / Other print materials	Internet / Blog / Website / Social Media	Mobile phone / text messages	Ose-to-Ose Ebola Tok Campaign	Traditional leaders (chief, village headman, etc.)	Government	Ministry of Health and Sanitation	Total Responses
Region														
Western Area	87.7%	50.6%	6.7%	2.9%	4.7%	2.7%	6.8%	6.8%	2.5%	13.7%	.6%	2.5%	5.0%	431
Northern Province	88.8%	5.9%	6.4%	10.3%	8.6%	5.8%	4.7%	1.2%	2.8%	11.8%	5.3%	7.5%	24.4%	710
Eastern Province	89.1%	4.3%	10.3%	29.3%	11.9%	3.1%	4.4%	3.3%	6.8%	23.5%	2.6%	5.9%	17.6%	472
Southern Province	95.0%	25.2%	33.4%	22.3%	30.3%	20.2%	19.9%	4.6%	23.8%	48.5%	10.0%	13.9%	25.3%	474
Sex														
Males	89.1%	19.3%	13.7%	17.1%	13.0%	9.5%	10.2%	4.9%	9.3%	22.8%	4.8%	7.7%	20.2%	977
Female	91.2%	19.0%	13.3%	14.7%	14.0%	6.3%	7.1%	2.5%	7.7%	23.5%	4.8%	7.4%	18.1%	1106
Age														
15-24	91.7%	20.7%	15.5%	14.6%	13.6%	7.8%	8.7%	5.0%	10.5%	22.8%	3.8%	8.6%	17.7%	742
25+	89.4%	18.2%	12.4%	16.5%	13.4%	7.8%	8.5%	2.8%	7.3%	23.4%	5.3%	7.0%	19.9%	1339
Education														
None	88.6%	8.8%	11.0%	15.6%	12.3%	6.4%	5.0%	1.5%	2.6%	23.5%	5.4%	7.8%	18.9%	539
Primary	92.6%	14.3%	15.5%	17.1%	13.5%	8.4%	8.2%	.9%	6.3%	21.8%	6.2%	5.9%	13.3%	353
Secondary +	90.4%	25.2%	14.2%	15.8%	14.0%	8.3%	10.4%	5.3%	11.9%	23.7%	4.1%	8.1%	21.1%	1176
Total A	**90.4%**	**19.1%**	**12.8%**	**15.6%**	**10.4%**	**7.8%**	**8.3%**	**3.8%**	**8.7%**	**24.5%**	**4.7%**	**7.9%**	**18.9%**	**2086**
Total A Weighted	**90.1%**	**19.1%**	**13.5%**	**15.8%**	**13.5%**	**7.8%**	**8.5%**	**3.6%**	**8.4%**	**23.2%**	**4.8%**	**7.6%**	**19.1%**	**2086**
Total B	**90.3%**	**22.4%**	**10.3%**	**12.3%**	**12.5%**	**6.7%**	**7.0%**	**3.9%**	**6.4%**	**17.3%**	**2.8%**	**4.9%**	**13.0%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1
Note: Open-ended / unprompted / multiple selection allowed

Health seeking knowledge, attitudes, and practices

Overall, the majority of respondents knew the 117 number to call to report a suspected Ebola case or ask questions (87.2%). However, knowledge of the number and reports of having called the number appeared to be correlated with respondents' level of education, and were lowest among those with no education. Only 70.5% of respondents with no education knew the 117 number as compared to 94.6% of those with some secondary school education. Of those who knew the 117 Call Center number, 6.5% reported calling the center. It is worth noting that respondents with at least some secondary school education (8.1%) were more likely to have called the center as compared to those with no education (2.6%) (Table18).

Table 18: Proportion of respondents who: reported knowing the number to call to report a suspected Ebola case or ask questions; and have called before by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Know the number to call to report a suspected Ebola case or ask questions about Ebola	Total responses	Have called the National Ebola Call Center (117)	Total responses
Sex				
Males	91.0%	968	8.4%	878
Female	83.9%	1112	4.6%	931
Age				
15-24	92.0%	740	4.4%	681
25+	84.5%	1338	7.7%	1126
Education				
None	70.5%	552	2.6%	388
Primary	90.3%	360	5.3%	322
Secondary +	94.6%	1155	8.1%	1092
Total A	**87.2%**	**2080**	**6.5%**	**1809**
Total A Weighted	**87.2%**	**2087**	**7.0%**	**1809**
Total B	**85.3%**	**1404**	**7.8%**	**1194**

Total A: all 14 districts

Total B: restricted to the 9 districts sampled in KAP-1

Table 19: Proportion of respondents by demographic characteristics who have called the 117 call center and cited various reasons for calling 117, Ebola KAP-2, Sierra Leone, 2014

	Reasons for calling 117:							
	Get health information on Ebola	Report a death	Report a suspected case	Know if the number works	Other reasons	Total responses	Got immediate action	Total responses
Gender								
Males	16.2%	14.9%	40.5%	25.7%	2.7%	74	52.1%	73
Female	23.3%	25.6%	30.2%	16.3%	4.7%	43	53.5%	43
Age								
15-24	30.0%	6.7%	30.0%	26.7%	6.7%	30	63.3%	30
25+	14.9%	23.0%	39.1%	20.7%	2.3%	87	48.8%	86
Education								
None	10.0%	10.0%	30.0%	50.0%	.0%	10	50.0%	10
Primary	47.1%	17.6%	23.5%	5.9%	5.9%	17	76.5%	17
Secondary +	14.8%	20.5%	40.9%	20.5%	3.4%	88	47.1%	87
Total A	**18.8%**	**18.8%**	**36.8%**	**22.2%**	**3.4%**	**117**	**52.6%**	**116**
Total A Weighted	**19.0%**	**15.9%**	**38.1%**	**23.0%**	**4.0%**	**126**	**54.8%**	**126**
Total B	**18.3%**	**18.3%**	**36.6%**	**22.6%**	**4.3%**	**93**	**51.1%**	**92**

Total A: all 14 districts; Total B: restricted to the 9 districts sampled in KAP-1

Overall, the top reason for calling 117 (Table 19) was to report a suspected case (36.8%)followed by the need to know if the number is working (22.2%).Calls made to 117 were primarily respondents that were educated with the exception on those calling to find out if the number is working. About half of the respondents (54.8%) surveyed reported getting immediate action upon calling 117.

Table 20: Proportion of respondents by demographic characteristics who would go to a health facility if: they had a high fever; or suspect they have Ebola, Ebola KAP-2, Sierra Leone, 2014

	Would go to a health facility If had a high fever	Total responses	Would go to a health facility if Ebola is suspected	Total Responses
Sex				
Males	93.5%	970	98.1%	964
Female	91.9%	1113	97.7%	1111
Age				
15-24	90.4%	741	97.4%	740
25+	93.9%	1340	98.2%	1333
Education				
None	94.4%	553	97.1%	552
Primary	93.6%	100.0%	96.9%	359
Secondary +	91.5%	100.0%	98.6%	1151
Total A	**92.7%**	**2083**	**97.9%**	**2083**
Total A Weighted	**92.9%**	**2083**	**98.2%**	**2083**
Total B	**91.9%**	**1406**	**97.7%**	**1399**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Regardless of age, sex, or education (Table 20) a majority of respondents reported that they would go to a health facility if they had a high fever (92.9%) or suspect they have Ebola (98.2%). Overall, the

percentage rates were slightly higher if the respondent suspected they had Ebola compared to if they had a fever.

Behavioral intentions: Suspected EVD case in family

If a family member is suspected of having EVD, 84.2% said that they intend to call for help by contacting the health facility/hospital or the Ebola Call Center. However such intention was lower among respondents from the Northern Province (78.2%) and those with no education (75.0%). Only 28.6% reported that they would avoid physical contact and the bodily fluids of the suspected family member. In Western Area, only 23.0% held such intention to avoid physical contact and bodily fluids when a family member is suspected of having Ebola. A small proportion (3.3%) of respondents said that they would help care for the family member at home, and less than 1% would hide them (Table 21). Given the high level of knowledge around the need to seek care when EVD is suspected, it is not clear whether or not respondents were being truthful or provided socially desirable responses regarding their intention to hide family members suspected of Ebola.

Table 21: Proportion of respondents by demographic characteristics reporting various behavioral intentions if a family member was suspected of EVD, Ebola KAP-2, Sierra Leone, 2014

	Do nothing	Help care for the person at home	Check their temperature by touching their body	Avoid all physical contact and bodily fluids of that person	Call the hospital/ health facility / Ebola phone line	Take the person to the hospital	Hide them	Total Responses
Region								
Western Area	.5%	2.3%	.5%	23.0%	89.0%	16.8%	0.0%	431
Northern Province	4.1%	.3%	.6%	30.0%	78.2%	32.6%	0.0%	710
Eastern Province	.5%	5.4%	2.1%	30.8%	85.8%	12.2%	1.0%	472
Southern Province	4.7%	8.9%	2.5%	29.5%	87.3%	16.2%	0.0%	474
Sex								
Males	3.3%	3.9%	1.7%	28.4%	84.2%	19.6%	.3%	977
Female	2.1%	3.8%	1.0%	28.9%	84.5%	22.2%	.1%	1106
Age								
15-24	2.6%	2.6%	.5%	30.8%	87.8%	15.0%	.6%	742
25+	2.7%	4.5%	1.8%	27.5%	82.5%	24.3%	0.0%	1339
Education								
None	4.0%	3.2%	1.9%	28.1%	75.0%	28.8%	0.0%	539
Primary	3.4%	6.8%	1.8%	27.2%	84.5%	19.5%	.4%	353
Secondary +	1.9%	3.3%	.9%	29.3%	88.6%	17.9%	.3%	1176
Total A	**3.3%**	**4.2%**	**1.4%**	**27.1%**	**82.7%**	**20.3%**	**.2%**	**2086**
Total A Weighted	**2.6%**	**3.8%**	**1.3%**	**28.6%**	**84.2%**	**21.0%**	**.2%**	**2086**
Total B	**1.7%**	**2.9%**	**0.9%**	**27.5%**	**84.7%**	**20.0%**	**.1%**	**1409**

Behavioral intentions while waiting for medical help to arrive

Reported intentions for key recommended behaviors by caregivers while waiting for help were low overall (Table 22). Less than 10% of respondents, regardless of education, mentioned using a single

caregiver, using protective barriers, or providing ORS if they were to have a sick family member at home exhibiting signs/symptoms of Ebola. However, 83.1% of all respondents reported their intent to isolate the patient and over half of all respondents (51.0%) would not touch the patient or their bodily fluids while waiting for medical help to arrive. In addition, 29.6% of respondents reported their intent to not touch things that the sick person has touched.

Table 22: Proportion of respondents who reported various behavioral intentions while waiting for medical help when a family member is sick at home by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Isolate the person from others	Use a single caregiver	Not touch the person or their body fluids	Not touch things the person has touched	Use protective barriers such as gloves	Frequently wash their hands	Provide sick person with food and water	Provide Oral Rehydration Salt (ORS) – "WataMere-cin"	Total responses
Sex									
Males	84.4%	6.2%	48.2%	26.7%	7.2%	14.3%	11.8%	6.9%	970
Female	79.2%	3.9%	47.3%	27.1%	7.6%	15.6%	11.4%	7.7%	1113
Age									
15-24	80.4%	3.2%	49.9%	29.1%	7.0%	14.0%	10.9%	7.2%	741
25+	82.2%	5.9%	46.6%	25.7%	7.7%	15.6%	11.9%	7.5%	1340
Education									
None	75.2%	4.0%	44.3%	24.6%	4.9%	13.7%	11.6%	5.6%	553
Primary	80.0%	4.7%	50.0%	30.3%	6.4%	15.3%	11.4%	3.6%	360
Secondary +	85.2%	5.4%	48.7%	27.1%	8.9%	15.7%	11.7%	9.3%	1157
Total A	**81.6%**	**4.9%**	**47.8%**	**27.0%**	**7.4%**	**15.1%**	**11.6%**	**7.3%**	**2070**
Total A Weighted	**83.1%**	**4.5%**	**51.0%**	**29.6%**	**7.0%**	**17.0%**	**10.8%**	**6.8%**	**2070**
Total B	**80.4%**	**5.0%**	**52.0%**	**28.4%**	**7.6%**	**14.0%**	**10.5%**	**7.3%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Behavioral intentions on burial/funeral practices

About a third of respondents (31.6%) rejected alternatives to traditional funeral/burial ceremonies that would not involve the touching or washing of the dead body. The proportion of individuals who responded in this way was highest in Western Area (41.3%) and lowest in the Southern Region (23.3%). A slightly greater percentage of respondents with no education rejected safe alternatives to traditional funerals/burials (34.5%) as compared to those with some primary education (30%) or at least some secondary school (31.8%). Similarly, a greater percentage of adults aged 25 and above rejected alternatives to traditional funerals/burials not involving physical contact with the corpse (33.5%) as compared to young people aged 15-24 years (29.7%) (Table 23).

Table 23: Proportion of respondents who rejected alternatives to traditional funeral/burial that would NOT involve the touching or washing of the dead body by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Rejected alternatives to traditional funeral/burial that would NOT involve the touching or washing of the dead body	Total responses
Region		
Western Area	41.3%	520
Northern Province	29.6%	629
Eastern Province	35.5%	420
Southern Province	23.3%	507
Sex		
Males	32.2%	967
Female	32.2%	1109
Age		
15-24	29.7%	738
25+	33.5%	1336
Education		
None	34.5%	548
Primary	30.0%	360
Secondary +	31.8%	1155
Total A	**32.2%**	**2063**
Total A Weighted	**31.6%**	**2063**
Total B	**33.1%**	**1400**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

If a family member became sick and died tomorrow of any illness, 8.8% of respondents reported that they would touch and wash the dead body, whereas when Ebola is the suspected cause of death, only 3.6% of respondents would intend to have physical contact with the corpse. Such intention to wash and touch the dead body of a family member is highest in Western Area (16.5%) and lowest in the South (4.7%). These intentions did not vary by gender, age, or education (Table 24).

In a similar scenario when a family member became sick and died tomorrow of any illness, 11.9% of respondents would not wait for the burial team to bury the body. For a suspected Ebola death in a family, 3.8% of respondents still would not wait for the burial team. Intention to not wait for the burial team to handle the burial was most prevalent in Western Area (23.5%) and least prevalent in the Southern Province (4.9%). The intention to wait for the burial team did not vary by gender, age, or education (Table 24).

Table 24: Proportion of respondents who reported various behavioral intentions if a family member became sick and died at home by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

Proportion of respondents who reported that if a family member:	Became sick and died tomorrow, they would touch or wash the dead body	Total responses	Died of Ebola, they would touch or wash the dead body	Total responses	Became sick and died tomorrow, they would NOT wait for the burial team to bury the body	Total responses	Suspected of having Ebola died tomorrow, they would NOT wait for the burial team to bury the body	Total responses
Region								
Western Area	16.5%	521	6.9%	521	23.5%	520	3.4%	522
Northern Province	8.9%	628	3.3%	631	14.1%	630	4.0%	631
Eastern Province	7.6%	420	3.3%	419	6.0%	419	3.8%	420
Southern Province	4.7%	507	3.1%	509	4.9%	509	3.3%	509
Sex								
Males	9.2%	968	4.2%	970	13.2%	967	3.4%	969
Female	9.8%	1108	4.1%	1110	12.0%	1111	3.9%	1113
Age								
15-24	10.0%	737	4.5%	739	13.4%	741	3.8%	741
25+	9.3%	1337	4.0%	1339	12.1%	1335	3.6%	1339
Education								
None	9.8%	550	5.1%	552	10.5%	553	4.2%	552
Primary	8.6%	359	3.6%	360	12.0%	359	4.4%	360
Secondary +	9.6%	1154	3.8%	1155	13.8%	1153	3.2%	1157
Total A	**9.5%**	**2076**	**4.2%**	**2080**	**12.6%**	**2078**	**3.7%**	**2082**
Total A Weighted	**8.8%**	**2076**	**3.6%**	**2080**	**11.9%**	**2076**	**3.8%**	**2082**
Total B	**11.7%**	**1403**	**5.1%**	**1403**	**15.8%**	**1402**	**4.3%**	**1405**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

As presented in Table 25, 42.2% of respondents reported that their ability to observe the funeral/burial from a safe distance is an alternative that would make the medical burial of suspected EVD deaths acceptable. Being able to observe the burial from a safe distance was endorsed by a greater percentage of respondents in the Southern Province (60.5%) compared to Western Area (36.2%), Northern Province (43.3%), and Eastern Province (27.5%). About two-thirds of respondents (32.4%) believed that having a religious leader give the last prayer at home before the body is taken is another way to make the medical burial acceptable to them. The desire to know the location of the burial site was reported by 28.9% while only 7.4% would like to have a name plate of the deceased family member on the burial site.

Table 25: Proportion of respondents who reported various features that would make medical burial acceptable by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Having a religious leader give last prayer at home before the body is taken	Observing the funeral/burial from a safe distance	Knowing the location of the burial site	Having a name plate of the deceased family member on the burial site	Total Responses
Region					
Western Area	30.0%	36.2%	33.6%	10.7%	431
Northern Province	28.7%	43.3%	22.2%	6.6%	710
Eastern Province	38.6%	27.5%	30.2%	5.2%	472
Southern Province	33.8%	60.5%	33.6%	7.7%	474
Sex					
Males	32.5%	42.8%	27.4%	6.9%	977
Female	32.3%	41.7%	30.4%	7.8%	1106
Age					
15-24	29.3%	42.3%	31.8%	7.4%	742
25+	34.2%	42.2%	27.5%	7.3%	1339
Education					
None	36.6%	40.0%	26.3%	5.6%	539
Primary	32.4%	39.9%	29.3%	7.7%	353
Secondary +	30.9%	43.8%	30.4%	8.1%	1176
Total A	**33.7%**	**41.9%**	**29.2%**	**8.0%**	**2086**
Total A Weighted	**32.4%**	**42.2%**	**28.9%**	**7.4%**	**2086**
Total B	**33.0%**	**41.1%**	**28.7%**	**7.2%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1
Note: Open-ended / unprompted / multiple selection allowed

Self-reported behavior changes

Table 26: Proportion of respondents who reported various changes in behaviors since learning about EVD by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	I wash my hands with soap and water more often	I wash my hands with just water more often	I clean my hands with other disinfectants more often	I try to avoid crowded places	I drink Bitter cola	I drink a lot of water / juice	I drink traditional herbs	I take antibiotic	I try to avoid physical contact with people I suspect may have Ebola	I avoid physical contact with everyone	I do not participate in burial ceremonies that involve the handling (touching/ washing) of the dead body	I always use a condom when having sex
Region												
Western Area	78.9%	10.3%	39.3%	58.1%	1.5%	0.0%	.5%	5.0%	26.5%	39.1%	18.5%	2.1%
Northern Province	83.7%	16.4%	26.1%	42.9%	1.0%	.3%	.1%	1.4%	31.0%	54.1%	24.2%	1.1%
Eastern Province	76.2%	39.8%	59.3%	57.6%	2.6%	.3%	0.0%	1.1%	47.2%	57.4%	38.5%	2.6%
Southern Province	86.2%	25.8%	51.3%	62.4%	3.4%	5.1%	2.9%	2.2%	47.2%	61.9%	39.2%	11.1%
Sex												
Males	80.4%	22.6%	42.7%	55.5%	1.6%	1.2%	1.1%	2.2%	39.6%	55.8%	29.3%	4.3%
Female	82.9%	22.6%	41.7%	52.5%	2.4%	1.4%	.5%	2.4%	35.6%	51.7%	30.1%	3.6%
Age												
15-24	81.8%	22.8%	44.7%	55.4%	2.3%	1.4%	.4%	1.8%	39.3%	53.1%	28.2%	3.8%
25+	81.6%	22.5%	40.7%	53.0%	1.9%	1.3%	1.0%	2.5%	36.4%	53.9%	30.6%	4.0%
Education												
None	81.4%	24.2%	37.5%	48.4%	1.8%	1.2%	1.0%	1.9%	32.3%	49.6%	26.7%	1.7%
Primary	76.9%	18.9%	46.7%	51.8%	1.9%	2.1%	.8%	1.2%	36.3%	50.1%	33.9%	5.8%
Secondary +	83.2%	23.0%	43.1%	57.0%	2.2%	1.1%	.7%	2.6%	40.3%	56.6%	30.0%	4.4%
Total A	**81.5%**	**22.0%**	**39.8%**	**52.5%**	**1.9%**	**1.2%**	**.8%**	**2.0%**	**35.3%**	**51.0%**	**27.3%**	**3.5%**
Total A Weighted	**81.5%**	**22.6%**	**42.1%**	**53.8%**	**2.0%**	**1.3%**	**.8%**	**2.3%**	**37.4%**	**53.5%**	**29.7%**	**3.9%**
Total B	**80.2%**	**19.8%**	**37.5%**	**56.3%**	**2.1%**	**0.6%**	**.8%**	**2.8%**	**36.3%**	**52.1%**	**28.0%**	**3.3%**

Total A: all 14 districts (n=2086)
Total B: restricted to the 9 districts sampled in KAP-1 (n=1409)
Note: Open-ended / unprompted / multiple selection allowed

Numerous self-reported changes in behavior have significantly improved (p<.0001) between KAP-1 and KAP-2 such that: hand-washing with soap and water increased from 66% to 80%, avoiding crowded places increased from 36% to 57%, avoiding physical contact increased from 44% to 55%. In addition[10]30% of respondents across the 14 districts reported that they do not participate in burial ceremonies that involve the washing or touching of the dead body. Some variation in percentages were noted by educational level—a greater percentage of those with at least some secondary education reported engaging in protective practices compared to those with no education. Self-reported changes in behavior did not appear to differ by age or gender (Table 26).

[10] Not included in KAP-1

Participation in burials and funerals

Overall, the proportion of respondents who reported having been around a dead body or participated in a funeral was low (Table 27). In the Western area specifically, the percent of respondents who participated in a funeral or burial in the last month was higher (12.1%) compared to the Northern Province (5.9%), Eastern province (4.6%) and Southern Province (3.0%). Participation in a funeral or burial in the past month was also higher among adults 25 years and older (7.6%) compared to youth 15 to 25 years old (4.3%).

Table 27: Proportion of respondents who reported they have: been around a dead body; participated in a funeral/burial in the past month by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

Proportion of respondents who have:	Been around a dead body in the past month	Total responses	Participated in a funeral/burial ceremony in the past month	Total responses
Region				
Western Area	5.7%	522	12.1%	521
Northern Province	5.4%	632	5.9%	632
Eastern Province	3.3%	419	4.6%	417
Southern Province	3.6%	505	3.0%	507
Sex				
Males	5.0%	969	6.6%	967
Female	4.3%	1109	6.3%	1110
Age				
15-25	3.7%	739	4.3%	740
25+	5.2%	1337	7.6%	1335
Education				
None	5.8%	552	7.1%	552
Primary	3.3%	359	2.8%	359
Secondary +	4.5%	1154	7.2%	1153
Total A	**4.6%**	**2078**	**6.5%**	**2077**
Total A Weighted	**4.3%**	**2076**	**6.0%**	**2075**
Total B	**4.9%**	**1402**	**7.5%**	**1405**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Burial / funeral practices

Of those respondents reporting that they attended a funeral/burial in the past month, 5.1% also reported that they touched the dead body while 2.7% reported washing the corpse. Geographically, the touching of corpses was more prevalent in the Eastern Province (21.6%), Western Area (3.8%), and Northern Province (2.4%). Of the 14 respondents from the Southern Province who attended a funeral/burial, none of them reported touching or washing the dead body. Proportionally more females (8.4%) than males (2.0%), adults aged 25 and older (5.6%) than young people aged 15-24 years (3.6%), and respondents with no education (10.8%) or only primary school education (7.3%) than those with at least some secondary school education (1.3%)reported touching the dead body (Table 28).

Compared to the practice of touching the dead body (5.1%), proportionally fewer respondents admitted to washing the dead body (2.7%) during the ceremony. The pattern of socio-demographic distribution of those respondents who washed the dead body was similar to the practice of touching the dead body – such that it was more prevalent in the Eastern Province, Western Area, Northern Province, and among adults aged 25 and above, and those with no or low education. However, it should be noted that a similar proportion of men (2.0%) and women (3.3%) reported washing the corpse during the funeral/burial ceremony (Table 28).

Table 28: Proportion of respondents who attended a funeral/burial ceremony in the past month who reported touching or washing the dead body by demographic characteristics, Ebola KAP-2 Sierra Leone, 2014

	Participated in a funeral/burial ceremony in the past month		
	Touched the dead body	Washed the dead body	Total Responses
Region			
Western Area	3.8%	1.9%	56
Northern Province	2.4%	2.4%	39
Eastern Province	21.6%	8.6%	15
Southern Province	0.0%	0.0%	14
Sex			
Males	2.0%	2.0%	64
Female	8.4%	3.3%	60
Age			
15-24	3.6%	0.0%	30
25+	5.6%	3.5%	94
Education			
None	10.8%	4.8%	33
Primary	7.3%	7.3%	9
Secondary +	1.3%	0.0%	80
Total A	**6%**	**3%**	**134**
Total A Weighted	**5.1%**	**2.7%**	**134**
Total B	**2.9%**	**1.9%**	**105**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Table 29: Proportion of respondents - by district - who attended a funeral/burial ceremony in the past month who reported touching or washing the dead body, Ebola KAP-2, Sierra Leone, 2014

	Participate in a funeral/burial ceremony in the past month		
	Touched the dead body	Washed the dead body	Total Responses
Western Area			
Western Rural	0.0%	0.0%	8
Western Urban	4.4%	2.2%	48
Northern Province			
Bombali	0.0%	0.0%	6
Kambia	7.1%	7.1%	13
Koinadugu	0.0%	0.0%	8
Port Loko	0.0%	0.0%	8
Tonkolili	0.0%	0.0%	5
Eastern Province			
Kailahun	0.0%	0.0%	0
Kenema	0.0%	0.0%	5
Kono	31.3%	12.5%	10
Southern Province			
Bo	0.0%	0.0%	5
Bonthe	0.0%	0.0%	1
Moyamba	0.0%	0.0%	6
Pujehun	0.0%	0.0%	1
Total A	**6%**	**6%**	**134**
Total A Weighted	**5.1%**	**2.7%**	**134**
Total B	**2.9%**	**1.9%**	**105**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

When the regional data in Table 28 is further disaggregated in Table 29, it is revealed that the practice of touching and washing dead bodies was more prevalent in Western Urban Area (4.4%, 2.2%), Kambia (7.1%, 7.1%), and Kono (31.3%, 12.5%). It should be noted that Kono was the only district in the Eastern Province where respondents reported touching or washing corpses. Of the four regions, it should be further noted that no respondent from the Southern Province reported touching or washing a dead body within the past month of the survey's administration (30 days prior to October 13th – 22nd 2014).

Survivors: Knowledge, stigma and discrimination

Over 86.2% of respondents reported that it is possible to survive and recover from EVD; such knowledge was higher in the Eastern (91%) and Southern provinces (91%) as compared to Western Area (82.3%) and the Northern Province (82.3%). About 20% of respondents believed that Ebola survivors can continue to spread the disease through casual contact. Such belief was highest in the Southern Province (32%) and lowest in Western Area (15%). About 75% of respondents knew that once a man has survived Ebola he should use condoms during sex for three months. Such knowledge was highest in the Southern Province (89.6%) and lowest in the Northern Province (62.9%). Estimates of knowledge about condom use for Ebola survivors increased with increasing educational level (Table 30).

Only 31% of respondents reported that Ebola survivors are unlikely to get re-infected. Such knowledge was lower in Western Area (21.3%) and Northern Province (28.5%) as compared to the Southern (40.3%) and Eastern provinces (34.3%). Similarly, a lower percentage of respondents with no education (24.1%) were knowledgeable on this as compared to those with at least some primary (36.4%) or secondary school education (32.2%) (Table 30).

Table 30: Proportion of respondents who reported various perceptions about Ebola survivors by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

Proportion of respondents who reported that:	It is possible to survive and recover from Ebola	Total responses	Ebola survivors cannot continue to spread Ebola to others through casual contact	Total responses	Once a man has survived Ebola, he should use a condom during sex for 3 months	Total responses	Once people are cured of Ebola, they are unlikely to get Ebola again	Total responses
Region								
Western Area	81.8%	521	84.3%	521	78.1%	517	21.3%	522
Northern Province	82.3%	632	64.7%	632	62.9%	612	28.5%	632
Eastern Province	91.4%	418	76.4%	420	69.5%	406	34.3%	420
Southern Province	91.4%	509	67.2%	509	89.6%	508	40.3%	509
Sex								
Male	88.0%	967	72.1%	970	76.4%	969	33.8%	970
Female	84.6%	1113	73.0%	1112	73.2%	1110	28.0%	1113
Age								
15-24	87.7%	740	74.7%	740	74.6%	727	33.1%	741
25+	85.4%	1338	71.4%	1340	74.7%	1314	29.5%	1340
Education								
None	77.7%	552	64.9%	553	64.5%	535	24.1%	553
Primary	87.2%	359	75.6%	360	74.8%	349	36.4%	360
Secondary +	90.1%	1156	75.4%	1156	79.6%	1147	32.2%	1157
Total A	**86.2%**	**2080**	**72.6%**	**2082**	**74.7%**	**2043**	**30.7%**	**2083**
Total A Weighted	**86.4%**	**2080**	**71.7%**	**2082**	**73.6%**	**2043**	**30.9%**	**2083**
Total B	**83.8%**	**1403**	**77.2%**	**1405**	**75.7%**	**1374**	**29.5%**	**1406**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Between KAP-1 and KAP-2, the proportion of respondents holding at least one form of discriminatory attitude towards Ebola survivors significantly decreased from 94% to 46% (p<0.0001).In addition, the following significant decline in stigma and discriminatory attitudes were observed between KAP-1 and KAP-2:

- Proportion of respondents who would buy fresh vegetables from a shopkeeper who has survived Ebola decreased from 67% to 31% (p<0.0001); however, KAP-2 shows that this attitude was still held by 38% of respondents in Western Area (Table 31).
- Proportion of respondents who reported that a pupil who has fully recovered from Ebola puts other pupils in their class at risk of contracting the disease decreased from 32% to 20% (p<0.0001); however, in KAP-2, such attitude was prevalent among 32% of respondents in Northern Province (Table 31).
- Proportion of respondents who reported that they would not welcome back a neighbor into their community after s/he has survived Ebola decreased from 75% to 14% (p<0.0001); however, in KAP-2, respondents with no education (19.2%) were more likely to hold such discriminatory attitude as compared to those with at least some secondary school education (10.2%) (Table 31).

Table 31: Proportion of respondents who reported some discriminatory attitude towards Ebola survivors by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

Proportion of respondents who:	Would not buy fresh vegetables from a shopkeeper who survived Ebola and has a certificate from a Government Health Facility stating he/she is now Ebola-free	Total respondents	Think that a school pupil who has survived Ebola and has a certificate from a Government Health Facility stating he/she is Ebola-free puts other pupils in their class at risk of infection	Total Respondents	Would not welcome someone their community/neighborhood after he/she has recovered from Ebola	Total respondents
Region						
Western Area	37.8%	519	15.0%	521	14.6%	520
Northern Province	25.5%	628	31.8%	629	13.8%	630
Eastern Province	21.0%	419	26.7%	419	11.4%	420
Southern Province	25.8%	507	24.2%	508	12.2%	509
Sex						
Male	22.4%	963	25.9%	968	10.6%	969
Female	32.3%	1110	23.6%	1109	15.3%	1110
Age						
15-24	28.1%	740	23.0%	739	14.9%	739
25+	27.5%	1331	25.7%	1336	12.2%	1338
Education						
None	34.5%	548	27.2%	551	19.2%	552
Primary	29.1%	358	23.5%	358	13.3%	360
Secondary +	24.3%	1154	24.0%	1155	10.2%	1154
Total A	**27.7%**	**2073**	**24.7%**	**2077**	**13.1%**	**2079**
Total A Weighted	**27.4%**	**2073**	**25.1%**	**2077**	**12.9%**	**2079**
Total B	**31.4%**	**1399**	**19.7%**	**1402**	**13.5%**	**1403**

Total A: all 14 districts;
Total B: restricted to the 9 districts sampled in KAP-1

Table 32: Proportion of respondents who reported that Ebola Survivors might be able to help stop the spread of EVD in their community; and reported ways that survivors can help stop the spread of the disease by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Believe Ebola Survivors might be able to help stop the spread of the disease	Perceived ways in which Ebola Survivors can help:					
		Total responses	Stay at home and not touch others	Encourage and motivate those who are ill with Ebola to have hope	Provide care and support for those now ill with Ebola	Educate the community on how to avoid Ebola	Total responses
Region							
Western Area	84.5%	521	8.4%	43.5%	4.6%	79.3%	522
Northern Province	80.7%	627	10.9%	41.1%	11.1%	54.0%	633
Eastern Province	89.8%	420	19.8%	51.4%	14.8%	70.5%	420
Southern Province	84.9%	509	11.5%	48.7%	11.7%	68.1%	511
Sex							
Male	88.1%	967	12.2%	47.0%	10.4%	70.1%	970
Female	81.4%	1110	12.3%	44.6%	10.3%	64.7%	1113
Age							
15-24	83.6%	738	15.1%	44.5%	8.5%	64.5%	741
25+	85.0%	1337	10.7%	46.3%	11.4%	68.7%	1340
Education							
None	76.4%	552	10.1%	39.1%	11.4%	58.6%	553
Primary	84.1%	359	7.8%	45.8%	9.2%	67.5%	360
Secondary +	88.6%	1153	14.5%	49.1%	10.4%	71.6%	1157
Total A	**84.5%**	**2077**	**12.2%**	**45.6%**	**10.4%**	**67.1%**	**2086**
Total A Weighted	**85.1%**	**2077**	**14.8%**	**46.4%**	**10.6%**	**67.8%**	**2086**
Total B	**84.0%**	**1404**	**14.8%**	**44.1%**	**7.2%**	**71.7%**	**1409**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Eighty five percent of respondents believed that Ebola survivors might be able to help stop the spread of the disease (Table 32). A majority of respondents mentioned that educating the community on how to avoid Ebola (67.8%) and encouraging and motivating those who are ill with Ebola to have hope (46.4%) were key perceived ways in which Ebola survivors could help stop the spread of EVD. These perceptions appear to be linked to the education level of respondents – such that the higher the level of education, the higher proportion of respondents perceived that survivors can help in the fight against Ebola in the country.

Ose to Ose Ebola Tok Campaign

Nearly everyone interviewed (97.9%) said that their household was visited during the national Ose to Ose Ebola Tok campaign that took place in September 2014 (Table 33). Eighty-seven percent of households had the campaign's sticker available, as verified by the data collection teams. Ninety-six percent of households reported that they received a bar of soap. Even though 91.9% of respondents found the campaign to be useful, only 61% supported the idea to repeat another similar campaign.

Table 33: Proportion of respondents who reported that their households were visited by one of the Ose to Ose Ebola Tok teams by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Household visited by one of the Ose-to-Ose Ebola Tok teams	Total responses	Campaign sticker available at house (verified)	Total responses	Household provided soap during the Ose-to-Ose visit	Total responses
Western Area	96.6%	522	79.5%	521	95.6%	520
Northern Province	99.4%	632	86.7%	632	96.2%	632
Eastern Province	96.2%	420	90.0%	419	91.6%	418
Southern Province	99.4%	508	92.9%	508	98.4%	509
Sex						
Males	98.2%	969	87.4%	970	96.1%	968
Female	97.8%	1113	86.8%	1110	95.3%	1111
Age						
15-25	97.8%	741	86.5%	739	95.7%	741
25+	98.1%	1339	87.4%	1339	95.7%	1336
Education						
None	98.6%	552	88.8%	553	94.9%	553
Primary	97.8%	360	88.0%	359	96.1%	360
Secondary +	97.8%	1157	86.0%	1155	95.8%	1153
Total A	**98.0%**	**2082**	**87.1%**	**2080**	**95.7%**	**2079**
Total A Weighted	**97.9%**	**2082**	**86.5%**	**2080**	**95.3%**	**2079**
Total B	**97.7%**	**1405**	**85.8%**	**1405**	**94.8%**	**1403**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Of those respondents who found the Ose to Ose Ebola Tok useful (91.9%), they cited the following reasons (Table 34):

- Received new information about Ebola (78.0%)
- Received a bar of soap (47.4%) – 59.9% in the Southern Province
- Asked questions about Ebola (36.6%) – 60.5% in the Southern Province
- Spent time with family and loved ones (17.9%) – 32% in the Eastern Province

Table 34: Proportion of respondents who reported finding the Ose to Ose Ebola Tok Campaign useful, by demographic characteristics, Ebola KAP-2, Sierra Leone, 2014

	Reasons for findings Ose to Ose Ebola Toke useful:				
	I was able to ask questions I had about Ebola	I received new information about Ebola	I received the bar of soap	I was able to spend time with family and loved ones	Total Responses
Region					
Western Area	31.0%	83.3%	39.7%	7.4%	382
Northern Province	23.8%	76.5%	41.0%	10.0%	662
Eastern Province	36.9%	70.7%	51.2%	32.0%	430
Southern Province	60.5%	82.9%	59.9%	25.0%	437
Sex					
Males	39.5%	78.2%	43.3%	18.6%	897
Female	34.0%	77.8%	50.9%	17.2%	1014
Age					
15-24	37.6%	77.4%	49.3%	15.6%	681
25+	36.0%	78.5%	46.4%	19.2%	1228
Education					
None	29.6%	75.2%	52.0%	19.2%	491
Primary	37.3%	72.3%	50.0%	18.8%	327
Secondary +	39.5%	81.1%	44.9%	17.2%	1079
Total A	**34.1%**	**78.5%**	**47.0%**	**15.9%**	**1911**
Total A Weighted	**36.6%**	**78.0%**	**47.4%**	**17.9%**	**1911**
Total B	**35.9%**	**80.7%**	**49.1%**	**16.4%**	**1277**

Total A: all 14 districts
Total B: restricted to the 9 districts sampled in KAP-1

Conclusions and Recommendations

The results from the KAP-2 study (October 2014) show that there have been significant improvements in the public's knowledge, attitudes and practices in Sierra Leone as compared to the KAP-1 baseline study (August 2014). The data underscore differences in these areas by sub-population groups and geographic regions. Targeted social mobilization efforts may prove beneficial in Western Area, Northern Province, and Eastern Province, particularly Kono District, where study findings show greater prevalence of attitudes, and practices known to increase risk for EVD transmission. Similarly, intensified social mobilization efforts are recommended for women and young people aged 15-24 years.

The proportion of respondents with comprehensive EVD knowledge significantly increased from 39% to 48% ($p<0.0001$) during the seven-week period between the two surveys. In comparison to KAP-1, there was a significantly higher level of knowledge regarding EVD prevention:

- Avoiding contact with blood and bodily fluids (87% to 92%; $p<0.0001$)
- Avoiding funeral or burial rituals that requiring the handling of dead body of someone who died of Ebola (85% to 94%; $p<0.0001$)
- Not touching anyone (83% to 92%; $p<0.0001$)

Overall, between KAP-1 and KAP-2, there have been improvements in knowledge and misconceptions about EVD. However, KAP-2 findings point to women, youth aged 15-24, and those living in Western Area as key sub-populations requiring targeted approaches to improve knowledge, attitudes, and safe practices to prevent EVD transmission. Despite some persistent misconceptions about EVD, over 90% of respondents reported that they would go to a hospital if they had a fever or suspected they had Ebola.

Funeral/burial practices continue to pose a challenge. Approximately one-third of respondents rejected alternatives to traditional funerals/burials that do not involve the touching or washing of the dead body should a family member died at home. Furthermore, 9% of respondents stated their intention to touch the body, while 12% said they would not wait for a burial team to conduct the burial. Of those respondents reporting that they attended a funeral/burial in the past month, 5% also reported that they touched the dead body, while 3% admitted to washing the corpse at the ceremony. The desire to continue touching and washing dead bodies, as well as resistance to allowing burial teams to conduct burials, was more prevalent in Western Area, Kono, and Kambia. Triangulating the KAP-2 results with the epidemiological data released by MoHS[11] during this period, Kono, Western Area, and Kambia reported increased number of confirmed EVD new cases, as compared to the prior months (August 2014 and earlier), while the Southern Region, Kenema, and Kailahun had proportionally lower incident of EVD. The triangulation suggests linkages between the practices of touching and washing dead bodies with increased incidence of EVD. Results show that medical burials may be more acceptable by allowing families to observe the ceremony from a safe

[11]Sierra Leone Ministry of Health and Sanitation – Emergency Operations Center (EOC), *Ebola Update.* September – Oct. 2014.

distance and having a religious leader say a last prayer for the deceased before being buried. An area of marked improvement is in the stigmatization of Ebola Survivors. The proportion of respondents holding at least one form of discriminatory attitude toward Ebola survivors significantly decreased from 94% in KAP-1 to 46% in KAP-2 ($p<0.0001$). Furthermore, 84% of respondents perceived that Ebola Survivors can contribute to the Ebola response. A majority of respondents mentioned that Survivors can help educate the community on how to avoid Ebola (71.7%) and encourage/motivate those who are ill with Ebola to have hope (44.1%). Given these positive perceptions of Survivors' role in the Ebola response, the national response should find creative ways to engage survivors in educating communities on how to stay safe and provide social support to quarantined families.

Numerous self-reported changes in behavior have significantly improved ($p<.0001$) between KAP-1 and KAP-2: hand-washing with soap and water increased from 66% to 80%, avoiding crowded places increased from 36% to 57%, and avoiding physical contact increased from 44% to 55%. The data shows that a higher proportion of those with at least some secondary school education engaged in protective practices as compared to those with no education. Another important barrier is the low level of knowledge on how to stay safe while waiting for medical help to arrive for a sick household or family member. For instance, only 4.5% of respondents would use a single caregiver, 7% would provide ORS to the sick household member, and 30% would avoid touching objects that have been touched or worn by the suspected Ebola patient. However, 83% of respondents reported that they would isolate the person while 51% would avoid touching the sick person or their bodily fluids. These findings highlight the need to intensify targeted messaging on how people can stay safe while waiting for medical help to arrive. In addition, social support and check-ins by trained personnel may help households with suspected cases reduce the rate of transmission among household members.

Between KAP-1 and KAP-2, a lower proportion of respondents perceived themselves to be at some risk of contracting Ebola within the next six months (59% vs. 42%). The most frequently cited reasons for this included: not eating/hunting bush meat or bat, washing of hands with soap/disinfectants, avoiding contact with suspected Ebola patients, having protection from God, not living in an area where there is Ebola, avoiding funeral/burials, and avoiding unprotected contact with bodily fluids. On the other hand, those who perceived themselves to be at risk of contracting Ebola felt that it is due to a generalized belief that Ebola is everywhere, which could serve as a barrier to adopting behavior changes. According to the Theory of Planned Behavior and Health Belief Model[12], perceived behavioral control and self-efficacy are important constructs that influence individuals' execution of promoted behaviors. When individuals have a generalized fear of Ebola, they may not be able to focus on specific protective actions necessary to keep themselves and their families safe. Such perception may lead to a fatalistic belief that makes people feel less "in control" of their fate in the context of Ebola. Therefore, EVD messages and social mobilization efforts should provide assurance to the public that Ebola is highly preventable if key protective actions are taken, such as: avoiding contact with corpses, avoiding funerals/burials, staying safe while waiting for medical help, avoiding contact with sick people and/or their bodily fluids, and seeking prompt care when EVD is suspected.

[12]Glanz, K. et al. (2008). *Health behavior and health education: Theory, research, and practice*. (4th Edition). San Francisco: Jossey-Bass.

The Ose to Ose Ebola Tok Campaign demonstrated that when social mobilization efforts are coordinated and intensified nationally, they could have a wide reach. The KAP-2 results reveal that over 90% of households in the country were reached by the door-to-door style campaign. Despite the wide reach of the campaign, only 61% of respondents supported the idea of another similar campaign. KAP-2 results indicate that radio programming was the preferred means of message dissemination and intervention, followed by activities by the Ministry of Health and Sanitation, visits by health professionals, religious venues, and community announcements. As we move into a new phase of the national Ebola response in 2015, increased emphasis should be placed on a more localized and targeted approach in social mobilization and service delivery. Intensified efforts and resources should be geared towards promoting the acceptance of safe medical burials. Community-based structures should be engaged in such efforts in order to help make them acceptable to the on-the-ground needs and expectations of the local populations. Part of these efforts should also include improvements in the medical burial procedures to ensure maximal portrayal of dignity and respect for the dead. Similarly, the KAP-2 data reveal increased demand and intention to seek medical care when Ebola is suspected. Medical and treatment service providers should continue scaling-up services to meet such increasing demand by the public.

Research Team

FOCUS 1000 is a non-governmental, national development agency in Sierra Leone that is committed to making the best investment in the most crucial time in a child's life: **the first 1000 days**. These are the number of days from conception/pregnancy until the child reaches age two. During this period, the child is fragile and susceptible to many illnesses and environmental conditions – such as diarrheal diseases, malaria, malnutrition, and lack of access to safe drinking water and sanitation. FOCUS 1000 partners with the Government, UN Agencies, civil society, and development partners to promote and evaluate simple, cost-effective and high impact interventions that can help build a solid foundation for children to survive, thrive and develop to become productive citizens.

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