Public Perceptions towards COVID-19 and Prevention Measures in Uganda: Gaps and Missed Opportunities

Tumuhimbise Manasseh¹, ², Nuwahereza Innocent¹, ³, ⁴, Berinde Anthony¹, Aturinda Susan¹, Christina Blanchard-Horan¹, ⁵

¹Research department, Ishaka Health Plan, Uganda
²Maternal Newborn and Child Health Institute, Mbarara University of Science and Technology, Uganda
³Medicine Department, Ishaka Adventist Hospital, Uganda
⁴MJ Public Health Consultant, Bushenyi, Uganda
⁵Global Health Liaisons Consortium, USA

ABSTRACT:

Introduction: Communication of COVID-19 prevention measures is essential for effective control and management of the pandemic. For Uganda following the presidential directives, the COVID-19 lockdown measures came into effect on March 18, 2020. A top-bottom approach was adopted. The approach puts public perceptions at risk of affecting the receptiveness of the well-intended measures to control the pandemic spread. This paper provides preliminary findings about public perception of COVID-19 communication approach, gaps and missed opportunities.

Methods: The survey was informed by 329 online comments and 13 individual interviews from Uganda. The trending comments on the blogs and individual interviews considered three topical discussion points: donations given to the COVID-19 emergency team (110 comments), perceptions of COVID-19 lockdown directives (195 comments) and public outcomes of COVID-19 lockdown measures (24 comments). The individual interviews were conducted at Ishaka Health Plan, a micro health insurance scheme in southwest Uganda. Data was deductively analyzed based on three themes: COVID-19 cause of transmission, relevance of preventive measures and effects of the announced preventive measures.

Results: The public can tell the cause of COVID-19 but cannot explain its transmission. The 36 lockdown directives have been complied with but raise negative public perceptions. In particular, COVID-19 is perceived to have been introduced in Uganda from abroad; COVID-19 preventive measures have been administratively enforced onto the communities; and the lockdown measures are arousing public dissent – socio-economically, politically and emotionally. The article notes that the COVID-19 directives, will not sustainably control and manage the COVID 19 spread in Uganda.

Conclusion: Sustainably controlling the COVID 19 spread calls for review of the COVID-19 communication approach by allowing for community inclusiveness and social creativity. The COVID-19 public health information, Education and Communication should evolve out of continuous dialogue among various socio-economic actors like private sector associations, spiritual and cultural leaders, as well as vulnerable populations.

Key Message:
- COVID-19 is perceived to be remote, the public cannot explain its origin and transmission
- Communities should participate in designing and passing-on of COVID-19 public health information, Education and Communication messages.

Keywords: COVID-19, Infectious disease, Information Education and Communication strategy, Pandemic, Uganda

I. INTRODUCTION

The outbreak of Corona Virus Disease (COVID-19) was essentially first mentioned in December 2019 in Wuhan, Wubei Province, China. Shortly after and by the end of January, the outbreak had grown into a ‘public health emergency of international concern’and was declared by World Health organization (WHO) a ‘pandemic’
on March 11, 2020 [1]. By April 5, 2020 deaths globally were growing exponentially and the cumulative confirmed cases had exceeded 1.23 million with over 68,700 deaths [2]. For the case of United States of America, within a space of 24 hours, 630 deaths were recorded with a cumulative death toll of 3,565 (Presidential address, aired live on BBC, 2020 23:20hours GMT). In contrast, there were only 48 recorded COVID-19 cases and with no deaths in Uganda [3]. By the same date, the pandemic had virtually covered 200 territories and countries worldwide [4] which meant that each country world over had to justifiably prepare an emergency health response plan to avert potential suffering and deaths. Irrespective of the socio-economic, cultural and/or political environment, countries responded variably to the COVID-19 pandemic. The emergency health response plans’ involved adaption of WHOrecommended measures like; mandatory quarantines, curfews, lockdown, hand washing and social distancing among others [1].

In Uganda, the first COVID-19 case was officially reported on March 21, 2020 but the emergency health response plan had been announced on March 18, 2020. The public healthresponse plan included discontinuation of public gatherings for 32 days (specifically places of worship, pubs, weddings, music shows, political rallies and cultural meetings). The directives also imposed a 14 day mandatory quarantine for foreigners and Ugandans arriving from abroad. On March 24, 2020 another 8 COVID-19 cases were reported. Within six (06) days the emergency health response directives extended to closure of all institutions of learning including; schools, colleges and tertiary institutions. Furthermore, directives were issued on March 25, 2020 banning public transport for 14 days but permitting private vehicles with no-more than 3 occupants. On March 26, 2020 the directives suspended public transport and closed non-food markets countrywide. March 30, 2020 a nationwide curfew for 14 days and total ban on private transport were declared by government. All the thirty six emergency health response measures as of March 30, 2020 were stinging across the general public and had been announced using Government’s Executive powers leaning on the Cap 281 of the Public Health Act, 1935 (as amended) [5]. As observed by Obregon and Waisbord [6] repeated top-bottom communication about emergency health response (as is of COVID-19) raises varied perceptions among the target populace. At the same time, the perceptions arising from the top-down emergency health response communication affects receptiveness to a well-intended cause. This paper provides preliminary findings about the public perception, gaps and missed opportunities of COVID-19 infection prevention and control measures in Uganda. Findings will contribute towards improving the COVID-19 prevention and may be used to handle similar epidemics now and in future.

II. METHODS

Study design and procedure: To gain insight of public perceptions towards COVID-19 emergency health response directives in Uganda, an exploratory survey design was used. The insight about gaps and missed opportunities were gained from data collection on public perceptions towards COVID 19 cause, transmission and prevention. Using a qualitative approach, data was collected from online blogs (discussion comments) - Facebook and Twitter as well as individual interviews.

Study participants and sampling: The study was conducted within Uganda’s context since it is among the first 20 African nations to report COVID-19 cases and is at risk of community spread given its healthcare delivery system as a LMIC [2, 1]. This being an exploratory study, data was first collected from blogs at a single moment in-time and was then complemented by hospital-based individual interviews. The study participants were those who had expressed their opinion(s) on Facebook and Twitter about COVID-19 emergency health response measures of Uganda on March 28 - 29, 2020. These responses were complemented by participants who turned up for treatment at Ishaka Adventist Hospital and are enrolled members of Ishaka Health Plan (IHP). The individual interviews were held with 13 participants and were conducted at Ishaka Health Plan. Ishaka Health Plan (IAH) is a micro health insurance scheme at Ishaka Adventist Hospital in Bushenyi district, Uganda. The scheme serves the population of Ishaka town and surroundings in Bushenyi District, Southwestern Uganda with a total population of over 501,000 people and a size of 841 square kilometers [7]. There are 1,200 enrolled micro-health insurance members at IHP [7]. Public discussions in form of comments from Facebook and Twitter on selected themes were reviewed by the research team (TM, NI, BA, AS and BC). Three themes informed the study namely; public perceptions towards COVID-19, public perceptions on preventive directives and the effects of the preventive measures of COVID-19. Sub-themes emerged out of the data collected. The comments were then categorized as either positive or negative in relation to the trending theme. The trending debate on the blogs were on three topical discussions namely: Public perception towards COVID-19 (110 comments), Public perceptions of COVID-19 preventive directives (195 comments) and outcomes of COVID-19 preventive measures (24 comments).

Ethical aspects: Since blogs are available in the public domain, the researchers did not contact bloggers for permission to use their content. Informed consent was not obtained as blogs are non-intrusive based research [8]. Moreover, it is hard to obtain informed consent for already existing information in online settings due to intentional or unintentional lack of traces of the author [9]. Consent of individual interview participants was sought and they were allowed to withdraw from the survey at any point if they wished so. Only participants who
voluntarily consented were interviewed after explaining the survey purpose and assuring them of their confidentiality. Codes were used and not names to provide anonymity. The data collected was stored in the IHP office computer using double password for safety and confidentiality.

Data analysis: The reviews of comments and individual interviews were held between March 28, 2020 and April 1, 2020. This is the period during which most countries had adopted more stringent measures of COVID prevention including, curfews, partial or total lockdown and social distancing. The collected online comments (n = 329) were manually sorted, reviewed and grouped into the three thematic areas with subthemes. Similarly, interviews were transcribed and thematically reviewed, grouped and analyzed in line with the study main themes.

III. RESULTS

3.1 Introduction
The study explored public perceptions towards COVID-19 emergency health response directives with respect to the pandemic cause, spread and transmission with the view of understanding the gaps and missed opportunities in Uganda. Data was collected from 329 online comments and complemented by 13 voluntary individual interviews. The analysis was deductively based on three themes conceived by the researchers from literature review namely: public perceptions towards COVID-19 emergency response, public perceptions on preventive measures and the effects of the preventive measures. The themes from the data collected were: perceptions on COVID-19 cause, spread and prevention; and effects of COVID-19 preventive measures - behavioral, political, social, economic and psychological. Below are the findings:

3.2 Public perception towards COVID-19 cause and spread
The COVID-19 is scientifically known to be caused by Severe Acute Respiratory Syndrome Corona virus 2 (SARS-Cov-2). The virus spreads by contagion during coughing, sneezing or talking. So, scientifically human to human transmission is possible. The SARS-Cov-2 is closely related to original SARS-Cov. It is thought to have a zoonotic (animal) origin since genetic analysis reveals that the Corona virus genetically clusters with the genus Betacorona virus in subgenus sarb with two bat-derived strains. Findings show that the public can tell that COVID-19 is a human virus, transmitted infectious disease but they lack enough factual information about its cause and spread/transmission. The following quotes demonstrate the public perception towards COVID-19:

“…I hear it’s a viral infection [disease] …” (BK_Housewife aged 26, 2020)
“… it’s a viral disease that has attacked the whole world because the world lives like a single village …” (MS male Teacher aged 28, 2020)
“… I think Corona virus is a disease spreading from one person to another.” (ML Male cleric aged 24, 2020)
“..., it is easy to get infected because the government has introduced very strict measures” (TK male peasant aged 24, 2020)
“I don’t know much about the new disease, it’s a disease of the white, they say if you touch someone you can get it but I don’t know how because we have been greeting before and nothing was happening. The government has not done much in giving the community the right information. I hear the disease is deadly but no one is teaching us.” (NB Female peasant aged 68, 2020)
“…. It does not exist. These are political gimmicks. If it is really there, and that serious why has it not killed anyone we know?” (ME Male peasant aged 38, 2020)

3.3 Public perceptions on preventive measures
The COVID-19 emergency health response measures in Uganda since March 18, 2020 include mandatory quarantine, self-quarantine, contact tracing, social distancing, and use of personal protective equipment like masks, hand washing and cough etiquettes. The study shows that the public does not know the actual transmission of COVID-19 and are only compelled to abide with presidential directives/measures. The following quotes clarify the public perception towards COVID-19 prevention measures:

“... they say we need to wear masks, wash hands and avoid hugging. These measures are so hard to do. I have not seen anyone with a mask in my community and am not sure of how it works. My spiritual leader told me it’s a spiritual disease as well and if we pray it will go away.” (BK_Housewife aged 26, 2020)
“..., Wherever you go they are telling you to wash hands but am not aware of how this will prevent me from getting the disease.” (MN male peasant aged 58, 2020)
Bearing in mind that the public does not definitively know the transmission routes of COVID-19, the announced emergency health response plan is raising gaps of public health communication concern. The gaps of public health communication concern are both behavioral and political as presented below.

3.3.1 Behavioral communication gaps

These relate to the communities’ interpretation (make-meaning) of the emergency health response measures announced. Overall, the government’s directives are respected as intended to halt the pandemic spread. However there are dissenting voices that the response measures are discriminating. The socially excluded voices indicated limited community engagement in the design and public health communication of COVID-19 prevention. The following quotes were noted:

“.... How I wish our community would now decide to behave differently, now and in future. This hand washing practice is something good that the community should adopt.” (WF CapitalFMFacebook, April 07, 2020)

“This is a good contributory strategy in management of this epidemic but we need help for the pregnant mothers and other emergent services in these curfews” (NM NBSfacebook, April 07, 2020)

“......the directives by our President are good but MPs should be exemplary that’s what leaders do, they should also demonstrate the ability to social distance even in the parliamentary chambers not to pack themselves like sacks, no gaging business here!” (KS TheNewVision tweet, April 09, 2020)

3.3.2 Political and Socio-economic communication gaps

This relates to the community’s impression about the communication approach while disseminating the COVID-19 emergency health response measures. Findings that emerged signify dissatisfaction.

“.... Those who don’t follow the presidential directives should be arrested because it is the only way to prevent the epidemic” (JSW TheDailyMonitorFacebook March 20, 2020)

“I swear we are fighting two epidemics corona virus and lack of political will at the parliamentary and district levels. This is evidenced by misinterpretation and uncoordinated implementation of the presidents’ directives.” (RPM TheNewVision Tweet April 09, 2020)

“.... It does not exist. These are political gimmicks. If it is really there, and that serious why has it not killed anyone we know?” (ME Male peasant aged 38, 2020)

“....we don’t need cars [ambulances], we need food, money to pay our utility bills, how to pay our loans...” (DN NBS Facebook, April 07, 2020)

“....ambulances going where? Just know that people need food, money for electricity, rent which we can no longer sufficiently provide by ourselves in this COVID season...” (RH NBS Facebook, April 07, 2020)

“.... Museveni [President] should lift off the curfew [quarantine] let life get back to normal. You cannot feed all of us, we have no transport and no business ....” (MH CapitalFMFacebook, April 07, 2020)

3.4 Emerging effects of the preventive measures

The apparent public understanding of COVID-19 cause, transmission and coupled with negative community perceptions about the preventive measures announced are fueling the tensions socially, economically and psychologically as presented below:

3.4.1 Socio-cultural and psychological effects

These relate to clash between the emergency response directives with common tradition, habits, patterns, belief systems in communities. The following quotes were raised:

“...... You have to use force. Some refuse to buy at my shop when I tell them to do so. People are not aware of what to do in this epidemic.” (TB Male shop attendant aged 48, 2020)

“... for Christians like me, it has opened our eyes about the fulfilment of the biblical prophecies about the end of the world.” (ML Male cleric aged 24, 2020)

“I am sure god is never caught off guard. He has a definitive solution. If you defy the laws of nature given by God such catastrophes befall us. Many of these people in the US have died because they have defied natural laws. People need to be sensitized about the non-conventional way of medicine because the approach to health issues in developing countries like Uganda is not the same as that in developed countries. I am sure conventional medicine is not a solution.” (ZA Female Natural-path aged 38, 2020)

“.... the disease has caused tension, fear and anxiety in our community. I have lost my job am not myself” (JP Female teacher aged 36, 2020)

3.4.2 Economic effects

These refer to means of livelihood conflicting with COVID-19 emergency health response measures and public health communication gaps for different economic entities; as well as effects on the public demand and supply of commodities within the country. Findings emerging are as follows:
“... just to know people want food, soap, salt, electricity, rent which they can no longer provide by themselves sufficiently in this COVID season” (RH NBSfacebookpost April 07, 2020)
“We don’t need cars, we need medicine, food, pay utility bills and recover loans so that we can stay home comfortably” (DN NBSfacebookpost April 07, 2020)
“the other important matter is that we are jobless, poor and if the disease surely exists then the government should do enough in meeting the immediate needs of its citizens” (ME Male peasant aged 38, 2020)
“I have lost my job, I have not got my last month salary my fear is how to feed my family but none the less am thinking of doing something else like agriculture if supported by government. I have seen some people who have made money by making local hand washing facilities for sale yet that wasn’t their original jobs” (JP female teacher aged 36, 2020)

IV. DISCUSSION

The study explored perceptions towards COVID-19 cause, transmission and preventive strategy with the view of understanding the gaps and missed opportunities. Findings reveal that the public can tell that COVID-19 is a human to human transmitted infectious disease. However, the public bears an information gap on cause, transmission and prevention of COVID-19. Overall, the public appreciates the President’s communicated emergency health response directives as intended to halt the pandemic spread. However there are dissenting voices hinging on social exclusion. There is limited community engagement in design and public health communication by the ministry of health. The effects of enforcing the emergency health response plan is yielding emotionally varied behavioral, economic and political expressions. Finally, enforcing COVID-19 emergency health response measures announced is imposing a greater social cost on livelihood than the public fear of COVID-19; in form of socio-cultural, psychological and economic dimensions.

Effective control of infectious diseases like COVID-19 is highly dependent on individual decision making [11]. The premise is that individuals are not always rational and will balance perceived benefits of complying against the most likely perceived risk of disease [12]. In case of Uganda, the Achilles heel in COVID-19 control was based on the opposite thinking that; people are irrational and unwilling to comply with government-led top-bottom public health communications. As a result, to contain the pandemic spread, the role of MoH as well as the national and district COVID-19 task forces has been to enforce the COVID-19 control directives and ensure compliance. Enforcement has also been beefed-up with security forces including police and military. The enforced COVID-19 protocol include quarantining, hand washing, limiting travel. By this lens, Uganda is preliminarily and relatively succeeding to flatten the pandemic curve in a space of about 4 weeks. However, the sustainability of this approach requires further enquiry. This exploratory survey reveals two public health communication missed opportunities as discussed below:

Uganda is largely using the informative rational classical model [13] in which preference of public health communication is given to only containment of COVID-19 as opposed to the emotional communication models [14]. According to the emotional communication models, the overriding value is that people have the right to participate in decisions that affect their current and future well-being. Thus, the COVID-19 prevention-focused health messages can motivate behavior change by accommodating the different emotional reactions of actor groups in the community. Adopting emotional models in public health preventive messages, creates room for social creativity, encourage active generation of bottom-up information, participation and individual connection; giving greater chance for IEC approach to gain space in the media, community dialogues and culture in pursuance of continuous conversation. Despite the availability of scientific information on COVID-19 cause and transmission as publicized in WHO and MoH publications [15, 3], the study shows that the public is inadequately knowledgeable about the community related COVID-19 causative factors, transmission and prevention. This knowledge gap in design and public health communication of COVID-19 demonstrates that the available information pool is not being appropriately disseminated to the target beneficiaries. The principles of shared understanding and communication about COVID-19 IEC should be upheld [16]. Upholding the two principles of individual rationality and participation will contribute to addressing the information asymmetry gap manifesting in form of behavioral and political perceptions revealed by the study.

Socially, knowledge about pandemic containment and communication should emerge from joint interactions of public health authorities and target communities to facilitate understanding of varying perspectives. This enables greater understanding of barriers and facilitators to successful pandemic containment. Despite the short term gains, WHO technical guidance provides that public health authorities around the world should take actions to sustainably contain COVID-19 spread. All sections of society including business entities, employers, and farmers must play a role in information sharing in the post-COVID-19 response [17].

V. CONCLUSION

The study explored public perceptions towards COVID-19 emergency health response directives with the
view of understanding the gaps and missed opportunities in Uganda. Findings have shown that despite preliminary success, the knowledge about COVID-19 cause, transmission and public health communication approach are superficial. Similarly, public compliance with directives is plastic/artificial. This means that the COVID-19 pandemic curve may flatten but will find difficulty reaching zero in the shortest time possible. The GoU should expedite reviewing the IEC strategy by embracing the emotional communication model rather than merely enforcing the directives and counting success as compliance. In particular the government authorities should consider creating room for social creativity; thereby encouraging active generation of information, participation and individual connection. This will giving greater chance for the emergency health response approach gain social acceptability, space in the media and community dialogues. Through such bottom-up continuous conversation among various actors/groups including government, businesses, farmers, faith-based entities, cultural leaders, and vulnerable populations a sustainably appropriate COVID-19 response plan will be realized for Uganda.

VI. ACKNOWLEDGEMENTS
We acknowledge our participants who took time to participate in individual interviews and bloggers whose discussion comments were accessed from Facebook and Twitter blogs. Similarly management of Ishaka Adventist Hospital and the sister Health Allied schools is acknowledged. The collaboration and continued physical support extended to Ishaka Health Plan, made this survey possible. Finally, Bushenyi district local government through the Community Development and Health departments is acknowledged. Your technical advice and support towards IHP has always made such studies possible.

REFERENCES

LIST OF ABBREVIATIONS
IHP: Ishaka Health Plan
GHL: Global Health Liaisons
COVID-19: Corona Virus Disease 2019
IEC: Information Education and Communication
IAH: Ishaka Adventist Hospital
WHO: World Health Organisation
MoH: Ministry of Health (Uganda)