

**LEARNING FROM THE ANTHRAX OUTBREAK IN UGANDA: KEY BEHAVIORAL DETERMINANTS TO INFORM BEHAVIORAL CHANGE COMMUNICATION INTERVENTIONS FOR ZONOTIC DISEASES.**



**USAID-Communication for Health Communities and members of One-Health Platform at consultative meeting for anthrax control in May 2018**



## Table of Contents

1.0	Introduction .....	1
1.1	Overview on Anthrax.....	2
1.2	Anthrax in Uganda .....	2
1.3	Transmission and Spread of Anthrax.....	2
2.0	Methodology .....	4
2.1	Overall study design.....	4
2.2	Study setting.....	4
2.3	Target population.....	7
2.3.1	CHC and One- Health Platform engagement.....	7
2.3.2	Community entry and participation.....	8
2.4	Data analysis.....	9
3.0	FINDINGS.....	10
3.1	Introduction: .....	10
3.2	Summary of behavioral determinants: .....	10
3.3	Respondents characteristics .....	10
3.4	Community way of life (routine practices in the sampled communities).....	11
3.5	Community awareness of anthrax diseases (levels of knowledge) .....	12
3.6	Miss construed prevalence of similar disease. ....	13
3.7	Gender and social norms.....	14
3.8	Ownership of animals and social norms.....	14
3.9	Concealment of information of dead animals.....	15
3.10	Motivation for adoption of recommended behaviors .....	16
4.0	Priority action executed during the field visits .....	17
5.0	Conclusions:.....	17

List of Tables

Table 1: Question domains by study audience ..... 8

List of Figures

Figure 1: Graphical Representation of the 4 Risk Communication ..... 18  
Figure 2: Planning and Preparedness of Risk Communication ..... 20  
Figure 3: Risk Communication strategy for Zoonotic diseases ..... 20

## 1.0 Introduction

Since 2006, Uganda has undertaken several health systems strengthening initiatives, including the preparations for global health threats of diseases such as; Ebola, Marburg, hemorrhagic fevers and anthrax. lately some of the initiatives have focused on; strengthening risk communication interventions, capacity enhancement for coordination at national and community levels, engagement of community partners to enhance community-based surveillance, health communication research, development of communication strategy, monitoring and evaluation. Most of the initiatives are funded by development partners in line with Uganda Country Development Cooperation Strategy (CDCS) -2016-202. The Global Health Security Agenda (GHSA) is part of the focus pillars.

In pursuit of GHSA risk communications interventions, USAID asked the Communication for Healthy Communities (CHC) to provide technical assistance in strengthening coordination capacity for risk communication. In response, CHC embarked on preliminary activities for the national multi-sectoral risk communication strategy. During the commencement of activities, anthrax outbreak was communicated in May 2018. As such, CHC efforts were diverted from developing risk communication coordination structure to respond to anthrax directly in communities of Arua and Kween districts that were reported to have experienced the outbreak.

During the response to Anthrax outbreak, behavioral-level evidenced was paramount, so a rapid assessment was designed and implemented. The assessment was executed by CHC and partners of the One-Health consortia. The One-Health platform includes, Ministry of Health (MOH), Ministry of Agriculture and Animal Industry and Fisheries (MAAIF), Uganda Wildlife Authority (UWA) and Ministry of Water and Environment (MWE). The aim was to inform development of health communication materials. The consultation explored key social determinants of health such as; awareness about the anthrax disease, known messages about the disease, possible social determinants of the diseases and channels for communication. The findings/results in this report are part of evidence gathering phase for the anthrax response.

## 1.1 Overview on Anthrax

Worldwide, anthrax occurs in a low incidence in developed countries but remains endemic in African and Asian regions<sup>1</sup>. Although there is a progressive global reduction in animal cases of anthrax in many countries, sporadic cases continue to be reported and seem to be more frequent in wildlife than livestock and rarer in humans.

## 1.2 Anthrax in Uganda

Uganda is the one of the countries in the world with high incidence of zoonotic diseases, with anthrax as one of the priority diseases. Anthrax is caused by *Bacillus anthracis*, which forms spores that survive for years in the environment. Cattle, sheep, and goats are at the highest risk of developing anthrax, but other farm animals, as well as wildlife and humans, can contract the disease. The occurrence of outbreaks has been common in the Northern and West Nile regions in the recent years and lately in Kween district. The 2004 outbreaks resulted in over two hundred deaths of hippopotamus (*Hippopotamus amphibious*) in the area and about 50 buffaloes. The outbreak also resulted in about 12 human deaths suspected to have been associated with eating infected hippo meat.

## 1.3 Transmission and Spread of Anthrax

The most common form of infection method is by oral ingestion of soil contaminated with anthrax spores, symptoms begin between one day and two months after the infection is contracted. People develop anthrax when the organisms enters through a wound in the skin, is inhaled in contaminated dust, or is eaten in undercooked meat from infected animals. For human beings, the skin form presents with a small blister with surrounding swelling that often turns into a painless ulcer with a black center. Without treatment, the risk of death from skin anthrax is 24%. The primary reservoir for anthrax is the soil, grazing animals are thought to become infected when they ingest *B. anthracis* spores on vegetation in an area where the soil or water sources are contaminated by the spores. Vegetative bacilli are shed in blood and other discharges from infected animals that are dying or dead, and those bacilli then sporulate and contaminate surrounding soil and water, where they complete this cycle of infection (WHO, 2008). Animal

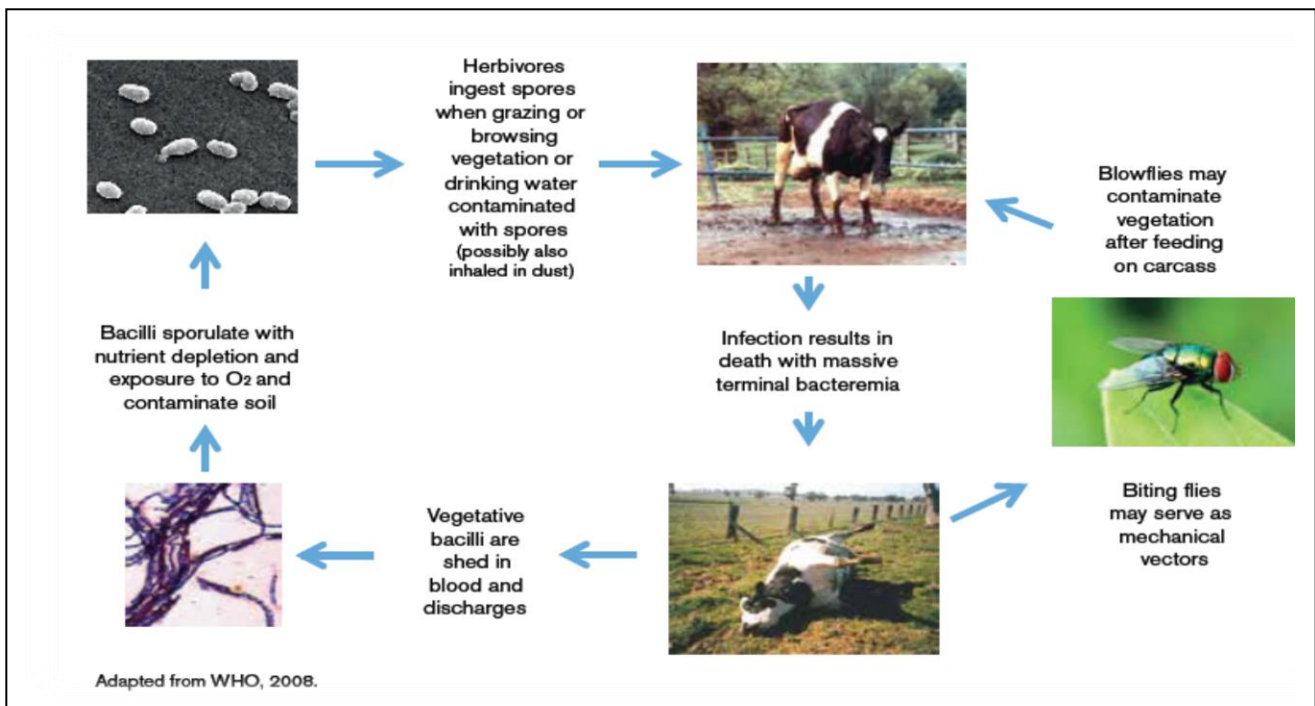
---

<sup>1</sup> Turnbull PCB, World Health O, Department of Communicable Disease S, Response. Guidelines for the surveillance and control of anthrax in humans and animals. [Place of publication not identified]: World Health Organization, Dept. of Communicable Diseases Surveillance and Response; 1998.

outbreaks are often associated with low lying areas with soil that has high moisture, calcium and organic content and alkaline pH (Van Ness, 1971; Dragon, 1995; Hugh- Jones, 2009). The spores can persist in the soil for prolonged periods of time and under extreme environmental and climatic conditions.

Environmental factors such as temperature and precipitation patterns have been shown to be the main determinants for the onset of anthrax outbreaks. Outbreaks may be triggered in areas where the soil is contaminated with spores from previous anthrax-infected animal carcasses by natural events such as prolonged periods of hot, dry weather that follow heavy rains and flooding, or with the onset of rains ending a period of drought; therefore, anthrax outbreaks may have a seasonal pattern. Other factors that may trigger outbreaks include the disruption of the soil through digging or excavation, or by landslides or dust storms. Insect activity has been implicated in the spread of anthrax outbreaks, including both transmission of disease by biting flies or by carrion flies who spread contamination onto vegetations is 25 to 75%, while respiratory anthrax has a mortality of 50 to 80%, even with treatment.

**Figure 1: Ecological cycle of anthrax**



**Note: Outbreaks can begin with wildlife, expand into domestic livestock, and ultimately affect humans.**

## 2.0 Methodology

### 2.1 Overall study design

The study adopted a non-experimental rapid mixed qualitative design to explore lived experiences of communities where anthrax outbreak was reported in May 2018. Within the mixed designs, one of the most recent designs called participatory Action Research was used (Action media)<sup>2</sup>. The key technique imbedded in this design is the targeted collection of audience specific data, and the rapid analysis and adoption of insights to support communication material development. The methodology allowed for an exploration of the life routines and specific trajectory of the community members to appreciate their knowledge, beliefs, motivations and potential barriers to adoption of anticipated promoted social and health behaviors. This design has been used in most of the material development phases that CHC Uganda undertook in the last 5 years. The other two designs involved the use of in-depth interviewing techniques for secondary audiences (IDIs) and Focus Group Discussions (FGDs) for a cross section of members of the community.

Owing to its program level requirements, this study did not seek institutional review (IRB) approval, as it occurred as part of an emergency to curb anthrax disease which had erupted the two districts study areas.

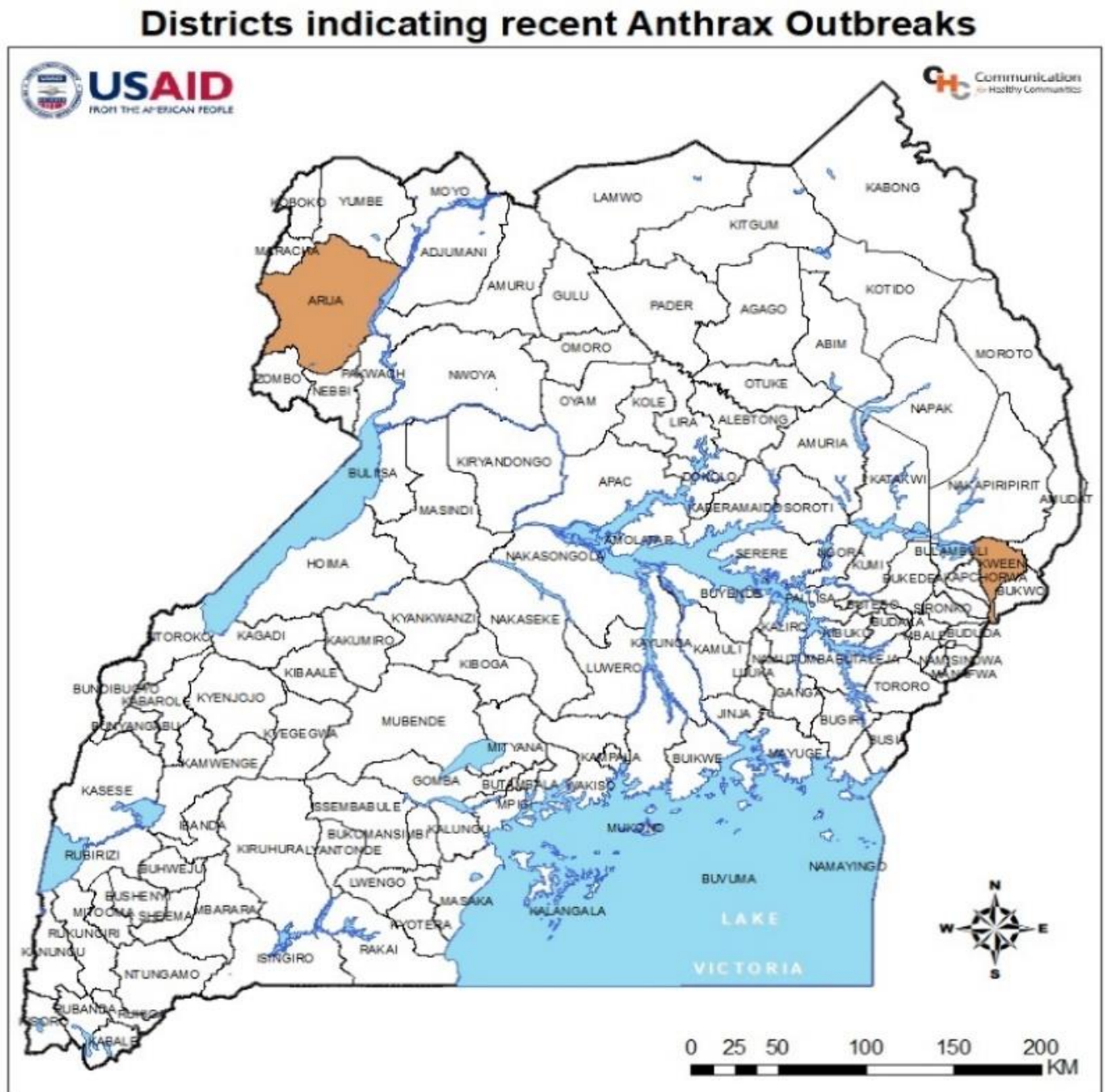
### 2.2 Study setting

The study was conducted in two districts of Arua and Kween where Anthrax disease had been reported in the month of May 2018. One common feature to the districts is the dominance of rural characteristics and animal rearing pre-occupations. Before the anthrax outbreak, CHC had provided communication interventions through the OBULAMU Integrated health communication platform, working closely with the Ministry of Health and Other USAID funded Implementing partners (IPs) to implement: Malaria, Family planning, Mother Child Health, HIV/TB and Nutrition with no focus at all on anthrax or any other pandemics.

---

<sup>2</sup> Parker WM, Becker-Benton A. Experiences in conducting participatory communication research for HIV prevention globally: Translating critical dialogue into action through Action Media. *Frontiers in Public Health*. 2016.

Figure 2: Map showing the districts with Anthrax visited during the study





## The context of Kween District

The district was created by act of parliament and started functioning on 1 July 2010. Prior to that, it was part of Kapchorwa District. Together with Kapchorwa District and Bukwo District, it forms the Sebei sub-region, formerly known as Sebei District. The district has 5 sub-counties, 19 parishes, and 178 villages. According to the UBOS 2014 population census, Kween district has a total population of 93,667. With 51%(47, 404) female. And 49% (93,667) male. About 56.7% households are living in semi-permanent dwelling places, and 81.3% are engaged in livestock.

See details in table 1.

*Table 1: Kween District Population distribution*

Total population by age group and sex, Kween District, 2014				
	Male	Female	Total	%age
0-9	16,700	15,274	31,974	34%
10-19	12,799	12,112	24,911	27%
20-39	11,576	12,100	23,676	25%
40-59	4,722	4,806	9,528	10%
60+	1,607	1,971	3,578	4%
	47,404	46,263	93,667	
Proportions	51%	49%		

## The context of Arua District

Arua is in west Nile region of Uganda and among the oldest districts. Lately the district is experiencing a refugee influx from South Sudan estimated at over 50,000 persons. The influx has stretched natural and social service delivery over the last three years.

Previously the district main economic pre-occupation was tobacco. By 2008, honey commercial activities hugely replaced tobacco farming activities. Other animal-based activities include; piggery, cattle and fishing on the river Nile. It is estimated that the district has about 117,000 heads of local Zebu cattle.

*Table 2: Arua district Population distribution*

Total population by age group and sex, Arua District, 2014				
	Male	Female	Total	%age
0-9	133,794	126,061	259,855	33%
10-19	101,239	105,488	206,727	26%
20-39	89,853	112,609	202,462	26%
40-59	36,932	45,595	82,527	11%
60+	12,937	17,569	30,506	4%

	374,755	407,322	782,077
Proportions	48%	52%	

### 2.3 Target population

The study target population was segmented into three: 1) Primary audience-affected community (farmers, community leaders, cattle keepers, butcherers) resident within the two districts but of varying age categories. These were grouped together based on the complimentary economic pre-occupations within the districts. 2) Secondary audiences (men, women and youth in the communities). This category was identified as having influence over the first audience. 3) Lastly, the tertiary audiences were identified as having authority on decisions either technical or financial). These included: District Veterinary Officers (DVOs, District Health Officers (DHOs), sub-country veterinary Officers, Agriculture extension workers, Health assistants, Village health teams, Traders and food vendors). By their contact, with the district, it was assumed that they had exposure or were at high risk of the same. So, there was no further inclusion criteria.

#### 2.3.1 CHC and One- Health Platform engagement



CHC and the One-Health Members during the planning meeting

CHC held consultative meetings with the partners of One- health to embark on the rapid response to anthrax outbreak. During the meeting, consensus over the implementation modalities, roadmap and the data collection component was gained.

### 2.3.2 Community entry and participation



Members of One- Health and CHC conducting session with participants in Kween district.

Final Mobilization of the participants was done by the CHC regional offices together with the district leadership where the activity was conducted. Prior permission from the Chairperson of the One-Health Platform was granted. The participants selection criteria included: Local Language competencies for the

communities, having been a resident of the area for more 3 months, Level of engagement in local communities' activities for the secondary audiences (only those who were closely engaged in activities). For the tertiary audiences, the selection was based on one having a position of authority or formal employment in the sector of veterinary medicine. Part of the mobilization involved preparations for home visits that were reported to have experienced anthrax in their home surroundings.

Table 3: Question domains by study audience

Target population	Communities	Secondary audiences	Tertiary audiences
Question domain	<ul style="list-style-type: none"> <li>• Community way of life:</li> <li>• Animals grazing practices</li> </ul>	<ul style="list-style-type: none"> <li>• Experiences of dealing with anthrax cases in the community</li> <li>• Existing communication materials about anthrax</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge about anthrax, current preparedness levels</li> </ul>

Prevention practices	<ul style="list-style-type: none"> <li>• Common responses in case of epidemics, recent practices during anthrax,</li> <li>• Awareness of causes and symptoms of anthrax</li> </ul>	<ul style="list-style-type: none"> <li>• Community engagement issues</li> <li>• Potential change given current dynamics</li> </ul>	<ul style="list-style-type: none"> <li>• Communication systems instituted</li> <li>• Response action in place</li> <li>• Complimentary support services</li> <li>• Available channels of communication</li> </ul>
----------------------	--	--	---

**2.4 Data analysis**

All collected data was audio-recorded, transcribed, cleaned and analyzed by a team of CHC staff with knowledge of research and health communication. Analysis was generally exploratory, with a sociological interpretation of the: community understanding of anthrax signs and symptoms, prevention measures, treatment options, role of communities in controlling anthrax, values, norms and common practices that could have a bearing on anthrax disease. The narratives of the participants were interpreted in the context of the communities- language and lived experiences of similar epidemics. The main aim behind the analysis was to guide the formation of risk communication plan but also to respond to the anthrax emergency outbreak. Therefore, some words were retained verbatim.

## 3.0 FINDINGS

### 3.1 Introduction:

The findings are presented systematically based on the specific objectives. However, due to audience segmentation specific information that was gathered per audience. For instance, objective one deals more with the community way of life and thus may not fully include the tertiary audiences that do not necessary reside within the communities. Given the nature of this study design, quantitative measures are not reflected but explanatory narratives that elaborate key experiences, knowledge aspects, mitigation measures and barriers at community and structure levels are presented.

### 3.2 Summary of behavioral determinants:

The findings revealed six broad barriers to adoption of recommended practices to prevention and control of anthrax: These include: 1).Community ways of life that are in stark contrast to the recommended behaviors, 2).low levels of knowledge about the anthrax disease and prevention options, 3).animal ownership rights that affect mobilization of cash resources to meet vaccination and treatment cost, 4).gender and social norms that expose females, 5).misconstrued understanding of anthrax and 6).strongly held cultural practices. The apparent motivation for communities to participate and take up recommended practices is the fear to lose more animals.

### 3.3 Respondents characteristics

Table 4: Target participants sampled and reached

Districts		Category	Number
Arua &	Action Media	Community Members	4
		Farmers	4
		Community Leaders	2
		Butcherers	2
		Herds Men	3
<b>Total</b>			<b>15</b>
	Interviews	DVO-, DHO, Skilled Health Workers, Sub-	
Arua &	Focus Group	Men, Women and Youth	8 for each

A total of 34 participants were reached through in the entire study. Of these, 11 participants were reached through IDI, 8 through FGDs and 15 through action media in the three districts of Arua, Kween and Kiruhura.

### 3.4 Community way of life (routine practices in the sampled communities)



Specific lived experiences were described by participants within the community as their usual way life in the community. About six predominant behaviors were revealed across the communities that were visited, including; communal ownership

and use of; kraals, grazing fields, open water resources, pre-occupation with domestic animals (cows, pigs, goats and sheep) and use of community level markets for animal products and supportive supplies like drugs for animal treatment. These experiences cut across the two districts of; Kween and Arua. These to a large extent are associated with the recent re emergency of anthrax disease.

The behaviors described above are known factors that have a link with the possible transmission of anthrax as they increase the contact space with affected animals on large scale during communal grazing, milking, selling of animal products. The community cohesion is so strong that even when animals die, the community is obliged to share the remains. Clinically anthrax is known to spread through contact with affected agent and has a short incubation period of 2 to 6 days

*Illustrative quote related to the behaviors that put the community at risk for anthrax disease:*

“When an animal dies, we skin and share among the community member. All men can skin but Muslim don’t skin or eat the dead animal that die” FGD participant- Ngenge subcounty- Kween).

**Interpretation:**

Whereas uptake of recommended behaviors is the goal of health communication; the traditional practices described above, could be thought of as paying way to several to 1 barriers to adoption of the recommended health behaviors. The lived experiences above, depict that several behavioral and social economic factors are in stark contrast with the preventive options. Since these are strongly held practices, health communication process in these areas should target change agents in the long run after the emergency period. This will generally create a ripple long-lasting impact.

**3.5 Community awareness of anthrax diseases (levels of knowledge)**



A group of participants discussing about anthrax including local descriptions

Descriptions of the recent experiences of animal deaths, particularly cattle did not reveal that the community distinguished anthrax from other animal diseases that often cause sudden death. Most participants could not mention anthrax, or its features in the local languages, where they tried, others contested the names. The lack

of a common name complicates consensus on identification, reporting or deciding to seek treatment or aiding the clinician prompt verbal diagnosis. It also harbors and generates mystery about the disease making communication of messages complex. The quote below illustrates the apparent failure of the community to code-name or identify features of anthrax disease for common communication.

*“That there is a man who had cattle most of them have died and he has tried to change many medications for the cattle, but it has not helped” (Female FGD participant- Arua).*

**Interpretation:** *The narrative and experiences above depict very low levels of knowledge about anthrax disease locally. Communication to raise awareness in the local language is generally justified. Clearly signs and symptoms should be identified and communicated through a mix of communication channels and reinforced through Interpersonal communication. Beyond identification of the signs and symptoms prevention and care seeking in the case of emergency should be equally communicated and supported.*

### 3.6 Miss construed prevalence of similar disease.



A group of participants mapping out their residences and areas where cattle suddenly died.

In some of these communities, outbreaks that kill animals instantly had already occurred the previous years. So, at the time of the May 2018 outbreak, there was confusion as whether the disease called black Quarter had re-surfaced. Black Quarter is known to occur annually and claims several animals. As per the disease categorization, Anthrax is classified as notifiable disease but because lack of government funds

apparently, renders the anthrax an economic disease. That means individuals must meet the costs of vaccination and disease management. Similarly, in districts like Kween, the previous cases of Marburg and the control effort that resulted in isolation of the affected cause more fear among the community. There was still a confused whether Marburg has resurfaced and opening to the health workers would result into being physical isolation. The clinician reveals that patient conceal information until after several attempts during counselling.





A group of participants mapping out their residences and areas where cattle suddenly died.



### 3.7 Gender and social norms

During the IDI, selected key informant provided information about communities that they serve in (hypothetical reports). Some of the information pointed to gender and social norms, which in turn was linked to possible anthrax spread. For instance, whereas some females were unwilling to eat meat from dead animals, cultural roles enforce gender-based roles such as preparation of food for the homes as a role of females. Through preparation of meat, females end up getting into contact with the dead meat through cooking routines for the families.

*“If you refuse to eat, nothing will be done to you. The only thing will be if you're the wife, the husband will have to compel you, if you don't eat at least cook for me to eat because there is nobody who is going to cook FGD participant in Ngenge -Kween.*

### 3.8 Ownership of animals and social norms

There are testimonies that many of the large kraals in these communities are owned on clan basis. This happens when brides marry into other families and part of the dowry is animals that are kept separate and looked after under the prerogative of by the clan leaders. During outbreaks, it is quite hard to mobilize the owners to contribute cash for treatment of animals because the animals in the kraal are owned contributed by different families of sons and daughter

within the clan who have contributed. The clan leader is a trustee. The clan leaders only kept in perpetuity and are often economically incapacitated to meet costs of prevention services such as vaccination and treatment in case of infection or outbreak.

**Interpretation:** *this type of ownership renders constant watch over of animals impossible. With constant watch over, responsible owners would quickly observe changes in animal health including acquired infections.*

### 3.9 Concealment of information of dead animals

Experiences from the key informants in the area indicate that owing to high level of poverty, even information passed on to the masses from the qualified personnel working in these areas is often not ignored or not considered. Dead animals are considered a source of free meat to eat and not be thrown away. The danger is if an expert warns of the likely dangers of anthrax, then information about the dead animals is likely to be concealed by the affected cattle keeping homes. This means opportunities to know about the cases is missed. Generally, the risk perception for eating dead animals is quite low, given the history of these communities. Some recite that they have been eating animals since time memorial.

**Quote:** *“I was spraying my animal, it was very normal after which I wanted to wash the pump but in a minute the animal died instantly. I went ahead and skinned the animal, then we discovered it was “Koketey” -anthrax. When I discovered it was Koketey, we just ate the meat. No one got the infection”.*  
Ngenge, Kween district.

### 3.10 Motivation for adoption of recommended behaviors



A dead animal being prepared for disposal in dug pit.

Whereas communities have a tendency of concealing information about dead animals or practicing unwanted behaviors and holding on to social cultural norms, the apparent fear to lose more animals is a feasible behavioral component that can be used to create more awareness about the disease. There are a few cases where cattle keepers have immediately alerted veterinary

officers in the locality about sudden deaths of animals. Despite this feasible, option the execution of some practices is generally still impossible. FGD insights revealed that, where as some cattle keepers are beginning to appreciate the anthrax risk, options for adoption of recommended behaviors are generally not feasible and are simply calling upon government for support.

“Vaccination is done cost of 2000 shillings, and people are so poor, so vaccinating a kraal is equivalent to five cows. The drugs for vaccination are Entebbe and Kenya (far places). Though we used to vaccinate annually in the past, now vaccination is at individual level”. FGD of Men in Kween district.

## 4.0 Priority action executed during the field visits



An after-action review session of One- Health Platform and CHC team discussing the way

Through the action review sessions, the technical and communication teams agreed to execute the priority actions:

- I. Myth busting by technical to highlight the facts about the disease and control action
- II. Simple communication material development by the communication team,
- III. Immediate airing of the message on all appropriate channel.
- IV. Use of IPs to reach affected families in the communities.
- V. Documentation of the facts on daily basis by the M&E teams.
- VI. Further collaboration plan to integrate in the risk communication.
- VII. Working with district leadership to sustain the communication.

## 5.0 Conclusions and recommendations:

This assessment revealed the importance of gathering and processing behavioral information to inform rapid response in terms of emergency situations. In the case of anthrax, response teams were effective in saving lives of both animals and persons through treatment options and surveillance of the diseases. In the short run, targeted health communication contributed to preparation of health communication materials and airing of the messages massively. However, the aftermath of the anthrax and the key learning from this phase and the evidence gathered should form a strong foundation for control of future occurrences. Establishment of risk communication appropriate structures and knowledge of behavioral determinants of common zoonotic diseases and among the actors is key.

CHC is in the process of strengthening structures for risk communication to cover the seven priority outbreaks including anthrax. Knowledge of the behavioral determinant identified above is hoped to be handy in the drawing behavioral change agenda for similar outbreaks in Uganda particularly Ebola and Anthrax.

As part of the development of the risk communication strategy, the following standard are recommended:

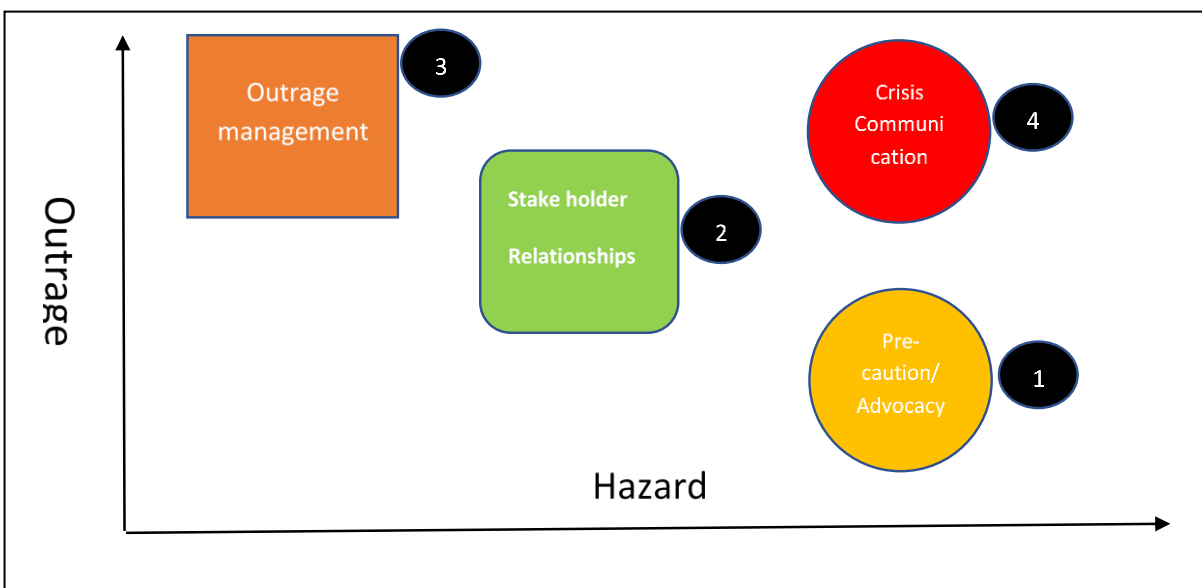
**Standard one: Reflect on the risk, hazard and outrage:**

According to Peter Sandman-Risk communication website <http://www.psandman.com/>

-There are four kinds of Risk communications

1. Public Relations: High Hazard, Low Outrage
2. Stakeholder Relations: Moderate Hazard, Moderate Outrage
3. Outrage Management: Low Hazard, High Outrage
4. Crisis Communication: High Hazard, High Outrage

Figure 3: Graphical Representation of the 4 Risk Communication types



I. High Hazard, Low Outrage

Public relations/ health education

- **Audience:** *apathetic, aren't interested, getting their attention is quite difficult*
- **Task:** *messages that reinforce appeals to move the audience towards your goals, provoke more outrage –action*
- **Medium:** *monologue via the mass media*
- **Barriers:** *audience inattention, size, media resistance*

## 2. Moderate Hazard, Moderate Outrage

### Stakeholder relations

- **Audience:** *stakeholders –interested and attentive audience, neither too apathetic or too upset to listen*
- **Task:** *to discuss, explain, respond to the audience/ stakeholder*
- **Medium:** *dialogue, supplemented by specialises media*
- **Barriers:** *inefficiency of one on one dialogue*

## 3. Low Hazard, High Outrage

### outrage management

- **Audience:** *outraged –anger , largely at you, ‘fanatics’, (justified or not) you have their attention*
- **Task:** *to reduce audience outrage – listening, acknowledging, listening, acknowledging, apologizing, sharing control and credit*
- **Medium:** *in person dialogue, audience does most of the talking*
- **Barriers:** *outrage*

## 4. High Hazard, High Outrage

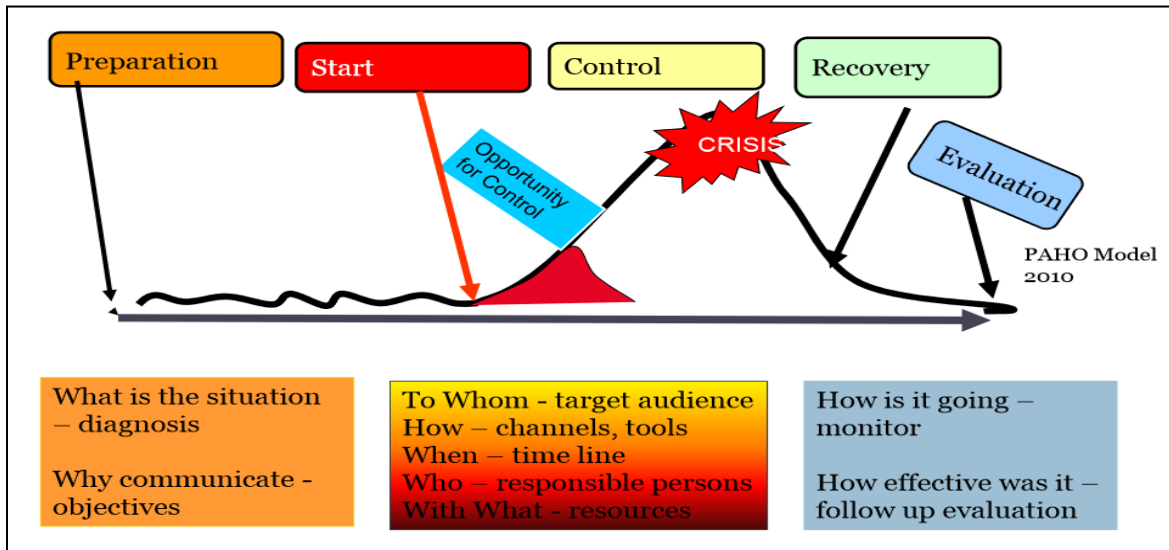
### crisis communication –in a crisis there is no ‘PUBLIC’ everyone is a stakeholder

- **Audience:** *very upset, outraged –more fear and misery than anger*
- **Task:** *to help the audience bear its fear and misery and misery*
- **Medium:** *monologue via the mass media, dialogue –one on one where possible*
- **Barriers:** *stress of the crisis, missing the difference between crisis communication and routine PR*

### **Standard 2: Incorporate the risk communication tools**

Risk communication should be incorporated into preparedness planning for major events and in all aspects of an outbreak response. The use of the tools and process below is generic and could be adopted in context.

Figure 4: Planning and Preparedness of Risk Communication



Source: Pan American Health Organization (PAHO) WHO-2010

**Standard 3: Integrate and implement risk communication**

The risk communication strategy should aim at addressing the risk perceptions, involving what the target audience perceives and believes, awareness of the threat, knowledge, attitudes and practices. Create preparedness messages based on the research of attitudes and knowledge.

Figure 5: Risk Communication strategy for Zoonotic diseases

