



# Effective Covid-19 Risk Communications for the Public and Community Engagement at the Outpatient Departments in Monze District, Zambia

Kooma EH<sup>1,\*</sup>, Nseemani W<sup>2</sup> and Kaunda E<sup>3</sup>

<sup>1</sup>Ministry of Health, National Malaria Elimination Centre [Public Health Vector Control Specialist], Texila American University [Faculty of Public Health], Zambia

<sup>2</sup>Department of Environmental & Occupational Health, Infection Prevention & Control Focal Point- Monze Mission Hospital, Monze District, Southern Province, Zambia

<sup>3</sup>Department of Gynaecology & Obstetrics, Consultant-Monze Mission Hospital, Monze District, Southern Province, Zambia

\*Corresponding author: Kooma EH, Ministry of Health, National Malaria Elimination Centre, Texila American University, Lusaka, Zambia; Tel: +260-0973977780; E-mail: [emmanuel.kooma@gmail.com](mailto:emmanuel.kooma@gmail.com)

## Abstract

There is rapidly evolving information during the unprecedented times caused by the novel COVID-19. However, a focus must also be on proper and effective risk communication. The objective of the study was to ensure participation of and engagement with relevant communities to work out barriers to the implementation of and uptake of public health measures against Covid-19 pandemic. One of the notable potential ways to ensure appropriate risk communication is the use of media channels, person to person (Village meetings and Focus group discussions) communication and ensuring ongoing consistent media presence. Another important step of value is to include all stakeholders at all levels in broader public health messaging. An understanding and appreciation of risk communication is essential as health staff communicate with, and inform patients, clients, fellow workmates and colleagues, moving forward in the fight against Covid-19 pandemic. In conclusion, risk communication and community engagement are essential components of health emergency readiness and responsive activities.

**Keywords:** Covid-19; Risk Communication; Monze, Out-Patient; Community; Zambia

## Background

Zambia is not an exception to COVID-19 outbreak that has affected the health systems and the community at large (WHO, 2020). Governments, stakeholders and other health authorities have mounted responses to contain the pandemic. The corona disease 2019 (Covid-19) pandemic has proven to be tenacious and shows that the global community is still poorly prepared to handling such emerging pandemics. In these unprecedented times caused by covid-19 there is rapidly evolving information and guidance. A midst rapidly evolving information and guidance, a focus must be on proper and effective risk communication. A consequence of poor risk communication and heightened risk perception is

hoarding behaviour which can lead to lack of medications and personal protective equipment. One potential way to ensure appropriate risk communication media channels and ensuring an ongoing consistent media presence. Another important step is to include all stakeholders including members of the allergy community in broader public health messaging. COVID-19 impact on vulnerable groups rely on the quality of communication regarding health risks and dangers. Ignorance and health factors can disturb effective communication. Consequently, government institutions must use research approaches for sustainable designing and implementation of effective covid-19 RCCE strategies and activities for preparedness. The role of information and communication technologies (ICT) and information dissemination

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and community feedback on COVID-19 has been poorly understood. Risk communication provide the real-time exchange of information, advice and opinions between experts of officials and people who face a threat (hazard) to their survival, health or economic or social well-being.

## Objectives

1. To ensure that Monze people have the life-saving information they need to protect themselves and others from C-19.
2. To reduce Covid-19 impact on people's lives, living standards and livelihoods
3. To strengthen community feedback mechanisms and promote two-way communication
4. To engage staff to know how to protect themselves, patients and caregivers
5. To strengthen possible detection of cases and communication with patients about Covid-19, and report to the relevant health authorities.
6. To influence participation and engagement of communities for increased uptake of public health measures.

## Methods and Materials

We modified a WHO risk communication and community engagement (RCCE) assessment tool in order to collect existing community data. A rapid qualitative and quantitative data assessment was conducted for KAP (knowledge, attitudes, and perceptions about Covid-19, from the most risk population on the communication patterns and the media channels; religion, influencers, language including health services situation). We further used existing mechanisms to engage with RCCE counter partners organizations' government sectors, on-government organizations, the academia and prioritized key RCCE objectives. This was an operational study conducted among the residents of Monze district who reported at different Monze health facilities. The study targeted Monze community of both genders and all age groups that reported at out-patient departments. The survey was randomly distributed to all health facilities through questionnaires. The final sample size of the study was of 218 participants.

## Statistical Analysis

A descriptive statistical analysis was conducted for using percentages and frequencies in order to describe demographics, knowledge including response messages on risk communication. For multiple-choice questions with more than one, correct answer, one score given for choosing the correct/appropriate response and zero score for not choosing the incorrect/inappropriate responses. Additionally, the overall mean scores ranged from zero to one. The difference in knowledge score concerning demographics variables was evaluated by the Mann-Whitney U-test or Kruskal-Wallis

test, as appropriate. A p-value of  $\leq 0.05$  was considered statistically significant. All analyses were performed using IBM SPSS Statistics version 20.

## Results

### Study population and demographics

Two-hundred and eighteen (218) people consented to participate in the study. The mean age of respondents was 34.5 years  $\pm$  14.3, and more than half of the respondents (117; 53.7%) were male. The respondents were aged 18-80 years with 76 (34.9%) aged 20-29 years. The average was 34.5 with a SD of 14.3 years. Nearly half were having secondary education as their highest level of education (99; 45.4%), with approximately 63 (28.9%) were unemployed. Majority of the respondents were residing in Manungu area (31; 14.2%). Nonetheless, 22.9% of all responders were non-Monze residents (Table 1).

### General knowledge of Covid-19 related information

The subsequent table (Table 2) illustrates the knowledge about coronavirus among the people of Monze district. Almost all respondents (215; 98.6%) had heard about COVID-19. Notably, 89% of the respondents had the knowledge that COVID-19 is a virus. About 191 (88.4%) of respondents believed that elderly people are at a higher risk of getting COVID-19, followed by adults (121; 56.0%). When asked about virus transmission methods, 116 (53.5%) of the responders answered that covid-19 spreads through direct contact with infected people, and 51.6% (112) answered that covid-19 spreads through airborne. The three most frequent symptoms of COVID-19 identified by the respondents were cough (191; 27.6%), fever (158; 22.8%) and difficulty in breathing (133; 17.7%). Most respondents would go to the hospital (199; 91.7%) or stay in quarantine (38; 17.5%) if they develop signs and symptoms of COVID-19. Further, respondents understand that regular handwashing using alcohol or soap and water (82.9%), avoiding close contact with anyone who has a fever and cough (42.9%), and covering your mouth and nose when coughing or sneezing (41.9%) are important preventive measures against COVID-19. Very few respondents answered that they do not know how to protect themselves from new coronavirus (COVID-19) (Table 2). Table 3 presented the knowledge and awareness scores of Monze people regarding COVID-19. The respondents exhibited poor levels of knowledge of COVID-19 concerning the modes of transmission ( $0.4 \pm 0.3$ ), population at higher risk ( $0.4 \pm 0.4$ ), and the knowledge of protective measures against COVID19 ( $0.2 \pm 0.3$ ). The level of the remaining two items was average. The overall mean knowledge score was  $0.3 \pm 0.4$ . In relation to the COVID-19 pandemic knowledge areas (Table 4), all age groups ( $p=0.019$ ) scored a mean knowledge score above 1 out of 1, except for the population above 50 years of age ( $0.92 \pm 0.267$ ). However, the

lowest score was found in the oldest age group of >50years (n=40; mean ± SD, 0.92 ± 0.27). Knowledge scores between both genders were observed in males with a mean score of 0.99 (± 0.09), scoring slightly higher than females with a mean score of 0.98 (± 0.14). Expectedly, population educational levels were significantly proportional to the COVID-19 knowledge scores with a mean score of 1.00 (± 0.00) across different education level. Similarly, there were no notable differences in knowledge scores in relation to perceived risks of COVID-19 (p = 0.317).

### Perceived Risk toward COVID-19

About 192 (88.1%) of respondents who are aware of COVID-19 acknowledged that COVID-19 risk is very dangerous in the community, it is more or less dangerous (12; 5.5%). However, 5.5% of respondent did not consider COVID-19 risk a danger to the community (Figure 1).

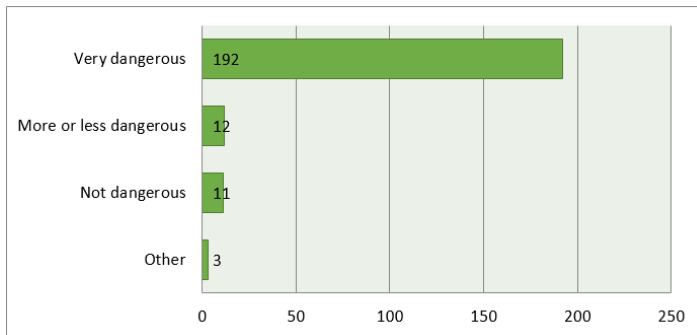


Figure 1: COVID-19 risk.

Although 28% of the respondents believed that they could not contract the virus, more than half of the respondents (66.5%), perceived that, the risk of them getting sick with COVID-19 is high. However, 79.4% of the participants strongly agreed on the importance of taking actions to prevent the spread of COVID-19 within the community. Most respondents would like to know more about how to treat COVID-19 (83; 39%), while 22.6% would like to other COVID-19 related information (such as vaccines, where COVID-19 came from) (Table 5). The association of perceived risk, according to demographics, provided an in-depth look at the community is view of COVID-19. Both male and female genders reported high-perceived risk being 70.3% and 63.3%, respectively. All age groups (n=218) were similar in that the majority (>50%) reported high-perceived risk. The age group 20-29 made up most those who reported a high-perceived risk (71.1%) of COVID-19. Similarly, characteristic response across different occupational status was high perceived levels of COVID-19 risk (>60%) (Table 6). Education level had an impact on the perceived risk of the participants (p=0.013). Higher education (84.7%) and senior secondary (62.6%) had a high-perceived risk of COVID-19. However, gender, age group and occupational status did not affect the perception of the risk associated with COVID-19.

### Main channels used for knowledge of COVID-19

The three most common sources of information about COVID-19 were television adverts (172; 78.9%), radio jingles (120; 55%) and friends' conversation (115; 52.8%). The results are further illustrated in (Figure 2).

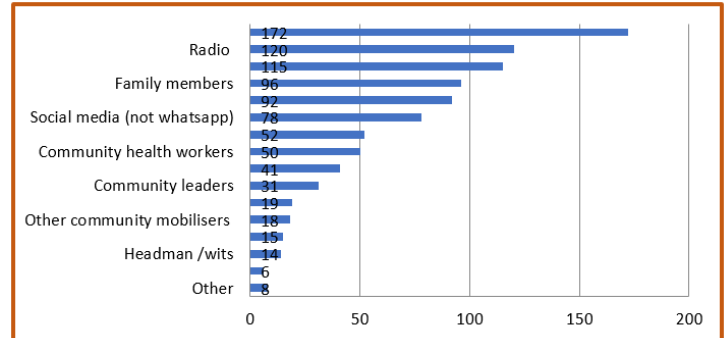


Figure 2: Sources of COVID-19 information.

### Most trusted channels for receiving coronavirus information

One hundred and twenty-four (57.1%) of the respondents positively reinforced that television was their most trusted channel for information during the COVID-19 pandemic, followed by radio (63; 29.0%) and social media (No WhatsApp) (44; 20.3%) (Table 7).

### Type of Received Information

Approximately, 64.5% of the respondents reported received information on how to protect themselves from COVID-19, 50.2% symptoms and 48.8%, how to it is transmit. However, 5.1% of the respondent reported received other information than those listed in (Table 8).

### Adoption of preventive strategies

Among those respondents who had heard of COVID-19, 180 (83.3%) reported that they prevent COVID-19 by practicing regular handwashing with soap and water, 112 (51.9%) by covering their mouth and nose when coughing or sneezing and 92 (42.6%) by avoiding close contact with anyone who has a fever and cough (Table 9).

### Covid-19 related discriminated

Approximately, 67.4% of the responders reported COVID-19 was generating stigma against specific people in the community (Table 9). Among those respondents who reported COVID-19 related stigma, 120 (81.6%) conveyed that COVID-19 patients who are seeking health care are stigmatized, which was eminent in the age group 20-80 years (38; 74.5%) (Figure 3).

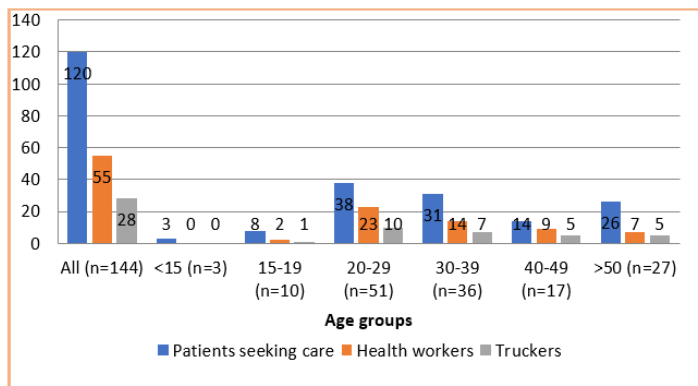


Figure 3: Discriminated group in the community according to age.

### Knowledge and awareness of flu/influenza

Most respondents would go to the hospital (108; 52.4%) or drink tea until their racer (43; 20.9%) if have a regular flu. One hundred and sixty two (74.3%) respondents received flu related information from television adverts, friends (109; 50%) and radio jingles (107; 49.1%) (Table 11).

### Discussion

Overall, we found a high level of basic knowledge on COVID-19 and control measures among the people of Monze district. For example, with regard to symptoms, the results suggest that almost all the respondents had knowledge on one or more symptoms about COVID-19. These results were in line with the other previous study result (Zhang, 2020) (Saudi MoH, 2021) where more than 78% of respondents were able to identify some of the symptoms of the virus. Having enough knowledge on the symptoms of COVID-19 could help in the early detection of the pandemic and seeking early treatment. Results from this study also indicated that for this community, majority of the respondents’ demonstrated good knowledge on virus transmission methods. This is in contrast with a study carried out by, where a lesser number of respondents knew the mode of COVID-19 transmission [1]. Further, majority of respondents in our study also demonstrated good knowledge on the prevention methods of COVID-19. This finding collaborates with what studied in China in assessing the public knowledge, attitudes, practice of COVID-19, and study in Iran, which investigated medical students’ knowledge, prevention behavior and risk perception of COVID-19 [2,3]. This observed awareness followed closely by good knowledge level on COVID-19 prevention, in more than half of the study respondents. Most of whom identified regular hand washing using alcohol or soap and water as an important preventive measure. Such good knowledge can be view in the context of effective risk communication, as stated earlier. Such findings are in line with reports from China, Egypt, [4-7]. On the contrary, a recent report from South-south of Nigeria demonstrated a poor level of knowledge among the general

population. Notably, our findings demonstrated that good knowledge was significantly associated across all age groups, and similar with the educational level. We postulated that these findings stem from the fact that the people of Monze across all age groups and educational level are more vulnerable to severe presentation of COVID-19 and, hence, they are more eager for self-education about basic information of the COVID-19 pandemic. In the present study, majority of the respondent cited television, radio and social media has their main source of COVID-19 information during the pandemic. This was an affirmation of broadcast media (television and radio) as the most viable channel for risk communication within the district. Beyond what sources and platforms people rely on for news, it is important to map what sources they trust, as trust is one of the factors likely to influence what information people will not simply access, but also heed, and perhaps act on [8,9]. For the study, the overwhelming majority’s’ trusted and relied upon source is indeed broadcast media (television). It also showed the people’s initiative to seek information from reliable and authoritative sources rather than only rely on social media. By contrast, a Chinese survey reported that the majority of the Wuhan population viewed their healthcare professionals, including physicians (90%) and nurses (88%), as the most trusted source of information. Another survey on Jordanian pharmacists revealed that moderate trust in social media as a source of information, believing that it is rather a source of fear and anxiety to the community. According to the study, the people of Monze district inclined more towards higher perceived risk. Our findings are in line with a recent survey that covered ten countries from Europe, America, and Asia reported that the risk perception among the general population was high [10]. However, a recent survey that covered Saudi Arabia reported that the risk perception among the general population was low. However, were inclined to be high in varying degrees among the population regardless of age, occupation, and education level. Generally, females showed a slightly higher risk level than males. This could be indebted to a number of reasons, including the fear of the unknown, the increasing impact on everyday life, and socioeconomic factors such as occupation, education level. In connection with what the respondents perceived about the COVID-19 pandemic, the majority of participants exhibited good practice towards COVID-19 prevention, in line with findings from Uganda and Nepal [11,12]. For instance, to prevent becoming sick with COVID-19 in the recent days, it was observed that the majority of the respondents had hand-washing buckets put at the entrance of their homes and encouraged everyone to practice hand washing with alcohol or soap and water. Further, more than half of respondents adopted covering their mouth and nose when coughing or sneezing as a means of protecting themselves and their families against COVID-19. These findings are encouraging as they indicate that respondents are knowledgeable on the prevention dynamics of the

disease. It was alarming that two thirds of the participant reported that, COVID-19 was generating stigma against specific people in the community. This was not particular to our study alone, as other researchers have reported similar occurrences in their environments [13,14].

**Table 1:** Demographics characteristics of respondents (n=218).

Variables	n	Percentage (%)
<b>Gender</b>		
Male	117	53.7
Female	101	46.3
<b>Age Groups</b>		
<i>(Mean age ± SD 34.5±14.3)</i>		
<15	4	1.8
15–19	18	8.3
20-29	76	34.9
30-39	52	23.9
40-49	28	12.8
>50	40	18.3
<b>Education Level</b>		
No Formal Education	7	3.2
Primary Education	43	19.7
Junior Secondary	10	4.6
Senior Secondary	99	45.4
Higher Education	59	27.1
<b>Occupation status</b>		
Governmental Employed	20	9.2
Private sector employed	27	12.4
Private business/self-employed	59	27.1
Farmer	28	12.8
Retired	6	2.8
Unemployed	63	28.9
Student	15	6.9
<b>Place of Residence</b>		
Mainza Chona	23	10.6
Manungu	31	14.2
Nchete	9	4.1
Hill Top	20	9.2
Site and Service	18	8.3
Railway	8	3.7
Prisons	7	3.2
Fairview	5	2.3
<i>Abbreviations: n, number of observations</i>		

Variable	n	Percentage (%)
Zambia Compound	4	1.8
ZCA	7	3.2
Town	4	1.8
Tooters	5	2.3
Other Monze residence	27	12.4
Non Monze residence	50	22.9

**Table 2:** Knowledge about novel coronavirus among study participants.

Variable	N	Yes	Percentage (%)
<b>Have you ever heard about the new coronavirus disease?</b>			
No	218	3	1.4
Yes	218	215	98.6
<b>What do you know about the new coronavirus disease</b>			
It's a virus that can cause disease	218	194	89
It's a government program	218	9	4.1
It's a TV/radio program	218	5	2.3
I do not know	218	10	4.6
<b>Who do you think is at the highest risk to get COVID-19?</b>			
Children	216	50	23.1
Adolescents	216	45	20.8
Youths	216	73	33.8
Adults	216	121	56.0
Elderly	216	191	88.4
Health workers	216	103	47.7
Pregnant women	216	66	30.6
<i>Abbreviations: n, number of observations</i>			

Variable	n	yes	Percentage %
<b>How COVID-19 spreads (multiple response)</b>			
Blood transfusion	217	15	6.9
Droplets from infected people	217	110	50.7
Direct contact with infected people	217	116	53.5
Airborne	217	112	51.6
Touching contaminated objects/surfaces	217	91	41.9
Sexual intercourse contact	217	15	6.9
Contact with contaminated animals	217	15	6.9
Mosquito bites	217	3	1.4
Eating contaminated food	217	15	6.9
Drinking unclean water	217	9	4.1
I do not know	217	19	8.8
<b>Signs and symptoms of COVID-19 (multiple response)</b>			
Fever	218	158	72.5
Cough	218	191	87.6
Shortness of breath and breathing difficulties	218	133	56.4

Muscle pain	218	45	20.6
Headache	218	119	54.6
Diarrhea	218	40	18.3
Other	218	7	3.2
I do not know	218	10	4.6
<b>What I will do when I develop signs and symptoms of COVID-19 (multiple responses)</b>			
I will go to the hospital	217	199	91.7
I would stay in quarantine	217	38	17.5
I will go to the neighborhood nurse	217	12	5.5
I will look buy medicines at the market	217	12	5.5
I will look for the traditional healer	217	3	1.4
I will look for a more experienced relative to advise me on what to do	217	12	5.5
Other	217	7	3.2
<b>How you prevent yourself from getting COVID-19 (multiple responses)</b>			
Regular handwashing using alcohol or soap and water	217	180	82.9
By cover your mouth and nose when coughing or sneezing	217	91	41.9
By avoid close contact with anyone who has a fever and cough	217	93	42.9
By drink only treated water	217	25	11.5
By avoid unprotected direct contact with live animals and surfaces in contact with animals	217	14	6.5
Cook meat and eggs well	217	9	4.1
Sleep under the mosquito net	217	7	3.2
Eliminate standing water	217	5	2.3
Other	217	19	8.8
I do not know	217	10	4.6

**Table 3:** COVID-19 Knowledge and Awareness in Monze based on the questionnaire.

Knowledge Areas Related to COVID-19	n	Min	Max	Mean	SD
Population at higher risk of SARS-CoV-2 infection	218	0	1	0.43	0.441
Main symptoms of COVID-19	218	0	1	0.35	0.328
Protective measures against COVID-19	218	0	1	0.21	0.338
COVID-19 Transmission	218	0	1	0.22	0.328
Response measures taken to COVID-19 symptoms	218	0	1	0.25	0.293
<i>Abbreviations: n, number of observations; Min, minimum number of observations; max, maximum number of observations; SD, standard deviation</i>					

The fact that the COVID-19 is new, with many unknowns, and that people are often afraid of the unknown, evokes the fear factor

among individuals, including community dwellers. It is therefore understandable why there is confusion, anxiety and fear among the public. Subsequently, the abuse that is coming with being tested positive, many people may be shunning going for medical testing, lest the Zambian community abuses them. The current social environment in Zambia can make people fake not to have the virus just because of being scared of being label as “the one with the Corona Virus”.

**Table 4:** Demographics Variables and Knowledge Score.

Variable	Knowledge Level			
	N	Mean	SD	P-value
<b>Age</b>	<b>218</b>			0.019
Under 15	4	1.00	.000	
15-19	18	1.00	.000	
20-29	76	1.00	.000	
30-39	52	1.00	.000	
40-49	28	1.00	.000	
50 above	40	.920	.267	
<b>Gender</b>	<b>218</b>			0.477
Male	117	0.99	0.092	
Female	101	0.98	0.140	
<b>Education</b>	<b>218</b>			0.000
No formal education	7	.71	.488	
Primary	43	.98	.152	
Lower sec	10	1.00	.000	
Upper sec	99	1.00	.000	
Higher education	59	1.00	.000	
<b>Perceived risk</b>	<b>218</b>			0.317
No	61	.97	.180	
Yes	145	.99	.083	
I do not know	12	1.00	.000	
<i>Notes: Bold numbers indicated the total number of the participants answered to the survey's question. P-value for the chi square. Abbreviations: n, number of observations; SD, standard deviation</i>				

All these factors can result in more severe health problems by increasing the difficulties in controlling the disease's outbreak. Nonetheless, the Zambian authorities should be more proactive in creating a conducive environment where people can freely test without being stigmatized, worse still, abused. Formerly, the

Zambian government was not emphasizing on this when giving daily updates on the COVID-19 and the corresponding measures being implement.

**Table 5: Risk Communication Messages Practice.**

Variable	N	Percentage (%)
<b>How likely do you think it is that you will become sick with the new coronavirus (COVID-19)?</b>		
Yes	145	66.5
No	61	28.0
I do not know	12	5.5
<b>Do you consider important to take actions to prevent the spread of new coronavirus COVID-19 in healthcare facilities?</b>		
Yes	173	79.4
No	33	15.1
I do not know	12	5.5
<b>What more would you like to know about the new coronavirus COVID-19?</b>		
How to protect yourself from the disease?	79	38.0
Symptoms of the new coronavirus	46	22.1
How it is transmitted	44	21.2
What to do if you have the symptoms	44	21.2
Most at risk groups	40	19.2
How to treat it	83	39.9
Other	47	22.6
<i>Abbreviations: n, number of observations</i>		

**Table 6: Association between Demographics versus Perceived Risk during COVID-19 Pandemic.**

Variable	Perceived risk	Yes %	No %	I do not know %	P-value
<b>Gender</b>	<b>(n=218)</b>				<b>0.546</b>
Male		63.3	30.8	6.0	
Female		70.3	24.8	5.0	
<b>Age Group</b>	<b>(n=218)</b>				<b>0.416</b>
Under 15		50.0	25.0	25.0	
15-19		66.7	16.7	16.7	
20-29		71.1	26.3	2.6	
30-39		63.5	32.7	3.9	
40-49		64.3	28.6	7.1	
50 and above		65.0	30.0	5.0	
<b>Educational level</b>	<b>(n=218)</b>				<b>0.013</b>
Primary		58.1	32.6	9.3	
Junior secondary		40.0	60.0	0.0	
Senior secondary		62.6	29.3	8.1	
Higher education		84.7	15.3	0.0	

No formal education		57.1	42.9	0.0	
<b>Occupational status</b>	<b>(n=218)</b>				<b>0.059</b>
Governmental employed		75.0	25.0	0.0	
Private sector employed		74.1	25.9	0.0	
Private business/elf-employed		66.1	32.2	1.7	
Farmer		46.4	39.3	14.3	
Retired		66.7	16.7	16.7	
Unemployed		63.5	27	9.5	
Student		93.3	6.7	0.0	

**Table 7: Most trusted channels for receiving Covid-19 Information.**

Channels	n	Yes	Percentage
<b>Where or whom I trust the most to receive information related to the COVID-19</b>			
Radio	218	63	29
Television	218	124	57.1
WhatsApp	218	25	11.5
Social media (No WhatsApp)	218	44	20.3
Health unit/health care worker	218	27	12.4
Family member	218	34	15.7
Friends	218	41	18.9
Community health worker	218	13	6.0
Headman/wits	218	1	0.5
Other community mobilisers	218	4	1.8
Community leaders	218	5	2.3
Religious leaders	218	4	1.8
Traditional leaders	218	1	0.5
Traditional midwives	218	1	0.5
Any person from the community	218	4	1.8
Other	218	3	1.4
<i>Abbreviations: n, number of observations</i>			

**Table 8: Type of COVID-19 related information received.**

Variable	n	Yes	Percentage %
<b>What kind of information have you received about COVID-19</b>			
How to protect yourself from the disease	217	140	64.5
Symptoms of the new coronavirus disease	217	109	50.2
How it is transmitted	217	106	48.8
What to do if you have the symptoms	217	58	26.7
Risk and complications	217	40	18.4
Other	217	11	5.1
<i>Notes: Abbreviation n, number of observations</i>			

Instead, there was some kind of intimidation from the authorities, making people have a certain amount of fear, then the willingness to test openly that can lead to containing the disease as quickly as

possible. On the other hand, we aimed to understand the level of knowledge and awareness around influenza among the people of Monze district. Our results demonstrated that half of the respondent would go to the hospital unit when they have a regular or seasonal flu/influenza.

**Table 9: Preventive measures adopted.**

Variable	n	Yes	Percentage %
<b>What have you and your family done to prevent becoming sick with COVID-19</b>			
By handwashing regular with alcohol or soap and water	216	180	83.3
By covering mouth and nose when coughing or sneezing	216	112	51.9
By avoiding close contact with anyone who has a fever and cough	216	92	42.6
Eliminate standing water	216	4	1.9
Cook meat and eggs well	216	7	3.2
Avoid unprotected direct contact with live animals and surfaces in contact with animals	216	10	4.6
Other	216	23	10.6
I do not know	216	4	1.9
<i>Note: Abbreviation n stands for numbers</i>			

**Table 10: Coronavirus disease related stigma among the people of Monze.**

Variable	n	Percentage (%)
<b>Do you think the coronavirus is generating stigma against specific people?</b>		
No	71	32.6
Yes	147	67.4
<i>Note: Abbreviations n, number of observations</i>		

**Table 11: Frequency for seasonal or regular flu and influenza.**

Variables/Channels	n	Percentage (%)
<b>What do you usually do if you have a regular flu?</b>		
I have never had the flu	36	17.5
Nothing, I continue with my normal life, after some time the flu goes away	28	13.6
I stay at home, so I do not infect others	25	12.1
I wear a mask	23	11.2
I drink tea until I racer	43	20.9
I seek advice from my neighbors	8	3.9
I seek advice from local healers	6	2.9
I go to the health unit	108	52.4
Other	9	4.4

<b>From where or who do you usually receive information on flu and other diseases?</b>		
Radio	107	49.1
Television	162	74.3
Health unit	87	39.9
Family	82	37.6
Friends	109	50.0
Community leaders	19	8.7
Religious leaders	28	12.8
Community health workers	35	16.1
Other community mobilisers	17	7.8
Traditional healer	5	2.3
Traditional midwives	5	2.3
Any person from the community	12	5.5
Other	3	1.4
<i>Note: Abbreviations n, number of observations</i>		

One possible explanation might be that the people had increased access to information above flu/influenza. Prior to this study, we argue that they were exposed, and had increased access to information regarding flu, including information disseminated through television news, friends and hospital. This increased access to information might have informed their appreciable knowledge, and positive perception of the COVID-19 prevention measures. The present work had some limitations, which are worth mentioning. First, although the research employed Outpatient department representative data study the effective of risk communication for the public and community, the findings of this study cannot be generalized to the whole district. Furthermore, our survey was based on a self-reported, might suffer from selective participation, difficulties in measuring attrition rates, and liability to participants' feelings during survey filling [15-21].

### Conclusion

This study showed that the risk communication campaign by healthcare authorities during the COVID-19 pandemic has improved awareness among the people of Monze district. The present study demonstrated that the people of Monze had a fair level of knowledge regarding the transmission and protection against COVID-19. Nonetheless, the people demonstrated a low perceived risk of infection and high stress levels, despite this good knowledge. Overall, our results highlighted that the majority of the Monze people placed high trust in the broadcast media (television and radio) and relied on all aspects related to COVID-19 information and updates. Moving forward, and in the future, the authorities should consider using these media as a platform to drum home their message of diseases prevention. Furthermore, risk communication focusing on the promotion of Self protectiveness can be and not scan be influential if there are correct risk perception conditions. An effective risk communication campaign has to focus



on the effectiveness of risk-mitigation actions and ensure that this communication is perceived actively.

## Disclosure

The authors report no conflicts of interest in this work.

## References

1. Gohel K. Knowledge and perceptions about COVID-19 among the medical and allied health science students in India: An online cross-sectional survey. *Clin Epidemiol Glob Health*. 2020; 9: 104-109.
2. Zhong B, Luo W, Li H, Zhang QQ, Liu XG, Li WT, et al. Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. *Int J Biol Sci*. 2020; 16: 1745-1752.
3. Taghrir MH, Borazjani R, Shiraly R. COVID-19 and Iranian medical students; A survey on their related-knowledge, preventive behaviors and risk perception. *Arch Iran Med*. 2020; 23: 249-254.
4. Zhang M, Zhou M, Tang F, Wang Y, Nie H, Zhang H, et al. Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China. *J Hosp Infect*. 2020; 105: 183-187.
5. Zhang L, Li H, Chen K. Effective risk communication for public health emergency: reflection on the COVID-19 (2019-nCoV) outbreak in Wuhan, China. *Healthcare*. 2020; 8:1.
6. Wahed WYA, Hefzy EM, Ahmed MI, Hamed NS. Assessment of knowledge, attitudes, and perception of health care workers regarding COVID-19, a cross-sectional study from Egypt. *J Community Health*. 2020; 45: 1.
7. Saqlain M, Munir MM, Rehman SU, Gulzar A, Naz S, Ahmed Z, et al. Knowledge, attitude, practice, and perceived barriers among healthcare workers regarding COVID-19: a cross-sectional survey from Pakistan. *J Hosp Infect*.
8. Gohela KH, Patel PB, Shah PM, Patel JR, Pandit N, Raut. A Knowledge and perceptions about COVID-19 among the medical and allied health science students in India: An online cross-sectional survey. 2021.
9. Almuzaini Y, Mushi A, Aburas A, Yassin Y, Alamri F, Alahmari A, et al. Risk communication effectiveness during covid-19 pandemic among general population in Saudi Arabia. 2021.
10. Dryhurst S, Schneider CR, Kerr J. Risk perceptions of COVID-19 around the world. *J Risk Res*. 2020; 1-13.
11. Olum R, Chekwech G, Wekha G, Nassozi DR, Bongomin F. Coronavirus Disease-2019: Knowledge, attitude, and practices of health care workers at Makerere University teaching hospitals, Uganda. *Front Public Heal*. *Frontiers Media SA*. 2020; 8: 181.
12. Nepal R, Sapkota K, Adhikari K, Paudel P, Adhikari B, Paudyal N, et al. Knowledge, attitude and practice regarding COVID-19 among healthcare workers in Chitwan, Nepal. 2020.
13. Ramaci T, Barattucci M, Ledda C, Rapisarda V. Social stigma during COVID-19 and its impact on HCWs outcomes. *Sustainability*. 2020; 12: 3834.
14. Green LA, Seifert CM. Translation of research into practice: Why we can't "just do it." *J Am Board Fam Pract*. 2005; 18: 541-545.
15. A Guide to Preventing and Addressing Social Stigma Associated with COVID-19. 2002.
16. Backer J, Klinkenberg D, Wallinga J. Incubation period of 2019 novel coronavirus (2019-nCoV) infections among travelers from Wuhan, China. 2020; 20-28.
17. COVID-19 Key Tips and Discussion Points For community workers, volunteers, and community networks. 2018.
18. Gender Handbook for Humanitarian Action.
19. Kassie BA, Adane A, Delahunty YT, Kassahun EA, Ayele AS, Belew AK. Knowledge and attitude towards COVID-19 and associated factors among health care providers in Northwest Ethiopia. *PLoS One*. 2020; 15.
20. More resources in different languages.
21. Risk communication and community engagement considerations: Ebola response in the Democratic Republic of the Congo.