

Research Article

A Point Assessment on Perception, Knowledge, Attitude and Practice on Ebola Disease in the Community of Bulape During the Sixteen Outbreaks in the DR Congo

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Abstract

Ebola outbreaks are a significant public health problem in the DRC. The sixteen outbreaks occurred from September to December 2025 in Bulape (Mweka) with fatality ratio (FR) of 67.2%. This research explored Perception, knowledge, attitude and practice concerning Ebola Disease by the community in Bulape (DRC). This is a cross-sectional descriptive study, conducted in Bulape (Mweka) where the sixteen Ebola outbreaks occurred, from 15th to 30th November 2025, using a semi structured questionnaire to collect data. Excel 2013 and SPSS.20 were used for data analysis. A total of 72 respondents were interviewed, with ages between 18 to 57 years. 64.7% were male and 35, 3% were female. 88.81% recognized that bats, are the main vector of Ebola disease; 98.6% of our respondents knew that Ebola could be transmitted through the digestive tract; and Most of our respondents knew main symptoms of Ebola diseases; While 84.72% have been washing hands regularly with soap and water to protect against Ebola virus; Also, 97.2% had got the Ebola vaccine to protect against the disease. Among them 15 (20.83%) of our respondents considered Ebola as a complicated disease, while 20 (27.77%) considered it as a myth for political gains; and 37 (51.38%) of our respondents confirmed that the Ebola virus infection was a real infection. This research has highlighted that most of the community members in Bulape had a good knowledge of EVD and knew about bats as the main vectors and Monkeys as main host of EVD, even that some continue to consider it as an unexplainable disease or myth for political gain.

Keywords

Ebola Outbreak, Perception, KAP, Bulape, DRC

1. Introduction

Ebola virus is recognized as an emerging and re-emerging zoonotic disease that causes acute hemorrhagic fever in humans and has a high case fatality rate [1]. Ebola spreads through direct contact with the blood or bodily fluids of a person with a disease

[2]. EVD begins with flu-like symptoms, stomach pain, diarrhea, and/or vomiting, followed by unexplained bleeding or characteristic hemorrhages caused by damaged blood vessels,

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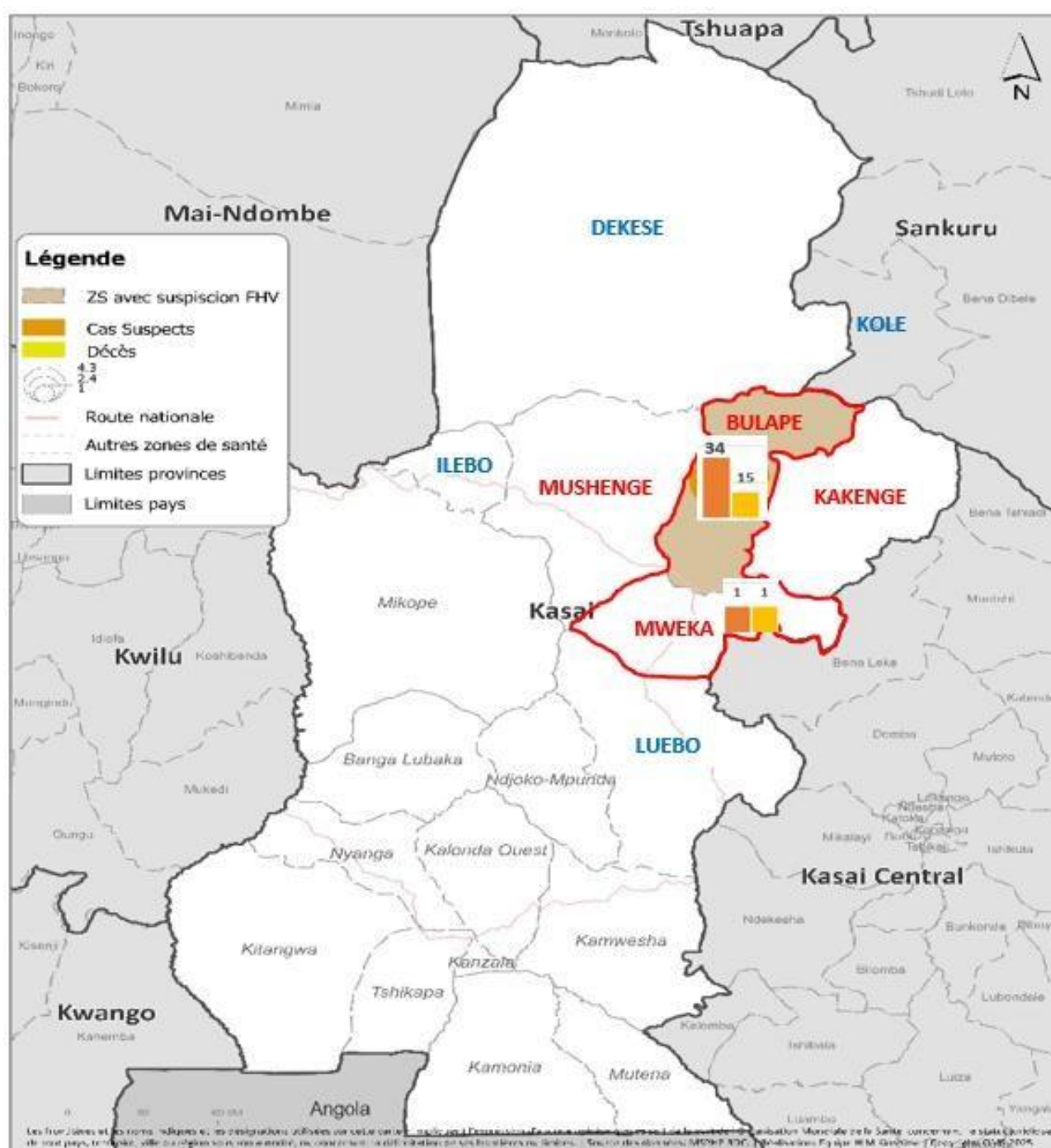
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eventually leading to high mortality [3]. The average case fatality rate is around 50 per cent but can vary from 25 to 90 per cent depending on the outbreak and the timeliness of treatment and control measures [4].

The sixteenth Ebola outbreak in the DRC occurred in Mwaka. Cumulatively, 64 cases (53 confirmed and 11 probable), including 43 deaths (32 confirmed, 11 probable) have been reported from six affected health areas in Bulape Health Zone, Kasai Province, Democratic Republic of the Congo since the onset of the outbreak. The crude case fatality ratio (CFR) is 67.2% [5, 6].

The primary hosts of Ebola virus are primates, including humans, chimpanzees, gorillas, and monkeys [7, 8]. The most likely vector of the EBOV is the fruit bat, specifically *Hypsignathus monstrosus* (the hammer-headed fruit bat), *Epomops franqueti* (Franquet's epaulets fruit bat), and *Myonycteris torquata* (the little-collared bat) [9].

Traditional funerary practices also elevate risk of spread, particularly around Bulape and Mwaka, and along movement corridors toward Tshikapa. The Ervebo vaccine was used to protect community against the Zaire Ebola-virus species, identified as the cause of the current epidemic [10].



This study aims to determine the Perception, knowledge, attitude and practice on Ebola virus disease (EVD) in the community of Bulape in Mweka in the DRC.

2. Methodology

This is a cross-sectional descriptive study, conducted in Bulape (Mweka/DRC) where the sixteen Ebola outbreaks occurred. The study was conducted from 15th to 30th November 2025.

The respondents were selected using convenience sampling. Data collection was done using a semi structured questionnaire. Respondents should have an age >18, and be a resident of the Bulape Health district.

The questionnaire was originally designed in French and was later translated in to Tshiluba, a Bantu language of Central Africa and one of the four National languages of the DRC,

which is primary spoken in a large area in the Kasai Occidental and Kasai Oriental provinces of the Democratic Republic of the Congo [12].

Excel 2013 and SPSS.20 were used for data analysis.

The study variables were gender, age, and perception of the diseases, knowledge, attitude, and practice on Ebola virus.

3. Result

3.1. Socio-Demographical Characteristics of Participants

A total of 72 respondents were enrolled to this study. With an age between 18 to 57 years, and an average age of 31.65 ± 6.35 years.

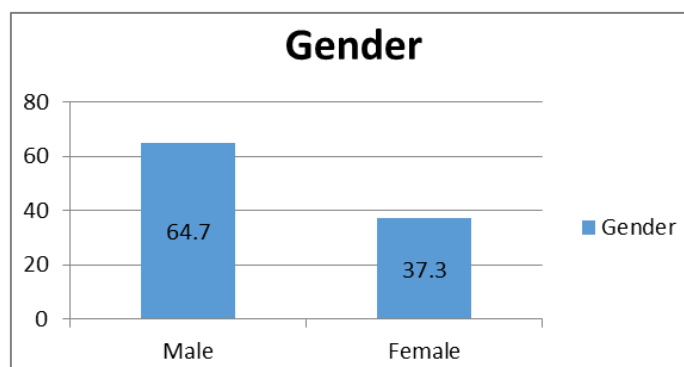


Figure 2. Gender distribution of participants.

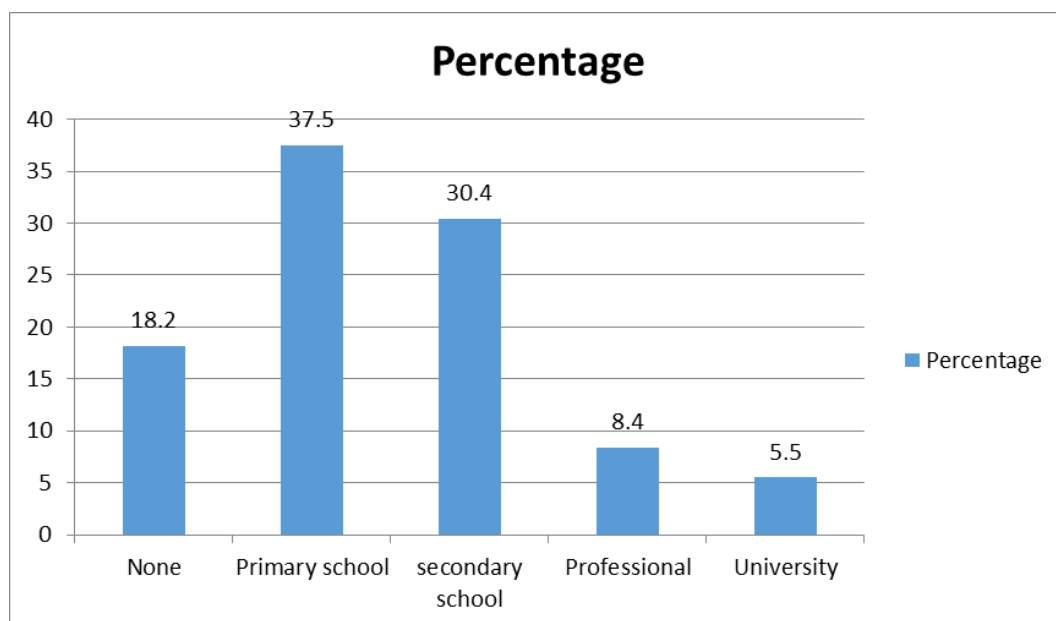


Figure 3. Educational distribution of participants.

3.2. Knowledge, Attitude and Practice on Ebola Virus

Table 1. Knowledge on Ebola Virus.

Variables	n	Percentage (%)
Have you ever heard of Ebola		
Yes	72	100
No	0	0
Main host and vector of the Ebola Virus	64	
Bats	72	88.8
Monkeys/Chimps	18	100
Others (meat bush)	0	25
Don't know		0
Transmission	71	
Digestive tract	5	98.6
Mosquito bite	68	6.94
Shaking hands	66	94.4
Burial ceremony of infected person	42	91.6
Others (Sex, ...)		56.9
Signs and symptoms		
Fever,	71	98.6
Headache,	72	100
Muscle pain,	63	87.5
Diarrhea,	69	95.8
Vomiting,	70	97.2
Fatigue,	54	75
Sore throat	32	44.4
Others	14	19.4

Table 2. Attitude and Practice on Ebola Virus.

Variables	n	Percentage (%)
Washing hands		
Yes	61	84.7
No	11	15.3
Vaccine		
Yes	70	97.2
No	2	2.7

3.3. Community Perception on Ebola

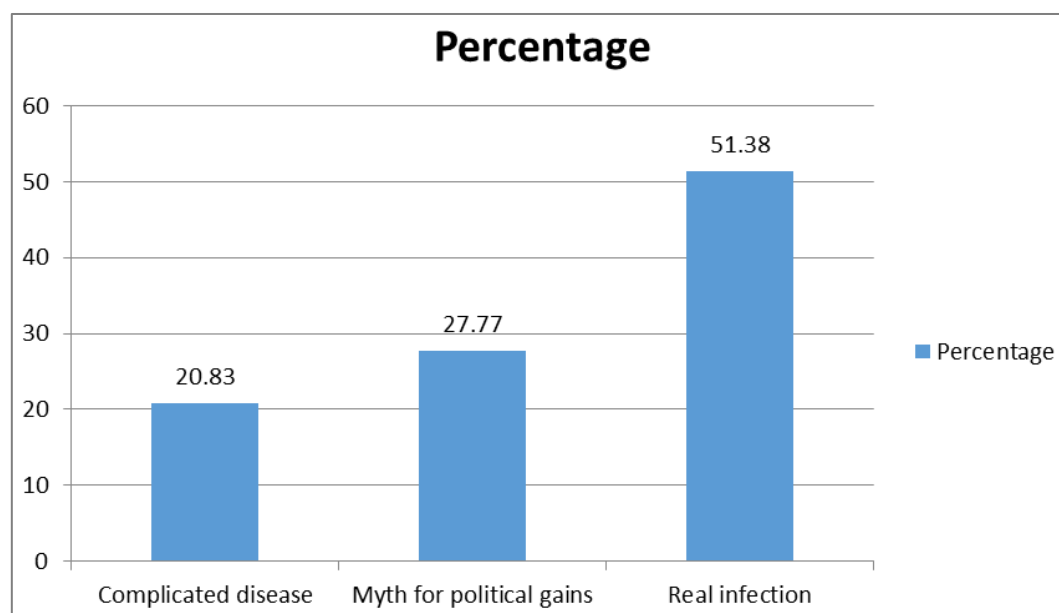


Figure 4. Community perception of Ebola disease in Bulape.

Table 3. Association between Perception and Educational status.

Educational status	Perceptions of the respondents				p value
	Complicated diseases	Myth for political gains	Real infection	Total (%)	
None	11.1% (8)	4.2% (3)	2.7% (2)	18.2%	0.076
Primary	2.7% (2)	2.7% (2)	32.1% (23)	37.5%	0.004
Secondary	4.2% (3)	12.5% (9)	13.7% (10)	30.4%	0.001
Professional	2.7% (2)	5.6% (4)	0	8.4%	0.059
University	0	2.7% (2)	2.7% (2)	5.5%	0.103
Total	20.8%	27.7%	51.4%	100	

From Table 3, it seems that there is an association between primary and secondary educational status and perceptions on Ebola Disease.

4. Discussion

This research focused on Perception, knowledge, attitude and practice concerning Ebola Disease by the community in Bulape (DRC). Result from this study shows that most of the respond have heard about Ebola. Most of them knew monkeys as the main hosted of the Ebola virus and bats has vectors of Ebola virus, and the main symptoms were know.

Most of the population living in the Bulape (affected health zone) had basic knowledge on transmission and prevention

about the disease. This indicates that the sensibilisation about the Ebola disease was very well done: for communities to protect themselves, their members should have sufficiently knowledge about EVD, to squeeze the spite of the outbreak. This confirms why the sixteen outbreaks was well contained and took less time.

This study shows that our responded have misconceptions about Ebola Virus; quite half of the participants think that Ebola is a complicated disease and a myth for political gains. Previous studies have shown that misconceptions are a real challenge for the prevention of EVD in communities during the 2014-2016 outbreaks in West Africa [13-17].

Association between educational status and perceptions on Ebola was statistically significant $p < 0.05$. These findings are

similar with one in the study done by Jude MC et al. that showed important insights into the association between participants' level of education and their knowledge of the EVD and associated misconceptions in the north part of the DRC. In that study those who have reached high school and university have a better knowledge of the EVD and less misconceptions than others. However, a regression analysis demonstrates in this study of Jude MC et al shows a very interesting interaction between socio-demographic characteristics of the population: First, it shows that being highly educated with employment predicted EVD knowledge; second, it reveals that being highly educated with employment, but living in a village predicted less EVD knowledge. The author in this other study of Jude MC et al. suggests that education and traditionalism and maybe geographical distance from urban centers are separate dimensions which may have distinct effects on attitudes and knowledge and need all to be considered when developing prevention programs [18]. This could explain why in our study more people from Bulape village that had primary and secondary educational level status had an average level of knowledge on Ebola virus.

Talking about vaccination, 97.2% of our respond have got already the vaccine, this is a good statement to confirm that most people in this locality have get the Ebola vaccine. As also confirm by WHO report, that Ebola vaccination in Bulape Health Zone and neighboring localities on 14 September 2025, was at more than 44 000 people that have been vaccinated.

Limitations of the study

This study has been limited by the small sample size and also some information about perception on treatment of Ebola, attitude on burial ceremonies and rumors about Ebola should have been very necessary to explain the socio-culture side perception of the respondents on EVD.

5. Conclusion

This is a cross-sectional descriptive study, conducted in Bulape (Mweka/DRC) where the sixteen Ebola outbreaks occurred. The study was conducted from 15 to 30 November 2025. This study aims to explore Perception, knowledge, attitude and practice concerning Ebola Disease by the community in Bulape (DRC).

Result shows a good level of knowledge of EVD, a good knowledge on vectors and hosts of EVD and an average misconception on the disease as a myth of political gain and unexplained disease for some of the respondents. Findings from this study should be not projected to the all population of Bulape because of the small sample size.

Abbreviations

DRC	Democratic Republic of Congo
EVD	Ebola Virus Diseases
FR	Fatality Ratio

KAP Knowledge Attitude and Practice

Author Contributions

Kasangye Kangoy Aurelie: Conceptualization, Data curation, Formal Analysis

Shambuwa Saleh Sephora: Investigation, Methodology

Mutangala Muloye Guy: Writing – review & editing

Conflicts of Interest

All authors declare no conflicts of interest.

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