Health Learning Materials' Perceived Quality, Usefulness, and Utilization For COVID-19 Risk Communication and Community Engagement Among Health Workers in Arsi Zone, Ethiopia: *Mixed Method Study*

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JIMMA ETHIOPIA

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Abstract

Background: Utilizing strategically designed health learning materials'(HLMs) are one of the useful critical strategies in COVID-19 risk communication and community engagement (RCCE). However, HLMs' perceived quality, usefulness and utilization is unknown in most countries.

Objectives: This study aimed to assess HLMs' perceived quality, usefulness, and utilization for COVID-19 RCCE among health workers Arsi Zone, Ethiopia, in 2021.

Methods: A facility based mixed-method study was conducted between May 15 and June 15, 2021. Five hundred thirty study participants by multi stage random sampling and fourteen in-depth/key informants by purposive sampling technique was participated for quantitative and qualitative study respectively. Data was collected through structured questionnaire and interview guides. The quantitative data was entered into Epi-data manager version 4.6.0.2 and analyzed with SPSS version 25. Descriptive analysis and regression analysis were executed to describe the findings and identify predictors of HLMs utilization. Qualitative data was thematized into three major thematic areas and five sub-themes.

Results: This study showed the HLMs utilization for COVID-19 RCCE was 60.4% with 95%CI (56.2-64.6). Health education course (AOR: 2.57, 95% CI: 1.26-5.28, PV<0.001) and training of COVID-19 RCCE (AOR: 2.12, 95% CI: 1.07-4.17, PV<0.001). Perceived HLMs comprehension (AOR:1.08,95%CI:1.05-1.11, PV:0.001), acceptance (AOR:1.02,95%CI: 1.0-1.05,PV:0.023), and building trust(AOR:1.04, 95% CI:1.01-1.06, PV:0.007) of HLMs on COVID-19 RCCE were identified as independent predictors of HLMs utilization COVID-19 for RCCE. A qualitative study also explored several barriers and facilitators regarding HLMs utilization for COVID-19 RCCE and HLMs production process for COVID-19 RCCE in Arsi Zone.

Conclusion: Unfortunate perceived quality, usefulness are predictors of HLMs utilization for COVID-19 RCCE. The qualitative study identifies lack of appropriate HLMs, un availability of HLMs, and shortage of mixed type of HLMs materials were factors affecting HLMs utilization for COVID-19 RCCE. Therefore, It needs health facility training and stakeholders' participation to produce mix of quality and acceptable HLMs for COVID-19 RCCE. HLMs production should based up on evidence-based theory, research driven, comprehensive, and acceptable to target audience, so that it can build trust and credibility for successful COVID-19 RCCE.

Keywords: COVID-19 RCCE, HLMs materials Utilization, Quality, Usefulness.

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List of acronyms and abbreviations

AOR	Adjusted Odds Ratio
BCC	Behavioral Change Communication
CDC	Center of Disease Control
COR	Crude Odds Ratio
COVID-19	Novel Corona virus
ECA	Exploratory Component analysis
EDHS	Ethiopian Demographic and Health survey
EPHI	Ethiopian Public Health Institute
ERC	Emergency Risk Communication
HC	Health Center
HEWs	Health Extension Workers
HLMs	Health Learning Materials
HPs	Health Posts
HWs	Health Workers
IDI	In-Depth Interview
IEC	Information, Education, Communication
IRB	Institutional Review Board
KII	Key Informant Interview
MDG	Millennium Development Goal
MOH	Ministry Of Health

PHCU	Primary Health Care Unit
PHEM	Public Health Emergency Management
PMPCT	Printed Media Production Case Team
PRCD	Public Relation and Communication Directorate
PCA	Principal Component Analysis
PBT	Perceived Building Trust
PBC	Perceived Building Credibility
PCO	Perceived Comprehension
PAT	Perceived Attractiveness
PIN	Perceived Involvement
PCA	Perceived Call Action
PAP	Perceived Appropriateness
PU	Perceived Usefulness
PQ	Perceived Quality
RCCE	Risk communication and Community Engagement
SBCC	Social and Behavioral Change Communication
UNICEF	United Nation International Child Emergency Fund
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION

1.1. Background

The novel corona infection (SARS-CoV-2) that causes corona virus (COVID-19) has spread exponentially. Since developing in late 2019 driving the World Health Organization (WHO) to announce the illness a worldwide pandemic on March 11, 2020(1,2).

Communication is an essential and integral part of efforts to prevent and contain epidemics. Therefore, communication is a central role in risk management. Risk communication is help individuals to prepare for dangerous events that have already occurred. Risk communication prepares people for this possibility and makes them feel protected. When handled correctly, communication reduces the chance of dying from a threat(3,4).

Risk communication is the real-time exchange of information, advice and views between professionals and officials and those who believe their survival, health, financial or social well-being is at stake(5).

Most of Africa's priority countries have RCCE strategies to contain the infection and spread of the corona virus. Thirteen, African countries had RCCE strategy which include training, capacity building, risk communication systems, internal partnership coordination, community engagement, public communication, fighting uncertainty, fighting misunderstandings by RCCE. However, RCCEs response activities faced challenges such as distrust of the government, cultural, social and religious resistance, and laziness.(6)

RCCE refers to "procedures and techniques for systematically discussing, engaging, and speaking with groups at threat or in which their practices have an effect on threat." Publicly health emergencies through adapting verbal exchange to the truth of the community, for COVID-19, RCCE enables stakeholders to work hand-in-hand to ensure healthy behavior and reduce the risk of transmitting and spreading the corona virus (7).

Integrating RCCE into the country wide public fitness emergency reaction is imperative (8). In 2020, the WHO furnished steerage on RCCE for nations to assist guard the people`s fitness in reaction to the outbreak Actionable plans had advocated on a way to increase powerful RCCE techniques in training for the outbreak. However, unproductive RCCE in a few African nations nevertheless threatened powerful reaction to the pandemic(7).

The COVID-19 outbreak emphasized that the maximum crucial and powerful interventions in public fitness reaction to outbreaks is proactive and powerful communication. With the emergence of the COVID-19 pandemic, a unique infectious disease, supplying correct and well timed records and countering disinformation and incorrect information have in no way been greater necessary(9).

In common, people are feeling much less positive approximately, what they are able to do to manipulate the virus. The growing fatigue, the draw out as a result of vulnerability, bringing down chance discrimination, and lowering perception in authorities reactions, is taking their duty on the feel of communities(6,10)

COVID-19 risk communication and community engagement strategies in Africa, MOH supported by WHO to develop RCCE strategies, issued groundwork guidance on RCCE on infodemic, training and capacity building in March 2020(7).

For example, Nigeria has five techniques for RCCE. This includes Firstly, dynamic listening and rumor control via media and social media monitoring, partners, stakeholders. Secondly, using different social technology tools, Thirdly, affected communities awareness campaigns, COVID19 network radio settings, interpersonal communication, and use of current mechanisms to contain the network. Fourthly, Public with the cutting-edge and finest media, including, communication: Fifthly, A campaign devised for checking out the effectiveness of RCCE. Efforts also made to encompass susceptible corporations in RCCE. How to translate COVID-19 statistics into country wide languages(11).

Angola is up to date often and critical messages approximately the ailments also are publish on its website, the use of posters and data pix to disseminate the information. Similarly, in Algeria, many hazard verbal exchange materials posters, etc. had been created and disbursed with the assist of governments and voluntary organizations(6).

The first showed case of COVID-19 became stated in Ethiopia on March 13, 2020, and the Federal Ministry of Health has all started diverse containment measures, such as RCCE, to correctly comprise the pandemic(12).One of the techniques utilized by the authorities of Ethiopia consists of network mobilization and public sensitization to interact with the public. This became made viable with health extension workers who primarily working on health promotion and disease prevention and number one public healthcare communicators in the community(13).

One of the techniques utilized by the authorities of Ethiopia consists of traditional group, religious leaders and Aba gada leades or network mobilization and public sensitization to interact with the public. The non secular leaders and younger humans have been additionally engaged with inside the RCCE and updates also are being shared on government`s health sectors(14).

Initially, Ethiopia had constrained ability to address emergencies and health promotion becomes now no longer prioritized. Previously, there has been little organization round emergencies and techniques had been fragmented. Since formation of PHEM, with its very own human resources, hints and protocols, we have a higher and greater cohesive manner to cope with emergencies and enhance fitness protection. PHEM is giving the timely necessary information regarding the corona virus with well organized and structured system(15).

RCCE strategy focuses had set up at the lowest administrative gandas and at health facilities to achieve hard-to-reach communities, the ones gandas comprise the five thousand peoples and two health extension workers, with consistent with village health extensions workers, who undertake the undertaking of sensitization and attention advent (12).

In growing nations including, Ethiopia the outbreaks of urgent health problems epidemics has posed full-size challenges. The continuous novel crown infection disease 2019 (COVID-19) started up worldwide by shut human well-being. The challenge is going with fear, uneasiness, weakness, dissatisfaction, and fake news(16).

Practical risk communication and community engagement are the major challenges accompanied by flare-ups of an irresistible illness such as COVID-19 pandemic. The well-being communication materials that can be utilized in well-being instruction and advancement exercises are more often than not broadly classified into four categories printed materials, visual materials, sound materials, and audio-visual materials(17).

Moreover, although there is effective plan for outbreak response, poor risk communication greatly undermine the effectiveness of the preparation(18). However, with inside the advancing COVID-19 tremendous in Ethiopia, everyone who has owed a given media has conveyed information. People who have been by no means organized on open wellness danger conversation are conveying messages that both overstate or weaken the huge level(19).

The improvement of any health learning material requires a precise and levelheaded system taking after key health learning standards. Whereas the material itself relevantly bound, the outline work must be ceaselessly responsive to changing situations and able to adjust to suit modern inquire about discoveries and information. Health learning materials advancement takes after certain steps(20).

Unless the plague hazard is communicated by qualified experts, the message may be misplaced in causing unintended results, rejected by the public and public fear and confusion(21).The COVID-19 infodemic can lead to disarray, risk-taking, and hurtful behaviors with unused challenges emerging with the fast spread of miss- and dis-information on social media. Poor risk communication, fake news, and misinformation could limit the public to adopt protective behaviors and increase confusion in the public. Thus, we should be aware and communicate better the risk of the pandemic COVID-19 before it overwhelms the country (19).

UNICEF sees communities as full and reasonable shareholders in happening well-being crisis readiness and reaction and works closely with the national and sub-national specialists. the therapeutic community, well-being laborers and nearby bunches influence to guarantee that open measures and procedures to extend defensive behaviors are executed with all affected communities, particularly the foremost powerless ones(22).

In Ethiopia, the health education and extension center (HEEC) closed and the room changed to store of other purposes. By this time, there is no accredited center of excellence for BCC/SBCC material production center in Ethiopia.

In the current structure of ministry of health(MOH) health education and promotion there is the public relation and communication directorate(PRCD) which has four case teams named event management and promotion, electronic media production, print media production and information documentation and dissemination case team with major roles and responsibilities identified at national level(20). However, for COVID-19 RCCE after entrance of COVID-19 in the country, three COVID-19 IEC/BCC or SBCC resource center at national in Ethiopia has been producing different health learning materials for the country level by only four languages.

RCCE efforts should consider regional and township variations to correct myths and false assurances. Study done on myths, beliefs, and perceptions in Ethiopia shows has also its own contribution to misinformation of the pandemic, young population as being at low risk of

COVID-19 would be challenging to the control efforts, and needs special attention. All forms of media should properly used and regulated to disseminate credible information while filtering out myths and falsehood(23).

Next to strategic design need to decide on objectives, identify audience segments, position the concept for the audience, and clarify the behavior change model to used, select channels of communication. Finally, production and development of message concepts, pretest with audience members and gatekeepers, revise and produce messages and materials, and retest new and existing materials(24).

Number of rules for creating composed data has been delivered over the final few a long time; these incorporate counsel on arranging, composing and plan but moreover emphasize the significance of getting evidence-based data, and including restorative work force, understanding norms, cultures and individuals perceptions of open(25). Even though, the existing distribution practice among health workers is encouraging, the setting for distribution was not appropriate. This is evidenced by the fact that the majority of those materials were consumed within the health facility(26).

HLMs utilization for COVID-19 RCCE used to change knowledge, attitudes, beliefs, and practices of the target audience and change social norms and generate wider participation, coalition-building, and local ownership among groups, associations, and networks that are influential among consumers active support, resources, and political-social commitment that create an enabling environment for lasting desired behavior change(27).

Therefore, this study intended to evaluate HLMs perceived quality, usefulness, and utilization for COVID-19 RCCE. It needs to identify information needs, design local initiatives that enhance community ownership of the control of the COVID-19 virus, and thereby support by community engagement in standard precautionary measures.

1.2. Statement of the problem

Even though many efforts have made, COVID-19, and its problems continued to affect human being worldwide. The ongoing novel corona virus disease 2019 (COVID-19) become a global public health and economic threat. Declaring the disease as a global public health emergency, the World Health Organization (WHO) and different stakeholders have stepped up efforts to convince the world that the disease is a serious problem that needs resilient containment measures. Effective risk communication and decision making are the major challenges during outbreak of an infectious diseases such as COVID-19(28).

Between December 31, and March 21, 2019 only the COVID-19 pandemic affected more than 215 countries causing more 120 million cases and more than 2.5 million deaths worldwide. The United States of America reported the highest number of cases with a case fatality rate (CFR) of 1.87%, followed by India with a CFR of 1.39%. In Africa, 57 countries / territories have reported that COVID-19. As of March 21, 2021, a total of 4,124 cases and 109,586 deaths have reported to the mainland.In Africa, South Africa reported the most cases with a CFR of 3.39%, followed by Morocco with a CFR of 1.78%. As of March 21, 2021, 187,365 cases confirmed COVID-19 and 2,659 deaths have been in the country. It put Ethiopia in the fifth position by the number of confirmed cases and in the sixth position by the number of deaths due to COVID-19 in Africa(29).

The challenge is accompanied with fear, anxiety, helplessness, frustration, fake news and misinformation. To overcome these challenges, accurate and active risk communication is crucial. During pandemics that have high rates of infection, significant morbidity, lack of therapeutic measures, and rapid increases in cases, all of which apply to the current corona virus disease 2019 pandemic. A consequence of poor risk communication and heightened risk perception is hoarding behavior, which can lead to lack of medications and personal protective equipment(28).

Hence, the difficulties and challenges faced makes several recommendations addressing the outbreak in China, which include improvements in the internal governmental risk communication systems, enhancing the coordination between internal and partner governmental emergency management, and promoting public communication in response to societal concerns. Regarding these recommendations, they emphasize community engagement in joint prevention and control,

confronting uncertainty and countering rumors effectively, and strengthening international cooperation and evidence-based decision making for prevention and control measures (30).

Rumors are unverified information that spread rapidly through a group or population can either be true or false. Rumors are a natural response to uncertain or frightening times. Rumors often emerge when there is a lack of accurate, credible, reliable information or too much of it, resulting in conflicting information or an overload of information. In that case, it is hard to separate fact from imaginary tale. Integrating risk communication and community engagement into the national public health emergency response is crucial(31).

However, there is no evidence-documented health learning materials' for COVID-19 RCCE produced by considering rumors and/or infodemic existing in the community to responding rumors in Ethiopia. COVID-19 related rumors received from different sources, call centers, health facilities, contact follow up, self-report, travelers follow up, point of entry, community surveillance, and special settings. As of March 21, 2021, 370,213 rumors/alerts have received and investigated. Of these, 4,766 rumors were reported in the WHO-Epi-Week-11.More than half million,271,612 (73.36%) of the rumors/alerts have fulfilled the suspected case definition(29).

The mass media provide an important channel for delivering crisis and emergency risk information to the public. However, much of the risk messaging the public receives via mass media does not follow best practices for effective crisis and emergency communication, potentially compromising public understanding and actions in response to events(32).

For broader risk communication and community engagement is therefore suggested for all worldwide continents(33). RCCE are critical aspects of public health emergency preparedness and response and therefore one of the eight original core capacities of the International Health Regulations (2005)(34).

Indeed even though numerous endeavors have made, COVID-19 RCCE issues proceeded to influence human beings around the world. The progressing COVID-19 has gotten to be worldwide open well-being and financial danger. Successful risk communications are the major challenges amid episodes of an irresistible infection such as COVID 19. The challenge is going with fear, uneasiness, powerlessness, dissatisfaction, fake news, and deception (17).

In Ethiopia efforts can made include dissemination of key messages to targeted vulnerable populations, adolescents, and children through printed materials, to which UNICEF has contributed 400,000 brochures and 35,000 posters in Amharic and Afaan Oromo. More than 10,000 brochures have been distributed to vulnerable families under the Urban Productive Safety Net Programme(UPANP) and the rest through the health system(22).

Existing HLMs materials are often insufficiently comprehensive or inadequately designed to local needs and issues. In many instances, print-based IEC materials are too lengthy, often repetitive, extremely generic, boring, outdated and even inaccurate at some places. The biggest concern is the poor translation of the health learning materials from English to local language by nonprofessionals(35).

In Ethiopia, even though health sectors and different stakeholders are developed and disseminated, COVID-19 IEC material messages from start of COVID-19 March 12, 2020 up to now health workers perceived usefulness and utilization of HLMs for COVID-19 not explored or the plausibility of the material is unknown.

However, to the knowledge of investigator, no published evidence is available on HLMs of COVID-19 RCCE developed in the country; this study fills this gap by evaluate health learning materials perceived quality, usefulness, and utilization of COVID-19 in risk communication and community engagement.

Therefore, this study applied mixed method study with exploratory sequential design to assess the health learning materials utilization and to identify predictive variables used to improve the HLMs utilization. The study focused on selected health facilities, districts and Arsi zone health office that are implementing RCCE for COVID-19 preventive measures as per emergency declaration by national MOH for risk communication campaign and community engagement at a national level.

1.3. Significance of the study

Effective COVID-19 risk communications and community engagement using mix of health learning materials as during COVID-19 risk communication and community engagement allow communities and vulnerable groups most at risk to realize and adopt protective behaviors, and health care providers to listen to and address people's concerns like info-epidemics, myths, and rumors circulating in the community.

Therefore, the information which will be obtained from this study will provide insights about COVID-19s' health learning materials (HLMs) prepared for risk communication and community engagement (RCCE) strategy in the Arsi Zone. Identifying predictors of utilization of health learning materials is priority areas of health communication intervention, stages of the health learning materials production barriers and facilitators contributing to the RCCE model's and principles application. Furthermore, the finding might benefit researchers who are apt in this area of study by providing baseline information for further investigation.

Strategic health communication using evidence-based theory or model to develop health learning materials or messages is a newly emerging research area. The findings of this study further used to inform the Arsi zonal health department, MOH and other stakeholders how the importance of the health learning materials production process and its perceived quality, usefulness and utilization among health workers for the current COVID-19 RCCE and any others future anticipated public health emergency management and preparedness plans for the health sector.

1.4. Scope of this study

Public health emergency risk communication is the real-time exchange of information between experts, officials, and the public that faces a crisis that threatens their safety and security need to empower them to make an informed decision towards the desired behavior and to engage them to prevent the anticipated risks. Therefore, the purpose of this study is to evaluate the processes and approaches used for systematically communicating risks and engaging community to encourage and sensitize communities to promote healthy behaviors and prevent the current COVID-19 pandemic using the strategic health communication approach of health learning material utilization for COVID-19 risk communication and community engagement.

Models are useful in understanding and explaining the success or failure of health interventions. Theories of behavior change communication are concerned with the systematic application of interactive, theory and research-driven communication processes and strategies that address change at the individual, community, and societal levels(36).

This study aims to evaluate health learning materials perceived quality, usefulness and utilization for COVID-19 RCCE among health workers of Arsi Zone selected health facilities, Oromia Regional State, Ethiopia, from May 15 to June 15, 2021. A health workers were a secondary target audience or group of people who influence primary target audiences or community either directly or indirectly on COVID-19 prevention and control measures,. The study include health extension workers of health posts, health workers of health centers, and hospitals found in rural and urban areas within the study area.

CHAPTER TWO: LITERATURE REVIEW

2.1. A new p-process model

The P-Process is a framework designed to guide communication professionals as they develop strategic communication programs. A p-process road map leads communication professionals from a loosely defined concept about changing behavior to a strategic and participatory program with measurable impact of the communication program. The new p-process has 5 steps to follow to develop quality health-learning materials.

P-process begin with understand the extent of the problem, identify audiences, uncover intended audiences' barriers to behavior change can be economic, social, structural, cultural or educational or something else entirely, identify facilitating factors to behavior change, including potential messengers and media and develop a succinct problem statement (step1, inquire). Create the plan that will get from where one are to where one want to be include communication objectives, audience segmentation, program approaches, channel recommendations, a work plan and a monitoring and evaluation plan(step 2,design strategy). Develop the HLMs products include mass media and print materials, participatory processes, training and more activities. Test ideas and designs with intended audiences to ensure that messages are clear and actionable (step 3, create, and test).

Health workers implement program and monitor its progress. Partners distribute products and conduct activities as described by the strategic plan developed. Designated personnel monitor activities to make sure distribution and roll-out proceed as planned and potential problems are identified and addressed as quickly as possible(step 4,mobilize and monitor). Conduct activities to determine how well program achieved its objectives and identify any unintended consequences. know why program was or was not effective and whether or not the program had its intended effect on the knowledge, attitudes, or behaviors of its intended audiences. Also use the lessons learned to influence future programming and funding allocations (step 5, evaluate, and evolve).

2.2. Health learning materials utilization

Health learning materials are teaching aids that give information and instruction about health and specifically directed to a clearly defined group or audience(17,37). A cross-sectional study conducted in Ethiopia reported that the health workers utilization of health learning materials for the purposes of information, education and communication of target audiences 206 (68.0%) (26).

2.3. Factors associated with health learning materials utilization

2.3.1. Socio-demographic and background characteristics

A report on the evaluation of the national health communication states that in most cases, the health learning materials delivered at the central level are generally not considered valuable and appropriate to their situation(38). Most of the regions believe that, materials and messages created by the center do no explain the realities of the regions.

A facility-based cross-sectional study conducted in Jimma Zone, Ethiopia revealed that professional categories, work experience, type of college graduates were predictors of health learning materials utilization of the IEC materials (26).Only 206 (68.0%) of the participants had ever used health learning material. Participants who were nurse and laboratory technologist were 0.35 and 0.23 times less likely to use HLMs than environmental Health experts (AOR=0.35, 95% CI: 0.14-0.85) and (AOR=0.23, 95%CI: 0.07-0.79), respectively. Graduates of private colleges were 10 times more likely to report utilization of HLMs than graduates of government institutions (AOR=10.46, 95% CI: 3.47-31.50)

2.3.2. Perceived usefulness of health learning materials(HLMs)

Health learning materials are enhance learning, deliver key messages in a captivating mode, and serve as motivators, reminders for actions, and reinforcing tools for verbal communication (17).

According to a cross-sectional survey with high school students on IEC materials related to HIV/AIDS in Addis Ababa, shows that about 75% of the respondents believed the usefulness of IEC(39).

A similar cross-sectional study conducted in Addis Ababa also shows that IEC/BCC were perceived to be useful in increasing knowledge about HIV/AIDS (51%), influencing attitudes 357(40%) and acquiring safer sexual practices by 382 (44%) (40).

Printed health learning materials (HLMs) are not always suitable for engaging all members of the population at the same time. Similarly, in many settings, health-learning materials quickly discarded, and create unnecessary waste.

A facility-based cross-sectional study conducted in Jimma Zone, Ethiopia revealed that belief in importance, perceived usefulness of health learning materials were predictors of perceived usefulness and utilization of the IEC materials (26).

2.3.3. Perceived quality of health learning materials (HLMs)

Key factors that hinder quality of COVID-19 health learning material against the production of effective graphic communication in Ethiopia is the prevalence ignorance of where the graphic encoder could intervene and collaborate with other members of the media team during the media production process in order to produce veritable graphic messages of HLMs(41).

Poor production process leads to communication gaps between the graphic encoder and other members of the media team, intrusions upon prescribed roles of communication actors particularly the graphic encoder and production of ineffective graphic messages. These usually lead to communication breakdown, failure and rejection with serious consequences for communication development (42).

A message is said to be good if it if demagogically evidence based, persuasive and actual appeals, words, and pictures and sounds that use to get the ideas across affordable, requires minimum effort, realistic, culturally acceptable, relevant, appropriate, meets a felt need and is easy to understand(43).

A facility-based cross-sectional study conducted in Jimma Zone, Ethiopia revealed that perceived understanding ability of the materials, and belief in the extent to which IEC consider local context were predictors of perceived usefulness and utilization of the HLMs, primarily, the health education and extension center designs and produces HLMs for the general public(26).

Working with target audience members throughout the development of IEC materials, and in developing usage strategies for those materials, helps ensure that IEC materials meet the needs of the intended target audience(39).

The lack of artwork made the materials much less appealing and more difficult to use or portray intended messages. This asks the HLMs production teams to determine the level of acceptance of HLMs as well as health workers perception to health learning materials. Pre-testing enables teams to adjust the design and layout of the materials to provide more suitable or appropriate materials for specific target audiences or groups of people(44).

Nonetheless, conduct formative assessments to understand the determinants of preventive behaviors among target audiences and to identify potential knowledge gaps.

2.4. Distribution of heath-learning materials for COVID-19 RCCE

Distributing health-learning materials safely at all tier of health sector is very important because of the nature of COVID-19. COVID-19 can survive on surfaces, including paper for some time. Before printing of health learning materials commence, wash hands thoroughly with soap is important. After printing, need take the printed heath learning material out of the printer and need to put the printed material directly into a seal able plastic bag or folder so that they are ready for distribution(39).

Analyzing the frequency and reach of different materials, television and radio can reach thousands of people at the same time, individuals focused print materials can only reach a limited number of individuals at the most use channel mix to support specific intervention activities for enhancing community engagement in the COVID-19 behavior change strategy (44).

Before distributing health-learning materials, it is important to ask what planed to achieve, but there was not much practice with regard to distribution of heath learning materials. The study done in Jimma zone revealed that only 181 (59.7%) of the participants reported that they had been engaged in the distribution of printed heath learning materials at least once(26).

Similarly, an institutional study conducted on printed heath learning material in Jimma Zone, shows that, concerning the distribution of materials, the territorial depends on holding up for openings such as when individuals from zones are welcomed for assembly; or when the higher experts visit the zone, and when drugs and other therapeutic types of equipment are transported(26).

2.5. Narrative of conceptual framework for HLMs utilization for COVID-19 RCCE

Generally, a conceptual framework of this study was adapted from the framework of the new planning process model to discover HLMs utilization starting from production to utilization (implementation phase) of HLMs for COVID-19 RCCE. The first blocks represent the socio-demographic background characteristics', the second blocks represent intermediate factors/secondary outcome health workers' perceptions toward produced HLMs, and the third block represents the health workers' utilization status primary outcome of HLMs for COVID-19 RCCE. The socio-demographic background of health workers was responsible for the effective production and utilization HLMs for COVID-19 RCCE.

Firstly performing **s**ituational analysis, audience analysis (segmentation), media analysis, communication channels, and resource allocation at the inquire phase of the HLMs development. Secondly, health education specialists' set objectives and strategies for basic COVID-19 protective measures. Thirdly, creating and conducting pre-testing by target audiences, Fourthly implementation and evaluation phase used to build, train, mentor, supervise, revise, and monitor perceptions and community behaviors changes in primary, secondary, and tertiary beneficiary. Fifthly , evaluation and re-planning by measuring outcomes and assessing impact, disseminating results, determining future needs, revising and re-designing the health communication program.

2.6. Conceptual frame work (CFW)

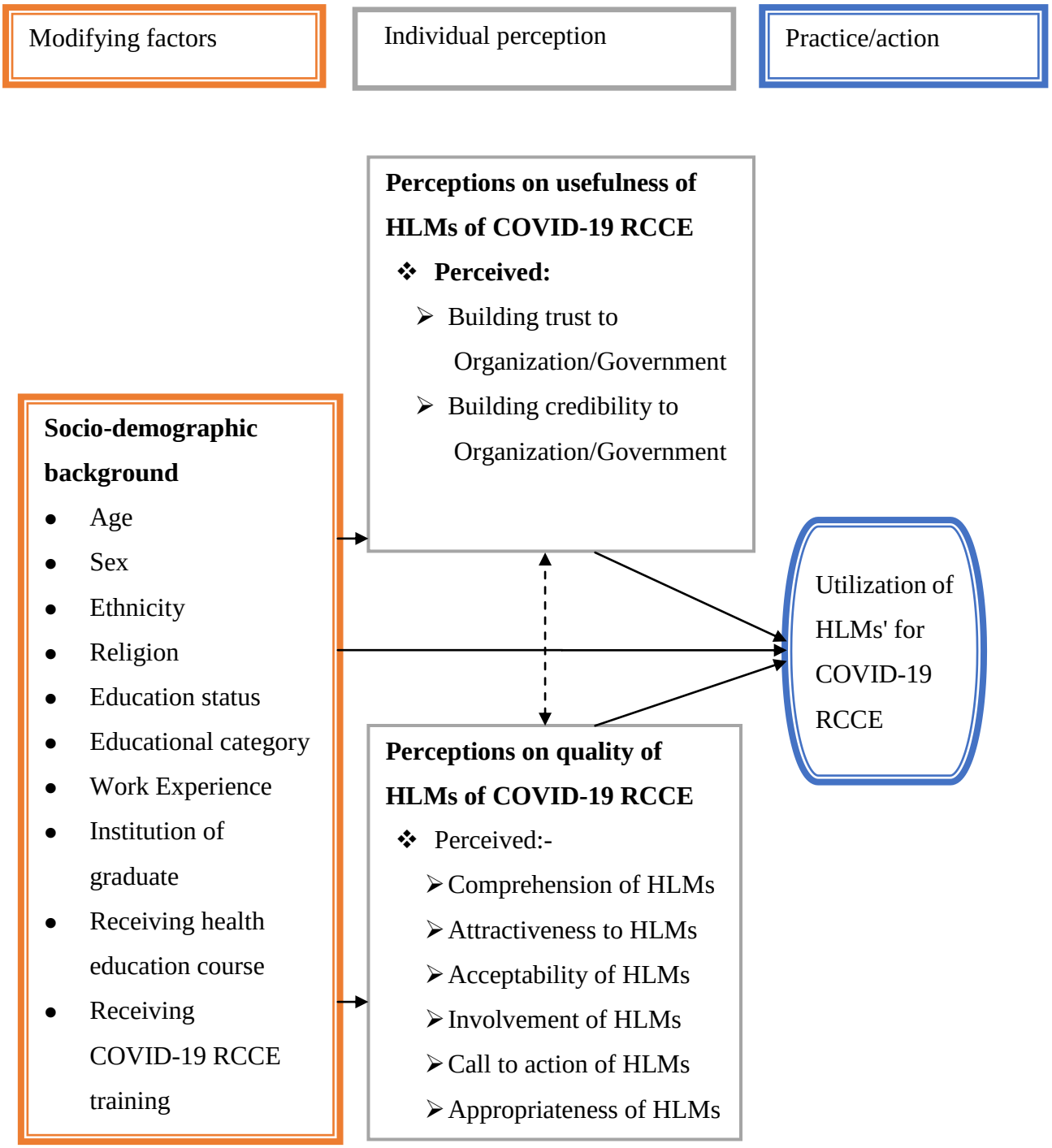

Figure 1: Conceptual framework adapted based upon different literature(45–48)

CHAPTER THREE: OBJECTIVES

3.1. General Objective

- To assess HLMs perceived quality, usefulness and utilization for COVID-19 RCCE among health workers' in Arsi Zone, Ethiopia, 2021

3.2. Specific objectives

- To assess health workers' HLMs utilization for COVID-19 RCCE in Arsi Zone, Ethiopia, 2021
- To identify health workers' perceived usefulness of HLMs for COVID-19 RCCE in Arsi Zone, Ethiopia, 2021
- To identify health workers' perceived quality of HLMs for COVID-19 RCCE in Arsi Zone, Ethiopia, 2021
- To explore factors affecting health workers' HLMs utilization for COVID-19 RCCE in Arsi Zone, Ethiopia, 2021

CHAPTER FOUR: METHODS AND MATERIALS

4.1. Study setting

Arsi Zone found in the central part of the Oromia Regional State in central Ethiopia. Asella is the capital city of Arsi Zone located at 175 Kilometers South East of Addis Ababa, the capital city of Ethiopia. Based on the data obtained from Arsi Zone profile background, this Zone has a total population of about 3.5 million, of whom 49.2 % are men and 50.8% women; with an area of 19,825.22 square kilometers, while 11.59% are urban inhabitants, a further 3.0% are pastoralists. The Arsi zone has 26 districts with five primary hospitals, one specialized teaching hospital, 106 primary health care units (PHCUs) with each health center (HC) combined five satellite health posts (HP), providing disease prevention and health promotion services. These all government health facilities provide preventive and curative services with about 2,032 different health workers.

4.2. Study design and period

A mixed-method exploratory sequential study design applied using multiple samples for the qualitative and quantitative phases of the study. Collecting and analyzing data from multiple sources were helps to deeply understand the issue under study(49). Survey techniques was favorable and used to assess the utilization and identify perceptions of HLMs' quality and usefulness through principal component analysis/PCA to estimate dimension of HLMs perceived quality and usefulness for COVID-19 RCCE(50,51). The quantitative study was used to assess utilization of HLMs, to identify perceptions of the health workers on HLMs quality and usefulness, to explore associated factors affecting HLMs utilization for COVID-19 RCCE. The qualitative study was used to explore the experiences, barriers, and facilitators to use HLMs in other broader contexts based on the major process or propositions identified in the quantitative research objectives(52). The two research methods were supposed to use for complementation of each other in that one method would compensate for the limitations of the other one. Ensuring that the unique characteristics of each method were not lost, the findings of the qualitative study used to complement the findings of the quantitative study for a better understanding of the issue under study.

4.3. Population

4.3.1. Source population

For the quantitative part:

All health workers participated on COVID-19 RCCE in Arsi Zone Government health facility.

For the qualitative part:

All health workers who were members of health facility, district health office, and Zonal health department COVID-19 RCCE rapid response team (RRT) task force.

4.3.2. Study population

For quantitative part:

Selected health workers who were participate on COVID-19 RCCE.

For qualitative part:

Selected health workers who were members of facility, district, and Zonal COVID-19 RCCE rapid response team (RRT) task force.

4.3.3. Sampling unit

Registered health facility in Arsi Zone

4.3.4. Study unit

Health workers that were participated in the current study

4.3.5. Inclusion and exclusion criteria

4.3.5.1. Inclusion criteria

For quantitative part:

Participation of health workers in a COVID-19 RCCE

For qualitative part:

Participation of health workers in a COVID-19 RCCE RRT task force.

4.3.5.2. Exclusion criteria

None of health workers' excluded

4.4. Sample size determination and sampling procedure

4.4.1. Sample size determination

The sample size for the study was determined using both the assumptions of previous prevalence at 95%, margin of error (5%), none response rate (5%) and the assumptions of principal component analysis (PCA). In PCA , the recommended sample size is 10 respondents per each survey item(53). In this study, the minimum sample size was 510 respondents per 51 item of HLMs quality scale. A larger sample (above 300) implies lower measurement errors and produce stable factor loading(54). Since no study has previously been found on HLMs perceived quality, usefulness and utilization for COVID-19 RCCE, the assumptions of prevalence of 50% (p = 0.5) were used. Then, the sample size was calculated as follows (49),where,

n=denotes the desired sample size.

P=prevalence of utilization of HLMs of COVID-19 RCCE =0.5

Z = 95% confidence interval = 1.96

d=Precision desired (%) – 5%=0.05

$n= ((Z/2)^2 P (1-p))/ d2 = (1.96)^2 0.5 (1-0.5)/ (0.05) = 384$

Since the source population is less than 10,000, corrective formulas used to calculate the final sample size as

NF= n (1+n/source population) sample size where N = total population of all health care workers in Arsi Zone = 2032, n = calculated sample size = 384

NF = Sample Size Required=NF=n/ (1+n/N) =384/ (1+384/2032) =323

Finally, a design effect of 1.5 was used to get a representative sample, and 10% non-respondent rate added. The final sample size was 534. It was meeting both criteria for confirmatory analysis criteria and level of confidence interval.

For the qualitative part the key informant interview of selected health facilities' 8 COVID-19 RRT focal person/ members from districts, facilities, and selected health workers. For production process 6 health program experts, from Zonal health department and Asella hospital were selected by purposive multivariate criteria sampling.

4.4.2. Sampling procedure

A multistage sampling method was used for the selection of study participants. In the first, stage 26 districts in the Arsi Zone, 8 districts selected by simple random sampling considering special town health facility was included in the study purposively for representation. In the second stage of selected 8 districts, 4 PHCUs and 4 hospitals were selected using a simple random sampling method and included to obtain the desired sample size of health workers. Five hundred thirty four health workers were estimated in the selected health facility. The sample size was allocated with proportional allocation to all selected health facilities using the total number of health workers in each facility. The sampling frame for each district, health facility and health workers participated on RCCE were found at the Zonal health department office, district and health facility respectively. Then, the sample size was proportionally allocated to the selected 8 health facilities. As a result, 534 health workers (Bale PHCU = 18, Dera PHCU = 22, Golja PHCU = 22, Ogolcho PHCU = 23, Asella hospital=210, Bekoji Hospital = 70, Robe Hospital = 115, Sude Hospital = 54 health workers) were allocated to the selected health facilities.

The total sample size was obtained by proportional allocation for the selected PHCU and hospital based on number of health workers participated in COVID-19 RCCE. The lists of the health workers involved in the COVID-19 RCCE were found in the selected health facilities offices from the RRT task force minutes and weekly health education schedule. Simple random sampling technique was used to select health workers until proportionally allocated sample size achieved.

Participant for qualitative study was selected based on critical purposive sampling; based on prior knowledge of the public health emergency management (PHEM) experience, responsibility in the COVID-19 RRT of their facility. Both health care with various disciplines and various facility levels were reached out with the ultimate goal of maintaining maximum variability assumptions. The intent was to address multiple perspectives, experiences, and factors influencing the HLMs perceived quality, usefulness, and utilization for COVID-19 risk RCCE.

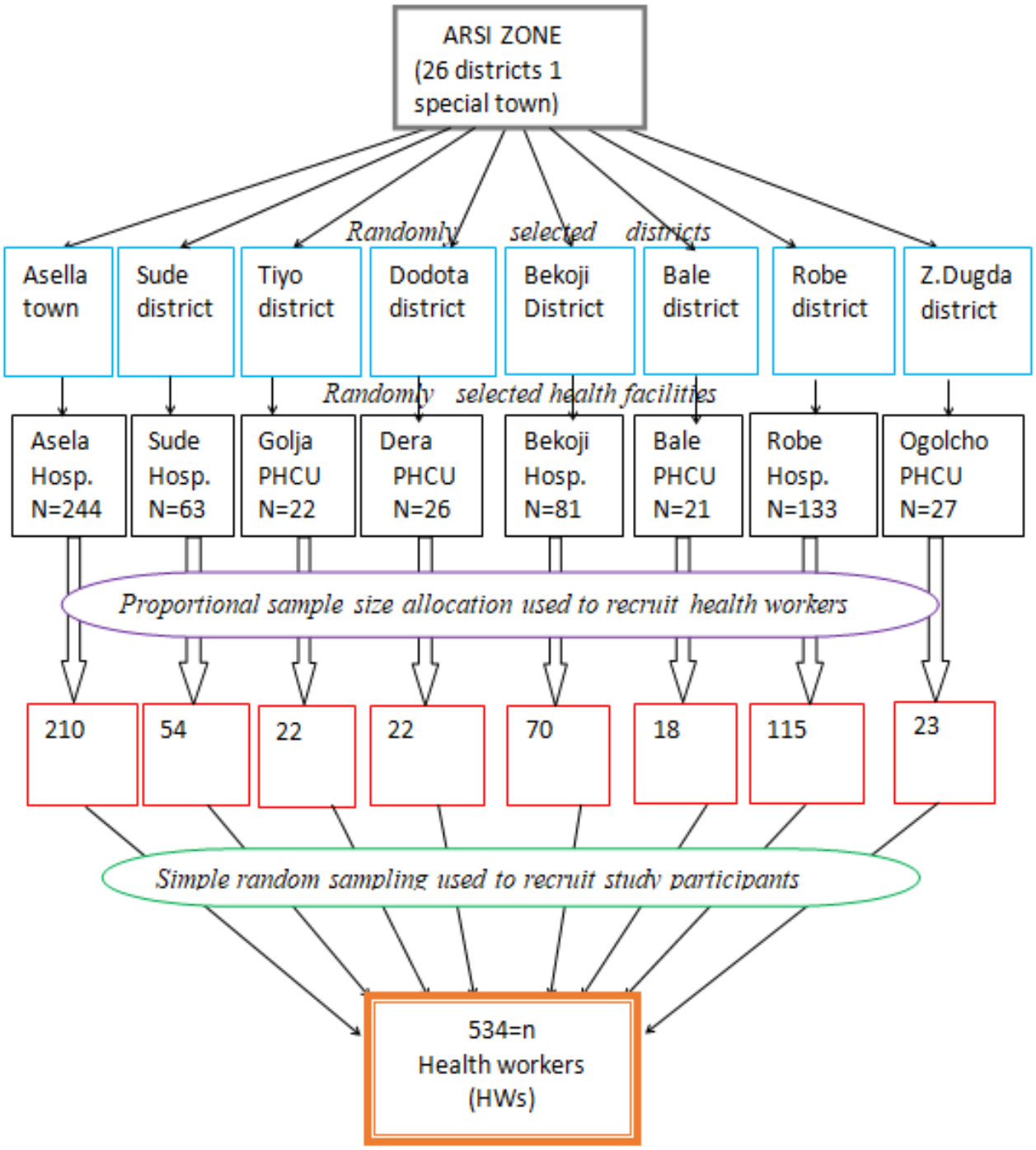

Figure 2: Schematic presentation of sample size allocation

4.5. Study variable

4.5.1. Outcome variable

- Utilization of HLMs for COVID-19 RCCE

4.5.2. Predictor variables

- **Socio-demographic variable:**

  Age, sex, ethnicity, religion, education category, education qualification, work experience, facility level, institution of graduate

- Receiving health education course
- Receiving training on COVID-19 RCCE
- HWs' perception on usefulness of HLMs for COVID-19 RCCE
- HWs' perception on quality of HLMs for COVID-19 RCCE
- Factors affecting utilization of HLMs for COVID-19 RCCE

4.6. Operational definition and definitions of terms

Health learning materials' (HLMs) utilization: - defined as the self-reported use of one or more recommended HLMs' for the purpose of COVID-19 RCCE from start of COVID-19 outbreak up to study period. To measure HLMs' utilization for COVID-19 RCCE, data were gathered by asking the participants to state whether they use any of the listed recommended HLMs when conducting RCCE in the past one year study period. Then if the health worker used HLMs always or sometimes coded as HLMs user (Yes=1) and if occasionally or never used any HLMs then coded as HLMs non-user (No=0)(26).

Perceived usefulness: defined as, the perceptions of health workers regarding the role/importance/benefits of HLMs produced for COVID-19 RCCE in building trust, credibility, empathy, accuracy, openness of messages that effectively lead to successful risk communication. Eighteen items were used to measure this construct on a five-point Likert scale which ranges from strongly disagree = 1 to strongly agree = 5. Reverse scoring done for negatively worded statements before data analysis(55).

Perceived quality: defined as, the extent of HLMs quality used to clarifies the message, picture, visibility, and layout of the HLMs for COVID-19 RCCE. Fifty-one items were used to measure this construct on a five-point Likert scale which ranges from strongly disagree = 1 to strongly agree = 5. Reverse scoring done for negatively worded statements before data analysis(56).

4.7. Data collection tool and procedures

4.7.1. Data collection tool

Data had gathered using an interviewer-administered structured questionnaire developed after reviewing various relevant guidelines. It was first prepared in English and then translated to Afaan Oromo and Amharic by independent experts. Then, it translated back to English by another person to ensure its consistency and accuracy. The questionnaire consisted of six sections that sought information on: socio-demographic, exposure and awareness, availability, utilization, perceived usefulness, perceived quality and perceived adequacy of HLMs for COVID-19 RCCE. Structured questionnaire and semi-structured interview guide had used to collect the quantitative and qualitative data respectively.

The qualitative data had collected using guides that developed based on the contents and propositions of the quantitative studies. The content of the interview guide contains socio-demographic characteristics and experience related to HLMs utilization for COVID-19 RCCE and members of COVID-19 RRT task force. The guide has a list of a few interview points with several follow-up probes used to capture the underside of the issue. The interviewer used both Afaan Oromoo and Amharic version of the interview guide and which had back translated to English by independent translators.

4.7.2. Data collection procedure

The data had collected through self-administered interviews using structured questioners. A total of 4 data collectors (2 Environmental health experts and 2 BSc nurses) and 2 MPH holders as supervisors recruited based on their previous experience in data collection and fluency in the local languages of the specific study area. The data collectors and supervisors trained for two days by the investigator. The training includes the objective of the study, the data collection tool, how to interview respondents, how to collect, & record data, on respecting and maintaining the privacy and confidentiality of the respondents, and how to supervise the data collectors for supervisors.

Qualitative data had gathered by both the investigator and the supervisors. Furthermore, the interviews conducted using an interactive interview guide at appropriate location for interviewing and recording in quiet spaces found in the back yards of health facility, and some interviews conducted in quiet offices in the Zonal health department, hospitals and health centers.

4.8. Data processing and analysis

Data was checked manually for the completeness and consistency of the data. Data was entered, Epi-data manager version 4.6.0.2.and exported to SPSS version 25 for analysis by principal investigator. Multi-co linearity between independent variables, outlier, and missing value were checked. Bi-variable and multi-variable logistic regression analyses manipulated to identify an association between the predictors and outcome variables. Bi-variate analysis applied to nominate the candidate variables with $p < 0.25$ for multiple logistic regressions. Finally, multi-variable logistic regression analysis performed to control for the possible confounding effects of the selected variables. Variables with a p-value < 0.05 were recognized as statistically significant associations with health workers' HLMs utilization for COVID-19 RCCE at 95% CI with AOR were used to declare the degree of association between the outcome and exposure variables. Descriptive analyses like frequencies, percentage, or proportions were conducted for different variables as important.

Principal components analysis method was conducted for perceived quality and usefulness items of HLMs for COVID-19 RCCE for identify the underlying factors/components and to reduce the number of items. Factor solution with egen-value greater than one was retained for further analysis after varimax rotation method. During principal factor analysis, double loaded, negatively loaded and weakly related items (factor loading <0.40) to the emerged factor components were dropped from further analysis. Consequently, 18 number of items were reduced to 16 items for perceived usefulness. Finally, only two meaningful factors for perceived usefulness were emerged. The factors were named as perceived building trust and perceived building credibility. Factor 1 explained 36.2% the variance and factor 2 explain 25.6% and jointly explained 61.8% of the variance in the data. Table 4 shows these confirmed factors with corresponding factor loading, mean, as well as each items percentages and confidence levels.

Similarly, for perceived quality, 51 numbers of items were reduced to 36-itemes for perceived quality. Finally, six meaningful factors for perceived quality were emerged. The factors are named as perceived comprehension (PCO), perceived attractiveness (PAT), perceived acceptability (PAC), perceived involvement (PIN), perceived call to action (PCA) and perceived appropriateness (PAP). Factor 1 explained 17.7% the variance, Factor 2 explained 12.8% the variance, Factor 3 explained 12.5% the variance, Factor 4 explained 10.2% the variance Factor 5 explained 5.01% the variance and factor 6 explain 4.8% and jointly explained 63.03% of the

variance in the data. Table 5 shows these confirmed factors with corresponding factor loading, mean, as well as each items percentages and confidence levels.

For qualitative part of the study, data was thematized using the written note taken. The information was summarized into the most essential concepts and relationships. Then, relevant quotations from participants' expressions were used in the presentation of the study.

4.9. Data quality assurance

To maintain the quality data, both structured questionnaire and interview guides pretest was conducted among 10% of sample size in the West Arsi Zone, Shashemene hospital and Dodola PHCU, which are located with 144 and 125 kilometers road distance from Asella town capital of the study area respectively. Based on the findings of pre-test, adjustments were made to some items of the questionnaire and interview guides. Moreover, training was given for data collectors and supervisors, and the supervisor. The principal investigator was monitored the quality of the data collection process. The items' internal consistency was checked using reliability analysis, all of the items factors reliability became above and equal 0.7.The validity of the questionnaire checked with different experts. The collected data checked for completeness, accuracy, and clarity. Code was given to each questionnaire so that any identified errors could be traced back using the codes. The supervisor closely monitors data collectors during data collection daily. In addition, the principal investigators together with supervisors were checked the collected data daily. The quality of the qualitative data ensured through reviewing of the finding using supervisors and investigators. The whole research process, participants' diverse perspectives, and experiences, interpretation of results and contributions of supervisors explained. Detailed chronology of research activities and processes, data collection and analysis, emerging categories, or quotations was reviewed by researcher and colleagues to confirm the procedures and to confirm whether they were used correctly to make both the process and the study output reliable(57).

Trustworthiness of the qualitative study was assured by note taking and crosschecking data with data collectors, colleagues, and investigators. The transfer ability of the study was assured by selecting participants purposely who were fit the study, and feedback from colleagues and advisors used to increase the credibility of the study.

4.10. Ethical consideration

A formal letter was taken from Institutional Review Board (IRB) of Jimma University, institute of health (IHR-PGH/201/21) to Arsi Zone health department. Official letter took from Arsi Zonal health department (QEFA-D72/5971) to selected district and town health offices to get official permission. From selected district and town health offices wrote official letter for each selected health facility. Individual oral consent was obtained during the data collection period after clarifying the purpose of the study. Confidentiality and anonymity was assured for study participants during data collection.

4.11. Dissemination of results

The final research finding of the study will be presented and disseminated for Jimma University, department of health, behavior and society and post graduate research directorate, and it will be also shared with Arsi zone health department, Oromia regional health bureau, Ministry of health (MOH) and other non-governmental organizations supporting national COVID-19 HLMs resource center. More importantly, it will be published on reputable scientific journal, it will be presented on local and international conferences, main media stream, and different seminars.

CHAPTER FIVE: RESULTS

5.1. Socio-demographic background characteristics of study participants

The study conducted among health workers working in Arsi Zone, Oromia Region, Ethiopia. Five hundred thirty four health workers planned for the study and 530 randomly selected health workers responded to the questionnaires, making a response rate of 99.3%. Eight members of district COVID-19 RRT taskforce members and six Zonal experts were participated on key informant interview. Eight health facilities in the area, four distinct tiers of hospitals and four primary health care units (PHCUs) were involved, including respective catchment health posts (HPs) health workers. Male participants accounted for 290 (54.7%) of the total responses, with 188 (53.17%) of total respondents between the ages of 30 and 54. Nurses made up the majority of the participants, accounting for 237(44.7%) and minority of medical doctors 39(7.4%). Of total respondents 376(70.9 %) of the respondents are of Oromo ethnicity, while Muslims account for the majority of religions with 240 (45.3%). More than half of them, 338 (60.8 %), were married, and 27 (4.7 %) were engaged.

Eight districts, PHCU health workers who were not included in the quantitative study participated in the qualitative investigation. They came from a variety of backgrounds, including environmental health, nursing, public health officers, and health extension workers, and they interviewed utilizing the in depth interview technique. Half of the respondents were between the ages of 28 and 44. The majority of the participants had used HLMs in health-related programs before COVID-19 pandemic. The majority of respondents had participated in more than one round of COVID-19 RCCE.

Likewise, six public health experts who were not included in both facility based quantitative and qualitative study were recruited from Arsi zonal health department and Arsi university teaching hospital were participated in the interview utilizing the key informant interview technique in qualitative investigation of HLMs production process for COVID-19 RCCE.

They came from a variety of backgrounds, four of them were masters of public health specialists, and while two of them were BSc in Environmental health experts, they interviewed using separate key informant interview guides prepared for production process investigation of HLMs Arsi Zone. All of the respondents were between the ages of 34 and 56.

Table 1: Socio-demographic background characteristics result of participants among HWs in Arsi Zone, Ethiopia, June, 2021 (N=530)

Characteristics	Category	Frequency(n=530)	Percent (%)
Facility level	Hospital	415	78.3
	PHCU	115	21.7
Sex	Male	290	54.7
	Female	240	45.3
Age in years	≤34	188	35.5
	35-44	278	52.5
	45-54	59	11.1
	≥55	5	0.9
Religion	Orthodox	202	38.1
	Muslim	240	45.3
	Protestant	56	10.6
	Wakefata	32	6.0
Ethnicity	Oromo	376	70.9
	Amhara	141	26.6
	Other	13	2.4
Marital status	Single	140	26.4
	Married	338	63.8
	Divorced	25	4.7
	Engaged	27	5.1
Professional category	HEWS	44	8.3
	Nurses	237	44.7
	Public health	60	11.3
	Medical doctor	39	7.4
	Pharmacy	83	15.7
	Laboratory	67	12.6
Professional qualification	Diploma/level/	55	10.4
	Degree(BSc)	386	70.1
	General(GP)	39	7.4
	Master/MPH/	50	9.4
Work experience	Under 1	18	3.4
	1.01-5.00	95	17.9
	5.01-10.0	246	63.8
	Above 10.0	79	14.9
Has received health education course	Yes	407	76.8
	No	123	23.2
Has received COVID-19 RCCE training	Yes	405	76.4
	No	125	23.6

5.2. Exposure, awareness and access to HLMs of COVID-19 RCCE

The majority of survey participants 515 (97.2%), 473 (89.2%), 364 (68.7%), 314 (59.2%), and 291 (54.9%) said they have been exposed to health learning materials for COVID-19 RCCEs posters, brochures, flyers, banners, and stickers at their health facility, respectively. Only 148 (27.9%), 127 (24%), 45 (8.5%), 32 (6.0%), and 14 (2.6%) of respondents at their health facility said they had been exposed to health learning materials for COVID-19 RCCEs' audio spots, audio visuals, billboards, other HLMs, and newsletters, respectively.

The same respondents exposure of HLMs produced for COVID-19 RCCE, the majority of participants in the qualitative study also explained that among printed HLMs, posters, brochures, and leaflets are the most prevalent, while newsletters, billboards, and electronic media were least exposure to health workers of respective facilities.

For example, an in-dept-interview, one of the health posts, health extension workers said*, "I have exposure for printed HLMs for COVID-19 RCCE. I have poster, brochures, leaflet, sticker right know. But I do not have exposure about newsletters, audio spots, audio visuals produced for COVID-19 RCCE at all".* **(IDI, Rural, HEWs, Female, 33 years old)**

Similarly, of the study participants, the majority 496 (93.6%), 468 (88.5%), 343 (64.7%), 307 (57.9%) and 288 (54.3%) reported that they had awareness of HLMs for COVID-19 RCCEs' posters, brochures, flyers, banners, and stickers respectively at their health facility. However, only 172 (32.5%), 148 (27.9%), 36 (6.8%), 18 (3.4%) and 18 (3.4%) reported that they had awareness of HLMs for COVID-19 RCCEs' audio spots, audio visuals, billboards, other and newsletters respectively at their health facility.

The participants in the qualitative study explained this finding by supporting the statement that showed that all participants had awareness of posters, brochures, flyers, but not awareness of the COVID-19 RCCE newsletter, other electronic media, and digital media.

For example, one of the hospital COVID-19 RRT member health worker said*, "I know poster, brochures, leaflet, sticker, banner of HLMs on COVID-19 RCCE but I do not know, newsletters, audio spots, audio visuals etc produced for COVID-19 RCCE to COVID-19 preventive and control measures".* **(IDI, Urban, HEWs, Female, 34 years old)**

In another in-depth interview of hospital, COVID-19 RRT member leader said, *"In addition to printed HLMs for COVID-19 RCCE in hospital. There were TV shows that broadcast news and current events shows, panel discussions, spots, public speech announcements, films, short dramas, comedy shows, and music video spots on COVID-19 for specific audiences at the OPD and wards such as Diabetes, ART, Fistula, and MCH unit."* **(IDI, Hospital COVID-19 RRT focal, Male, 35 years old)**

Of the study participants, the majority 520 (98.1%), 448 (84.5%), 323 (60.9%), 295 (55.7%) and 247 (46.6%) reported that they had accessibility/availability to HLMs for COVID-19 RCCEs' posters, brochures, flyers, banners, and stickers, respectively, at their health facility. However, only 172 (32.5%), 117 (22.1%), 47 (8.9%), 30 (5.7%) and 13 (2.5%) reported that they had accessed HLMs for COVID-19 RCCEs' audio spots, audio visuals, billboards, other and newsletters respectively at their health facility.

The participants in the qualitative study explained this finding by supporting the statement that showed that all participants had access of posters, brochures, flyers, but not access of the COVID-19 RCCE newsletter, other electronic media, and digital media.

In another in-depth interview of health center, COVID-19 RRT member leader said, *"There were available ,TV shows that broadcast news and current events shows, panel discussions, spots, public speech announcements, films, short dramas, comedy shows, and music video spots on COVID-19 for specific audiences at the OPD waiting area."* **(IDI, PHCU, COVID-19 RRT focal, Male, 36 years old)**

Table 2: Showing exposure, awareness and access to HLMs for COVID RCCE among HWs, Arsi Zone, Ethiopia, June, 2021 (N=530)

Variables	Types of HLMs materials	Yes, n (%)	No, n (%)
Exposure to HLMs for COVID-19 RCCE(n=530)	Newsletter	14(2.6)	516(97.4)
	Billboards	45(8.5)	485(91.5)
	Roll Banner	314(59.2)	216(40.8)
	Posters	515(97.2)	15(2.8)
	Brochures	473(89.2)	57(10.8)
	Flyers	364(68.7)	166(31.3)
	Stickers	291(54.9)	239(45.1)
	Audio spot	127(24.0)	403(76.0)
	Audio visual	148(27.9)	382(72.1)
	Other*	32(6.0)	298(94.0)
Awareness to HLMs for COVID-19 RCCE(n=530)	Newsletter	18(3.4)	512(96.6)
	Billboards	36(6.8)	494(93.2)
	Roll Banner	307(57.9)	223(42.1)
	Posters	496(93.6)	34(6.4)
	Brochures	468(88.5)	62(11.5)
	Flyers	343(64.7)	187(35.3)
	Stickers	288(54.3)	242(45.7)
	Audio spot	148(27.9)	382(72.1)
	Audio visual	172(32.5)	358(67.5)
	Other*	18(3.4)	512(96.6)
Access to HLMs for COVID-19 RCCE(n=530)	Newsletter	13(2.5)	517(97.5)
	Billboards	30(5.7)	500(94.3)
	Roll Banner	323(60.9)	207(39.1)
	Posters	520(98.1)	10(1.8)
	Brochures	448(84.5)	82(15.5)
	Flyers	295(55.7)	235(44.3)
	Stickers	247(46.6)	283(53.4)
	Audio spot	117(22.1)	413(77.9)
	Audio visual	172(32.5)	358(67.5)
	Other*	47(8.9)	483(91.1)

Other*Social, electronic, digital media

5.3. Utilization of HLMs for COVID-19 RCCE

Findings of this study indicated that of 530 study respondents, 320(60.4%) with 95%CI, (56.2-64.6) had used HLMs for COVID-19 RCCE.

Table 3: Shows utilization of HLMs for COVID-19 RCCE among HWs, Arsi Zone, Ethiopia, June, 2021 (N=530)

Characteristic	**Yes, n (%)**	**No, (%)**
Had used one or more any of the following HLMs for COVID-19 RCCE (N=530)	320(60.4)	210(39.6)
Had used one or more any of the following HLMs for COVID-19 RCCE (N=320)		
Newsletter	4(1.3)	316(98.7)
Billboards	11(3.4)	309(96.7)
Roll Banner	102(31.9)	218(68.1)
Posters	305(95.3)	15(4.7)
Brochures	224(70)	96(30)
Flyers	119(37.2)	201(62.8)
Stickers	77(24.1)	243(75.9)
Audio spot	62(19.4)	258(80.6)
Audio visual	70(21.9)	250(78.1)
Other **	50(15.6)	270(84.4)
Had distributed any HLMs for COVID-19 RCCE(N=320)	254(82.5)	56(17.5)
Had distributed any HLMs for COVID-19 RCCE(N=264)		
For patients/care givers	242(91.7)	22(8.3)
For house holds	212(80.3)	52(19.7)
For hotels/restaurants	70(26.5)	194(73.5)
For market	133(50.3)	131(49.6)
For prisoners	60(22.7)	204(77.3)
For School	120(45.5)	144(54.5)
For bus station	89(33.7)	175(66.3)
For religious setting	91(34.5)	173(65.5)
Had posting/fixing printed HLMs for COVID-19 RCCE (N=320)	227(70.9)	93(21.1)

Had posting/fixing printed HLMs COVID-19 RCCE (N=227)		
Posting at health facility	223(98.2)	4(1.8)
Posting at school	138(60.8)	89(39.2)
Posting at market	129(56.8)	98(43.2)
Fixing at Main street	30(13.2)	197(86.8)
Had announced Audio /PSA COVID-19 RCCE (N=320)	60(18.7)	260(81.3)
Had announced Audio /PSA (N=60)		
Announcement at School	48(0.8)	12(0.2)
Announcement at Market	34(10.6)	26(43.3)
Announcement at Main street	49(81.7)	11(18.3)

Others**Folk media, role-play, drama

Frequency of HLMs utilization for COVID-19 RCCE

HLMs utilization for COVID-19 RCCE vary among 530 of study respondents, about 203 (38.3%) of study respondents had used HLMs always, 117 (22.1%) of study respondents had used HLMs sometimes, however, only 64(12.1%) of study respondents had used HLMs occasionally for COVID-19 RCCE. However 146(27.5%) of study respondents were never used HLMs for COVID-19 RCCE.

In addition, participants in the qualitative study part explained even though number of the health workers were used the HLMs, majority of study respondents were not used HLMs regularly.

For example, one of the health extension workers said*, "…I use a poster and brochure but I am not using it regularly for ever engagement of COVID-19 RCCE, used printed HLMs only, since we do not have other HLMs our community become familiar with this poster, because of this I did not use all of the time".* **(IDI, Rural, HEWs, 33 years old)**

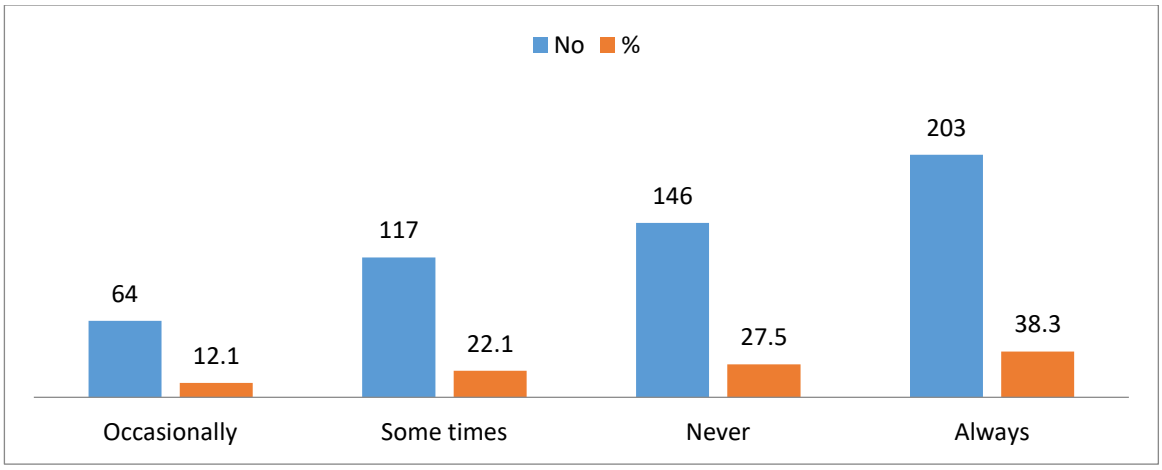

Figure 3: Frequency of HLMs utilization for COVID-19 RCCE

Prevalence of HLM utilization for COVID-19 RCCE

Findings of this study also indicated that, the prevalence of HLMs utilization for COVID-19 RCCE among 530 health workers computed based up on study operational definition. Health workers who were used HLMs always, 203(38.3%) and used HLMs sometimes, 117(22.1%) together make total prevalence of HLMs utilization for COVID-19 RCCE, 320(60.4), where as the remaining health workers who were never used HLMs, 146(27.5) and who were used occasionally, 64(12.1%) were computed as non-users of HLMs for COVID-19 RCCE, 210(39.6%).

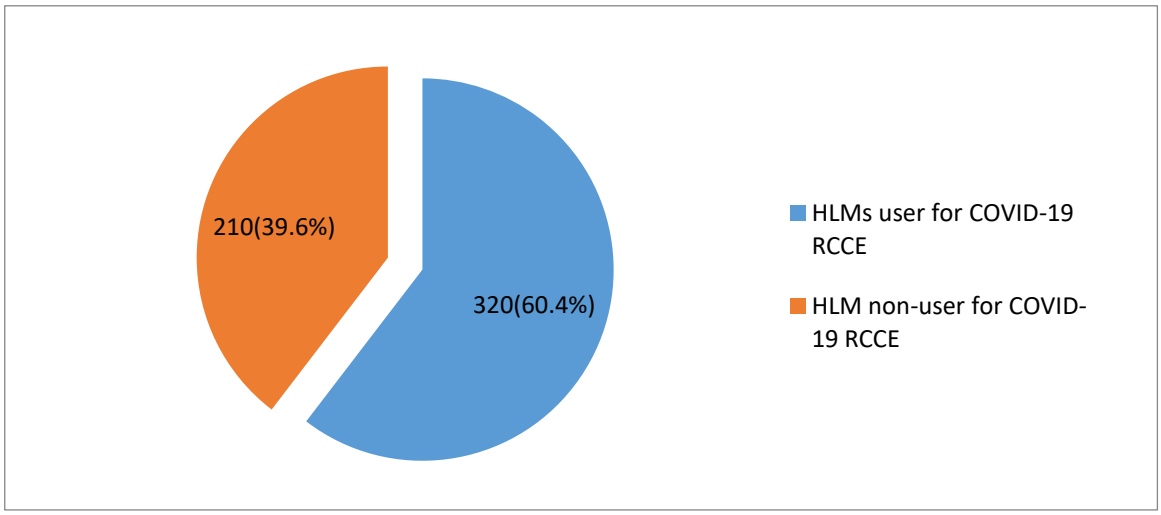

Figure 4: Prevalence of HLM utilization for COVID-19 RCCE

5.4. Perceived usefulness (PU) of HLMs for COVID-19 RCCE

Table 5 below shows two underlying factors of dimension of perceived usefulness to HLMs materials for COVID-19 RCCE. After subsequent analysis of the original 18 items, two items that were related to perceived building trust (PBT, 1-item) and perceived building credibility (PBC, 1-item) were removed from the model. Then, the analysis was end up where the final principal component analyses explained 61.8% of the variance with two components(factors) that aligned to the concept of building trust(10-items) and building credibility(6-items) to HLMs materials for COVID-19 RCCE. The first factor named perceived building trust (PBT) and explained 36.2% of the variance. PBT was related to personal opinion HLMs for COVID-19 RCCE can complying benefit, helpful reminder, helpful quick reach of information, encouraging complying, stimulate protective measures. The second factor named perceived building credibility (PBC) and explained 25.6% of the variance. PBC was related to personal opinion HLMs for COVID-19 RCCE can to solve doubts and misconceptions, reduce stigma and discrimination, counteract rumors and reduce fears, provide detail facts. Every dimensions was reliable at alpha >=70%.

5.4.1. Items based analysis of perceived usefulness of HLMs for COVID-19 RCCE

For simplicity and utility, the items in each final sub-factor were distorted into Yes (agree and strongly agree) and No (disagree, strongly disagree, and neutral), and the result was presented as follow (58).

Table 4: Rotated factors components of HLMs perceived usefulness for COVID-19 RCCE among HWs, Arsi Zone, Ethiopia, June, 2021 (N=530)

Rotated factors component(factors loading score)			**% A&SA**		**Yes (%)**
Items in factors	PBT	PBC	Yes	(%)	95%CI
Help to communicate benefits of complying preventive measures	0.836		401	75.66	72.01 -79.31
Helpful reminders for key messages	0.821		402	75.85	72.21- 79.49
Help for the quick reach of information	0.809		422	79.62	76.19- 83.05
Help to encourage comply with preventive measures	0.800		398	75.10	71.42- 78.78
Supplement verbally presented messages	0.786		440	83.02	79.82- 86.22
Help to communicate risks of pandemic	0.775		231	92.8	90.60 -95.00
Assist to stimulate/ mobilizing the community	0.772		361	68.11	64.14 -72.08
Serves to improve skills of target audiences	0.622		412	77.40	73.84- 80.96

Help to reduces costs related to the pandemic	0.581		232	43.77	39.55- 47.99
Aid in raising public awareness about COVID-19	0.421		229	43.21	38.99 -47.43
Help to solve doubts and misconceptions		0.870	121	22.83	19.26- 26.40
Help to reduce stigma and discrimination		0.804	147	27.74	23.93- 31.55
Help to counteract rumors, reduce fears		0.800	157	29.62	25.73- 33.51
Provide detailed facts about COVID-19		0.710	165	31.13	27.19- 35.07
Allows users to review and think about message in private		0.691	272	51.32	47.06- 55.58
Has significant effect in reducing the crisis of the pandemic		0.660	278	52.45	48.20- 56.70
VE (%) total = 61.8%	**36.2%**	**25.6%**			

Key, Factor; BT, Building trust, BC, Building credibility, VE, Variance explained, A&SA, agree and strongly agree

5.4.2. Perceived building trust (PBT) of HLMs for COVID-19 RCCE

The response to each PBT item was range from the highest 92.8 %(FLC=0.775) to lowest 43.21% (FLC=0.581) of respondents. Of the PBT items, the most relevant ones were benefits of complying preventive measures 75.66% (FLC = 0.836), helpful reminder 75.85% (FLC=0.821), help for quick reach of information 79.62% (FLC=0.809) encourage comply with preventive measures 75.10 %(FLC=0.800), supplementing verbal messages 83.02 %(FLC =0.786), help to stimulate or mobilizing 68.1 %(FLC =0.772) and serve to improve skills 77.40 %(FLC =0.622).

However, low in reducing cost related to the pandemic 43.77 %(FLC=0.581) and aid in increasing public awareness 43.21 %(FLC=0.421).

A participant in the qualitative study part explained for supporting statement for this finding, available HLMs of COVID-19 RCCE cannot arouse interest and excitement to motivate the people for action to reducing risks related to the pandemic.

For example, one of the hospital COVID-19 RRT member health workers stated, *"...health learning materials created for the COVID-19 RCCE do not gave motivation for people of all races, colors, birthplaces, ages, sexes, and religions about the importance of self care from COVID-19 at family, and individual levels"* **(IDI, PHCU RRT focal, Female 32-year-old)**

5.4.3. Perceived building credibility (PBC) of HLMs for COVID-19 RCCE

In contrast, a close examination of individual items for PBC found to be low among respondents, ranged between 22.83 %(FLC =0.870) and 52.45 %(FLC =0.660) of the respondents that HLMs for COVID-19 RCCE can able to solve doubts and misconceptions and can significant effect in reducing the crisis respectively. Similarly, the remain items of PBC, reduce stigma and discrimination 27.74 %(FLC =0.804), counteract rumors and reduce fears 29.62 %(FLC =0.800), provide detail facts 31.13 %(FLC =0.710) and allow users to review and think 51.32 %(FLC= 0.691).

Participants in the qualitative study part explained for supporting statement for this finding, HLMs on COVID-19 RCCE had not capable of enhancing understanding, the credibility and the believably of health message for RCCE

As one of the hospital, COVID-19 RRT member noted that, "*health learning materials produced for the COVID-19 RCCE are not based on an assessment of target audiences to identify available rumors, fears, doubts, and misconceptions of our catchment local community. So they are not enough to remove doubts, correct misconceptions, and reduce stigma and discrimination revolving around them from time to time"*. **(IDI, District RRT focal, Male 34-year-old)**

As one of the health center, COVID-19 RRT member health workers added,*"... health learning materials produced for the COVID-19 RCCE had no substantial effects on the majority of our rural community and did not make people think in private and in groups to enhance their self-esteem about COVID-19 prevention and control. As a result, I do not believe it will be able to cut pandemic-related expenses"*. **(IDI, Hospital RRT focal Male, 37 years old)**

5.5. Perceived quality (PQ) of HLMs for COVID-19 RCCE

The five underlying measure of dimension of perceived quality of HLMs for COVID-19 RCCE, perceived comprehension (PCO), perceived attractiveness (PAT), perceived acceptability (PAC), perceived involvement (PIN) and perceived call to action (PCA) subjected to PCA. After subsequent analysis, from fifty one that were related to PCO (2-items), PAT (3-items), PAC (3-items), PIN (4-items), and PCA (3-items) were removed from the model and remain were rearranged based on objective their measurement by PCA.

Then, the analysis was end up with six components with 36-items by adding one component onto the previous assumed dimension with PCO=11, PAT=7, PAC=8, PIN=6, PCA=2 and PAP=2. Then the final total principal component analysis explained 63.03% of the variance with six components that aligned to the perceived comprehension (PCO), perceived attractiveness (PAT), perceived acceptability (PAC), perceived involvement(PIN),perceived call to action (PCA) and emerged dimensions named perceived appropriateness(PAP) toward perceived quality of explained about 58.2%(95%CI,54.2-62.6) for COVID-19 RCCE.

The first factor named PCO explained 17.7% of the variance. PCO was related to health workers' opinion HLMs for COVID-19 RCCE contain written/spoken with active voice, have simple messages, fact based up to date information, free jargon words/medical terms , have accurate messages, have understandable main message, inform benefits of taking measures complying benefit, increase awareness, solve rumors, appropriate size and complete and full messages to RCCE. The second factor was PAT explained 12.8% of the variance. PAT related to personal opinion HLMs one message per illustrations, appropriate space, easily understandable, consistence/sequenced/, interesting pictures, pleasing the eyes, catchy presentation. The third factor PAC explained 12.5% of the variance and related to credible/ trusted, explicitly state action, no sensitive words, not able to commands, not prepared, to do or cease action, directed toward target audiences and catch the heart/emotion. The fourth factor was PIN explained 10.2% of the variance and was related to culturally acceptable, culturally acceptable, styles are appropriate, free from meaning error, valued by many and are speaking them. The fifth factor PCA was explained 5.01%, was related to pictures matched with text words, and do not generates discord and the six, new emerged factor was PAP explained that only 4.8% of the total perceived quality (PQ) variance and was related to the enjoyable and are eye catching to target audiences. Every components or dimensions was reliable at alpha >=70%.

5.5.1. Items based analysis to of perceived quality of HLMs for COVID-19 RCCE

Similarly as previous, for simplicity and utility, the items in each final sub scale were distorted into Yes (agree and strongly agree) and No (disagree, strongly disagree, and neutral) result was presented as follow(58).

Table 5: Rotated factor components of HLMs perceived quality for COVID-19 RCCE among HWs, Arsi Zone, Ethiopia, June, 2021 (N=530)

Items in factors	**Rotated factor component(FLC)**						**% A&SA**		**95%CI,**
	PCO	PAT	PAC	PIN	PCA	PAP	yes	%	yes (%)
Contain active voice message	0.81						358	67.6	63.6-71.5
Contain simple message	0.77						358	67.6	63.6-71.5
Contain Fact based message	0.74						310	58.5	54.3-62.7
Free of jargon/medical words	0.73						294	55.5	51.2-59.7
Contain accurate messages	0.71						314	59.3	55.1-63.4
Understandable key message	0.70						310	58.5	54.3-62.7
Benefits taking measures	0.70						306	57.7	53.5-61.9
Can able increase awareness	0.68						342	64.5	60.5-68.6
Solve rumors/ false perceptions	0.67						291	54.9	50.7-59.1
Appropriate size to be easily read	0.65	.					291	54.9	50.7-59.1
Complete full /consistent message	0.57						235	44.3	40.1-48.6
Single message per illustrations		0.81					195	36.8	32.7-40.9
Appropriate space to be easily read		0.74					198	37.4	33.2-41.5
Easily understandable pictures		0.73					204	38.5	34.4-42.6
HLMs consistent massages		0.69					208	39.2	35.1-43.4
HLMs Interesting pictures		0.69					207	39.1	34.9-43.2
Pictures colors pleasing eyes		0.67					161	30.4	26.5-34.3
Pictures layout catchy style		0.57				.	166	31.3	27.4 -35.3

HLMs Trusted messages			0.79				194	36.6	32.5-40.7
State action to do or cease			0.76				209	39.4	35.3-43.6
Free of sensitive words			0.71				203	38.3	34.2- 42.4
Animation able to command attention			0.70				175	33.0	29.0 -37.0
Local language messages			0.70				208	39.3	35.1- 43.4
Show action to do or cease			0.56				159	30.0	26.1-33.9
Messages directed to audience			0.54				148	27.9	24.1-31.7
Messages catch heart/emotion			0.48				106	20.0	16.6-23.4
Culturally acceptable colors				0.71			87	16.4	13.3-19.6
Culturally acceptable illustration				0.71			84	15.9	12.7 -19.0
Appropriate (style, tone) presentation				0.70			122	23.0	19.4 -26.6
Free of meaning error				0.65			96	18.1	14.8 -21.4
Valued by target audiences				0.58			94	17.7	14.5 -21.0
Messages speaking audiences				0.51			120	22.6	19.1 -26.2
Picture matched with words/texts					0.72		180	34.0	29.9-38.0
Picture do not generates discord					0.67		100	18.9	15.5-22.2
Enjoy target audiences						0.65	84	15.9	12.7 -19.0
Layout /style eye catching						0.64	92	17.4	14.1-20.6
VE (%) = 63.03%	17.7 %	12.8 %	12.5 %	10.2 %	5.01 %	4.80 %			

Key; F ,Factor; P, Perceived, PCO, Comprehensiveness; PAT, Attractiveness; PAC, Acceptability; PIN, Involvement; PAP; Appropriateness; PCA, Call to Action; VE, Variance explained, A&SA, agree and strongly agree.

5.5.2. Perceived comprehension (PCO) of HLMs for COVID-19 RCCE

The response to each PCO item was range from the highest 67.55% (FLC=0.805) to lowest 44.34 %(FLC=0.767) of study respondents. Of the PCO items, the most relevant higher ones were HLMs contain written/spoken with active voice 67.55% (FLC = 0.805), have simple messages 67.55% (FLC = 0.767) and increase awareness 64.53 %(FLC =0.675).

A participant in the qualitative study section explained the supporting statement for this finding. HLMs for COVID-19 RCCE must be clear to explain what has to be said, contain written/spoken with active voice, have simple messages and increase awareness of target audiences.

One of the COVID-19 RRT member health workers remarked that, *"HLMs developed on COVID RCCE had not developed based on feedback from our people's representatives nor pretested with local target audiences before dissemination*. *Majority of the HLMs for COVID-19 RCCE had not clear message, did not urge target audiences to do or not do certain duties".* **(IDI,District RRT focal, Male, 40 years old)**

However, health workers opinion based on up to date information 58.50% (FLC =0.737), free medical terms 55.5% (FLC =0.734) , have accurate messages 59.25%(FLC =0.705), have understandable message 58.50% (FLC =0.704), and inform benefits of taking measures 57.74%(FLC =0.696) was low

Health workers on HLMs for COVID-19 RCCE can Solve rumors 54.91 %(FLC =0.674), appropriate size 54.91 %(FLC = 0.649) and complete full messages 44.34 %(FLC =0.569) to HLMs for COVID-19 RCCE were very low

A participant in the qualitative study section explained the supporting statement as, one of the health center COVID-19 RRT member health workers remarked that, "*Some HLMs printed materials, like as posters created by the Regional and Federal contained jargon phrases and medical terms. Some of them were difficult to understand, with extended slogans and did not have the right size to be read easily from a distance, lack of consistent and adequate space.*" **(IDI, Rural HEWs, Female, 33 years old)**

5.5.3. Perceived attractiveness (PAT) of HLMs for COVID-19 RCCE

All response to each PAT item were less than half of respondents were low which range from the highest 39.06% (FLC=0.69) to lowest 31.32 %(FLC=0.57) of study respondents. Of the PAT items, the most relevant lowest ones were HLMs contain one message per illustration, 36.8% (FLC = 0.81), appropriate space 37.4% (FLC =0.74) easily understandable 38.5 %(FLC =0.73), consistent/interesting pictures 39.06% (FLC = 0.69), pleasing the eyes of target audiences 30.38 %(FLC = 0.67), and catchy presentation style/layout 31.32% (FLC = 0.57) for the target audiences.

A participant in the qualitative study section explained the supporting statement for this finding. If printed HLMs for COVID-19 RCCE contain picture, illustration, illumination and animation taken from a give community it has more probability used by health workers.

According to one of the health extension program focal person noted, "*Yeah, the majority of the photographs, graphics, illumination, and animations in HLMs don't represent our community's local cultural background. For example, where is ethnic clothing such as "calle", "cico", and "sinqee" for mother and "head towel" and "boku" for father* ". **(IDI, PHCU COVID-19 RRT focal, Male 36-year-old)**

A participant in the qualitative study section described the supporting statement for this finding by HLMs utilization for COVID-19 RCCE among health workers would increase if the layout for printed materials, tones for audio, and audio visuals capacity to catch and enjoy the target audiences.

According to one of the health education program coordinator noted, *"If the layout for printed materials, audio, and audio visuals are not well prepared based on this community's cultural background. Hence, the material presentation style is not focus on local community context. It has not used by community"*. **(IDI, Hospital COVID-19 RRT focal, Male 35-year-old)**

5.5.4. Perceived acceptability (PAC) of HLMs for COVID-19 RCCE

All response to each PAC item were less half of respondents were low which range from the highest 39.06% (FLC=0.69) to lowest 31.32 %(FLC=0.57) of study respondents only. Of the PIN items, the most relevant lowest ones were HLMs contain credible messages 36.8% (FLC = 0.81), explicitly state action to do 37.4% (FLC =0.74), free of sensitive words 38.5 %(FLC =0.73), able to command action 39.06 %(FLC = 0.69), prepared with local language 30.38 %(FLC = 0.67),

ask to do or to cease action 30 %(FLC =0.56), directed toward target audiences 27.92 %(FLC =0.54) and able to catch the heart/emotion 20.0 %(FLC = 0.57).

A participant in the qualitative study section described the supporting statement, HLMs for COVID-19 RCCE need to be trusted, believable, and/or lack of discord among the target audiences.

According to one of the COVID-19 RRT member health workers, "...now *days everything pictures, sounds, songs, color has its own meanings in terms of culture, politics, and society interest from place to place. HLMs produced around higher levels of health sector were not considering our target audiences picture, images, and sound rhythm acceptance or preferences.*" **(IDI, Urban, HEWs, Female 34 years old)**

A participant in the qualitative study section also expressed the supporting statement for this conclusion by images and drawings of people and locations in HLMs for COVID-19 RCCEs should represent the desired target audience and their culture.

One of the health center COVID-19 RRT member health workers explained, "*HLMs for COVID-19 RCCE contain pictures and symbols that do not reflect the intended target audience's ethnic and cultural background. The images of locations, people, situations, items, and the attire they wore were unfamiliar to the intended audiences so that culturally specific values and beliefs do not represent in the messages.*" **(IDI, PHCU RRT Focal, Female, 32-year-old)**

5.5.5. Perceived involvement (PIN) of HLMs for COVID-19 RCCE

All response to each PIN items were less than half of respondents were low which range from the highest 23.02% (FLC=0.70) to lowest 15.85 %(FLC=0.71) of study respondents. Of the PAC items, the most relevant lowest ones were HLMs were colors culturally acceptable, 16.42% (FLC =0.71), illustration culturally acceptable 15.85% (FLC =0.71), presentations style/tone appropriate target preferences 23.02 %(FLC =0.70), free from meaning error 18.11 %(FLC =0.65), valued by many target audience 17.74 %(FLC =0.58) and are speaking target audiences 22.64 %(FLC =0.51).

A participant in the qualitative study section describes the supporting statement for this finding. Perceptions of health workers about the messages of HLMs for COVID-19 RCCE need to be trust, believable messages.

For example, one COVID-19 RRT member noted, "*The majority of illustrations, symbols, and photos utilized to HLMs for COVID-19 RCCE at higher level are primarily downloaded from the internet, making them difficult to individuals who are illiterate. Thus, most target audiences view a poster, hear audiovisuals, but do not pay attention to it." (***IDI, Hospital RRT focal, Male 37-year-old)**

5.5.6. Perceived call to action (PCA) of HLMs for COVID-19 RCCE

All response to each perceived call to action (PCA) item were below half of respondents were low which range from the highest "Pictures and illustrations of HLMs for COVID-19 RCCE are not matched with text words" 33.96% (FLC=0.72) to lowest "The pictures of HLMs for COVID-19 RCCE generates discord among the target audiences" 18.87 %(FLC=0.67) of study respondents only.

A participant in the qualitative research section described that, HLMs do not promote a message that asks, motivates, or arouse interests of target audience to carry out or cease a particular action.

According to one of the COVID-19 RRT member health workers, "*HLMs for COVID-19 RCCE were able to convey messages that increase awareness, inform benefits of taking measures like hand washing, keeping physical, distance, wearing masks. They were moderately transmitting messages that explicitly stated the action that could do or do not do, help to address barriers or put options and induce or cease a particular action*". **(IDI, District RRT member, Male, 34-year-old)**

5.5.7. Perceived appropriateness (PAP) of HLMs for COVID-19 RCCE

All response to each perceived appropriateness (PAP) item were below half of respondents were low which range from the highest "*The pictures of HLMs for COVID-19 RCCE layout and style are eye catching among the target audiences*" 17.4 %(FLC=0.64) to lowest "*Pictures and illustrations of HLMs for COVID-19 RCCE enjoy target audiences*" 15.9% (FLC=0.65) of study respondents.

A participant in the qualitative research section described the supporting statement for this finding. People were not pay attention to messages that they consider do not involve them. Illustrations, symbols, and language should appropriate to the characteristics of the target audience.

For example, one COVID-19 RRT member noted, "*The language needs to be clear and simple to understand, without ambiguities, abbreviations, jargon, and medical terminology. For example, a*

few words have two or more direct or hidden meanings, as in "Wal bukkee hindhaabatinaa" to mean, not stop together, to keep physical distance". **(IDI, Rural, HEWs, Female 33-year-old)**

This finding is consistent and supported with finding from qualitative study. Another participant in the qualitative study part explained for supporting statement for this finding.

A health extension worker said, *"As most materials are not compatible with the culture of the community, many clients do not want to watch at any material. Example according to Arsi Muslim community, women do not expose their hair due to cultural norms and religious rule, but the HLMs on COVID-19 available for these our people were not obey this criteria, so that the community does not feel that the message is directed towards them".* **(IDI, PHCU, COVID-19 RRT focal, Male, 36 years old)**

A participant in the qualitative study section expressed the supporting statement for this conclusion, as the comprehensive distribution strategy prior to disseminating HLMs is important. it should pre-identified to whom these materials should be distributed, making sure that HLMs reach their target audiences which increases the likelihood that the material will have an impact on behavior change on its intended audience.

One health center COVID-19 RRT leader said that, "*having a comprehensive distribution plan by health sector makes it easier to monitor and evaluate the usefulness of HLMs and measure impact on audiences. Instructions and suggestions for distribution should be supplied along with the materials prior to dissemination to give health workers a better sense of their target audiences, even though actually not in our health facility.*" (**IDI, Hospital RRT focal, Male, 35 years old)**

Each group has different levels of literacy and may have different behavior patterns understanding who the target audiences are and service needs is too important. HLMs materials designed for specific populations, therefore, should distribute in the same fashion. Another key informant health center health workers said that, *" in Arsi Zone COVID-19 RCCE HLMs were suddenly distributed or brought, as chance or with third part to health facility, no one could responsible for the implementation of these material, they stored once somewhere or distributed or damaged at veranda, no one can ask report from higher level."* **(IDI, PHCU focal, Female, 34 years old)**

5.6. Factors affecting HLMs utilization for COVID-19 RCCE

5.6.1. Binary logistic regression analyses to HLMs utilization for COVID-19 RCCE

The next table shows a number of variables with a p-value of less than 0. 25 in the bi-variate analysis, before multivariate analysis

Table 6: Binary logistic regression analyses of factors associated with HLMs utilization for COVID-19 RCCE among HWs, Arsi Zone, Ethiopia, June, 2021 (N=530)

Characteristics		**Utilization HLMs**			**COR(95%CI)**	**P value**
		Yes	No	Total		
H. facility	PHCU	83	32	115	1	
	Hospital	237	178	415	0.513(0.327-0.807)	0.004 [b]
Sex	Female	153	87	240	1	
	Male	167	123	290	0.772(0.543-1.097)	0.149
Ethnicity	Oromo	235	138	373	1	
	Amhara	80	61	141	0.770(0.519-1.142)	0.194
	Others	5	11	16	0.267(0.091-0.784)	0.016 [b]
Profession cat,	HEWS	36	8	44	1	
	Nurses	148	89	237	0.29(1.15-7.09)	0.024[b]
	Public health	27	33	60	1.06(0.60-1.84)	0.852
	Medical doctor	16	23	39	0.52(0.26-1.05)	0.069
	Pharmacy	52	31	83	0.44(0.20-0.99)	0.046[b]
	Laboratory	41	26	67	1.06(0.55-2.06)	0.855
Health educ. course	Yes	273	124	397	4.028(2.663-6.095)	<0.001[a]
	No	47	86	133	1	
Training on RCCE	Yes	278	127	405	4.326(2.824-6.626)	<0.001[a]
	No	42	83	125	1	
Work experience,	Under 1	8	10	18	1	
	1.01-5.0	51	44	95	1.45(0.53-3.99)	0.473
	5.01-10.0	212	126	338	2.10(0.81-5.47)	0.127
	Above 10.0	49	30	79	2.04(0.81-5.75)	0.176
Perceived sum score of:-		Beta			COR(95%CI)	P-value
Building trust(PBT)		0.093			1.097(1.081-1.114)	<0.001 [a]
Building credibility(PBC)		0.042			1.043(1.029-1.056)	<0.001 [a]
Comprehension(PCO)		0.115			1.121(1.101-1.142)	<0.001 [a]
Attractiveness(PAT)		0.057			1.059(1.045-1.073)	<0.001 [a]

Acceptability(PAC)	0.064	1.066(1.051-1.081)	<0.001 [a]
Involvement(PIN)	0.046	1.047(1.030-1.064)	<0.001 [a]
Call to action(PCA)	0.054	1.055(1.037-1.073)	<0.001 [a]
Appropriateness(PAP)	0.041	1.041(1.024-1.058)	<0.001 [a]
Overall PU	0.092	1.097(1.078-1.116)	<0.001 [a]
Overall PQ	0.150	1.162(1.131-1.194)	<0.001 [a]

KEY: '1'=reference, [a] = p<0.01 highly significant, [b] = P <0.05 significant, (-) represent represent "to".

5.6.2. Multi-variable logistic regression for HLMs utilization for COVID-19 RCCE

From binary logistic regression, sixteen variables include age, ethnicity, facility level, professional category, work experience, receiving health education courses, receiving training on RCCE, perceived building trust, building credibility, perceived comprehensiveness, attractiveness, acceptability, involvement, call to action, appropriateness, quality and usefulness of HLMs utilization for COVID-19 RCCE were variables identified to run or adjust in multi variable logistic regression.

The next table indicates, after adjusting for potential co-founders in multiple variable logistic regression analysis, seven potential variables namely working health facility, professional category, receiving health education course, receiving RCCE training, perceived building trust, perceived comprehensiveness, and perceived acceptability of HLMs utilization for COVID-19 RCCE were found a significant predictors of health workers' HLMs utilization for COVID-19RCCE.

Before adjusted, health workers who were working in hospitals experiences 0.51 times less likelihood in the odds of using HLMs for COVID-19 RCCE compared to a health workers that were working in to PHCUs (COR=0.51,95%CI=0.34-0.81,PV=0.004). However, after adjusted, working in hospital had increasing effects to utilization of HLMs for COVID-19 RCCE. Health workers working in hospitals experiences in an increasing of 2.38 times higher likelihood in the odds of using HLMs for COVID-19RCCE compared to health workers that were working in PHCUs(AOR= 2.38, 95%CI=1.11-5.13, PV=0.026).

Before adjusted, of all health professionals category being nurse experiences 0.29 times less likely hood in the odds of using HLMs for COVID-19 RCCE when compared to health extension workers(COR=0.29, 95%CI=1.15-7.09, PV=0.024). Similarly, being pharmacy experiences a reduction in 56% or 0.44 times less likelihood in the odds of using HLMs for COVID-19 RCCE when compared to health extension workers(COR= 0.44, 95%CI=0.20-0.99, PV=0.024). However, after adjusted of all categories of health professionals a public health professional experiences 0.14 times less like hood in the odds of using HLMs for COVID-19 RCCE when compared to a health extension worker(AOR=0.14, 95%CI=0.03-0.59, PV=0.007). Similarly, a medical doctor experiences 0.12 times less likelihood in the odds of using HLMs for COVID-19 RCCE when compared to a health extension worker (AOR=0.12, 95%CI=0.03-0.58, PV=0.008).

Before adjusted, a health worker who received a health education course experiences 4.03 times higher likelihood in the odds of using HLMs for COVID-19 RCCE compared to a health worker who did not received health education course(COR=4.03, 95%CI=2.66-6.10, PV<0.001). Similarly, a health worker who receives COVID-19 RCCE training experiences 4.33 times higher likelihood in the odds of using HLMs for COVID-19 RCCE compared to a health worker who did not receiving COVID-19 RCCE training (COR=4.33,95%CI=2.824-6.63,=PV<0.001)

After adjusted, a health worker who received a health education course experiences 2.57 times higher like hood in the odds of using HLMs for COVID-19 RCCE compared to health worker who did not receiving health education course (AOR=2.57, 95%CI=1.26-5.28, PV<0.001). Similarly, a health worker who received COVID-19 RCCE training experiences 2.12 times higher likelihood in the odds of using HLMs for COVID-19 RCCE compared to a health workers who did not received COVID-19 RCCE training (AOR=2.12,95%CI=1.07-4.17,=PV<0.030).

Before adjusting health workers perceived usefulness of health learning materials for COVID-19 RCCE, both emerged components building trust and building credibility has crude effect in positive association in use of HLMs for COVID-19 RCCE. Each additional increase of one unit in building trust is associated with 10% increase(1.10 times higher likelihood) in the odds of a health worker to use health learning materials for COVID-19 RCCE(COR,95%CI;1.10 (1.08-1.14), PV=0.001). Similarly, each additional increase of one unit in building credibility is associated with 4% increase(1.04 times higher likelihood) in the odds of a health worker to use health learning materials for COVID-19 RCCE (COR,95% CI : 1.04(1.03-1.06),PV=0.001).

After adjusting, of health workers perceived usefulness of health learning materials for COVID-19 RCCE emerged components only building trust significant effect in positive association in use of HLMs for COVID-19 RCCE. Each additional increase of one unit in perceived usefulness of HLMs in building trust of an organization among target audiences is associated with 4% increase(1.04 times higher likelihood) in the odds of a health worker to use health learning materials for COVID-19 RCCE(AOR,95%CI;1.04 (1.01-1.06), PV=0.007).

Before adjusting to other predictive variables six components of perceptions related to quality of HLMs all components perceived comprehension, attractiveness, acceptability, involvement, call to action, and appropriateness has significant crude effect associations with utilization of HLMs for COVID-19 RCCE. Each additional increase of one unit, in perceived comprehension, attractiveness, acceptability of HLMs materials for COVID-19 RCCE is associated with 12%, 6% and 7% increase in the odds of health workers to use HLMs for COVID-19 RCCE (COR=1.12,95%CI=1.10-1.14,PV=0.001),(COR=1.06,95%CI=1.05-1.08,PV=0.001),(COR=1.07 ,95%CI=1.05-1.08,PV=0.001) respectively. Each additional increase of one unit, in perceived self-involvement, call to action, and appropriateness of HLMs for COVID-19 RCCE is associated with 5% , 6% and 4% increase in the odds of health workers to use HLMs for COVID-19 RCCE (COR=1.05,95%CI=1.03-1.06, PV=0.001), (COR=1.06,95%CI=1.04-1.06, PV=0.001) and (COR=1.04, 95%CI=1.03-1.06, PV=0.001) respectively.

After adjusting for other predictive variables, of six components perceived quality of HLMs for COVID-19 RCCE, only perceived comprehension and perceived acceptability has significant effect in associations with utilization of HLMs materials for COVID-19 RCCE. Each additional increase of one unit in perceived comprehension of HLMs utilization for COVID-19 RCCE is associated with 8% increase in the odds of health workers to use HLMs for COVID-19 RCCE(AOR=1.08, 95%CI=1.05-1.11,PV=0.001). Similarly, each additional increase of one unit in perceived acceptability of HLMs utilization for COVID-19 RCCE is associated with 2% increase in the odds of health workers to use HLMs for COVID-19 RCCE (AOR=1.02, 95%CI=1.00-1.05, PV=0.023)

Table 7: Multi-variable logistic regression analyses of factors associated with HLMs utilization for COVID-19 RCCE among HWs, Arsi Zone, Ethiopia, June, 2021,(N=530)

Characteristics	**Utilization of HLMs**		**COR(95%CI)**	**P.value**	**AOR(95%CI)**	**P.value**
	Yes	No				
Health facility						
PHCU	83	32	1		1	
Hospital	237	178	0.51(0.33-0.80)	0.004 [b]	**2.38(1.11-5.13)**	**0.026** [b]
Professional Category						
HEWs	36	8	1		1	
Nurses	148	89	0.29(1.15-7.09)	0.024 [b]	0.37(0.10-1.35)	0.130
Public health	27	33	1.06(0.60-1.84)	0.852	**0.14(0.03-0.59)**	**0.007** [b]
Medical doctor	16	23	0.52(0.26-1.05)	0.069	**0.12(0.03-0.58)**	**0.008** [b]
Pharmacy	52	31	0.44(0.20-0.99)	0.046 [b]	0.80(0.19-3.29)	0.755
Laboratory	41	26	1.06(0.55-2.06)	0.855	0.71(0.16-3.14)	0.651
Receiving health education course						
Yes	273	124	4.03(2.66-6.09)	<0.001 [a]	**2.57(1.26-5.28)**	**0.010** [b]
No	47	86	1		1	
Receiving COVID-19 RCCE Training						
Yes	278	127	4.33(2.82-6.63)	<0.001 [a]	**2.12(1.07-4.17)**	**0.030** [b]
No	42	83	1		**1**	
Perceived:	Beta		COR95%CI	Pv.	AOR95%CI	Pv.
Trust(PT)	0.093		1.10(1.08-1.11)	<0.001 [a]	**1.04(1.01-1.06)**	**0.007** [b]
Credibility(PC)	0.042		1.04(1.03-1.07)	<0.001 [a]	0.98(0.96-1.00)	0.067
Comprehensive	0.115		1.12(1.10-1.142)	<0.001 [a]	**1.08(1.05-1.11)**	**<0.001** [a]
Acceptability	0.064		1.07(1.051-1.08)	<0.001 [a]	**1.02(1.00-1.05)**	**0.023** [b]

KEY: '1'=reference, [a] = p<0.01 highly significant, [b] = P <0.05 significant, (-) represent represent "to".

5.6.3. Reasons of non-using HLMs for COVID-19 RCCE

Of 146 study respondents never user of study respondents, 88(60.0%) had reported, lack of appropriate HLMs for COVID-19 RCCE, 42(29.1%) reported others reasons include (work overload, shortage of time), 39(27.3%) lack of training, 32(21.8%) lack of time and 18(12.7%) unavailability of HLMs were the major reasons.

(Cumulative percent was not 100 due to possible multiple responses).

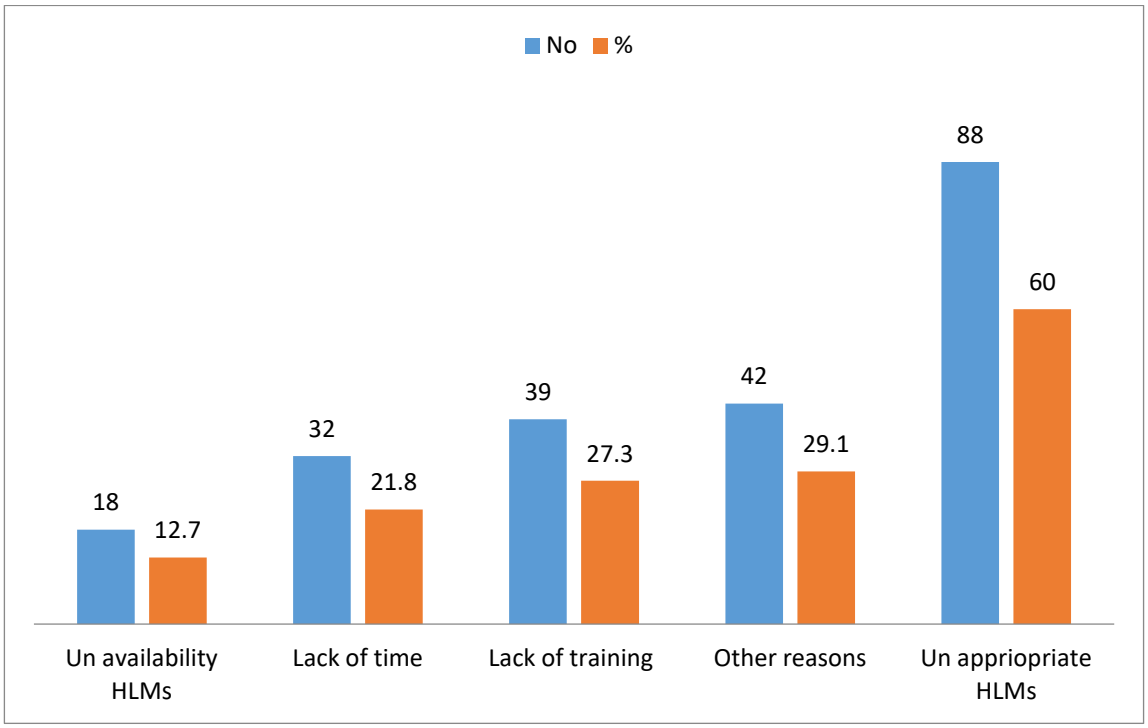

Figure 5: Reasons of not using HLMs for COVID-19 RCCE

5.6.4. Preference or intention of health workers on HLM utilization for COVID-19 RCCE

Regarding preference or intention of health workers to HLM utilization for COVID-19 RCCE, of 146 (27.5%) of the study respondents who had non-users of HLMs for COVID-19 RCCE, 109 (74.6%) of the study respondents had plan to use of any types of HLMs materials for COVID-19 RCCE. However,37(25.3) respondents did not intend to use HLMs. Reason of non using were, 33(55%) lack of appropriate HLMs for COVID-19 RCCE, 16(43.2%) reported others reasons include (work overload, shortage of time), 15(40.5%) lack of training, 12(32.4%) lack of time and 7(18.9%) unavailability of HLMs were the major reasons. (Cumulative percent was not 100 due to possible multiple responses).

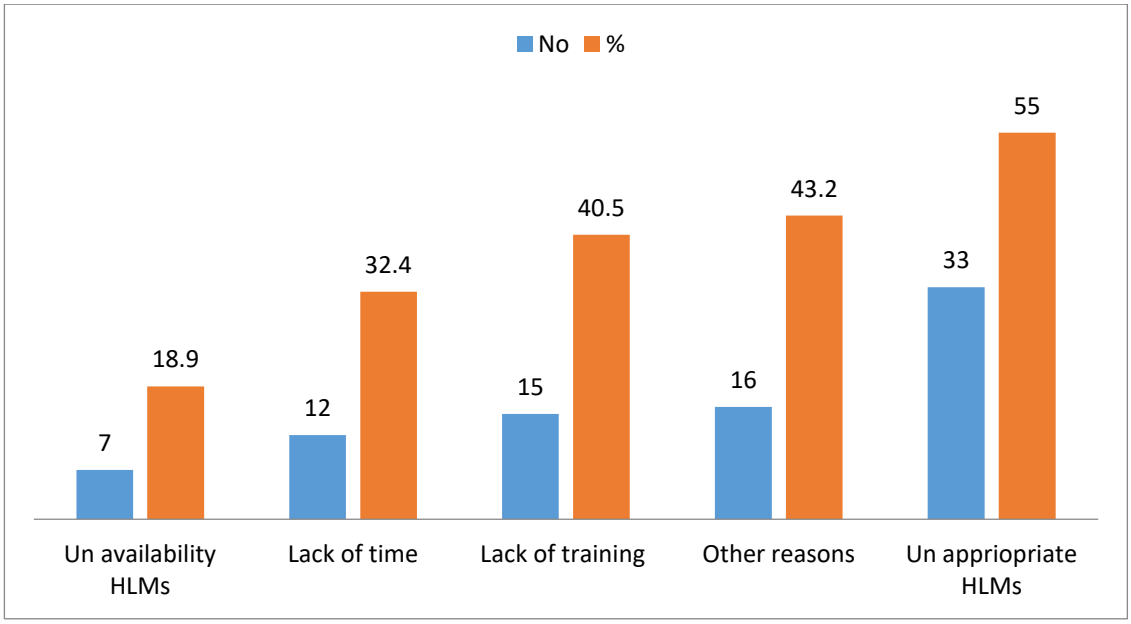

Figure 6: Reasons of not intending/planning to use HLMs for COVID-19 RCCE

Table 8: Showing preference/intention of HLMs for COVID-19 RC among health workers, in Arsi zone, Ethiopia, June, 2021(N=530)

Characteristics	Yes, n (%)	No, n (%)
Intention to use HLMs for COVID-19 RCCE for the future(n=146)	109(74.6)	37(33.9)
Preference of HLMs for COVID-19 RCCE for the future(n=109)		
Newsletter	4(3.7)	105(96.3)
Billboards	4(3.7)	105(96.3)
Roll Banner	4(3.7)	105(96.3)
Posters	49(50.0)	60(55.0)
Brochures	90(82.6)	19(17.4)
Flyers	9(8.2)	100(91.7)
Stickers	5(4.6)	104(95.4)
Audio spot	6(5.5)	103(94.5)
Audio visual	5(4.6)	104(95.4)
Other**	16(14.7)	93(85.3)

Other**: folk media, social media

5.6.5. Barriers and facilitators of HLMs utilization for COVID-19 RCCE

Regarding the perceived barriers and opportunities, the qualitative result identified three major themes and five sub-themes related to HLMs utilization for COVID-19 RCCE

Theme 1.Internal organization (health sector)

Sub-theme 1:-Health education human resource

In most cases, a group of people will develop the RCCE strategy. The health communication specialist is frequently the key staff member in charge of developing HLMs and a process in which all stakeholders, including the beneficiaries, are involved in the HLMs development. The health education specialist should collaborates closely with different stakeholders and team members at the regional or zonal level may include a variety of public and private sector agencies, like education, women's affairs, agriculture, culture and tourism, service delivery groups.

Category 1. Staffing and structure

Because of the lack of a clear professional structure and identified focal person at health facilities, there was confusion on "who should do what" and "who should owe the health education program"

One of key informant interview participants said that, *"There was misunderstanding on "who should do what" and "who should owe the health education program". Due to the lack of a defined structure with identified duties and responsibility of health education at all levels of health institutions"* **(KII, ZHD COVID-19 RRT member, 31 years old)**

The majority of participants in the key informant interviews mentioned that, absence of sufficient public health education staff at zonal level for conducting effective planning, monitoring, evaluation, and re-planning of HLMs production leads to inability of developing HLMs,

Other key informant interview participants said, "*In our Zone, we do not have health education professionals additionally we have failed to place them in their appropriate positions at the zonal levels. Even I am aware that they misused at the regional and federal levels"* **(KII, ZHD COVID-19 RRT member, 37 years old)**

Category 2.Training and competencies of health workers

The majority of participants in the key interviews described that, Even though rapid response team trained in COVID-19 RCCE, they had trained with non health communication specialist personnel whose had no basic experience with HLMs implementation and evaluation.

A key informant interview participant mentioned, "*Health education are seen as second-option in comparison to all other program, and there is no ongoing HLMs capacity-building strategy for staff's competency to maximum impact of HLMs materials utilization for COVID-19 RCCE activities".* **(KII, Hospital COVID-19 RRT focal, 42 years old)**

Other key informant interview participants added that, *"Only this year's health education program received attention because of COVID-19. The COVID-19 pandemic risk communication and community engagement training was given to the vast majority of health personnel".* **(KII, ZHD COVID-19 RRT member, 33 years old)**

Sub-theme 2: HLMs production process for COVID-19 RCCE

The preparation of a health communication strategy should be a collaborative effort. The engagement of key stakeholders such as village leaders, religious leaders, **Haadha sinqee** and **Abba Gadaa** leaders, who have the power to influence and mobilize the community on HLMs production process has important for the production of quality health learning materials.

Category 1.Situational assessment before HLMs production on COVID-19 RCCE

Majority of key informant interview participants mentioned that evidence-based and model driven planning and design to understand local context social, cultural, political, and behavioral data to identify internal and external determinants of a COVID-19 situation,

One of key interview participants explained that, "*Almost all HLMs available at health centers were not produced based up on baseline and/or formative research with our target audience. No one could assess their knowledge, attitudes, skills, behaviors, social networks, needs, aspirations as well has who influence target audiences behavior before HLMs development".* **(KII, ZHD COVID-19 RRT member, 31 years old)**

One of key informant interview said that, *"Because RCCE coordinators do not do situational analysis before developing materials for COVID-19 RCCE, HLMs for COVID-19 RCCE are not*

produced according to local community culture, customs, and religion". **(KII, Hospital COVID-19 RRT member, 33 years old)**

Category 2.Designing the communication strategy

The majority of participants in the key informant interview stated that HLMs produced for COVID-19 RCCE did not contain necessary communication strategy components such as final media analysis, audience analysis, barriers (per audience), desired changes (per audience), communication objectives (per audience), strategic approach, positioning statement, key content, channels (per audience), and specific activities.

One of key informant interview said that, "*HLMs for COVID-19 RCCE are not designed with diverse groups in mind or consideration, such as illiterate to literate, rural to urban, children to seniors, men to women, and so on.*'' **(KII, Hospital COVID-19 RRT member, 34 years old)**

Category 3.Creating interventions & testing materials for change

Accordingly, the majority of in-depth interview participants, HLMs distributed in Arsi zone lack crucial features of successful HLMs (like lack of inventory of existing materials, creative briefs, audience consultation, and concept testing of drafts, stakeholder and technical reviews, audience pretesting). HLMs are brought from higher levels (such as MOH, ORHB) were did not pre-tested by local target audiences.

A key interview participants added," *Even after production of HLMs materials for CCOVID-19 RCCE without target audiences participation, there was no system available to pre-test with respective target audiences before distribution HLMs materials"***(KII, ZHD COVID-19 RRT focal, 40 years old)**

Category 4.Implementing & monitoring change processes

The majority of participants in the key informant interview stated that RCCE do not have developed work plans, assigned responsibilities, provided periods, and allocated resources at bottom of health care system.

One of key informant interview said that, "*There was no follow-up of RCCE HLMs material implementation and monitoring of RCCE activities after the COVID-19 RCCE materials were provided to health facilities."* **(KII, ZHD COVID-19 RRT member, 32 years old)**

Category 5.Evaluating and re-planning HLMs for COVID-19 RCCE

The majority of participants in the key informant interview, stated that, none of organizations measure HLMs outcome and assesses impact through surveys, or other evaluation techniques on HLMs prepared for COVID-19 RCCE. Therefore, there was no documented result, lessons learned and best practice disseminated for further utilization.

One of key informant interview said that, "*No one measures HLMs outcomes or assesses effect using surveys or other assessment approaches,for this reason no one knows HLMs materials produced for COVID-19 RCCE was effective or ineffective if it had met the anticipated effects on the knowledge, attitudes, and behavior of target audiences."* **(KII, Hospital COVID-19 RRT focal, 42 years old)**

Generally, there are attempts to produce printed HLMs materials related to COVID-19 RCCE in Arsi university teaching hospital and on malaria elimination program in Zonal health departments with second staff of different public health personnel. There are many identified barriers/ challenges during the production of HLMs.

One of key informant interview said that, "The *first issue is that Arsi Zone has no HLMs production facilities, no guidelines, no health education and communication specialists, and no funding allotted for the creation, distribution, and pretesting of HLMs for COVID-19 RCCE with local community target audiences.*" **(KII, Hospital COVID-19 RRT focal, 42 years old,)**

Sub-theme 3:- Extension of Government and Private mass media with miss utilization

Category 1.Un affordability to mass media

The majority of participants in the in-depth interviews described that, there were limited access to television and radio media among primary target audiences an affordable price.

A key interview participant mentioned that "*Majority of our catchment population do not have electricity, even those residents of town with electricity access do not have TV media because they do not afford to buy it"***(KII, ZHD COVID-19 RRT member, 32 years old)**

Category 2. Inappropriate media utilization

The majority of participants in the in-depth interviews described that, current mass media utilization does not in line with health education principles.

A key interview participant mentioned that, *"Support of the media in creating awareness for the public health concerns is not confirmed through health education experts. Only journalists from their own general knowledge deliver information that is not in line with health communication objectives, for example on Asella Fana radio(FM 90.0) and Sude community radio(FM 103.5)"* **(KII, ZHD COVID-19 RRT member, 33 years old)**

A key interview participant mentioned that," *On the other hand, even clinician or medical doctors invited some times on media, HLMs messages do not framed or designed according to basic principles of strategic communication approach, they may tend to teach scientific knowledge rather than focusing on behavioral and environmental factors"***(KII, ZHD COVID-19 RRT member, 38 years old)**

Theme: 3 Expansions of technology and higher institutions

Sub-theme: 4 Growing access of mass media outlets

Category 1.Fast growing of modern electronic media technology

The majority of participants in the in-depth interviews described that, the recent growing information, communication and technology infrastructures, including the mobile and electronic media were an opportunities for utilization of HLMs for COVID-19 RCCE.

A key interview participant said that, *"If government effectively manages it, now day's mobile and others electronic media was found at ever body hands and home from children to elders, women to men, from rural to urban. Which leads to easily disseminate or access HLMs messages on COVID-19 RCCE starting from text messages, different types of social media like tick tock, you tube, face book, whats app, so on at individual and/or health sector system level."* **(KII, ZHD COVID-19 RRT member, 34 years old)**

Category 2. Community radio or television outlets and electronic media

The majority of participants in the in-depth interviews described that, increasing number of government and private community radio, television outlets to accommodate multiple languages was the opportunity for HLMs utilization for COVID-19 RCCE.

An key interview participant said that, "*Now days there are multiple opportunities to get and use government and private commercial mass media engaged on different HLMs messages regarding*

regarding to COVID-19 prevention measures by spot advertising, service promotion, health talks, community dialogue, and so on" **(KII, ZHD COVID-19 RRT focal, 40 years old)**

Sub-theme 5. Expansion of schools and universities

The majority of participants in the in-depth interviews described that expansion of educational institutions from kinder garden, schools, and universities helps to increment in health literacy directly or indirectly.

A key informant interview participant said that " *Recently both government and private sector lower educational institutions were increased which helps to increment in literacy levels of generations if using it appropriately it helps to reach every households with health learning messages of COVID-19 RCCE"***(KII, ZHD COVID-19 RRT focal, 37 years old)**

A key informant interview participant added that, "*The expansions of university with medical and health sciences stream can assist directly with consultancy and/or indirectly by conducting different types of public health research were used for health learning materials utilization on COVID-19 RCCE"* **(KII, ZHD COVID-19 RRT focal, 32 years old)**

Table 9: Themes and sub-themes on barriers and enablers for the HLMs utilization for COVID-19 RCE in Arsi Zone, 2021

Themes	Sub-themes
Inner organization (health system Barriers)	Health education human resource (professional staffing and structure, competency and skills)
	HLMs productions process (situational analysis, strategic design, create and pretest, implementing and monitoring, evaluation and re-planning)
Outer organization (non health sectors Barriers)	Perceptions about (abuse)missed utilization of mass media (lack of health communication profession involvement)
Expansions of Science and technology Enablers	Expansion of higher institutions(colleges, universities, etc)
	Growing technology (electronic media, social media, etc)

CHAPTER SIX.DISCUSSION

This study has provided many useful insights on health learning materials utilization based on data obtained from health workers and program experts in Arsi Zone. The prevalence rate of HLMs utilization for COVID-19 RCCE as well as the independent predictor for HLMs utilization was level of working facility, professional category, receiving health education course, receiving RCCE training, health workers perception on ability of building trust, having comprehension and acceptance of HLMs for COVID-19 RCCE among target audiences.

This study showed the prevalence of HLMs utilization was for COVID-19 RCCE 320 (60.4%). This result implies that the majority of the health workers use one or more HLMs during COVID-19 RCCE. However, this finding was a little lower than the study conducted in Jimma Zone, 206(68.0%) (26). The possible reason might be due to the difference in study situation COVID-19 outbreak public health emergency. The other possible reason for the difference might be due to sample size and study setting variation. The previous study was conducted on all health program HLMs materials, while this study conducted for only COVID-19 HLMs materials(48).

The finding of our study was also far lower than studies conducted in central part of the countries Addis Ababa(75.2%) (40), this may be due the difference of study population the previous study was conducted on student's primary audience of HLMs but the current study is conducted on health workers secondary audience. From the qualitative study findings majority of health workers had used HLMs for COVID-19 RCCE especially print materials poster, brochure, and leaflets.

In this study, health workers who are working in hospital used HLMs more than those who are working in PHCU. The possible explanation may be two hospitals were COVID-19 many health workers got RCCE training early start of outbreak and different stakeholders do assisted campaign with them than PHCU HWs. Arsi university Academic staff were support RCCE campaign mainly for its AUTH and Bekoji hospital by training and logistic supply.

A public health and medical doctor use HLMs for COVID-19 RCCE professional less than using health extension workers. The difference might be because of difference in professional responsibility as from HEWs public health and medical doctor were more responsible for management and clinical aspect.

Health workers who had received HE course and training of RCCE were more used HLMs for COVID-19 RCCE relative to HWs who had not received HE course did not received COVID-19 RCCE training. The possible explanation was because receiving HE course and training provide basic knowledge and importance of using HLMs when conducting RCCE during public health emergency than health workers who did not receiving HE course and Training on RCCE. This was in consistence from previous study done in Jimma, Ethiopia (26).The possible explanation was due to the fact that all Jimma zone health workers may receiving health education course than current study area. The other possible explanation was due to the fact that, participation or active involvement health education academician from Arsi university, Jimma university and Addis Ababa university for the Arsi Zone ,ORHB and MOH/EPHI respectively in training, consultancy resource center or health talk via national media mainstream.

Perception on HLMs for COVID-19 RCCEs' comprehension, acceptability, and building trust to ward health organization and public health authorities were more using HLMs than HWs who did not believe it.

Of the users the majority 305(95.3%) of them were utilized for posters COVID-19 RCCE. It is higher than study conducted in Jimma Zone 178(86.4%) (26). This difference might be the fact that state of COVID-19 pandemic special attention given for it from all over government structure while the previous study not an emergency.

The study revealed that only 264 (50.2%) of the study respondents reported that they had been engaged in the distribution of HLMs for COVID-19 RCCE at different settings and target audiences. Additionally, the existing RCCE strategy for COVID-19 RCCE distribution practice by health workers is not encouraging because of the setting for distribution of HLMs was not appropriate for specific target audiences. The possible reason may be there was no strategic implementation and evaluation of HLMs utilization for COVID-19 RCCE in Arsi Zone.

The study indicated that only 42.8 % of study respondents posting HLMs for COVID-19 RCCE. However only, study in Jimma Zone 11.3 % of study respondents engaged in public sound announcements for COVID-19 RCCE at different settings. This indicates that the trends of using audio spot for COVID-19 RCCE is low compared to printed media. The possible reason may be there was no sufficient audio spot in Arsi Zone that it was not produced at zonal health department, only health facility got from higher health office of ORHB and MOH Ethiopia.

CHAPTER SEVEN: STRENGTH AND LIMITATION

7.1. Strength of the study

- The primary strength of this study was that to the best of author's knowledge it is the first study conducted on HLMs perceived quality, usefulness utilization for COVID-19 risk communication and community engagement in Ethiopia.
- The next strength was the researchers' interest, health education and promotion background and more than ten working experience on specific program as focal person on health extension program , health education and public health emergency management co-coordinator.
- The study used to mixed method study, which is use to complement each other through study process to researching more depth of study findings.
- The study was used a new p-process model to develop questionnaire, interview guides and to adapt a conceptual framework used to identify predictors of HLMs utilization for COVID-19 RCCE.
- The study used principal component analysis (PCA) refined a precise measurement for analysis in logistic regression analysis its validity and reliability ensured before running multi variable logistic regression.

7.2. Limitation of the study

- HLMs utilization for COVID-19 RCCE assessment based on the health workers self-report that may lead to under or over-reporting of the utilization.
- A social desirability bias might also occur because people usually tend to over-report the interests of investigators.
- There is a limited study conducted on overall HLMs utilization for COVID-19 RCCE for that reason to compare with the other study findings.
- Observation of health learning materials for COVID-19 RCCE were not included in the report
- Knowledge and attitude of health workers to COVID-19 RCC HLMs were not directly measured
- Primary target audience means communities were not included in the study unit.

CHAPTER EIGHT: CONCLUSION AND RECOMMENDATION

8.1. Conclusion

The HLMs utilization for COVID-19 RCCE was low in this study. In addition, type of working health facility, receiving health education course, receiving COVID-19 RCCE training, perception on usefulness of HLMs for COVID-19 RCCE in building trust of target audiences, perception on quality of HLMs for COVID-19 RCCE in comprehension and acceptability of HLMs was the independent predictors for HLMs utilization for COVID-19 RCCE. Likewise, the qualitative study part identifies lack of appropriate health learning materials, unavailability, and shortage of mixed type of HLMs materials were factors affecting HLMs utilization for COVID-19 RCCE. Therefore, producing HLMs based up on evidence-based theory, research driven, with high quality of HLMs' comprehension and acceptable is highly important. HLMs produced for specific target audience must capable to build trust in public health authorities or health organization or government who produce HLMs among target audiences to bring behavioral change leades to COVID-19 prevention measures. In addition, there is a need for evaluating effectiveness and implementation of HLMs for COVID-19 RCCE. Lastly, focusing on mainstreaming health education and communication program, as a core under the mantle of health promotion and disease prevention in all health facilities for maximum impact is highly important.

8.2. Recommendation

Based on the above findings, the following recommendations forwarded**:**

- **To Ministry of Health/MOH/ORHB**
  - Should give due attention to recruit health promotion and communication professional to SBCC resource center.
  - Should give due attention on formative assessment, strategic design and pre-testing with specific target audiences.
  - Should conduct monitoring & evaluation of HLMs utilization for COVID-19 RCCE.
  - Should develop strategic plan for distribution of HLMs based on target audience preference
- **To University/Public health academicians**
  - Should assist health program experts in producing comprehensive, acceptable, and trusted HLMs for COVID-19 RCCE

- Should actively involved in providing health education course for HWs on of health education and HLMs
- Should actively involved in facilitating training on HLMs
- Should actively involved in conducting similar research on same thematic area of HLMs quality ,usefulness and utilization

❖ **For Arsi Zone health department**

- Should have a comprehensive distribution & monitor availability of HLMs.
- Should facilitate training for health workers participated on at all levels
- Should pre-test appropriateness of HLMs before distribution to lower health facility

❖ **For district health office**

- Should plan and provide training on HLMs for catchment HWs
- Should develop linkages and collaborations with different local authorities and groups who can help in distributing the HLMs

❖ **For Facility health worker**

- Should plan to use HLMs on the RCCE
- Should implement HLMs during RCCE
- Should evaluate and report HLMs during RCCE
- Should ask and fill mix of HLMs to their health facility

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ANNEXES

Annex I: English version of questionnaire and information sheet and consent form

DEPARTMENT OF HEALTH, BEHAVIOR AND SOCIETY

Questionnaire to assess health-learning materials (HLMs) perceived quality, usefulness, and utilization for COVID-19 risk communication and community engagement (RCCE) in Arsi Zone, Ethiopia.

Dear Sir/Madam,

My name is **Taye Debele**; I am here to collect data on health-learning materials (HLMs) perceived quality, usefulness, and utilization for COVID-19 risk communication and community engagement (RCCE) for the purpose of research. I assure you that whatever information you provide will only used for the purpose of this research and will not made available to anyone.

Therefore, I kindly request your honest and kind response to fill this survey questionnaire. Indeed, your participation is voluntarily. However, I highly value your participation and contribution at this critical time. It may take 20-30 minutes to fill the question. Your responses will be completely anonymous.

If you have any questions regarding to this research, contact Mr. Taye Debele

(Phone: +251910954078, email: taye.debele@gmail.com)

Date of interview	_____(dd/mm/yyyy)
Name of your health facility	_____

SECTION 1: BACKGROUND INFORMATION OF THE PARTICIPANTS

S.n	Variables	Response Options	*skip*
001	What is your age in completed years?	----------	
002	What is your sex?	1. Male 2. Female	
003	What is your religion affiliation?	1. Orthodox 2. Muslim 3. Protestant 4. Wakefata	
004	Ethnicity	1. Oromo 2. Amhara 3. Other(specify)	
005	What is your current marital status?	1. Single 2. Married 3. Divorced 4. Engaged	
006	Where is your place of residence?	1. Urban 2. Rural	
007	What is your monthly salary?	---------- ETB	
008	What is your current professional category?	1. Health extension worker 2. Environmental health 3. Nurse 4. Public health 5. Medical doctor 6. Pharmacy 7. Laboratory 8. Other(specify)	
09	What are your current educational qualifications?	1. Level I-IV(for HEWs) 2. Diploma 3. First Degree (BSc/BA) 4. Medical Doctor(GP) 5. Master degree 6. Other	
010	From which Institution did you graduate?	1. Government 2. Private	
011	Work experience (in year)	----------	
012	What is your current main working area/unit/room in your health facility?	1. Adult OPD 2. Under 5 OPD 3. IPD 4. Medical surgery 5. Obs/Gyn 6. MCH 7. Fistula room	

		8. Diabetics Mellitus 9. ART 10. TB room 11. Emergency 12. Pharmacy 13. Laboratory 14. Health post 15. Others(specify)	
013	Have you ever received health education course?	1. Yes 2. No	If 2 go #016
014	If 'yes' for #013 at what level you received health education course?	1. Technical and vocational (TVET) 2. College level 3. University level 4. Other(please, specify)	
015	Which types of HLMs for do you learn in health education course? (Please, circle all apply for your response)	1. Print materials 2. Audio 3. Audio-visual 4. Other(please specify)	
016	Have you received training on HLMs for COVID-19 RCCE?	1. Yes 2. No	If 2 go# 019
017	If 'yes' for #016 When did you receive training on HLMs for COVID-19 RCCE?	1. Within the last 3 month 2. Within the last 6 month 3. Within the last 9 month 4. Before this (a) year	
018	Which of the following type of HLMs for COVID-19 RCCE you had received training on?	1. Newsletter 2. Billboards 3. Roll Banner 4. Posters 5. Brochures 6. Flyers 7. Stickers 8. Audio spot/tapes 9. Audio visual spot/tapes 10. Other (specify)	
019	Did you get a chance to be involved as a target audience in any HLMs for COVID-19 RCCE pre-testing?	1. Yes 2. No	

SECTION 2: The following questions are respondents' exposure of health learning materials (HLMs) produced for COVID-19 risk communication and community engagement (RCCE)

S.No	Question	Multiple response is possible	Skip
101	What was your main source of HLMs for COVID-19 RCCE information about COVID-19 disease? (Please circle all apply to your answer)	1. Government Medias 2. Private Medias Local 3. International media 4. Official websites 5. Social Medias 6. Mobile text message 7. Mobile App/COVID-19 8. Other(specify)---------	
102	Which type of the following HLMs for COVID-19 RCCE you have exposure for? (Please circle all apply to your answer)	1. Newsletter 2. Billboards 3. Roll Banner 4. Posters 5. Brochures 6. Flyers 7. Stickers 8. Audio spot/tapes 9. Audio visual spot/tapes 10. Other (please, specify)	
103	Which of the following type of HLMs for COVID-19 RCCE do you know? (Please circle all apply to your answer)	1. Newsletter 2. Billboards 3. Roll Banner 4. Posters 5. Brochures 6. Flyers 7. Stickers 8. Audio spot/tapes 9. Audio visual tapes 10. Other (please specify)	
104	Where are your sources of printed, audio, and audio-visual HLMs for COVID-19 RCCE? (Please circle all apply to your answer)	1. Ministry of health /MOH 2. Ethiopian public health institute/EPHI 3. Oromia regional health bureau/ORHB 4. Donors (USAID,UNICEF,PSI) 5. Website 6. Arsi zonal health department 7. District health office 8. Other (please specify)	
105	Which website (sources) of HLMs for COVID-19 RCCE do you use commonly? (Please circle all apply to your answer)	1. WHO website 2. MOH website 3. EPHI website 4. ORHB website 5. USAID website 6. UNICEF website 7. PSI website	

		8. Other (specify)	
106	Where are plenty of HLMs for COVID-19 RCCE was had found? (Please circle all apply to your answer)	1. Zonal health department 2. District health offices 3. Hospitals 4. Health centers 5. Health posts 6. Schools 7. Religious setting 8. Market places 9. Streets and highways 10. Main bus stands 11. Leisure places/hotels 12. Other (specify)	
107	Which of the following type of HLMs produced for COVID-19 for RCCE are available in your health facility? (Please circle all apply to your answer)	1. Newsletter 2. Billboards 3. Roll Banner 4. Posters 5. Brochures 6. Flyers 7. Stickers 8. Audio spot/tapes 9. Audio visual spot/tapes 10. Others(specify)	
108	What were the common message contents of HLMs for COVID-19 RCCE in your area? (Please circle all apply to your answer)	1. How do you protect yourself from the disease? 2. Symptoms of the new corona-virus 3. How it is transmitted 4. What to do if they have the symptoms 5. Most at risk groups 6. How to treat it 7. How it spread 8. How to prevention it 9. How to truck rumors 10. How to respond rumors 11. How to prevent social stigma 12. How to prevent misinformation 13. The Importance of Immunization 14. Other (please specify)	
109	What messages do you need to hear/see by the health learning material for COVID-19 RCCE? (Please circle all apply to your answer)	1. Origin of COVID-19 2. Medication 3. Transmission of COVID-19 via animals 4. Other (Specify)	

SECTION 3: The following questions are respondents' utilization of health learning materials (HLMS) for COVID-19 risk communication and Community engagement (RCCE).

S.N	Question on utilization	Multiple response is possible	Skip
201	Did you use different types of health learning materials (HLMs) for COVID-19 RCCE?	1. Yes 2. No	If 2 go # 211
202	If 'yes' for #201, for How often did you use health learning material for COVID-19 RCCE?	1.Always 2.Sometimes 3.Occasionally	
203	Which types of health learning material (HLMs) for COVID-19 RCCE do you use? (Please circle for all apply)	1.Newsletter 2.Billboards 3.Roll Banner 4.Posters 5.Brochures 6.Flyers 7.Stickers 8.Audio spot/tapes 9.Audio visual spot/tapes 10. Others(specify)__	
204	For what purpose did you use health-learning material (HLMs) for COVID-19 RCCE? (Please circle all apply to your answer)	1.Patient education at health facility 2.Caregiver education at facility 3.Public education at different setting 4.Mass gathering education(CC) 5.Counseling 6.Training 7.Distributing 8.Posting/placements 9.Announcements 10. Other(Specify)	
205	Do you have to distribute printed health learning materials for COVID-19 RCCE?	1. Yes 2. No	If 2 go #207
206	If 'yes' for #205, where did you distribute printed HLMs for COVID-19 RCCE? (Please circle for all apply)	1.Distributing for patients 2.Distributing for caregivers 3.Distributing for hotels 4.Distributing at market 5.Distributing for prisoners 6.Distributing for schools 7.Distributing for bus station 8.Distributing for religious setting	
207	Did you post/fix printed health materials health-learning materials for COVID-19 RCCE?	1.Yes 2.No	If 2 go #209
208	If 'yes' for#207, where did you post/fix printed health	1.Posting at health facility 2.Posting at school	

	materials HLMs for COVID-19 RCCE? (Please circle for all apply)	3. Posting at market places 4. Fixing at main street	
209	Did you use audio HLMs for COVID-19 RCCE?	1. Yes 2. No	If 2 go# 211
210	If 'yes' for #209, where did you use audio HLMs for COVID-19 RCCE? (Please, circle for all apply)	1. Announcements at schools 2. Announcements at market 3. Announcements at health facility	
211	If 'no' for #201, Why did not use HLMs for COVID-19 RCCE? (Please circle all apply to your answer)	1. Unavailability of HLMs 2. Lack of appropriate HLMs 3. Time consuming 4. Other(specify)-----	
212	Do you have intention to use HLMs for COVID-19 RCCE in the future?	1. Yes 2. No	If 2 go # 214
213	If 'yes' for #212, Which type of HLMs for COVID-19 RCCE you intend to use? (Please circle all apply to your answer)	1. Newsletter 2. Billboards 3. Roll Banner 4. Posters 5. Brochures 6. Flyers 7. Stickers 8. Audio spot/tapes 9. Audio visual spot/tapes 10. Other(specify)_____	
214	If 'no' for #212, Why do not intend to use HLMs for COVID-19 RCCE? (Please circle all apply to your answer)	1. Unavailability of HLMs materials 2. Lack of appropriate HLMs materials 3. Time consuming 4. Other(specify)-----	

SECTION 4: PERCEIVED USEFULNESS

The following items are prepared to measure perceived usefulness of HLMs for COVID-19 RCCE. The response options are: Strongly Disagree (SDA)=1, Disagree(DA)=2, Neutral(N)=3, Agree (A)=4 and Strongly Agree (SA)=5. Please read each items and encircle to your answer among the given response options.

Perceived Usefulness: Is the perceptions of health care providers regarding the role/importance/benefits of health learning materials(HLMs) for COVID-19 RCCE						
	Items on Perceived Usefulness	Response options				
		SDA (1)	DA (2)	N (3)	A (4)	SA (5)
1	I perceive that HLMs for COVID-19 RCCE help to communicate risks about the pandemic	1	2	3	4	5
2	In my opinion, HLMs for COVID-19 RCCE help serves to improve skills on COVID-19 preventive measures	1	2	3	4	5
3	I perceive that HLMs for COVID-19 RCCE can able to supplementing messages presented verbally during interpersonal communications	1	2	3	4	5
4	I believe that HLMs for COVID-19 RCCE are help for the quick reach of information to the target populations	1	2	3	4	5
5	I think HLMs for COVID-19 RCCE enable to increase self-efficacy of the target audiences related to the pandemic	1	2	3	4	5
6	I think HLMs for COVID-19 RCCE raising public awareness about COVID-19 prevention and control	1	2	3	4	5
7	To my thinking, HLMs for COVID-19 RCCE are tailored to the needs of specific target populations	1	2	3	4	5
8	In my opinion, HLMs for COVID-19 RCCE are provide detailed facts about COVID-19	1	2	3	4	5
9	I think that HLMs for COVID-19 RCCE helps to counteract rumors and reduce fears related to the pandemic	1	2	3	4	5
10	I think that HLMs for COVID-19 RCCE solve doubts and misconceptions about the pandemic	1	2	3	4	5
11	I think HLMs for COVID-19 RCCE has a significant effect in reducing the crisis of the pandemic	1	2	3	4	5
12	In my opinion, HLMs for COVID-19 RCCE allows users to review and think about messages in private	1	2	3	4	5
13	I think that HLMs for COVID-19 RCCE can able to reduce stigma and discrimination related to the pandemic	1	2	3	4	5

14	I think that HLMs for COVID-19 RCCE reduces costs related to the pandemic	1	2	3	4	5
15	I believe that HLMs for COVID-19 RCCE are helpful reminders for key messages about the pandemic	1	2	3	4	5
16	In my opinion, HLMs for COVID-19 RCCE assist to stimulate/ mobilizing the community for the prevention and control of the pandemic	1	2	3	4	5
17	I believe that HLMs for COVID-19 RCCE encourage the target audiences comply with COVID-19 preventive and control measures	1	2	3	4	5
18	I perceive that COVID-19 HLMs for COVID-19 RCCE has the benefits of complying with COVID-19 preventive and control measures	1	2	3	4	5

SECTION 5: PERCEIVED QUALITY

Perceived comprehensiveness: The following items **(Q: 1-15**) are prepared to measure perceived comprehensiveness of HLMs for COVID-19 RCCE. The response options are: Strongly Disagree (SDA)=1, Disagree(DA)=2, Neutral(N)=3, Agree (A)=4 and Strongly Agree (SA)=5. Please read each items and encircle to your answer among the given response options.

Perceived comprehensiveness: is characterized as the extent to which health workers perceive about HLMs for COVID-19 RCCE are clear and understandable without ambiguity or noise by target audiences to increase knowledge and change behavior that help to COVID-19 prevention and control.

	Items on comprehensiveness	Response options				
		SDA (1)	DA (2)	N (3)	A (4)	SA (5)
1	HLMs for COVID-19 RCCE have simple messages to the target audiences	1	2	3	4	5
2	HLMs for COVID-19 RCCE contain jargon words or medical terms which are difficult to understand	1	2	3	4	5
3	The messages of HLMs for COVID-19 RCCE are complete/convey full message/ and consistent	1	2	3	4	5
4	HLMs for COVID-19 RCCE had long slogans that lead to difficulty of reading	1	2	3	4	5
5	The HLMs for COVID-19 RCCE are consistent /chronologically sequenced	1	2	3	4	5
6	HLMs for COVID-19 RCCE have accurate messages	1	2	3	4	5
7	The massages of HLMs for COVID-19 RCCE have appropriate size to be easily read	1	2	3	4	5
8	The pictures of HLMs for COVID-19 RCCE have no appropriate size to be easily seen	1	2	3	4	5
9	The massages of HLMs for COVID-19 RCCE have appropriate space to be easily read	1	2	3	4	5

10	The pictures of HLMs for COVID-19 RCCE are easily understandable by target audience	1	2	3	4	5
11	HLMs for COVID-19 RCCE had one message per illustration	1	2	3	4	5
12	The pictures and illustrations of HLMs for COVID-19 RCCE are not matched with text words	1	2	3	4	5
13	HLMs for COVID-19 RCCE contain main message which is easily understandable	1	2	3	4	5
14	The messages of HLMs for COVID-19 RCCE are fact based or up-to-dated information	1	2	3	4	5
15	The message of HLMs for COVID-19 RCCE are written/spoken with active voice	1	2	3	4	5

Perceived Attractiveness: The following items **(Q: 16-24)** are prepared to measure perceived Attractiveness of HLMs for COVID-19 RCCE. The response options are: Strongly Disagree (SDA)=1, Disagree(DA)=2, Neutral(N)=3, Agree (A)=4 and Strongly Agree (SA)=5. Please read each items and encircle to your answer among the given response options.

Perceived Attractiveness: is the perceptions of health care providers regarding the how the visuals color and illustrations of the materials catch the attention of the target audiences						
s. n	Items on perceived Attractiveness	Response options				
		SDA (1)	DA (2)	N (3)	A (4)	SA (5)
16	The messages of HLMs for COVID-19 RCCE are able to catch the attention of target audiences	1	2	3	4	5
17	The pictures of HLMs for COVID-19 RCCE are interesting to target audiences	1	2	3	4	5
18	The background and illustrations of HLMs for COVID-19 RCCE are not attractive to the target audiences	1	2	3	4	5
19	The color of HLMs for COVID-19 RCCE is pleasing to the eyes of target audiences	1	2	3	4	5
20	The presentation style HLMs for COVID-19 RCCE are able to catch attention of the target audiences	1	2	3	4	5
21	The illumination of HLMs for COVID-19 RCCE is able to attract the attention of the target audiences	1	2	3	4	5
22	The animation of audiovisual HLMs for COVID-19 RCCE is not able to commands the attention of the target audiences	1	2	3	4	5
23	The layout HLMs for COVID-19 RCCE are eye catching	1	2	3	4	5
24	The HLMs for COVID-19 RCCE are enjoyable to the target audiences	1	2	3	4	5

C/Perceived Acceptability: The following items **(Q: 25-34)** are prepared to measure perceived acceptability of HLMs for COVID-19 RCCE. The response options are: Strongly Disagree (SDA)=1, Disagree(DA)=2, Neutral(N)=3, Agree (A)=4 and Strongly Agree (SA)=5. Please read each items and encircle to your answer among the given response options.

Perceived acceptability: is the perceptions of health care providers on the texts, pictures/illustrations of HLMs for COVID-19 RCCE are trusted, believable, and/or lack of discord among the target audiences						
S.n	Items on Perceived acceptability	Response options				
		SDA (1)	DA (2)	N (3)	A (4)	SA (5)
25	HLMs for COVID-19 RCCE had words unknown/uncommon to the target audiences	1	2	3	4	5
26	In my opinion, the messages of HLMs for COVID-19 RCCE are credible/ trusted by the target audiences	1	2	3	4	5
27	HLMs for COVID-19 RCCE had no sensitive words to the target audiences	1	2	3	4	5
28	The messages of HLMs for COVID-19 RCCE generates discord among the target audience	1	2	3	4	5
29	The pictures of HLMs for COVID-19 RCCE generates discord among the target audiences	1	2	3	4	5
30	The HLMs for COVID-19 RCCE have no offensive pictures to the target audiences	1	2	3	4	5
31	The colors HLMs for COVID-19 RCCE are culturally acceptable by the target audiences	1	2	3	4	5
32	The illustrations of HLMs for COVID-19 RCCE are culturally acceptable by the target audiences	1	2	3	4	5
33	The presentation styles (e.g. tone) of HLMs for COVID-19 RCCE are appropriate to the preferences of the target audience	1	2	3	4	5
34	The HLMs for COVID-19 RCCE were valued by many of the target audiences	1	2	3	4	5

D) **Perceived Involvement:** The following items **(Q: 35-43)** are prepared to measure perceived involvement of HLMs for COVID-19 RCCE. The response options are: Strongly Disagree (SDA)=1, Disagree(DA)=2, Neutral(N)=3, Agree (A)=4 and Strongly Agree (SA)=5.Please read each items and encircle to your answer among the given response options

Perceived Involvement: is the health care providers' perception on the health learning material for COVID-19 RCCE that the target audiences can identify with the materials and recognize that message is meant for them or directed toward them						
s.n	Items on perceived Involvement	Response options				
		SDA (1)	DA (2)	N (3)	A (4)	SA (5)
35	I think the target audiences are able to understand HLMs for COVID-19 RCCE are speaking them	1	2	3	4	5
36	HLMs for COVID-19 RCCE were not prepared by local language of the target audiences	1	2	3	4	5
37	HLMs for COVID-19 RCCE are free from meaning error in local context	1	2	3	4	5
38	The messages of HLMs for COVID-19 RCCE do not directed toward the target audiences	1	2	3	4	5

39	The pictures of HLMs for COVID-19 RCCE are directed toward the target audiences	1	2	3	4	5
40	The signs and symbols used in HLMs for COVID-19 RCCE relevant to the target audiences	1	2	3	4	5
41	The illustrations of HLMs for COVID-19 RCCE do not relate to the real life of the target audiences	1	2	3	4	5
42	The messages of HLMs for COVID-19 RCCE are able to catch the heart/emotion of target audience	1	2	3	4	5
43	The picture of HLMs for COVID-19 RCCE is able to catch the heart/emotion of target audience	1	2	3	4	5

E**) Perceived Call to Action**: The following items **(Q: 44-51)** are prepared to measure perceived call to action of HLMs for COVID-19 RCCE. The response options are: Strongly Disagree (SDA)=1, Disagree(DA)=2, Neutral(N)=3, Agree (A)=4 and Strongly Agree (SA)=5. Please read each items and encircle to your answer among the given response options.

Perceived Call to action: is the health care providers' perception on the HLMs for COVID-19 RCCE that the target audiences clearly understand what the materials and messages want the target audience to do or to carry out a particular action.

s. n	Items on perceived Call to action	Response options				
		SDA (1)	DA (2)	N (3)	A (4)	SA (5)
44	The messages HLMs for COVID-19 RCCE explicitly stated the action that audiences could do or do not do	1	2	3	4	5
45	The images/pictures of HLMs material for COVID-19 RCCE clearly showed the target audiences to do or cease a particular action	1	2	3	4	5
46	HLMs for COVID-19 RCCE transmit messages that are not feasible for most of the target audiences to carry out	1	2	3	4	5
47	HLMs for COVID-19 RCCE convey messages that increase awareness of the target audiences	1	2	3	4	5
48	HLMs for COVID-19 RCCE convey messages that solve rumors/false perceptions	1	2	3	4	5
49	HLMs for COVID-19 RCCE not able to motivate or induce the target audience to carry out or cease a particular action	1	2	3	4	5
50	HLMs for COVID-19 RCCE inform the target audiences about the benefits of taking measures	1	2	3	4	5
51	HLMs for COVID-19 RCCE help the target audiences to address barriers/put options	1	2	3	4	5

SECTION 6: PERCEIVED ADEQUACY: The following items are prepared to measure perceived adequacy of HLMs for COVID-19 RCCE. The response options are: Strongly Disagree (SDA)=1, Disagree(DA)=2, Neutral(N)=3, Agree (A)=4 and Strongly Agree (SA)=5. Please read each items and encircle to your answer among the given response options.

Perceived adequacy: The extent to which available HLMs for COVID-19 RCCE, looks enough

to convey messages that can increase knowledge and change behavior of the primary audience on COVID-19 prevention and control						
	Items on perceived adequacy	Response options				
		SDA (1)	DA (2)	N (3)	A (4)	SA (5)
1	HLMs for COVID-19 RCCE are effectively reaching to the target audiences	1	2	3	4	5
2	The target audiences are able to access HLMs for COVID-19 RCCE at any time they want	1	2	3	4	5
3	Printed HLMs for COVID-19 RCCE are posted ever where of the public gathering/meeting	1	2	3	4	5
4	HLMs for COVID-19 RCCE are disseminating throughout multiple channels considering the target audiences	1	2	3	4	5
5	Audio/Videos HLMs for COVID-19 RCCE are frequently transmitted considering the lifestyle of the target audiences	1	2	3	4	5
6	HLMs for COVID-19 RCCE were timely disseminate to target audiences	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATION!

Part II. English version, qualitative interview guide for health workers

I: Background information

Age	Sex	Educational level	Profession	Health facility	Working Ward/OPD

II: Guiding Questions

1. Would you tell me any health learning materials you know? ***Probe***: Can be from printed Media? Audio/audiovisuals? Folk media?

2. Please tell me available health learning materials in your institution/ in your working clinic/ward? **Probe** by saying others?

3. In what areas the materials were produced? **Probe** by saying others? Availability of health learning materials on covid-19? Type?

4. How do you perceive the usefulness of health learning materials? **Probe**: Assisting learning? Solving rumors, erroneous information, fear, and anxiety? Quickly reaching information to the target audiences? Frequency/dose of information? Communicating risks? Engaging population? Changing beliefs, perceptions, and feelings related to certain issues? Encouraging appropriate behaviors? Etc. would you explain your idea with examples? What about health learning materials on Covid-19?

5. How do you think the quality of the produced health learning materials?

A. How do you think about the quality of printed health learning materials? **Probe**: Clarity, accuracy, and simplicity of messages? Consideration of local language? Fact-based? The attractiveness of attention/ Eye-catching? Consideration of literacy level of the target audience? Readability? Call to action/ recommendations for the primary audience? Chronological sequences of messages? Motive/ inviting illustrations and texts? Colors and their meaning in the setting? Pictures used versus target audience culture? Cultural sensitivity of words, symbols, or signs? Matching of words with pictures? Would you please explain your ideas with examples? What about COVID-19?

B. How do you think the quality of Audio/Audio-visual health learning materials? **Probe**: loudness? Speed of delivery? Length of delivery, silence? Attentiveness and time to respond to an other's point? Tone? Rhythm? Illumination? Animation?) Would you please explain your ideas with examples? What about Covid-19?

C. Do the folk media produced on health issues in your area? How do you think their qualities and usefulness?

6. When do you or your colleagues use health learning materials? **Probe**: Individual counseling? Group learning/discussion? Conferences? Campaigns? Outreach activities? Posted? Individually dispensed for the audiences? Would you please explain your ideas with examples? What about COVID-19?

7. Evidence indicated that some health care providers use health learning materials while others do not. In addition, they are regularly/routinely used in some areas but not in other areas.

A. What do you think the reasons that make some health care providers use health learning materials regularly/routinely? What are the enablers? **Probe** by saying other reasons? How/why? Would you please explain your ideas with examples? What about Covid-19?

B. What do you think the reasons that make some health care providers not use health learning materials during their routine activities? What are the barriers/challenges? **Probe** by saying other reasons? How/why? Would you please explain your ideas with examples? What about COVID-19?

8. What are your suggestions/recommendations on health learning materials for the future? **Probe**: Can be related to quality? Utilization? Access?

THANK YOU FOR YOUR PARTICIPATION!!!!

Interview Guide for Health Learning Materials production Process

I: Background information of the participant

Age	Sex	Educational level	Profession	Working facility	Position

II: Guiding questions

1. In what areas you have produced Health learning materials?

2. Have you ever produced Health learning materials related to COVID-19? Probe: Can be printed media, Mass media, or even Folk media

3. Would you please tell me the processes/steps you follow during the production of health learning materials?

4. What analysis/assessment you conduct before starting the draft message and materials? Probe: Understanding the nature of the health issue/problem? Barriers to change? Potential audiences? Existing program policies? Resources? SWOT? Existing Health learning materials? Etc

5. What are the points you consider during target audience identifications and descriptions? Probe: stage of behavior change? Demographic factors? Geographic factors? Cultural factors? Psychological factors? Would you tell me your experience with examples?

6. Who you involve in material production? Probe: experts? Target audiences? Would you tell me your experience with examples?

7. Do you set primary communication objectives of health learning materials before starting production? Probe: Would you tell me your experience with examples?

8. Do you set an action plan for health learning materials before starting production? Probe: Would you tell me your experience with examples?

9. Do you consider creative brief during the health learning material production process? Probe: What components need to be addressed in the creative brief? Would you tell me your experience with examples?

10. How you decide the type of health learning materials produced? Probe: Applicability, Easy to use, Reading level, Ease of obtaining, Cost, real needs and problems are facing the target audience? Reaches Dose effect? Culture? Past experiences of a community. Channel preference of community? Stages of behavior adoption? Nature of message Production time constraints? Etc. would you tell me your experience with examples?

11. What are the points you consider during messages and material development/design?

I) what are the points you consider regarding Text? Probe: Simplicity and concise of words? Slogan (Short/ bulleted lists versus long narrations?), syllabic make-up of words? Syntax? Conjugation? Spelling? Active voice versus passive voice? Open white space? Message tone/appeals? The attractiveness of attention? Consideration of different versions? Language of the target audience? A type style? Size of words or slogan? The use of boldface/underlining versus all upper cases? Use numerals versus spelled numbers? Avoidance of jargon or abbreviations? The literacy level of the target audience? Completeness, consistency, and Accuracy of content? Consideration of importance of points (need to know, want to know, and nice to know?) Up-to-date information/fact-based Call to action/ recommendations for the primary audience? Importance of recommendations? How to perform the behavior? Would you please explain your ideas with examples?

II) What are the points you consider regarding Design/Layout? Probe: Message per illustration? A several concepts/pages per material? Idea per paragraph? White space? Chronological sequences of messages? Page numbers? Motive/ inviting illustrations and texts? Would you please explain your ideas with examples?

III) What are the points you consider regarding Illustrations? Probe: Do visuals, photographs, and images correspond with the message? The simplicity of illustrations Colors and their meaning in the setting? Pictures used versus target audience culture? Other objects in illustrations (e.g. wearing clothes, setting, etc) versus cultural context of the audience? Realistic illustrations? Appropriateness of symbols used? The positive messages versus negative messages with the "X" symbol? Sufficiently distinct from its background? EyecatchingVersions of the illustration or photograph? Inclusion of authors' names? Publication date? Organization/Funders? Would you please explain your ideas with examples?

IV) What are the points you consider regarding Audio/Audio-visual? Probe: loudness? Speed of delivery? Length of delivery, silence? Attentiveness and time to respond to another's point? Tone? Rhythm? Movement? Action? Illumination? Animation?

12. What are your experience in conducting pre-testing of messages and materials? Probe: What you test for? Why you conduct- test? To whom does it need to be tested? Where do you conduct pre-testing (in-house pre-testing? Field pre-testing?) How many people do you involve in pre-testing? How you select them? What interview methods you use during pre-testing? Who will conduct the pre-test? What type of tool you use and from where you get the pre-testing tools?

What are the main components of tools you use during pre-testing (competitiveness? Readability? Attractiveness? Acceptability? Involvement? Quality of illustrations? Cultural sensitivity of words, symbols, or signs? Inducement?) What are you going to do with the results (rejection/acceptance) and how you interpret ideas with examples?

I) Do you ask participants questions about messages like what do the words mean to them? Clarity and compelling? Unintended messages? Matching of words with pictures? How do they feel about words? Anything missing from texts? Required modifications? Would you please explain your ideas with examples?

II) Do you ask participants questions about pictures like what do you see? What do the pictures mean? Anything they are telling? How do you feel about the pictures? Un-clarities about the pictures? Proposed changes needed? Would you please explain your ideas with examples?

13. How do you explain the implementation of the materials you produce? Probe: How you distribute? Planning distribution strategies? Setting up distribution networks? Confirming utilization of produced materials. Would you please explain your ideas with examples?

14. How you explain the monitoring and evaluation health learning materials you produce.

I) what to monitor? Probe: Where Health learning Materials posted/put? Training sessions? Advocacy meetings? Frequency/Number of spots aired? Reaches? Dissemination? Utilization of health materials? Would you please explain your ideas with examples?

II) How you monitor? Probe: Observations, exit interviews, record reviews, use of reporting forms? Regular audits of materials at distribution points? Listening to broadcasts to ensure media messages are aired at the contracted hours? Regular field trips to health facilities to check on the availability of health learning materials? Etc. would you please explain your ideas with examples?

III) What you evaluate? Probe: When to use the materials (during Individual counseling? Large group discussion? Conferences? Campaigns?) Outcome? Impact on audiences? Effective distribution? Etc. would you please explain your ideas with examples?

IV) How you evaluate? Probe: Interview? Group discussions? Observation of health workers and program administrators? Attend a clinic posing as a client? Observation of clients practicing a new behavior? Distribution and placement? Would you please explain your ideas with examples?

15/What are the barriers/ challenges during the production of health learning material? What about for during COVID-19 RCCE? ***THANK YOU FOR YOUR PARTICIPATION!!!!***

Annex II: Amharic version of questionnaire, information and consent form

Part I. Amharic version, quantitative questionnaire

ጅማ ዩኒቨርሲቲ

የጤና ትምህርት ፡ ስነ-ባህሪያት እና ማህበረሰብ ክፍል

በኢትዮጵያ የኦሮሚያ ክልል በአርሲ ዞን ለ COVID-19 ስጋት ተግባቦት የጤና መማሪያ ቁሳቁሶችን የማዘጋጃ ሂደት፤ ጠቃሚነት እና አጠቃቀምን የሚዳስስ መጠይቅ ነዉ፡፡

ውድ ክቡር አቶ/ እመቤት !

ስሜ ታዬ ደበሌ እባላለሁ እኔ በጤና ትምህርት ቁሳቁሶች የማምረት ሂደት ጠቃሚ ጠቀሜታ እና ለኮቪድ -19 ተጋላጭነት ግንዙነት መረጃን ለመሰብሰብ እዚህ የመጣሁት በኦሮሚያ ክልል ፣ኢትዮጵያ ለምርምር ነው። የምታቀርቡት ማንኛውም መረጃ ለዚህ ምርምር ብቻ የሚውል እና ለማንም የማይቀርብ መሆኑን አረጋግጣለሁ። ስለዚህ ፣ ይህንን የዳሰሳ ጥናት መጠይቅ ለመሙላት ሐቀኛ እና ደግ ምላሽዎን በትህትና እጠይቃለሁ። በእርግጥ የእርስዎ ተሳትፎ በፈቃደኝነት ነው። ነገር ግን በዚህ ወሳኝ ጊዜ ውስጥ የእርስዎን ተሳትፎ እና አስተዋፅኦ ከፍ አድርጌ እመለከተዋለሁ። መጠይቁን ለመሙላት ከ20-30 ደቂቃዎች ሊወስድ ይችላል። የእርስዎ ምላሾች ሙሉ በሙሉ ስም -አልባ ይሆናሉ።

ይህንን ምርምር በተመለከተ ማንኛውም ጥያቄ ካለዎት አቶ ታዬ ደበሌን ያነጋግሩ

የቃለ መጠይቅ ቀን _____ **(ቀን/ሚሜ/ዓመት)**

የጤና ተቋምዎ ስም _____

(Phone: +251910954078, email: taye.debele@gmail.com)

ክፍል 1 - የተሳታፊዎች ዳራ መረጃ

S.N	ተለዋዋጮች	የምላሽ አማራጮች	ዝለል
001	በተጠናቀቁ ዓመታት ውስጥ ዕድሜዎ ስንት ነው?	----------	
002	ፆታ ምንድነው?	1.ወንድ 2.ሴት	
003	የሃይማኖታዊ ትስስርዎ ምንድነው?	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ዋቀፋታ	
004	ጎሳ	1.ኦሮሞ 2.አማራ 3.ሌላ (ይግለጹ)	
005	የአሁኑ የጋብቻ ሁኔታዎ ምንድነው?	1.ነጠላ 2.አግብቷል 3.የተፋታ 4.በግንኙነት	
006	የመኖሪያ ቦታዎ የት ነው?	1.ከተማ 2.ገጠር	
007	ወርሃዊ ደመወዝዎ ምንድነው?	---------- ብር	
008	የአሁኑ የሙያ ምድብዎ ምንድነው?	1.የጤና ኤክስቴንሽን ሰራተኛ 2.የአካባቢ ጤና 3.ነርስ 4.የህዝብ ጤና 5.የሕክምና ዶክተር 6.ፋርማሲ 7.ላቦራቶሪ 8.ሌላ (ይግለጹ)	
09	የአሁኑ የትምህርት ምድብዎ ምንድነው?	1.ደረጃ I-IV (ጤና ኤክስቴሽን) 2.ዲፕሎማ 3.የመጀመሪያ ዲግሪ (BSc/BA) 4.የሕክምና ዶክተር (ጂፒ) 5.የማስተርስ ዲግሪ 6.ሌላ	
010	ከየትኛው ተቋም ተመርቀዋል?	1.መንግስት 2.የግል	

011	የሥራ ልምድ	----------(በዓመት)	
012	በጤና ተቋምዎ ውስጥ የአሁኑ ዋና የሥራ ቦታ/ክፍል/ክፍልዎ ምንድነው?	1.የአዋቂ መታከሚያ ክፍል 2.ከአምስት አመት በታች ክፍል 3.ተኝቶ መታከሚየ ክፍል 4.ቀዶ ጥገናሕክምና ክፍል 5.አቢ/ጋይን ክፍል 6. እናቶች ህፃናት መታከምያ ክፍል 7.ፊስቱላ ክፍል 8.ስኳር ህመምተኞች ክፍል 9.ኤች፣አይ.ቪ ክፍል 10.የቲቢ ክፍል 11.ድንገተኛ ክፍል 12.ፋርማሲ ክፍል 13.ላቦራቶሪ ክፍል 14.ጤና ኬላ 15.ሌሎች (ይግለጹ)	
013	የጤና ትምህርት ኮርስ አግኝተው ያውቃሉ?	1. አዎ 2. አይደለም	2 ከሆነ ወደ ቁ016 ሀድ
014	ለ #013 ‹አዎ› ከሆነ የጤና ትምህርት ኮርስ በምን ደረጃ ላይ ነዎት?	1.ቴክኒክ እና ሙያ (ቲቪቲ) 2.የኮሌጅ ደረጃ 3.የዩኒቨርሲቲ ደረጃ 4.ሌላ (እባክዎን ይግለጹ)	
015	በጤና ትምህርት ኮርሶች ውስጥ የትኞቹ የጤና ትምህርት ቁሳቁሶች ይማራሉ? (እባክዎን ለሁሉም ክበብ ለምላሽዎ ያመልክቱ)	1.የህትመት ቁሳቁሶች 2.ኦዲዮ 3.ኦዲዮ-ቪዥዋል 4.ሌላ (እባክዎን ይግለጹ)	
016	ለኮቪድ -19 ተጋላጭነት ግንኙነት በተመረቱ የጤና ትምህርት ቁሳቁሶች ላይ ስልጠና ወስደዋል?	1.አዎ 2.አይደለም	አይ ከሆነ ወደ ቁ019 ሀድ
017	ለ #016 ‹አዎ› ከሆነ ለኮቪድ -19 ግንኙነት በሚዘጋጁ የጤና ትምህርት ቁሳቁሶች ላይ ስልጠና ወሰዱ?	1.ባለፉት 3 ወራት ውስጥ 2.ባለፉት 6 ወራት ውስጥ 3.ባለፉት 9 ወራት ውስጥ 4.ከዚህ (ሀ) ዓመት በፊት	

018	ስልጠና ለወሰዱበት ለ COVID-19 የአደገኛ ግንኙነት ከሚከተሉት የጤና ትምህርት ቁሳቁሶች የትኛው ነው?	1. ጋዜጣ 2. የማስታወቂያ ሰሌዳዎች 3. የጥቅል ሰንደቅ 4. ፖስተሮች 5. ብሮሹሮች 6. በራሪ ወረቀቶች 7. ተለጣፊዎች 8. የድምጽ ቦታ/ካሴቶች 9. ኦዲዮቪዥዋል ቦታ/ካሴቶች 10. ሌላ (ይግለጹ)	
019	በማንኛውም የጤና ትምህርት ቁሳቁሶች ቅድመ-ሙከራ ውስጥ እንደ ዒላማ ታዳሚ የመሳተፍ ዕድል አግኝተዋል?	1. አዎ 2. አይደለም	

ክፍል 2-የሚከተሉት ጥያቄዎች ለ COVID-19 ተጋላጭነት ግንኙነት የተመረቱ የጤና ትምህርት ቁሳቁሶች ምላሽ ሰጪዎች ተጋላጭ ናቸው

ተ.ቁ	ጥያቄዎች	በርካታ ምላሾች ይቻላል	ዝለል
101	ስለ COVID-19 በሽታ ዋናው መረጃዎ ምን ነበር? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1.የመንግስት ሚዲያዎች 2.የግል ሚዲያዎች 3.የአከባቢ ምንጭ 4.ዓለም አቀፍ ሚዲያዎች 5.ኦፊሴላዊ ድር ጣቢያዎች 6.ማህበራዊ ሚዲያዎች 7.የሞባይል የጽሑፍ መልዕክት 8.የሞባይል አፕ/ኮቪድ -19 9.ሌላ (ይግለጹ) ----------	

102	ለየትኛው የሚከተሉት የጤና ትምህርት ቁሳቁሶች መጋለጥ አለብዎት? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1.ጋዜጣ 2.የማስታወቂያ ሰሌዳዎች 3.የጥቅል ሰንደቅ 4.ፖስተሮች 5.ብሮሹሮች 6.በራሪ ወረቀቶች 7.ተለጣፊዎች 8.የድምጽ ቦታ/ካሴቶች 9 አዲዮ የእይታ ቦታ/ካሴቶች 10.ሌላ (እባክዎን ይግለጹ)	
103	ለኮቪድ -19 ለአደጋ ተጋላጭነት ከሚከተሉት የጤና ትምህርት ቁሳቁሶች የትኛውን ያውቃሉ? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1.ጋዜጣ 2.የማስታወቂያ ሰሌዳዎች 3.የጥቅል ሰንደቅ 4.ፖስተሮች 5.ብሮሹሮች 6.በራሪ ወረቀቶች 7.ተለጣፊዎች 8.የድምጽ ቦታ/ካሴቶች 9 አዲዮ የእይታ ቦታ/ካሴቶች 10.ሌላ (እባክዎን ይግለጹ)	
104	ለኮቪድ -19 አደጋ ግንኙነት የታተሙ ፣ የአዲዮ እና የአዲዮ-ቪዥዋል የጤና ትምህርት ቁሳቁሶች ምንጮችዎ የት አለ? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1. የጤና ጥበቃ ሚኒስቴር /MOH 2. የኢትዮጵያ የህብረተሰብ ጤና ኢንስቲትዩት/ኢፊ 3. የኦሮሚያ ክልል ጤና ቢሮ/ኦህዴድ 4. ለጋሾች (ዩኤስኤአይዲ ፣ ዩኒሴፍ ፣ ፒሲአይ) 5. ድር ጣቢያ 6. የአርሲ ዞን ጤና መምሪያ	

		7. የወረዳ ጤና ጽ / ቤት 8. ሌላ (እባክዎን ይግለጹ)	
105	ለኮቪድ -19 ተጋላጭነት ግንኙነት የሚጠቀሙት የትኛው ድር ጣቢያ (ምንጮች) የጤና ትምህርት ቁሳቁሶች ናቸው? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1. የዓለም ጤና ድርጅት ድርጣቢያ 2. MOH ድር ጣቢያ 3. EPHI ድር ጣቢያ 4. ORHB ድር ጣቢያ 5. USAID ድር ጣቢያ 6. ዩኒሴፍ ድረ ገጽ 7. የ PSI ድር ጣቢያ 8. ሌላ (ይግለጹ)	
106	ለኮቪድ -19 ተጋላጭነት መገናኛ ብዙ የጤና ትምህርት ቁሳቁሶች ነበሩ? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1. የዞን ጤና መምሪያ 2. የወረዳ ጤና ጽ / ቤቶች 3. ሆስፒታሎች 4. የጤና ማዕከላት 5. የጤና ልጥፎች 6. ትምህርት ቤቶች 7. ሃይማኖታዊ መቼት 8. የገበያ ቦታዎች 9. ጎዳናዎች እና አውራ ጎዳናዎች 10. የአውቶቡስ ማቆሚያዎች 11. የመዝናኛ ቦታዎች/ሆቴሎች 12. ሌላ (ይግለጹ) _____	
107	ለአደጋ ተጋላጭነት ለኮቪድ -19 የሚመረቱ ከሚከተሉት የጤና ትምህርት ቁሳቁሶች መካከል በጤና ተቋምዎ ወይም በተፋሰስ አካባቢዎ ውስጥ የትኛው ነው?	1.ጋዜጣ 2.የማስታወቂያ ሰሌዳዎች 3.የጥቅል ሰንደቅ 4.ፖስተሮች 5.ብሮሹሮች 6.በራሪ ወረቀቶች	

	(እባክዎን መልስዎን በሙሉ ይተግብሩ)	7.ተለጣፊዎች 8.የድምጽ ቦታ/ካሴቶች 9 አዲዮ የእይታ ቦታ/ካሴቶች 10. ሌላ (እባክዎን ይግለጹ)	
108	በክልልዎ ውስጥ ለ COVID-19 አደጋ ግንኙነት የሚመረቱ የጤና ትምህርት ቁሳቁሶች የተለመዱ የመልእክት ይዘቶች ምን ነበሩ? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1. ከበሽታው እንዴት መከላከል ይቻላል? 2. የአዲሱ የኮሮና ቫይረስ ምልክቶች 3. እንዴት እንደሚተላለፍ 4. ምልክቶቹ ከታዩ ምን ማድረግ እንዳለባቸው 5. አብዛኛዎቹ ለአደጋ የተጋለጡ ቡድኖች 6. እንዴት እንደሚታከም 6. እንዴት እንደሚሰራጭ 7. እንዴት መከላከል እንደሚቻል 8. ወሬዎችን እንዴት እንደሚጭኑ 9. ወሬዎችን እንዴት እንደሚመልሱ 10. ማህበራዊ መገለልን እንዴት መከላከል እንደሚቻል 11. የተሳሳተ መረጃን እንዴት መከላከል እንደሚቻ 12. የክትባት አስፈላጊነት 13. ሌላ (እባክዎን ይግለጹ)	
109	ለኮቪድ -19 አደጋ ግንኙነት በተዘጋጁት የጤና ትምህርት ቁሳቁሶች ምን ዓይነት መልእክቶች ይተላለፋሉ ብለው ይጠብቃሉ?	1. የኮቪድ -19 አመጣጥ 2. የኮቪድ -19 መድሃኒት 3. COVID-19 በእንስሳት መተላለፉ 4.ሌላ (ይግለጹ)	

	(እባክዎን መልስዎን በሙሉ ይተግብሩ)		

ክፍል 3 የሚከተሉት ጥያቄዎች ምላሽ ሰጪዎች ለኮቪድ -19 ተጋላጭነት ግንኙነት የተመረቱትን የጤና ትምህርት ቁሳቁሶች አጠቃቀም ናቸው።

ተ.ቁ	ስለ አጠቃቀም ጥያቄ	በርካታ ምላሾች ይቻላል	ዝለል
201	ለኮቪድ -19 አደጋ ግንኙነት የተለያዩ ዓይነት የጤና ትምህርት ቁሳቁሶችን ተጠቅመዋል?	1. አዎ 2. አይደለም	2 ከሆነ ወደ ቁ021 ሀድ
202	ለ #201 ከሆነ ‹አዎ› ከሆነ ፣ ለ COVID-19 ለአደጋ መጋለጥ የተዘጋጁ የጤና ትምህርት ቁሳቁሶችን ምን ያህል ጊዜ ይጠቀማሉ?	1.ሁሌም 2.አልፎአልፎ 3.አንዳንድ ጊዜ	
203	ለኮቪድ -19 ተጋላጭነት ግንኙነት የትኞቹን የጤና መማሪያ ቁሳቁሶች ለኮቪድ -19 ተጋላጭነት ግንኙነት ተጠቅመዋል? (ለሁሉም ይተግብሩ እባክዎን ክበብ ያድርጉ)	1.ጋዜጣ 2.የማስታወቂያ ሰሌዳዎች 3.የጥቅል ሰንደቅ 4.ፖስተሮች 5.ብሮሹሮች 6.በራሪ ወረቀቶች 7.ተለጣፊዎች 8.የድምጽ ቦታ/ካሴቶች 9 አዲዮ የእይታ ቦታ/ካሴቶች 10. ሌላ (እባክዎን ይግለጹ)	
204	ለኮቪድ -19 ተጋላጭነት ግንኙነት የሚዘጋጁ የጤና ትምህርት ቁሳቁሶችን ለምን ዓላማ ተጠቀሙ? (እባክዎን መልስዎን በሙሉ	1.የታካሚ ትምህርት በጤና ተቋም 2.በተቋሙ ውስጥ ተንከባካቢ ትምህርት 3.የሕዝብ ትምህርት በተለያዩ	

	ይተግብሩ)	መቼቶች 4.የጅምላ ማሰባሰብ ትምህርት 5.ማማከር 6.ስልጠና 7.ማሰራጨት 8.መለጠፍ/ምደባዎች 9.ማስታወቂያዎች 10.ሌላ (ይግለጹ)	
205	ለ COVID-19 የአደጋ ግንኙነት ለመዘጋጀት የተዘጋጁ እንደ ፖስተሮች ፣ በራሪ ወረቀቶች ፣ ብሮሹሮች እና በራሪ ወረቀቶች ያለ የታተሙ የጤና ቁሳቁሶችን ማሰራጨት አለብዎት?	1. አዎ 2. አይደለም	2 ከሆነ ወደ ቁ207 ዘድ
206	ለ #205 “አዎ” ከሆነ ለ COVID-19 ለአደጋ ግንኙነት የተዘጋጁ እንደ ፖስተሮች ፣ በራሪ ወረቀቶች ፣ ብሮሹሮች እና በራሪ ወረቀቶች ያለ የታተሙ የጤና ቁሳቁሶችን የት አሰራጭተዋል? (ለሁሉም ይተግብሩ እባክዎን ክበብ ያድርጉ)	1.ለታካሚዎች ማሰራጨት 2.ለተንከባካቢዎች ማሰራጨት 3.ለሆቴሎች ማሰራጨት 4.በገበያ ላይ ማሰራጨት 5.ለእስረኞች ማከፋፈል 6.ለትምህርት ቤቶች ማሰራጨት 7.ለአውቶቡስ ጣቢያ ማሰራጨት 8.ለሃይማኖታዊ መቼት ማሰራጨት	
207	ለኮቪድ -19 አደጋ ግንኙነት የተዘጋጁ እንደ ፖስተሮች ፣ የማስታወቂያ ሰሌዳዎች ፣ ባነሮች	1. አዎ 2. አይደለም	2 ከሆነ ወደ ቁ209 ዘድ

	ያለ የታተሙ የጤና ቁሳቁሶችን ለጥፊዋል/አስተካክለዋል?		
208	ለ#207 ‹አዎ› ከሆነ ፣ ለኮቪድ -19 አደጋ ግንኙነት የተዘጋጁ እንደ ፖስተሮች ፣ የማስታወቂያ ሰሌዳዎች ፣ ባነሮች ያሉ የታተሙ የጤና ቁሳቁሶችን የት አለጠፉ /አስተካከሉ? (ለሁሉም ይተግብሩ እባክዎን ክበብ ያድርጉ)	1.በጤና ተቋም መለጠፍ 2.በትምህርት ቤት መለጠፍ 3.በገበያ ቦታዎች ላይ መለጠፍ 4. በዋናው ጎዳና ላይ መጠገን	
209	ለኮቪድ -19 አደጋ ግንኙነት የተዘጋጀ እንደ ስፖት/ቴፕ ያለ የድምፅ የጤና ትምህርት ቁሳቁሶችን ተጠቅመዋል?	1. አዎ 2. አይደለም	2 ከሆነ ወደ ተ.ቁ 211 ሀድ
210	ለ #209 “አዎ” ከሆነ ፣ ለኮቪድ -19 አደጋ ግንኙነት የተዘጋጀውን እንደ ስፖት/ቴፕ ማስታወቂያዎች ያለ የድምፅ የጤና ትምህርት ቁሳቁሶችን የት ተጠቀሙ? (እባክዎን ለሁሉም ክበብ ይተግብሩ)	1.በትምህርት ቤቶች ውስጥ ማስታወቂያዎች 2.በገበያ ላይ ማስታወቂያዎች 3.ማስታወቂያዎች በጤና ጣቢያ	
211	ለወደፊቱ ለኮቪድ -19 አደጋ ግንኙነት የተዘጋጀ የጤና ትምህርት ቁሳቁስ ለመጠቀም አስበዋል?	1.የጤና ትምህርት ቁሳቁስ አለመኖር 2.ተስማሚ የጤና ትምህርት ቁሳቁስ አለመኖር 3.ጊዜ የሚፈጅ 4.ሌላ (ይግለጹ) -----	
212	ለወደፊቱ ለ COVID-19 አደጋ ግንኙነት የተዘጋጁ	1. አዎ 2. አይደለም	2 ከሆነ ወደ ተ.ቁ 214 ሀድ

	ኤችኤምኤሎችን ለመጠቀም ፍላጎት አለዎት?		
213	ለ #212 “አዎ” ከሆነ ፣ ለኮቪድ -19 አደጋ ግንኙነት ምን ዓይነት የጤና ትምህርት ቁሳቁሶች ተዘጋጅተዋል? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1.ጋዜጣ 2.የማስታወቂያ ሰሌዳዎች 3.የጥቅል ሰንደቅ 4.ፖስተሮች 5.ብሮሹሮች 6.በራሪ ወረቀቶች 7.ተለጣፊዎች 8.የድምጽ ቦታ/ካሴቶች 9 አዲዮ የእይታ ቦታ/ካሴቶች 10.ሌላ (እባክዎን ይግለጹ)	
214	ለ #212 “አይሆንም” ከሆነ ፣ ለኮቪድ -19 ተጋላጭነት ግንኙነት የተዘጋጁ የጤና ትምህርት ቁሳቁሶችን ለመጠቀም ለምን አይፈልጉም? (እባክዎን መልስዎን በሙሉ ይተግብሩ)	1.የጤና መማሪያ ቁሳቁሶች አለመኖር 2.ተገቢ የመማሪያ ቁሳቁሶች እጥረት 3.ጊዜ የሚፈጅ 4.ሌላ (ይግለጹ)	

ክፍል 4: የተገነዘበ ጠቀሜታ (Perceived Usefulness)

የሚከተሉት ጥያቄዎች የ COVID-19 የጤና መማሪያ ቁሳቁሶችን የተገነዘበ ጠቀሜታ ለመለካት ተዘጋጅተዋል ፡፡ የምላሽ አማራጮች፡፡

በጣም አልስማማም (በአ) = 1 ፣ አልስማማም (አ) = 2 ፣ ገለልተኛ (ገ) = 3 ፣ እስማማ (እ) = 4 እና በጣም እስማማለሁ (በእ) = 5 ናቸው ፡፡ እባክዎ እያንዳንዱን ንጥል ያንብቡ እና ከተሰጡት የምላሽ አማራጮች መካከል መልስዎን ያክብሩ ፡፡

የተገነዘበ ጠቀሜታ-በ COVID-19 ላይ የሚመረቱ የጤና መማሪያ ቁሳቁሶች ሚና / አስፈላጊነት / ጥቅሞች በተመለከተ የጤና እንክብካቤ አቅራቢዎች ያላቸው ግንዛቤ ነው		
ተ.	በተገነዘቡ ጠቃሚ ነገሮች ላይ ያሉ ዕቃዎች	የምላሽ አማራጮች

ቁ		በአ (1)	አ (2)	ገ (3)	እ (4)	በእ (5)
1	COVID-19 የጤና መማሪያ ቁሳቁሶች ስለ ወረርሽኙ አደጋዎችን ለማስተላለፍ እንደሚረዳ ተገንዝቤያለሁ	1	2	3	4	5
2	በእኔ አስተያየት ፣ COVID-19 የጤና መማሪያ ቁሳቁሶች በ COVID-19 የመከላከያ እርምጃዎች ላይ ክህሎቶችን ለማሻሻል ያገለግላሉ	1	2	3	4	5
3	COVID-19 የጤና መማሪያ ቁሳቁሶች በሰዎች መካከል በሚደረጉ ግንኙነቶች በቃል የሚቀርቡትን መልዕክቶች ማሟላት እንደሚችሉ ተገንዝቤያለሁ	1	2	3	4	5
4	COVID-19 የጤና መማሪያ ቁሳቁሶች ለተላማው ህዝብ መረጃ በፍጥነት ለመድረስ ይረዳሉ ብዬ አምናለሁ	1	2	3	4	5
5	COVID-19 የጤና መማሪያ ቁሳቁሶች ከወረርሽኙ ጋር የተዛመዱ ዒላማ ታዳሚዎችን የራስን ውጤታማነት ለማሳደግ ያስችላሉ	1	2	3	4	5
6	COVID-19 የጤና መማሪያ ቁሳቁሶች ስለ Covid-19 የህብረተሰቡን ግንዛቤ ለማሳደግ የሚረዱ ይመስለኛል	1	2	3	4	5
7	እንደ እኔ አስተሳሰብ ፣ የCOVID-19 የጤና መማሪያ ቁሳቁሶች ለተለየ ዒላማ ህዝብ ፍላጎቶች ተስማሚ ናቸው	1	2	3	4	5
8	ስለ COVID-19 የጤና መማሪያ ቁሳቁሶች በተመለከተ ያለኝ አስተያየት ስለ COVID-19 ዝርዝር መረጃዎችን ያቀርባሉ	1	2	3	4	5
9	ለ COVID-19 የተገዛ የጤና መማሪያ ቁሳቁሶች አለባልታዎችን ለመከላከል ፣ ከወረርሽኙ ጋር ተያይዘው የሚመጡ ፍርሃቶችን ለመቀነስ ይረዳሉ	1	2	3	4	5
10	ለ COVID-19 የተገዛ የጤና መማሪያ ቁሳቁሶች ስለ ወረርሽኙ ጥርጣሬዎችን እና የተሳሳቱ አመለካከቶችን	1	2	3	4	5

	ይፈታሉ					
11	ለ COVID-19 የተገዛው የጤና መማሪያ ቁሳቁሶች የበሽታውን ቀውስ ለመቀነስ ከፍተኛ አስተዋፅየ አላቸው ብዬ አስባለሁ	1	2	3	4	5
12	በእኔ አስተያየት ለ COVID-19 የተገዛ የጤና መማሪያ ቁሳቁሶች ተጠቃሚዎች መልእክቶችን በግል እንዲገመግሙ እና እንዲያስቡ ያስችላቸዋል	1	2	3	4	5
13	ለ COVID-19 የተገዛ የጤና መማሪያ ቁሳቁሶች ከወረርሽኙ ጋር ተያይዞ የሚከሰተውን መገለል እና አድልዎን ለመቀነስ ይችላሉ	1	2	3	4	5
14	ለ COVID-19 የተገዛ የጤና መማሪያ ቁሳቁሶች ከወረርሽኙ ጋር ተያያዥነት ያላቸውን ወጪዎች ይቀንሰዋል	1	2	3	4	5
15	COVID-19 የጤና መማሪያ ቁሳቁሶች ስለ ወረርሽኙ ቁልፍ መልእክቶች ጠቃሚ ማሳሰቢያዎች ናቸው ብዬ አምናለሁ	1	2	3	4	5
16	እንደ እኔ እምነት ፣ COVID-19 የጤና መማሪያ ቁሳቁሶች ወረርሽኙን ለመከላከል እና ለመቆጣጠር ህብረተሰቡን ለማነቃቃት / ለማነቃቃት ይረዳሉ ። ፡	1	2	3	4	5
17	ለ COVID-19 የተገዛ የጤና መማሪያ ቁሳቁሶች ኢላማው ታዳሚዎች የ COVID-19 ን የመከላከያ እና የቁጥጥር እርምጃዎችን እንዲያከብሩ ያበረታታል ብዬ አምናለሁ ። ፡	1	2	3	4	5
18	የ COVID-19 የጤና መማሪያ ቁሳቁሶች የ COVID-19 መከላከያ እና ቁጥጥር እርምጃዎችን ማክበር ጥቅሞችን ሊያስተላልፉ እንደሚችሉ ተገንዝቤያለሁ	1	2	3	4	5

ክፍል 5: የተገነዘበ ጥራት/ብቁነት (Perceived Quality) ።

ሀ) የተገነዘበ አጠቃላይነት (Perceived Comprehensiveness)

ለ COVID-19 **ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩትን የጤና መማሪያ ቁሳቁሶች አጠቃላይነት ለመለካት የሚከተሉት ነገሮች ተዘጋጅተዋል ፡፡ የምላሽ አማራጮች፡፡ በጣም አልስማማም (በአ) = 1 ፣ አልስማማም (አ) = 2 ፣ ገለልተኛ (ገ) = 3 ፣ እስማማ (እ) = 4 እና በጣም እስማማለሁ (በእ) = 5 ናቸው ፡፡ እባክዎ እያንዳንዱን ንጥል ያንብቡ እና ከተሰጡት የምላሽ አማራጮች መካከል መልስዎን ያክብሩ ፡፡**

<u>የተገነዘበ አጠቃላይነት (Perceived Comprehensiveness)</u>-**ለ** COVID-19 **አደጋ ተጋላጭነት ለመግባባት የጤና ሰራተኞች የጤና መማሪያ ቁሳቁሶችን በሚገነዘቡበት መጠን ቁሳቁሶች ለ** COVID-19 **መከላከልን የሚረዱ ዕውቀቶችን ለመጨመር እና ባህሪን ለመለወጥ በእውቀት ታዳሚዎች ግልጽነት እና ግልጽነት የጎደለው እና ለመረዳት የሚያስችሉ መሆናቸውን ያሳያል ፡፡ እና ቁጥር.**						
S. N	**ሁሉን አቀፍነት ላይ ያሉ ዕቃዎች**	**የምላሽ አማራጮች**				
		በአ (1)	**አ** (2)	**ገ** (3)	**እ** (4)	**በእ** (5)
1	**ለ** COVID-19 **ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ለተመልካቾች ታዳሚዎች ቀላል መልዕክቶች አሏቸው**	1	2	3	4	5
2	**ለ** COVID-19 **ለአደጋ ተጋላጭነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ዒላማ ታዳሚዎችን ለመረዳት የሚያስቸግር የቃላት ቃላት ወይም የሕክምና ቃላትን ይዘዋል**	1	2	3	4	5
3	**ለ** COVID-19 **ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልዕክቶች የተጠናቀቁ ናቸው (ሙሉ መልእክት ያስተላልፋሉ) እና ወጥ ናቸው**	1	2	3	4	5

4	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች በታለመ ታዳሚዎች የማንበብ ችግርን የሚያስከትሉ ረጅም መፈክሮች ነበሯቸው	1	2	3	4	5
5	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልዕክቶች በተከታታይ / በቅደም ተከተል ቅደም ተከተል የተያዙ ናቸው	1	2	3	4	5
6	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ትክክለኛ መልዕክቶች አሏቸው	1	2	3	4	5
7	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ማሳጅዎች በታዳሚ ታዳሚዎች በቀላሉ የሚነበቡበት ትክክለኛ መጠን አላቸው	1	2	3	4	5
8	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩት የጤና መማሪያ ቁሳቁሶች ሥዕሎች በታዳሚ ታዳሚዎች በቀላሉ ለመታየት ተገቢው መጠን የላቸውም	1	2	3	4	5
9	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ማሳጅዎች በታዳሚ ታዳሚዎች በቀላሉ የሚነበቡበት ተገቢ ቦታ አላቸው	1	2	3	4	5
10	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ሥዕሎች በተነሺ ታዳሚዎች በቀላሉ የሚረዱ ናቸው	1	2	3	4	5
11	ለ COVID-19 ለአደጋ ተጋላጭነት ግንዙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች በምስል አንድ	1	2	3	4	5

	መልእክት ነበራቸው					
12	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ሥዕሎች እና ምሳሌዎች ከጽሑፍ ቃላት ጋር አይጣጣሙም	1	2	3	4	5
13	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ዒላማው በተመልካቾች በቀላሉ ሊረዳ የሚችል ዋናውን መልእክት ይይዛሉ	1	2	3	4	5
14	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልዕክቶች በእውነቱ ላይ የተመሰረቱ ወይም ወቅታዊ መረጃዎች ናቸው	1	2	3	4	5
15	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልእክት በፅሁፍ / በድምፅ ይነገራሉ	1	2	3	4	5

ለ) የተገነዘበ ማራኪነት (Perceived Attractiveness)

ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩትን የጤና መማሪያ ቁሳቁሶች የተገነዘበ ማራኪነት ለመለካት የሚከተሉት ዕቃዎች ተዘጋጅተዋል ፡፡ የምላሽ አማራጮች-በጣም አልስማማም (በአ) = 1 ፣ አልስማማም (አ) = 2 ፣ ገለልተኛ (ገ) = 3 ፣ እስማማ (እ) = 4 እና በጣም እስማማለሁ (በእ) = 5 ናቸው ፡፡ እባክዎ እያንዳንዱን ንጥል ያንብቡ እና ከተሰጡት የምላሽ አማራጮች መካከል መልስዎን ያክብሩ ፡፡

የተገነዘበ ማራኪነት(Perceived Attractiveness):-የቁሳቁሶች ምስላዊ እና ስዕላዊ መግለጫዎች የታለመውን የታዳሚዎችን ትኩረት እንዴት እንደሚይዙ የጤና እንክብካቤ አቅራቢዎች ያላቸው ግንዛቤ ነው ፡፡						
	ዕቃዎች በሚታዩ ማራኪነት ላይ	የምላሽ አማራጮች				
		በአ (1)	አ (2)	ገ (3)	እ (4)	በእ (5)

16	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልዕክቶች የታላሚ ታዳሚዎችን ቀልብ ሊስብ ይችላል	1	2	3	4	5
17	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ሥዕሎች ታዳሚዎችን ዒላማ ያደርጋሉ	1	2	3	4	5
18	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ዳራ እና ምሳሌዎች ለታላሚ ታዳሚዎች ማራኪ አይደሉም	1	2	3	4	5
19	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠረው የጤና መማሪያ ቁሳቁሶች ቀለም ለታላሚ ታዳሚዎች ዐይን ደስ የሚል ነው	1	2	3	4	5
20	ለ COVID-19 ተጋላጭነት ግንኙነት የተፈጠረው የዝግጅት አቀራረብ ዘይቤ (ለምሳሌ ቶን) የጤና መማሪያ ቁሳቁሶች ዒላማ የታዳሚዎችን ትኩረት ለመሳብ ይችላሉ	1	2	3	4	5
21	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ማብራት የታላሚውን ታዳሚዎች ትኩረት ሊስብ ይችላል	1	2	3	4	5
22	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተሰራው የኦዲዮቪዥዋል ጤና መማሪያ ቁሳቁስ አኒሜሽን የታለመውን ታዳሚዎችን ትኩረት ማዘዝ አይችልም ።	1	2	3	4	5
23	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠረው የጤና መማሪያ ቁሳቁስ አቀማመጥ ትኩረት የሚስብ ነው	1	2	3	4	5
24	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠረው የጤና መማሪያ ቁሳቁሶች ለታላሚ	1	2	3	4	5

	ታዳሚዎች አስደሳች ናቸው					

ሐ) የተገነዘበ ተቀባይነት (Perceived Acceptability)

የሚከተሉት ነገሮች ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ተቀባይነት ያለውን ለመለካት ተዘጋጅተዋል ፡፡ የምላሽ አማራጮች፡፡

በጣም አልስማማም (በአ) = 1 ፣ አልስማማም (አ) = 2 ፣ ገለልተኛ (ገ) = 3 ፣ እስማማ (እ) = 4 እና በጣም እስማማለሁ (በእ) = 5 ናቸው ፡፡ እባክዎ እያንዳንዱን ንጥል ያንብቡ እና ከተሰጡት የምላሽ አማራጮች መካከል መልስዎን ያክብሩ ፡፡

ተቀባይነት ያለው ግንዛቤ(Perceived acceptability): -ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት በተዘጋጁት የጤና መማሪያ ቁሳቁሶች ጽሑፎች ፣ ሥዕሎች / ሥዕላዊ መግለጫዎች ላይ የጤና ክብካቤ አቅራቢዎች ያላቸው ግንዛቤ በታለመላቸው ታዳሚዎች መካከል አለመግባባት የታመነ ነው ፡፡

	በተገነዘቡ ተቀባይነት ላይ ዕቃዎች	የምላሽ አማራጮች				
		በአ (1)	አ (2)	ገ (3)	እ (4)	በእ (5)
25	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ለታለመላቸው ታዳሚዎች የማይታወቁ / ያልተለመዱ ቃላት ነበሯቸው	1	2	3	4	5
26	በእኔ አስተያየት ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተሰሩ የመማሪያ ቁሳቁሶች መልእክቶች በታለመላቸው ታዳሚዎች እምነት የሚጣልባቸው / የታመኑ ናቸው	1	2	3	4	5
27	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ታዳሚዎች ምንም ስሜት የሚነኩ ቃላት አልነበራቸውም	1	2	3	4	5
28	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልዕክቶች በታለመላቸው ታዳሚዎች መካከል አለመግባባት ይፈጥራሉ	1	2	3	4	5

29	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ሥዕሎች በታለመላቸው ታዳሚዎች መካከል አለመግባባት ይፈጥራሉ	1	2	3	4	5
30	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩት የጤና መማሪያ ቁሳቁሶች ለታላሚ ታዳሚዎች የሚያስከፋ ሥዕል የላቸውም	1	2	3	4	5
31	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች በታለመው ታዳሚዎች ባህላዊ ተቀባይነት አላቸው	1	2	3	4	5
32	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ሥዕላዊ መግለጫዎች በታላሚ ታዳሚዎች ዘንድ ተቀባይነት አላቸው	1	2	3	4	5
33	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠረው የጤና መማሪያ ቁሳቁሶች የዝግጅት አቀራረብ ዘይቤ (ለምሳሌ ቃና) ለታዳሚዎች ታዳሚዎች ምርጫዎች ተስማሚ	1	2	3	4	5
34	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠረው የጤና መማሪያ ቁሳቁሶች በብዙ የታለሙ ታዳሚዎች ዋጋ ተሰጥቷቸዋል	1	2	3	4	5

<u>መ) የተገነዘበው ተሳትፎ (Perceived Involvement):-</u>

የጤና እንክብካቤ አቅራቢው ለ COVID-19 አደጋ ተጋላጭነት ለተፈጠረው የጤና መማሪያ ቁሳቁሶች ግንዛቤው ዒላማ የሆኑ ታዳሚዎች ከቁሳቁሶቹ ጋር በመለዋወጥ ለእነሱ የተላከው መልእክት መገንዘብ ነው ።።የምላሽ አማራጮች።።በጣም አልስማማም (በአ) = 1 ፣ አልስማማም (አ) = 2 ፣ ገለልተኛ (ገ) = 3 ፣ እስማማ (እ) = 4 እና በጣም እስማማለሁ (በእ) = 5 ናቸው ።። እባክዎ እያንዳንዱን ንጥል ያንብቡ እና ከተሰጡት የምላሽ አማራጮች መካከል መልስዎን ያክብቡ ።።

<u>የተገነዘበው ተሳትፎ(Perceived Involvement):-</u>የጤና እንክብካቤ አቅራቢው ለ COVID-19 አደጋ ተጋላጭነት ለተሰራለት የጤና መማሪያ ቁሳቁሶች ግንዛቤው ዒላማ የሆኑ ታዳሚዎች

ከቁሳቁሶቹ ጋር በመለዋወጥ ለእነሱ የተላከው መልእክት ወይም ለእነሱ የተላከ መሆኑን መገንዘብ ነው ፡፡						
ተ.ቁ	በተገነዘበው ተሳትፎ ላይ ያለ ዕቃዎች	የምላሽ አማራጮች				
		በአ (1)	አ (2)	ገ (3)	እ (4)	በእ (5)
35	የታለመላቸው ታዳሚዎች ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ መልዕክቶች / ቁሳቁሶች እያነጋገሯቸው መሆኑን ሊረዱት ይችላሉ ብዬ አስባለሁ	1	2	3	4	5
36	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች በአላማው ታዳሚዎች በአካባቢው ቋንቋ አልተዘጋጁም	1	2	3-	4	5
37	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች በአካባቢያዊ ሁኔታ ትርጉም ካለው ስህተት ነፃ ናቸው	1	2	3	4	5
38	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልእክቶች በቀጥታ ወደ ዒላማው ተመልካች አያደርጉም	1	2	3	4	5
39	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ሥዕሎች ወደ ዒላማው ተመልካቾች ይመራሉ	1	2	3	4	5
40	ከዒላማው ታዳሚዎች ጋር ተዛማጅነት ላለው ለ COVID-19 ተጋላጭነት ለተፈጠረው የጤና ትምህርት ቁሳቁሶች ጥቅም ላይ የዋሉ ምልክቶች እና ምልክቶች	1	2	3	4	5
41	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ሥዕሎች ከታለመላቸው ታዳሚዎች እውነተኛ ሕይወት ጋር	1	2	3	4	5

	አይዛመዱም ።					
42	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች መልዕክቶች የታለመውን ታዳሚ ልብ / ስሜትን ሊይዙ ይችላሉ	1	2	3	4	5
43	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠረው የጤና መማሪያ ቁሳቁሶች ስዕል የታለመውን ታዳሚ ልብ / ስሜትን ሊነካ ይችላል	1	2	3	4	5

ሠ) <u>የተገነዘበ የተግባር ጥሪ</u> (Perceived Call to Action):-

ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች የተገነዘቡትን ጥሪ ለመለካት የሚከተሉት ነገሮች ተዘጋጅተዋል ። የምላሽ አማራጮች።

በጣም አልስማማም (በአ) = 1 ፣ አልስማማም (አ) = 2 ፣ ገለልተኛ (ገ) = 3 ፣ እስማማ (እ) = 4 እና በጣም እስማማለሁ (በእ) = 5 ናቸው ። እባክዎ እያንዳንዱን ንጥል ያንብቡ እና ከተሰጡት የምላሽ አማራጮች መካከል መልስዎን ያክብሩ ።

<u>ለድርጊት ጥሪ</u>(Call to action)-የጤና ጥበቃ ሠራተኞቹ ለ COVID-19 ለአደጋ ተጋላጭነት ለተመረቱት የጤና መማሪያ ቁሳቁሶች ያላቸው ግንዛቤ ዒላማው ታዳሚዎች ቁሳቁሶች እና መልእክቶች ዒላማው ታዳሚዎች ምን ማድረግ እንደሚፈልጉ ወይም የተለየ እርምጃ እንዲፈጽሙ በግልፅ መረዳታቸው ነው ።						
	ለድርጊት ጥሪ በሚታዩ ነገሮች ላይ ያሉ ዕቃዎች	የምላሽ አማራጮች				
		በአ (1)	አ (2)	ገ (3)	እ (4)	በእ (5)
44	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተደረጉት የጤና መማሪያ ቁሳቁሶች መልእክቶች ታዳሚዎች ሊያደርጉት ወይም ሊያደርጉት የማይችለውን እርምጃ በግልፅ ገልጸዋል ።	1	2	3	4	5
45	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩት የጤና መማሪያ ቁሳቁሶች ምስሎች /	1	2	3	4	5

	ሥዕሎች ዒላማ ያደረጉ ታዳሚዎች አንድ የተወሰነ እርምጃ እንዲሠሩ ወይም እንዲያቆሙ በግልጽ አሳይተዋል ።					
46	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ለአብዛኞቹ ዒላማ ታዳሚዎች ለመፈፀም የማይችሉ መልዕክቶችን ያስተላልፋሉ	1	2	3	4	5
47	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ለታዳሚው ታዳሚዎች ግንዛቤን የሚጨምሩ መልዕክቶችን ያስተላልፋሉ	1	2	3	4	5
48	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ወሬ / የሐሰት ግንዛቤዎችን የሚፈቱ መልዕክቶችን ያስተላልፋሉ	1	2	3	4	5
49	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ዒላማውን ታዳሚዎች አንድ የተወሰነ እርምጃ እንዲፈጽሙ ወይም እንዲያቆሙ ሊያነሳሳቸው ወይም ሊያነሳሳቸው አይችልም ።	1	2	3	4	5
50	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ለታላሚ ተመልካቾች እርምጃዎችን ስለ መውሰድ ጥቅሞች ያሳውቃል	1	2	3	4	5
51	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ዒላማው ታዳሚዎች እንቅፋቶችን / አማራጮችን ለማስቀመጥ ይረዳሉ	1	2	3	4	5

ክፍል 6፡ የተፈቀደው በቂነት/ተመጣጠኝነት (Perceived Adequacy)

የሚከተሉት ዕቃዎች ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች በቂ መሆናቸውን ለመለካት ተዘጋጅተዋል ። የምላሽ አማራጮች፡፡

በጣም አልስማማም (በአ) = 1 ፣ አልስማማም (አ) = 2 ፣ ገለልተኛ (ገ) = 3 ፣ እስማማ (እ) = 4 እና በጣም እስማማለሁ (በእ) = 5 ናቸው ። እባክዎ እያንዳንዱን ንጥል ያንብቡ እና ከተሰጡት የምላሽ አማራጮች መካከል መልስዎን ያክብሩ ።

<u>የተገነዘበ በቂነት</u>(Perceived Adequacy):-በጤና ሰራተኛ የተገኙ ቁሳቁሶች መቼም በ COVID-19 መከላከል እና መቆጣጠር ላይ የዋና ተደራሲያን ዕውቀትን እና ባህሪን የሚቀይሩ መልዕክቶችን ለማስተላለፍ በቂ ይመስላል ፡፡						
ተ.ቁ	በቂ ግንዛቤ ላይ ያለ ዕቃዎች	የምላሽ አማራጮች				
		በአ (1)	አ (2)	ገ 3)	እ (4)	በእ (5)
1	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩት የጤና መማሪያ ቁሳቁሶች ውጤታማ ወደታለሙ ታዳሚዎች እየደረሰባቸው ነው	1	2	3	4	5
2	የታለመላቸው ታዳሚዎች በፈለጉት ጊዜ ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶችን ማግኘት ይችላሉ	1	2	3	4	5
3	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የታተሙ የጤና መማሪያ ቁሳቁሶች በሕዝባዊ ስብሰባው / ስብሰባው መቼም ቢሆን ተለጥፈዋል	1	2	3	4	5
4	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩ የጤና መማሪያ ቁሳቁሶች ዒላማውን ታዳሚዎች ከግምት ውስጥ በማስገባት በብዙ ቻናሎች ውስጥ በማሰራጨት ላይ ናቸው	1	2	3	4	5
5	የታለመው ታዳሚዎች የእኛኛር ዘይቤን ከግምት ውስጥ በማስገባት ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተሰሩ ኦዲዮ / ቪዲዮዎች በተደጋጋሚ ይተላለፋሉ	1	2	3	4	5
6	ለ COVID-19 ለአደጋ ተጋላጭነት ግንኙነት የተፈጠሩት የጤና መማሪያ ቁሳቁሶች ለታዳሚ ታዳሚዎች በወቅቱ ተሰራጭተዋል	1	2	3	4	5

አመሰግናለሁ!!!!

Part II.Amharic version, qualitative interview guide

ክፍል II ለሆስፒታሎች እና ለ ለጤና እንክብካቤ ሰራተኞች የቃለ መጠይቅ መመሪያ

I-ግል መረጃ

ዕድሜ	ፆታ	የትምህርት ደረጃ	ሙያ	የጤና ተቋም	የሥራ ዋርድ/

II: **የመመሪያ ጥያቄዎች**

የምታውቂውን ማንኛውንም የጤና መማሪያ ቁሳቁስ ትነግሪኛለሽ/ህ? ምርመራ ከታተመ ሚዲያ ሊሆን ይችላል? ከኦዲዮ / ኦዲዮቪዥዋልስ? ከባህላዊ ሚዲያስ?

እባክዎን የሚገኙትን የጤና መማሪያ ቁሳቁሶች በተቋሙ በሚሰሩ/ ክፍል ውስጥ ይንገሩኝ? ምርመራ; ሌሎች?

3. **ቁሳቁሶች በየትኞቹ ርእሰ ጉዳይ ላይ ተዘጋጅቷል? ምርመራ ሌሎችስ? የጤና-መማሪያ ቁሳቁሶች በኮቪድ -19 ላይስ?**

4. **የጤና መማሪያ ቁሳቁሶችን ጠቀሜታ እንዴት ይገነዘባሉ? ምርመራ-የጤና ትምህርትን መርዳት? አለባልታዎችን መስቀረት ፣ የተሳሳተ መረጃ መስተካከል ፣ ፍርሃት እና ጭንቀት መቀነስ? ለታዳሚዎች መረጃ በፍጥነት መድረስ? መረጃ በምንያህል ግዜ ይታደሳል? ያሉት አደጋዎችን ማስተላለፍ/ማስጨበጥ? የሕዝብ ተሳትፎ? ከአንዳንድ ጉዳዮች ጋር የሚዛመዱ እምነቶች ፣ አመለካከቶች እና ስሜቶችን መለወጥ? ተስማሚ ባህሪያትን ማበረታታት? ወዘተ ሀሳብዎን በምሳሌ ታስረዲኛለሽ? በኮቪቭ -19 ላይ ያሉ ጤና መማሪያ ቁሳቁሶችስ? ስለ COVID-19ስ?**

5. **የጤና መማሪያ ቁሳቁሶች ጥራት እንዴት ይመለከቱታል?**

ሀ / የታተሙ የጤና መማሪያ ቁሳቁሶች ጥራት ምን ይመስልዎታል? ምርመራ-ግልጽነት ፣ ትክክለኛነት እና የመልእክቶች ቀላልነት? የአከባቢ ቋንቋን ከግምት ውስጥ በማስገባት? በእውነት ላይ የተመሠረተ ስለመሆኑ? ትኩረት ማራኪ መሆኑ? የታዳሚዎች የመፃፍና የማንበብ ደረጃን ግምት ውስጥ ማስገባት? ተነባቢነት? ታዳሚዎች ወደ ተግባር ይጋብዛል? የመልእክቶች ቅደም ተከተል? ተነሳሽነት / ጋባዥ ነዉ ፣ምሳሌዎች እና ጽሑፎች? ቀለሞች እና ቅንብር፤ ትርጉማቸውስ? ከዒላማ ታዳሚዎች ባህል ጋር ጥቅም ላይ የዋሉ ስዕሎች? የቃላት ፣ ምልክቶች ወይም ወኪሎች? ቃላትን ከስዕሎች ጋር ማዛመድ? እባክህ/ሽ ሀሳቦችሽን በምሳሌ አስረጂኝ? ስለ COVID-19ስ?

ለ / የኦዲዮ / ኦዲዮ-ቪዥዋል ጤና መማሪያ ቁሳቁሶች ጥራት እንዴት ይመስልሻል? ምርመራ -ከፍተኛ ድምጽ? ፍጥነት? ርዝመት ፣ ዝምታ? ለሌላ ነጥብ ምላሽ የመስጠት፤ ትኩረት እና ጊዜ? ቃና? ምት? ማብራት? አኒሜሽን?) እባክሽን ሀሳብሽን በምሳሌ ያስረዱኝ? ስለ ኮቪድ -19ስ?

ሐ / በአካባቢዎ ባሉ የጤና ጉዳዮች ላይ የሚመረቱት የትምህረት መርጃ ቁሳቁሶች? የእነሱ ባህሪዎች እና ጠቃሚነት እንዴት ይመስልዎታል? ስለ COVID-19ስ?

6. እርስዎ ወይም የስራ ባልደረቦችዎ የጤና መማሪያ ቁሳቁሶችን መቼ ይጠቀማሉ? ምርመራ -በግለሰብ ምክር ላይ? በቡድን ውይይት ላይ? ስብሰባዎች ላይ? ዘመቻዎች ላይ? የማዳረስ/መሰራጫት እንቅስቃሴዎች? ተለጠፊዎች? ለተመልካቾች በተናጠል የሚሰጥ? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ? ስለ COVID-19ስ?

7. መረጃዎች እንደሚያመለክቱት አንዳንድ የጤና አጠባበቅ ድርጂቶች የጤና መማሪያ ቁሳቁሶችን ሲጠቀሙ ሌሎች ደግሞ አይጠቀሙም ፡፡ በተጨማሪም ፣ በአንዳንድ አካባቢዎች በመደበኛነት ጥቅም ላይ ይውላሉ ግን በሌሎች አካባቢዎች ላይ አይጠቀሙም ፡፡ ስለ COVID-19ስ?

ሀ / አንዳንድ የጤና እንክብካቤ አቅራቢዎች የጤና መማሪያ ቁሳቁሶችን በመደበኛነት እንዲጠቀሙ የሚያደርጋቸው ምክንያቶች ምን ይመስላችኋል? አስቻዮች ምንድናቸው? ምርመራ ሌሎች ምክንያቶች? እንዴት / ለምን? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ? ስለ ኮቪድ -19ስ?

ለ / አንዳንድ የጤና አጠባበቅ አቅራቢዎች በመደበኛ እንቅስቃሴዎቻቸው ወቅት የጤና መማሪያ ቁሳቁሶችን እንዳይጠቀሙ የሚያደርጋቸው ምክንያቶች ምን ይመስሉዎታል? መሰናክሎች / ተግዳሮቶች ምንድናቸው? ምርመራ ሌሎች ምክንያቶች? እንዴት / ለምን? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ? ስለ COVID-19 ስ?

8. ለወደፊቱ በጤና መማሪያ ቁሳቁሶች ላይ የሚሰጡት አስተያየቶች / ምክሮች ምንድናቸው? ምርመራ -ከጥራት ጋር ሊዛመድ ይችላል? ከአጠቃቀም? ከመድረስ? ወዘተ ስለ COVID-19ስ?

አመሰግናለዉ!!

Amharic version of a subject information sheet

የመረጃ መስጫ ሰነድ ጤና ይስጥልኝ ስሜ ..... ይባላል። እኔ ለተማሪ ታዬ ደበሌ ተወካይ መረጃ ሰበሳቢ ነኝ። ታዬ ደበሌ በጂማ ዩኒቨርሲቲ የህብረተሰብ ጤና አጠባበቅ ስነ-ባህራት እና ማህበረሰብ ትምህርት ክፍል የጤና ማበልፀግ እና የጤና ስነ-ባህሪያት ድህረምረቃ ተማሪ ስሆን በኢትዮጵያ ተከስቶ በነበረው የኮረና ወረርሽኝ ላይ የነበረውን በመህበራዊ እና ስነ-ባህሪ ለዉጥ ተግባቦት ላይ የጤናመልእክቶች አዘገጃጀት እና አጠቃቀም ላይ መመርቂያ ጽሁፉን እየሰራ ይገኛል። የጥናቱ ዋና አላማም የማኅበራዊ እና የባህሪ ለውጥ የመግባቢያ ቁሳቁሶች የማምረቻ ሂደት ፣ ኮረና ወረርጨሽኝ ተጋላጭነት ግንኙነት እና የህብረተሰብ ተሳትፎ የተገነዘበ ጠቀሜታ እና አጠቃቀም በአርሲ ዞን ኦሮሚያ ክልል እየ ሰራይገኛል፡፡

ስለዚህም ይህ ጥናት ለተጠናከረ የቅድመ አደጋ ቁጥጥር የጤና ተግባቦት ስራዎች ያላቸውን አስተዋጸ በማሳየት ረገድ እና ለወደፊት ተመሳሳይ በሽታን በመከላከል ስራዎች ላይ አስተዋጸ ያበረክታል። የጥናቱ ቦታ እና ጊዜ፡ ጥናቱ የሚካሄደው በኢትዮጵያ ኦሮሚያ አርሲ ዞን በተመረጡ የጤና ባለሙያዎች ላይ ነዉ፡፡

<u>ጠቀሜታ፡-</u>በዚህ ጥናት ላይ በመሳተፍ የሚያገኙት ቀጥታ ጥቅም የለም። ነገርግን የሚሰጡን መረጃ ይሄን ጥናት ለማካሄድ ከፍተኛ ጠቀሜታ አለው።

<u>አደጋ፡ በዚህ ጥናት ላይ በመሳተፍ የሚደረስቦት ምንም አይነት አደጋም ሆነ ጉዳት አይኖርም። ስለ ኮረና በሽታ የሚያወቁትን ብቻ ይመልሳሉ።

<u>ቅደምተከተል፡-</u> እርሶ በዚህ ጥናት እንዲሳተፉ በ አጋጣሚ የተመረጡ ሲሆን በጥናቱም እንዲሳተፉ በአክብሮት እጠይቃለሁ። ለመሳተፍ ከተስማሙ ስለራስዎ እና ከጥናቱ ጋር በተገናኘ የተወሰኑ ጥያቄዎችን ይጠየቃሉ ቃለ□መጠይቁም ከ 15-20 ደቂቃ ይወስዳል።

<u>ተሳትፎ፡</u> -የእርሶ ተሳትፎ በፍቃደኝነት ላይ የተመሰረተ ሲሆን ያለመሳተፍም መብት አልዎት። በቃለ መጠየቁ ወቅት ጥያቄዎችን መመለስም ሆነ የማይፈልጉትን ጥያቄ አለመመለስም ይችላሉ። ቃለ መጠየቁንም በማንኛውም ሰአት ማቋረጥም ሆነ ማስቆም ይችላሉ። በዚህም የሚደርስብዎት ምንም አይነት ጉዳት አይኖርም።

<u>ሚስጢራዊነት፡-</u>እርሶ የሚሰጡን ማንኛውም መረጃ የግል መረጃን ጨምሮ በሚስጥር የሚያዝ ሲሆን ከ ጥናቱ ባለቤት ውጪም ማንም ሰው አይጠቀምበትም። የሚሰጡንም መረጃ ከዚህ ጥናት ውጪ ለሌላ አላማ አይውልም።

ጥያቄ ካልዎት እና ተጨማሪ ማብራሪያ ከፈለጉ ከስር በሚገኘው አድራሻ ላይ የተጠቀሰውን ሰው ማግኘት ይችላሉ።

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Amharic version of Informed consent

የፍቃደኝነት ማረጋገጫ ሰነድ የጥናቱን አላማ እና ስለጥናቱ የተደረገልኝን ገለጻ የተረዳሁ ሲሆን በጥናቱም ላይ ለመሳተፍ መስማማቴን እገልጻለሁ። ቃለመጠይቁንም በማንኛውም ሰአት የማቋርጥ መብት እንዳለኝ ተረድቻለሁ። የጥናቱም ገለጻ በሚገባኝ ቋንቋ ተብራርቶልኛል። መስማማቴንም በፊርማዬ አረጋግጣለሁ።

የፍቃደኝነት ሰነዱን	**ያረጋገጡት**
የ ተሳታፊው : ፊርማ ___	**ቀን _____**
የ ቃለመጠይቁ አቅራቢ: **ስም _____**	**ፊርማ _____**
ቀን _____	**የተጀመረበት ሰአት** **_____** **የተጠናቀቀበት ሰአት** **_____**

ያረጋገጠው ሱፐርቫይዘር:

ስም _____ ፊርማ_____

ለአርሲ ዞን ጤና መመሪያ እና ለአሰላ ከተማ ጤና ፅ/ቤት የጤና ሰራተኞች መጠኛ መጠይቆች

ለጤና ትምህርት ቁሳቁሶች የማምረቻ ሂደት የቃለ መጠይቅ መመሪያ

I. እኔ: የተሳታፊው መነሻ መረጃ

ዕድሜ	ጾታ	የትምህርት ደረጃ	ሙያ	የመስሪያ ቦታ	

II. መመሪያ ጥያቄዎች

1. የጤና መማሪያ ቁሳቁሶችን ለምን ጉዳይ ያመርቱ ነበር?

2. ከ COVID-19 ጋር የተዛመዱ የጤና መማሪያ ቁሳቁሶችን አዘጋጅተው ያውቃሉ? ምርመራ: የታተሙ ሚዲያዎች ፣ ብዙሃን መገናኛዎች ወይም ደግሞ ባህላዊ ሚዲያ ማተም ይቻላል

3. እባክዎን የጤና መማሪያ ቁሳቁሶች በሚመረቱበት ወቅት እርስዎ ስለሚከተሏቸው ሂደቶች / እርምጃዎች ይንገሩኝ?

4. ረቂቁን መልእክት እና ቁሳቁሶች ከመጀመርዎ በፊት ምን ትንተና / ግምገማ ያካሂዳሉ? ምርመራ-የጤናውን ችግር / ችግር ምንነት ተረድቷል? ለመለወጥ እንቅፋቶች? ታዳሚዎች ሊሆኑ ይችላሉ? ነባር የፕሮግራም ፖሊሲዎች? ሀብቶች? SWOT? አሁን ያሉት የጤና መማሪያ ቁሳቁሶች? ወዘተ

5. በዒላማ የታዳሚዎች መለያዎች እና መግለጫዎች ወቅት ከግምት ውስጥ ያስገቡዋቸው ነጥቦች ምንድን ናቸው? ምርመራ-የባህሪ ለውጥ ደረጃ? የስነሕዝብ ምክንያቶች? ጂኦግራፊያዊ ምክንያቶች? ባህላዊ ምክንያቶች? የስነልቦና ምክንያቶች? በምሳሌዎች የእርስዎን ተሞክሮ ይንገሩኝ?

6. በቁሳዊ ምርት ውስጥ ማንን ይሳተፋሉ? ምርመራ-ባለሙያዎች? ታዳሚዎችን ማነጣጠር? በምሳሌዎች የእርስዎን ተሞክሮ ይንገሩኝ?

7. ምርቱን ከመጀመርዎ በፊት የጤና መማሪያ ቁሳቁሶች የመጀመሪያ የግንኙነት ዓላማዎችን ያዘጋጃሉ? ምርመራ: - በምሳሌዎች ያጋጠመዎትን ተሞክሮ ይነግሩኛል?

8. ምርት ከመጀመርዎ በፊት ለጤና መማሪያ ቁሳቁሶች የድርጊት መርሃ ግብር ያዘጋጃሉ? ምርመራ: - በምሳሌዎች ያጋጠመዎትን ተሞክሮ ይነግሩኛል?

9. በጤናማ ትምህርት ቁሳቁስ ማምረት ሂደት ውስጥ የፈጠራ አጭር መግለጫን ይመለከታሉ? ምርመራ-በፈጠራው አጭር መግለጫ ውስጥ የትኞቹን አካላት ትኩረት መስጠት ያስፈልጋል? በምሳሌዎች የእርስዎን ተሞክሮ ይንገሩኝ?

10. የሚመረተውን የጤና መማሪያ ቁሳቁሶች አይነት እንዴት እንደሚወስኑ? ምርመራ-ተፈፃሚነት ፣ ለአጠቃቀም ቀላል ፣ የንባብ ደረጃ ፣ የማግኘት ቀላልነት ፣ ወጪ ፣ ዒላማ ታዳሚዎችን የሚመለከቱ እውነተኛ ፍላጎቶች እና ችግሮች? የመድኃኒት መጠን ይደርሳል? ባህል? ያለፉ የአንድ ማህበረሰብ ልምዶች? የማህበረሰብ ቻናል ምርጫ? የባህሪ ጉዲፈቻ ደረጃዎች? የመልእክት ተፈጥሮ የምርት እጥረቶች ተፈጥሮ? ወዘተ ምሳሌዎችዎን ተሞክሮዎን ይንገሩኝ?

11. በመልእክቶች እና በቁሳቁስ ልማት / ዲዛይን ወቅት የሚመለከቷቸው ነጥቦች ምንድናቸው?

እኔ) ጽሑፉን በተመለከተ የሚመለከቷቸው ነጥቦች ምንድናቸው? ምርመራ-ቀላል እና የቃላት አጭር? መፈክር (አጫጭር / ባለጥይት ዝርዝሮች እና ከረጅም ትረካዎች ጋር?) ፣ የቃላት ሥነ-ቃል ማካካሻ? አገባብ? ማዋሃድ? የፊደል አጻጻፍ? ገባሪ ድምፅ በተቃዋሚ ድምፅ? ነጭ ቦታ ይከፈት? የመልእክት ቃና / ይግባኝ? የትኩረት ማራኪነት? የተለያዩ ስሪቶች ከግምት ውስጥ ያስገቡ? የሚላማው ታዳሚዎች ቋንቋ? የዓይነት ዘይቤ? የቃላት መጠን ወይም መፈክር? ከሁሉም የላይኛው ጉዳዮች ጋር የደማቅ ፊት / ማስመር / አጠቃቀም? ቁጥሮችን ከፊደል ቁጥሮች ጋር ይጠቀሙ? የቃላት ወይም አህጽሮተ ቃላት መወገድ? የታለመው ታዳሚዎች ማንበብና መጻፍ ደረጃ? የይዘቱ ሙሉነት ፣ ወጥነት እና ትክክለኛነት? የነጥቦችን አስፈላጊነት ከግምት ውስጥ ማስገባት (ማወቅ ያስፈልጋል ፣ ማወቅ ይፈልጋሉ ፣ እና ማወቅ ጥሩ ነው?) ወቅታዊ መረጃ / በእውነቱ ላይ የተመሠረተ ተዋናይ ለሆኑ ታዳሚዎች የተግባር ጥሪ / ምክሮች? የምክሮች አስፈላጊነት? ባህሪውን እንዴት ማከናወን እንደሚቻል? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

II) ዲዛይን / አቀማመጥን በተመለከተ የሚመለከቷቸው ነጥቦች ምንድናቸው? ምርመራ-መልእክት በምስል? በአንድ ቁሳዊ ብዛት / ፅሁፎች / ገጾች? ሀሳብ በአንቀጽ? ነጭ ቦታ? የመልእክቶች ቅደም ተከተል ቅደም ተከተል? የገጽ ቁጥሮች? ተነሳሽነት / ጋባዥ ምሳሌዎች እና ጽሑፎች? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

III) ምሳሌዎችን በተመለከተ የሚመለከቷቸው ነጥቦች ምንድናቸው? ምርመራ-ምስሎች ፣ ፎቶግራፎች እና ምስሎች ከመልዕክቱ ጋር ይዛመዳሉ? የሥዕሎች ቀላልነት ቀለሞች እና በቅንብሩ ውስጥ የእነሱ ትርጉም? ከሚላማ ታዳሚዎች ባህል ጋር ጥቅም ላይ የዋሉ ስዕሎች? ሌሎች ዕቃዎች በምሳሌዎች (ለምሳሌ ልብስ መልበስ ፣ መቼት ፣ ወዘተ) እና ከተመልካቾች ባህላዊ ሁኔታ ጋር? ተጨባጭ ስዕላዊ መግለጫዎች? ጥቅም ላይ የዋሉ ምልክቶች ተገቢነት? የ “X” ምልክት ያላቸው አዎንታዊ መልእክቶች እና ከአሉታዊ መልዕክቶች ጋር? ከበስተጀርባው በበቂ ሁኔታ ተለይቷል? የምስል ወይም የፎቶግራፍ ክፍሎች ዓይንን ማንሳት?የደራሲያን ስሞች ማካተት? የህትመት ቀን? ድርጅት / ገንዘብ ሰጪዎች? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

IV) ኦዲዮ / ኦዲዮ-ቪዥዋልን በተመለከተ እርስዎ የሚመለከቷቸው ነጥቦች ምንድናቸው? ምርመራ-ከፍተኛ ድምጽ? የመላኪያ ፍጥነት? የመላኪያ ርዝመት ፣ ዝምታ? ለሌላ ነጥብ ምላሽ የመስጠት ትኩረት እና ጊዜ? ቃና? ምት? እንቅስቃሴ? እርምጃ? ማብራት? እነማ?

12. የመልእክቶችን እና የቁሳቁሶችን ቅድመ-ምርመራ በማካሄድ ረገድ ምን ልምድ አለዎት? ምርመራ: ምን እንደፈተሹ? ለምን ትፈተናለህ? ለመፈተሽ ለማን ይፈልጋል? ቅድመ-ምርመራን የት ያካሂዳሉ (በቤት ውስጥ ቅድመ-ሙከራ? የመስክ ቅድመ-ሙከራ?) በቅድመ-ምርመራ ውስጥ ስንት ሰዎችን ያሳትፋሉ? እነሱን እንዴት እንደሚመርጡ? በቅድመ-ምርመራ ወቅት ምን ዓይነት የቃለ መጠይቅ ዘዴዎች ይጠቀማሉ? ቅድመ ምርመራውን ማን ያካሂዳል? ምን ዓይነት መሣሪያ ይጠቀማሉ እና የቅድመ-ሙከራ መሣሪያዎችን ከየት ያገኙታል? በቅድመ-ሙከራ ወቅት የሚጠቀሙባቸው የመሣሪያዎች ዋና ዋና ክፍሎች ምንድናቸው (ተወዳዳሪነት? ተነባቢነት? ማራኪነት? ተቀባይነት (ውድቅ / ተቀባይነት) እና እንዴት እንደሚተረጉሙ ሀሳቦች ከ ምሳሌዎች ጋር?

እኔ) በመሳሰሉት መልእክቶች ላይ ተሳታፊዎች ጥያቄዎችን ትጠይቃለህ ቃላቱ ለእነሱ ምን ማለት ነው? ግልፅ እና አስገዳጅ? ያልታሰቡ መልዕክቶች? ቃላትን ከስዕሎች ጋር ማዛመድ?

ስለ ቃላት ምን ይሰማቸዋል? ከጽሑፎች የጎደለ ነገር አለ? አስፈላጊ ማሻሻያዎች? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

II) ተሳታፊዎችን እንደ ምን ይመለከታሉ ባሉ ስዕሎች ላይ ጥያቄዎችን ይጠይቃሉ? ሥዕሎቹ ምን ማለት ናቸው? የሚናገሩት ነገር አለ? ስለ ስዕሎቹ ምን ይሰማዎታል? ስለ ስዕሎቹ ግልጽ ያልሆኑ ነገሮች? የታቀዱ ለውጦች ያስፈልጋሉ? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

13. ያመረቷቸውን ቁሳቁሶች አተገባበር እንዴት ያብራራሉ? ምርመራ-እንዴት እንደሚያሰራጩ? የስርጭት ስልቶች ማቀድ? የስርጭት አውታረመረቦችን ማዋቀር? የተመረቱትን ቁሳቁሶች አጠቃቀም ማረጋገጥ? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

14. እርስዎ የሚያመርቷቸውን የጤና መማሪያ ቁሳቁሶች ቁጥጥር እና ግምገማ እንዴት ያብራራሉ?

እኔ) ምን መከታተል አለበት? ምርመራ-የጤና መማሪያ ቁሳቁሶች የት ተለጠፉ / አኖሩ? የሥልጠና ክፍለ ጊዜዎች? የጥብቅና ስብሰባዎች? የቦታዎች ድግግሞሽ / ብዛት በአየር ላይ ወጣ? ይደርሳል? ማሰራጨት? የጤና ቁሳቁሶች አጠቃቀም? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

II) እንዴት እንደሚቆጣጠሩ? ምርመራ-ምልከታዎች ፣ የመውጫ ቃለመጠይቆች ፣ ሪኮርዶች ሪኮርድን ፣ የሪፖርት ማቅረቢያ ቅጾችን መጠቀም? በማከፋፈያ ቦታዎች ላይ የቁሳቁሶች መደበኛ አዲት? በተዋዋይ ሰዓቶች የሚዲያ መልዕክቶች እንዲተላለፉ ለማድረግ ስርጭቶችን ማዳመጥ? የጤና መማሪያ ቁሳቁሶች መኖራቸውን ለማጣራት መደበኛ የጤና ጉዞዎች ወደ ጤና ተቋማት? ወዘተ እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

III) የሚገመግሙት? ምርመራ-ቁሳቁሶችን መቼ መጠቀም (በግለሰብ የምክር አገልግሎት ወቅት? ትልቅ የቡድን ውይይት? ስብሰባዎች? ዘመቻዎች?) ውጤት? በተመልካቾች ላይ ተጽዕኖ? ውጤታማ ስርጭት? ወዘተ እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

IV) እንዴት እንደሚገመግሙ? ምርመራ-ቃለመጠይቅ? የቡድን ውይይቶች? የጤና ሰራተኞች እና የፕሮግራም አስተዳዳሪዎች ምልከታ? እንደ ደንበኛ መስለው ክሊኒክ ይሳተፉ? አዲስ ባህሪን የሚለማመዱ የደንበኞች ምልከታ? ስርጭት እና ምደባ? እባክዎን ሀሳቦችዎን በምሳሌ ያስረዱ?

15/የጤና መማሪያ ቁሳቁስ በሚመረትበት ጊዜ እንቅፋቶች/ ተግዳሮቶች ምን ምን ናቸው? በኮቪድ-19 RCCE ወቅትስ?ማሳሰቢያ-ቃለመጠይቆቹን በመጨረሻ ማጠቃለልዎን አይርሱ

Annex III: Afaan Oromo version questionnaire, information sheet and consent form

Yuunivarsitii Jimmaa

Inistiyuutii Fayyaa

Muummee Fayyaa, Sirna-Amalootaa fi Hawaasummaa

Gaaffiilee adeemsa ragaa meeshaalee deeggarsa barnootaa qopheessuu, hubannaa barbaachisummaa fi ittifayyadamaa ergaa balaa koroonaa irraatti Godina Arsi, Naannoo Oromiyaa, Itiyoophiyaa

Maqaan kiyyaa ***Taayyee Dabalee*** jedhama. kanan asitti argameef Gaafii adeemsa ragaa meeshaalee deeggarsa barnootaa qopheessuu, hubannaa barbaachisummaa fi ittifayyadamaa ergaa balaa koroonaa irraatti Godina Arsi, Naannoo Oromiyaa, Itiyoophiyaa dhimma qo'annoodhaaf sassaabuufii dha. Raagaan kamuu isiin naaf laataan dhimma qorannaatiif qofa fayyada qaama kamiifuu dabarfamee hin kennamuu.

Kanaafuu, gaafilee dhiyaataan ammantaa fi gaarummaan akka naaf guutaan kabajaan isiin gaafadha. Dhugumatti, hirmaannaan keessaan fedhii irraatti kan hundaayee dha. Yeeroo murteessaa kannatti hirmaannaa keessaanii fii gahee bahataaniif gatii guddaan kenna.

Inniis daqiiqaa 20 hamma 30 sinnitti fudhachuu danda'a. Deebiin keessaan gutuumaan guutuutti kan sinibsuu hin ta'u.

Qorannaa kana irraatti gaafii kamuu yoo qabaattaan, Taayyee Dabalee (lakk, Bil. +251910954078, email taye.debele@gmail.com) tiin gaafachuu dandeessuu.

Guyyaa ragaan funaaname	_____(GG/JJ/BBBB)
Maqaa dhaabbata fayyaa	_____

KUTAA 1ffaa: Odeeffannoo seenaa duubaa hirmaattootaa

T.l	Jijjiiramaa(variable)	Filannoo deebii	Darbii
001	Umriin keessaan meeqaa?	----------	
002	Saali keessaan maalii?	1. Dhiira 2. Dubra	
003	Amantaa kam hordoftanii?	1. Otoodooksii 2. Musliima 3. Protestantii 4. Wakefataa	
004	Sabummaan	1. Oromoo 2. Amaara 3. kabiroo(ibsaa)----------	
005	Afaan kamiin dhukkubsataa waliin walii galuu dandeessuu?	1. Afaan Oromo 2. Afaan Amaaraa 3. kabiroo(ibsaa)----------	
006	Haalli gaa'eela keessaanii maal fakkaata?	1. kan hinfuune 2. Fuudhe/te 3. Kahiike/te 4. kaadhimaarraa	
007	Eddoon jireenyaa keessaan?	1. Magaalaa 2. Baadiyaa	
008	Mindaan ji'aa keessaan birrii Itiyoophiyaan meeqa?	----------	
009	Gost barnoota keessaan amma itti hojjataa jirtaan?	1. Hojjattuu eekisteeshinii fayyaa 2. Barnoota eegumsa fayyaa fi dagagina 3. Egumsa fayyaa naannoo 4. Narsii diipiloomaa 5. Nursii digrii/BSc 6. Qondaala fayyaa/HO 7. Hakiima/Docktor 8. Faarmasistii 9. Ogeessaa labraatoorii 10. kabiroo(ibsaa)----------	
010	Sadarkaa barnoota keessaan amma itti hojjataa jirtaan?	1. Sadarkaa/Level I-IV 2. Diploomaa 3. Digrii tokkoffaa(BSc/BA) 4. Digrii lammaffaa(maasteerii) 5. Hakiima/Docktor 6. Ispeeshaaliistii 7. kabiroo(ibsaa)----------	
011	Dhaabbata irraa eebbifamtaan	1. Mootummaa 2. Dhuunfaa	
012	Muuxannoo hojii(waggaan)	----------	

013	Kutaa/eddoo/sagantaa kam irraatti amma ramadamtanii hojjataa jirtuu?	1. Kutaa yaala ga'eessoota(OPD) 2. Kutaa yaala daa'immanii(5 OPD) 3. Kutaa ciibsanii yaaluu(IPD) 4. Lutaa baqaqsanii yaaluu 5. Kutaa haawwootaa(Obs/gyne) 6. Tajaajila fayyaa maatii(MCH) 7. Kutaa fiistullaa 8. Kutaa dhikkuba sukkaaraa 9. Kutaa Yaala HIV/AIDS(ART) 10. Kutaa yaala(TB room) 11. Kutaa Ariifachiisaa/balaa tasaa 12. Dukkaana qorichaa 13. Kutaa qorannoo labiratoorii 14. Keellaa Fayyaa 15. Kan biroo(ibsaa)----------	
014	Barnoota eegumsa fayyaa fudhattee beektaa?	1. Eeyyee 2. Miti	2 yoo ta'e tl #016
015	Yoo #014'eeyyee' ta'e sadarkaa maaaliitti barnoota eegumsa fayyaa fudhatte?	1. Leenjjii teeknikaa fi ogummaa TVET 2. Sadarkaa koolleejjiitti 3. Sadarkaa yuunivaarsiitii tti 4. Kanbiroo(ibsi)	
016	Yoo #014'eeyyee'ta'e gosa meeshaa deegarsa barnootaa baratanii beektuu? (Deebii hundaa irra maraa maaloo)	1. Meeshaalee maxxanfamaan 2. Meshaalee dhageettii(audio) 3. Dhageetti-argaa(Audio-visual) 4. Kan biroo(ibsi)----------	
017	Leenjii meeshaalee deeggarsa barnootaa qopheessuu qunnamtii balaa kooroona irraatt irratti fudhattee beektaa?	1. Eeyyee 2. Miti	Yoo'2'ta 'egara# 020 darbi
018	Yoo #016 'eeyyee'ta'e yoom leenjii meshaalee deeggarsa barnootaa qopheessuu qunnamtii balaa kooroonaa irraatti fudhatanii?	1. Ji'a sadan darbe 2. Ji'a 6n dura 3. Ji'a 9 darbe 4. Waggaa kana dura	
019	Yoo #016 'eeyyee'ta'e gosa meeshaa deegarsa barnootaa qunnamtii kooronaa kam irratti leenjii fudhatanii?	1. Gaazeexaa 2. Barjaalee 3. Faajjii 4. Beeksiisa 5. Biroocharoota/ 6. Xoobbee/filaayeeroota 7. stikeroota 8. Meshaalee dhageettii(audio) 9. Dhageetti-argaa(Audio-visual) 10. Kan biroo(ibsii)_____	

020	Sakata'iinsa duursaa irraatti carraa meeshaa deeggarsa barnootaamadaaluu/gaamaaggamuu argatee jirtaa?	1. Eeyyee 2. Miti	yoo'2' ta'e #101 darbi

KUTAA 2: Gaafileen armaan gadii hirmaattoonni meeshaalee deeggarsaatiif qunnamtii balaa kooroonaa irratti ifa bahuu(Expoure)ta'uu ibsa.

T.l	Gaafilee	Gaafile muraasaaf deebii tokkoo oldeebisuunni danda'ama	Skip
101	Kanneen keessaa maddi odeeffannoon ijoon waa'ee dhukkuba kooroonaa keessaan kamii? (Deebii kan ta'e mara itti mari)	1. Miidiyaalee mootummaa (TV/Radiyoo/galaalchaa) 2. Miidiyaalee dhuunfaa (TV/Radiyoo/galaalchaa) 3. Maddeelee naannoo (beeksiisa, poostara, bannera/ biroochara) 4. Miidiyaalee guutuuadunyaa 5. Toora interneetii seera qabeessaa 6. Miidiyaalee hawaasaa (Face book/whatsApp /Telegram/ etc) 7. Ergaalee gabaaboo moobaayilaa 8. Applikeeshiinii moobaayilaa 9. kanbiroo(ibsi)----------	
102	Meeshaalee deegarsa barnootaa qunnamtii/koomunikeeshinii balaa kooroonaa kanneen keesaa kamiif ifabaatanii (exposure) qabduu? (Deebii kan ta'e mara itti mari)	1. Galaalchaalee 2. Barjaalee 3. Faajjii 4. Beeksiisa 5. Biroocharoota/ 6. Xoobbee/filaayeeroota 7. Istikeroota 8. Meshaalee dhageettii(audio) 9. Dhageetti-argaa(Audio-visual) 10. Kan biroo(ibsii)_____	
103	Meeshaalee deeggarsa barnootaa kanneen keessaa kam qunnamttii koomunikeeshiinii balaa kooroonaa tiif itti fayyadamtaa? (Deebii kan ta'e mara itti mari)	1. Galaalchaalee 2. Barjaalee 3. Faajjii 4. Beeksiisa 5. Biroocharoota/ 6. Xoobbee/filaayeeroota 7. Istikeroota 8. Meshaalee dhageettii(audio) 9. Dhageetti-argaa(Audio-visual) 10. Kan biroo(ibsii)_____	
104	Meeshaalee deegarsa barnootaa itti aanaan keessaa kam qunnamtii/koomunikeeshinii	1. Galaalchaalee 2. Barjaalee 3. Faajjii 4. Beeksiisa	

	balaa kooroonaatiif itti fayyaddamtaa? (Deebii kan ta'e mara itti mari)	5. Birroosharoota 6. Xoobbee/filaayeeroota 7. Istikeroota 8. Meshaalee dhageettii(audio) 9. Dhageetti-argaa(Audio-visual) 10. Kan biroo(ibsii)_____	
105	Maddi meeshaalee deegarsaa maxxansaa, dhageettii, argaa-dhageettii, koomunikeeshiinii balaa koronaa eessaayii? (Deebii kan ta'e mara itti mari)	1. Miniisteera fayyaa(MOH) 2. Dhaabbata fayyaa hawaasaa Itiyoophiyaa(EPHI) 3. Biiroo eegumsa fayyaa oromiyaa(BEFO) 4. Gargaarootarraa(USAID,UNICEF,PSI) 5. Toora interneetii(Website) 6. Qajeelcha eegumsa fayyaa godina Arsii 7. Waajjira eegumsa fayyaa 8. Kanbiroo(ibsi)----------	
106	Maddeen toora inteerneetii meeshaalee deeggarsa barnoota koommunikeeshiinii balaa koroonaa kamii? (Deebii kan ta'e mara itti mari)	1. Toora inteerneetii/WHO website 2. Ministeera fayyaa/MOH website 3. Dhaabbata fayyaa hawaasaa Itiyoophiyaa/EPHI website 4. Biiroo eegumsa fayyaa oromiyaa/ORHB 5. Toora inteerneetii dhaabbata gargaarsa/USAID website 6. Toora inteerneetii dhaabbata gargaarsaUNICEF website 7. Toora inteerneetii dhaabbata gargaarsa 8. Kanbiroo(ibsi)----------	
107	Meeshaleen deegarsa barnootaa kommunikeeshiinii balaa koroonaa eessaatti gahaa ykn quubsaa ta'anii argamuu? (Deebii kan ta'e mara itti mari)	1. Qajeelcha eegumsa fayyaa 2. Waajjira eegumsa fayyaa 3. Hospitaala 4. Buufata fayyaa 5. Keellaa fayyaa 6. Mana barumsaa 7. Dhaabbilee amantaa 8. Eddoo gabaa 9. Daandii gurguddaa irraatti 10. Buufata konkolaataa 11. Eddoo bashananaa/hoteelota 12. Kan biroo(ibsi)----------	

108	Meeshaalee deegarsa barnoota kommunikeeshinii balaa kooroonaa qophaa'ee kamtuu dhaabbata fayyaa keessaan keessaatti argama? (Deebii kan ta'e mara itti mari)	1. Galaalchaalee 2. Barjaalee 3. Faajjii 4. Beeksiisa 5. Biroosharoota 6. Xoobbee/filaayeeroota 7. Istikeroota 8. Meshaalee dhageettii(audio) 9. Dhageetti-argaa(Audio-visual) 10. Kan biroo(ibsii)_____	
109	Qabiyyeen gurguddoon meeshaalee deegarsa barnootaa koomunikeeshinii balaa koroonaa naannoo keessaanitti qophaa'anii maalii? (Deebii kan ta'e mara itti mari)	1. Koroonaa akkamitti akka ittisaan? 2. Mallattoolee dhukkuba koroonaa 3. Karaalee koroonaan ittiin daddarbuu 4. Tarkaanffii fudhatamuu qabu 5. Qaamoota baayyee saaxilamoo ta'aan 6. Akkamiin akka yaalaan 7. Akkamiin akka faca'uu 8. Akkamiin akka ittifamuu 9. Akkamiin odeeffannoo sobaa akka hordoftu 10. Tarkaanfii odeeffannoo sobaa irraattii 11. How to prevent social stigma 12. Odeeffannoo sobaa akka itti ittisaan 13. Faayidaa talaallii koroonaa 14. Kan biroo(ibsii)_____	
110	Ergaaleen maal irraatti xiyyeeffataan meeshaaleen deeegarsa barnoota koroonaa akka darbaan eegduu?	1. Ka'umsa koroonaa/COVID-19 2. Yaala koroonaa/COVID-19 3. Dadarbinsa koroonaa beeladoota birootin 4. Kan biroo(ibsii)_____ (Deebii kan ta'e mara itti mari)	

KUTAA 3ffaa: Gaafileen itti aanaan ittifayyadama meeshaa deegarsa barnoota fayyaa Koroonaa ilaalatu

Lakk	Gaafii	Filannoo tokkko ol ni danda'ama	Darbi
201	Meeshalee deeggarsa fayyaa ni fayyadamtuu?	1. Eyyee 2,miti	
202	Yoo eeyee ta'e, hangam tokko irra debi'uun meeshaalee deegarsa barnootaa koomunikeeshinii balaa koroonaa irratti fayyadamtanii?	1. Yeerroo hundaa 2. Darbee darbee 3. Hoi irraatti	Gara#207 darbi
203	Gosa meshaalee deegarsa barnootaa kam kam fa'aa fayyadamtuu?	1. Galaalchaalee 2. Barjaalee 3. Faajjii	

		4. Beeksiisa 5. Biroosharoota 6. Xoobbee/filaayeeroota 7. Istikeroota 8. Meshaalee dhageettii 9. Dhageetti-argaa 10. Kan biroo(ibsii)_____ (Deebii kan ta'e mara itti mari)	
204	Dhimmoota maal fa'iitiif meeshaalee deeggarsa barnootaa komunikeeshiinii balaa koroonaatiif fayyadamtuu? (Maaloo deebii hundaatti marsi)	1. Dhukkubsataa dhaabbilee fayyaatti barsiisuuf 2. Dhukubsitoota dhukkubsataa barsiisuuf 3. Eddoo garagaraatti hawaasa barsiisuuf 4. Marii hawaasaarratti(CC) 5. Gorsaaf 6. Leenjiif 7. Raabsuuf 8. Maxxanssuuf/beeksiisuuf 9. Kan biroo(ibsi)----------	
205	Hangam tokko meeshaalee deeggarsa barnootaa maxxansaa akka poostaraa, fliyeraa, biroocharaa koommunikeeshinii balaa koroonaatiif jecha raabsiituu? (Maaloo deebii hundaatti marsi)	1. Dhukkubsataa/tootaa raabsuu 2. Hoteelootaaf raabsuu 3. Eddoo gabayaaf raabsuu 4. Mana sirreessaf raabsuu 5. Mana barumsaaf raabsuu 6. Buufata konkolaataaf raabsuu 7. Eddoo amantaaf raabsuu	
206	Meeshaalee deeggarsa fayyaa koroonaa raabsitanii beektuu?	1. Eyyee 2.Miti	
207	Gaafii 205, eeyyee, yoo ta'ee meeshaallee deegarsa barnootaa eessaa fa'aatti raabsitanii?	1.Dhukubsatootaa raabsuu 2.Gargaartootaa raabsuu 3.Hoteelootaa raabsuu 4.Gabaadhaa raabsuu 5.Mana sirreessaa raabsuu 6.Mana barumsa raabsuu 7.Dh/konkolataa raabsuu 8.Mana amantaa raabsuu	
207	Meeshaa deegarsa barnootaa maxansaa itti fayadamtanii beektuu?	1.Eyyee 2.Miti	
208	Meeshaalee deegarsa barnoota fayyaa koroonaa Maxansaa, fkf poosteraa, banaraa, kkf maal fa'aaf itti fayyadamtuu? (Maaloo deebii hundaatti marsi)	1. Dhabilee fayyaatti maxansuu 2. Mana barumsaatif 3. Gabayaaf maxansuu/rabsu 4. Daandiilee irratti dhaabuu	

208	Meeshaa deegarsa barnoota fayyaa koroonaa argaa dhageettii fayyadamtanii beektuu?	1. Eyyee 2.Miti	
209	Meeshaalee deegarsa barnoota fayyaa koroonaa argaa dhageettii maal fa'aaf itti fayyadamtuu? (Maaloo deebii hundaatti marsi)	1. Mana barumsaatii beeksiisuuf 2. Gabayaatti beeksiisuuf 3. Dhaabbilee fayyaatti beeksiisuuf	
210	Meshalee deeggarsa barnootaa armaan kooroonaa ittisabalaa armaan gadii keessaa kam fayyadamtuu? (Maaloo deebii hundaatti marsi)	1. Galaalchaalee 2. Barjaalee 3. Faajjii 4. Beeksiisa 5. Biroosharoota 6. Xoobbee/filaayeeroota 7. Istikeroota 8. Meshaalee dhageettii(audio) 9. Dhageetti-argaa 10. Kan biroo(ibsii)___	
211	Maaliif meeshaalee deegarsa barnoota fayyaa koroonaa hin fayyadamne? (Maaloo deebii hundaatti marsi)	1. Dabiinsa meeshaa deegarsaa 2. Meeshaa deeggarsaa sirrii dhabuu 3. Yeeroo waan fixuuf 4. Kan biroo(ibsii)__	
212	Kan biroo (ibsii) _____ fuulduraaf fayyadamuu barbaadduu?	1. Eeyyee 2. Miti	yoo'2' ta'e '301'tti darbi
213	Yoo"208' eeyyee ta'e Meeshaalee deegarsa barnoota fayyaa koroonaa kam fayyadamtuu? (Maaaloo,deebii maratti mari)	1. Galaalchaalee 2. Barjaalee 3. Faajjii 4. Beeksiisa 5. Biroosharoota 6. Xoobbee/filaayeeroota 7. Istikeroota 8. Meshaalee dhageettii(audio) 9. Dhageetti-argaa 10. Kan biroo(ibsii)___)	
214	Yoo "202" miti ta'e meeshaalee deegarsa barnoota fayyaa koroonaa maaliif fayyadamuu hin barbaanne? (Maaaloo,deebii maratti mari)	1. Dhabiinsa meshaalee 2. Meshaa sirrii dhabuu 3. Yeeroo fixaa 4. Kan biroo(ibsi)	

KUTAA 5: HUBANNAA QULQULLINNAA

SECTION 4: **Hubannoo fayida qabeessumma (Perceived usefulness)**
Gaafileen armaan gadii hubannaa gahiinsa meeshaalee deegarsa barnoota fayyaa koomunikeeshiinii balaa kooroonaa irraattiii qophaaaniittii dha Filannoon deebii*; Baayyee waliihingalu= BWH, Waliihingalu = WH, Hin ilaalatu =H, Jiddu-galeessa=JG, Baayyeen waliigala =BW, filloonnoo jiran keessaa tahuu danda'a*

T.l	Gaafilee hubannoo qubsuma	Filannoo deebii				
		BWH (1)	WH (2)	JG (3)	*W* (4)	BW (5)
1	Meeshaalee deegarsa barnoota fayyaa koroonaa waa'ee balaa weeraraa hubachiisuuf ni qarqaara	1	2	3	4	5
2	Meeshaalee deegarsa barnoota fayyaa koroonaa dandeettii tajaajilamtoota weeraarrratti qaban ni comsa	1	2	3	4	5
3	Meeshaalee deegarsa barnoota fayyaa koroonaa yeeroo marii ergaalee jechaan darbaan nideeggaruu	1	2	3	4	5
4	Meeshaalee deegarsa barnoota fayyaa koroonaa odeeffannoon ariitiin tajajilamtoota bira akka qaqabu ni taasiisaa.	1	2	3	4	5
5	Meeshaalee deegarsa barnoota fayyaa koroonaa ofitti amanamummaa tajaajilamtootaa ni guddisa.	1	2	3	4	5
6	Meeshaalee deegarsa barnoota fayyaa koroonaa hubannoo hawaasaa ni kakaasa	1	2	3	4	5
7	Meeshaalee deegarsa barnoota fayyaa koroonaa akkaa fedhii tajaajilamtootaan qixa qophaahe.	1	2	3	4	5
8	Meeshaalee deegarsa barnoota fayyaa koroonaa haqa dhugaa gadi fageenyaan tajajilamtootaa ibsa	1	2	3	4	5
9	Meeshaalee deegarsa barnoota fayyaa koroonaa jettettee weeraraa sirreessuu,soda hir'isuu ni danda'a	1	2	3	4	5
10	Meeshaalee deegarsa barnoota fayyaa koroonaa hubannoo doggongoraa weeraraa irraatti ni sirreessaa	1	2	3	4	5
11	Meeshaalee deegarsa barnoota fayyaa koroonaa qisaasaama/kasaaraa weerara kanaan dhufu hiri'isuu keessaatti gahee guddaa qaba.	1	2	3	4	5
12	Meeshaalee deegarsa barnoota fayyaa koroonaa tajaajilamtoonni kophatti akka waa'ee weereraa kanaa yaadaan/mari'ataan ni qarqaara.	1	2	3	4	5
13	Meeshaalee deegarsa barnoota fayyaa koroonaa sababa weraraaf qoqobi, adda wal baasuu hawaasaa ni hiri'sa.	1	2	3	4	5
14	Meeshaalee deegarsa barnoota fayyaa koroonaa gatiii ittisa weerara ni hiri'isa	1	2	3	4	5

15	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee ijoo tajaajilamtoota yaadachuu danda'an of keessaa qaba	1	2	3	4	5
16	Meeshaalee deegarsa barnoota fayyaa koroonaa tajajilamtootaa/hawaasa ittisaa fi to'annoof sochoosuu ni danda'a	1	2	3	4	5
17	Meeshaalee deegarsa barnoota fayyaa koroonaa tajilamtootaa ittisaa fi toa'aannf ni kakakaasaa	1	2	3	4	5
18	Meeshaalee deegarsa barnoota fayyaa koroonaa fayidaa tarkaanfii ittisaa fi to'annaa kooronaa ni ibsa.	1	2	3	4	5

A) Hubannaa Qulqullummaa (Perceived quality)

Hubannoo hunda-galeessummaa (Perceived Comprehensiveness)

Gaafileen armaan gadii hubannaa gahiinsa meeshaalee deegarsa barnoota fayyaa koomunikeeshiinii balaa kooroonaa irraattiii qophaaaniittii dha. Filannoon deebii*; Baayyee waliihingalu= BWH, Waliihingalu = Jiddu-galeessa=JG, Baayyeen waliigala =BW, filloonnoo jiran keessaa tahuu danda'a.*

T.l	Gaafilee hubannoo qubsuma	Filannoo deebii				
		BWH (1)	WH (2)	JG (3)	*W* (4)	BW (5)
1	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee salphaatt taajaajilamtootaaf qophaan	1	2	3	4	5
2	Meeshaalee deegarsa barnoota fayyaa koroonaa jechoota hintaanee fi medical of keessaa hin qabu	1	2	3	4	5
3	Meeshaalee deegarsa barnoota fayyaa koroonaa akkaataa guutuu ta'ee/ittifufiinsaan qophaahee	1	2	3	4	5
4	Meeshaalee deegarsa barnoota fayyaa koroonaa dhaadannoo dheeraa tajaajilamtootaatti ulfaatu qaba	1	2	3	4	5
5	Meeshaalee deegarsa barnoota fayyaa koroonaa tartiibaan/ittifuffiinsaan qophaahe.	1	2	3	4	5
6	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee kallaattiiirraa qophaahee	1	2	3	4	5
7	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee barreeffama qajeelloon tajajilamtootaaf dubifamuu danda'aan irraa qophaahee	1	2	3	4	5
8	Meeshaalee deegarsa barnoota fayyaa koroonaa fakkii guddiina gahaa hin qabne irraa qophaahe	1	2	3	4	5
9	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee bakka duwwaa gahaa dubbisaaf him qabne irraa qophaahe	1	2	3	4	5
10	Meeshaalee deegarsa barnoota fayyaa koroonaa fakkii salphaatti tajaajilamtoonni hubachuu danda'aan irraa qophaahe	1	2	3	4	5
11	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaa tokko agarsiisaa tokkoof kan qabuudha	1	2	3	4	5

12	Meeshaalee deegarsa barnoota fayyaa koroonaa fakkii ykn agarsiisa barreeffama waliin wal hinsimanne qaba.	1	2	3	4	5
13	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaa ijoo tajaajilamtootaan hubatamuu qabaan qaba.	1	2	3	4	5
14	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee haqa fi yeeroo irratt xiyyeefataan ofkeessaa qaba	1	2	3	4	5
15	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee barreeffamaa/dubbii ammee qaba	1	2	3	4	5

B) Hubannaa hawwatummaa :(Perceived attractiveness) Gaafileen armaan gadii hubannaa gahiinsa meeshaalee deegarsa barnoota fayyaa koomunikeeshiinii balaa kooroonaa irraattiii qophaaaniittii dha. Filannoon deebii*; Baayyee waliihingalu= BWH, Waliihingalu = WH, Hin ilaalatu =H, Jiddu-galeessa=JG, Baayyeen waliigala =BW, fillannoo jiran keessaa tahuu danda'a*

T.l	Gaafilee hubannoo qubsuma	Filannoo deebii				
		BWH (1)	*WH* (2)	*JG* (3)	*W* (4)	*BW* (5)
16	Meeshaalee deegarsa barnoota fayyaa koroonaatti ergaaleen qophaan qalbii tajaajilamtootaa hawwachuu ni danda'a	1	2	3	4	5
17	Meeshaalee deegarsa barnoota fayyaa koroonaa fakkiin fayyadamaan tajaajilamtoota ni ilaallatu.	1	2	3	4	5
18	Meeshaalee deegarsa barnoota fayyaa koroonaa duub-duubee fi agarsiisa hawwataa hin taane irraa qophaahe	1	2	3	4	5
19	Meeshaalee deegarsa barnoota fayyaa koroonaa halluu ija tajaajiamtootaa harkisuu irraa qophaahe.	1	2	3	4	5
20	Meeshaalee deegarsa barnoota fayyaa koroonaa haallii boca/sagaleen itti dhiyaatee tajaajilamtoota hawwachuu ni danda'a.	1	2	3	4	5
21	Meeshaalee deegarsa barnoota fayyaa koroonaa suur-sagalee ifni fayyadamu xiyyeeffannaa tajaajilamtootaa harkisuu hin danda'u.	1	2	3	4	5
22	Meeshaalee deegarsa barnoota fayyaa koroonaa suur-sagalee sochiin itti qophaahe qajeelfama dabarsuu fi taajaajilamtoota hawwachuu hin danda'u	1	2	3	4	5
23	Meeshaalee deegarsa barnoota fayyaa koroonaa akkaataa ija tajaajilamtoota hawwachuu danda'uun qophaahe	1	2	3	4	5
24	Meeshaalee deegarsa barnoota fayyaa koroonaa tajaajilamtoota ni gammachiisa.	1	2	3	4	5

C) Hubannaa Fudhatamaqabeessummaa :(Perceived acceptability) Gaafileen armaan gadii hubannaa gahiinsa meeshaalee deegarsa barnoota fayyaa koomunikeeshiinii balaa kooroonaa irraattiii qophaaaniittii dha. Filannoon deebii*; Baayyee waliihingalu= BWH, Waliihingalu = WH, Hin ilaalatu =H, Jiddu-galeessa=JG, Baayyeen waliigala =BW, fillannoo jiran keessaa tahuu danda'a*

T.l	Gaafilee hubannoo qubsuma	Filannoo deebii				
		BWH (1)	*WH* (2)	*JG* (3)	*W* (4)	*BW* (5)
25	Meeshaalee deegarsa barnoota fayyaa koroonaa jechoota tajaajilamtoota biratti hin beekkamne of keessaa qaba	1	2	3	4	5
26	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaale tajaajilamtoota biratti amanamoo ta'an qaba	1	2	3	4	5
27	Meeshaalee deegarsa barnoota fayyaa koroonaa jechoota miiraa tajjaalamtoota tuqaan hin qabu	1	2	3	4	5
28	Meeshaalee deegarsa barnoota fayyaa koroonaa eergaalee garaagartee taajaajilamtoota biratti uumaan hin qabu	1	2	3	4	5
29	Meeshaalee deegarsa barnoota fayyaa koroonaa fakkii garaagaartee tajaajilamtoota biratti uumuu hin qabu	1	2	3	4	5
30	Meeshaalee deegarsa barnoota fayyaa koroonaa fakkii tajaajilamtoota dallansu hin qabu	1	2	3	4	5
31	meeshaalee deegarsa barnoota fayyaa koroonaa halluu aadaa naannoo birratti fudhatama qabuun kan qophaahee dha	1	2	3	4	5
32	Meeshaalee deegarsa barnoota fayyaa koroonaa agarsiisaaadaa nannoo tajaajilamtoota biraatti fudhatama qabuun kan qophaahee dha.	1	2	3	4	5
33	Meeshaalee deegarsa barnoota fayyaa koroonaa akkaataa bocni ykn sagalee itti dhiyaa filannoo tajaajilamtootaa kan jiddugala godheedha	1	2	3	4	5
34	Meeshaalee deegarsa barnoota fayyaa koroonaa tajjaajilamtoota heedduun gattiin ni kannamaaf	1	2	3	4	5

D) Hubannaa hirmaachisummaa (Perceived involvement)

Gaafileen armaan gadii hubannaa gahiinsa meeshaalee deegarsa barnoota fayyaa koomunikeeshiinii balaa kooroonaa irraattiii qophaan. Filannoon deebii*; Baayyee waliihingalu= BWH, Waliihingalu = WH, Hin ilaalatu =H, Jiddu-galeessa=JG, Baayyeen waliigala =BW, filannoo jiran keessaa tahuu danda'a*

T.l	Gaafilee hubannoo qubsuma	Filannoo deebii				
		BWH (1)	*WH* (2)	*JG* (3)	*W* (4)	*BW* (5)

35	Akka kiyyaatti dhimmmamtoonni ergaaleen meeshaalee deegarsa barnoota kooronaa irratti qophaahaan ni ibsu/nidubbatu/ jeddheen yaada.	1	2	3	4	5
36	Meeshaalee ddeegarsa barnootaa kooronaa irratti qophaan afaan naannoo jiduugaleessaa godhateee hin qophoofnee	1	2	3	4	5
37	Akkaataa naannootti meeshaaleen deeggarsa barnoota fayyaa rakkoo hiikaaa qabaan irraa bilisa dha.	1	2	3	4	5
38	Ergaaleen meeshaa deegarsa barnootaa kooroonaa irratti qophaahaan gara dhiimmamtootaa irraatti hin xiyyeeffanne	1	2	3	4	5
39	Fakkiiwaan meeshaalee deeggarsa barnoota kooroonaa gara dhimmaamtoota hin xiyyeeffannee	1	2	3	4	5
40	Mallattoo fi ibsituun meeshaleen deegarsa barnootaa kooronaa fayyadamaan dhimmamtoota ni ibsuu	1	2	3	4	5
41	Agarsiiftoonnni meeshaalee deeggarsa barnootaa kooroonaa irratti qophaahanii haala qabatamaa jireeny dhimmamtootaa jiddu galeessa hin godhanne	1	2	3	4	5
42	Ergaaleen meeshaalee deeggarsa barnootaa kooroonaa irratti qophaahanii miira/laphee tajaajilamaa harkisuu ni danda'a	1	2	3	4	5
43	Fakkiin meeshaalee deegarsa barnoota fayyaa kooroonaa irratti qophaahanii miira/laphee tajaajilamaa harkisuu ni danda'a	1	2	3	4	5

E) Hubannaa raawwiif-afeeruu :(Perceived call to action) Gaafileen armaan gadii hubannaa gahiinsa meeshaalee deegarsa barnoota fayyaa koomunikeeshiinii balaa kooroonaa irraattiii qophaaaniittii dha. Filannoon deebii*; Baayyee waliihingalu= BWH, Waliihingalu = WH, Hin ilaalatu =H, Jiddugaleessa=JG, Baayyeen waliigala =BW, filloonnoo jiran keessaa tahuu danda'a*

T.l	Gaafilee hubannoo qubsuma	Filannoo deebii				
		BWH (1)	*WH* (2)	*JG* (3)	*W* (4)	*BW* (5)
44	Ergaalee meeshaaleendeegaarsa barnoota fayyaa dabarrsaan kallattaa gochaa tajaajajilaamaan raawwatu ibsa	1	2	3	4	5
45	Fakkiin meeshaalee deegarsa barnoota fayyaa koroonaa ifaatti wanta tajaajilamaa gochuu ykn dhiisuu qabu ibsa	1	2	3	4	5
46	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee taajaajajilamtoota harka caluun dhaqabamuu hindandeenye tamsaasa	1	2	3	4	5
47	Meeshaalee deegarsa barnoota fayyaa koroonaa ergaalee hubannoo hawaasaa dabaluu danda'aan dabarsuu	1	2	3	4	5

48	Meeshaalee deegarsa barnoota fayyaa koroonaa jette jeetteefi hamii ni furu	1	2	3	4	5
49	Meeshaalee deegarsa barnoota fayyaa koroonaa tajaajilmtoon gocha wayyii akka raawwaataan ykn dhiisaan hin kakaaasuu hin danda'u	1	2	3	4	5
50	Meeshaalee deegarsa barnoota fayyaa koroonaa Faayidaa tarkaanfii fudhachuu taajaajilamtoota ni hubachiisa inform	1	2	3	4	5
51	Meeshaalee deegarsa barnoota fayyaa koroonaa daanqaalee qaqaabee akka furmaata kaayaan taajjajilamtoota gargaara	1	2	3	4	5

Kutaa 6: Hubannoo quubsumaa :(Perceived adequacy) Gaafileen armaan gadii hubannaa gahiinsa meeshaalee deegarsa barnoota fayyaa koomunikeeshiinii balaa kooroonaa irraattiii qophaaaniittii dha. Filannoon deebii*; Baayyee waliihingalu= BWH, Waliihingalu = WH, Hin ilaalatu =H, Waliingala= W, Baayyeen waliigala =BW,*

T. l	Gaafilee hubannoo qubsuma	Filannoo deebii				
		BWH (1)	*WH* (2)	*H* (3)	*W* (4)	*BW* (5)
1	Meeshaalee deegarsa barnoota fayyaa komunikeeshinii balaa koronaa milkaa'inaan tajaajilamtoota bira dhaqabu.	1	2	3	4	5
2	Tajaajilamtootni meeshaalee deegarsa barnoota fayyaa komunikeeshinii balaa koronaa yeeroo barbaadanitti salphaatti argachuu ni danda'u.	1	2	3	4	5
3	Meeshaaleen maxxansaa deegarsa barnoota fayyaa komunikeeshinii balaa kooroonaa bakka namoonni hedduu itti walgahanitti maxanfama.	1	2	3	4	5
4	Meeshaaleen deeggarsa barnootaa fayyaa komunikeeshinii balaa kooroonaa karaalee (chaaanaloota) hedduun tajaaajilamtoota ilaalcha keessa galchee tamsa'a.	1	2	3	4	5
5	Sagalaaee/suur-sagaleen komunikeeshinii balaa koroonaa irratti qophaahe irraa-dedeebi'ee haala jireenyaa tajaajilamtootaa irratti hundaa'ee tamsasama.	1	2	3	4	5
6	Meeshaaleen deeggarsa barnootaa komunikeeshinii balaa koroonaa yeeroon tajaajilamtootaa raabsamu.	1	2	3	4	5

Part II.Afaan Oromoo version, qualitative interview guide

Qajeelfama gaafiif-deebii ogessoota fayyaa

I: Seenaa odeeffannoo hirmaataa

Umrii	Saala	Sadarkaa barnootaa	Ogummaa	Dhaabbata fayyaa	Kutaa hojii

II: Qajeelfama gaafilee

1. Meshaalee deeggarsa barnootaa fayyaa beektu natti himuu dandeessaa? ***Yaadachiisa***: miidiyaa maaxxaansaa/printed media/ta'uu danda'a? Sagalee/Audio/ ykn suur-sagalee/ audio-visuals/? Afoolaa/folk media/?

2. Maaloo, meshaalee deeggarsa barnootaa fayyaa dhaabbata fayyaa/kutaa hojii/ kee keessaatti argamu natti himuu dandeessaa? ***Yaadachiisa***; Kan biroo hoo?

3. Meeshaalee deegarsa barnoota fayyaa naannoo kee maal fa'a irraatti qophaahaanii?

Yaadachiisa; Kan biroo hoo? Meeshaaleen deegarsa barnoota fayyaa koroonaarraatti qophaahee hoo jiraa?

4. Faayidaa qabeessuummaan meeshaalee deegarsa barnoota fayyaa maal sitti fakkaata?

Yaadachiisa: Barnoota deeggaruu irraatti? Olola/jette-jettee sirreessuu irratti? Odeefannoo dogongoraa, sodaa fi dhiphina furuu irratti? Qaama dhimmi ilaaluuf odeeffannoo sirrii dabarsuu irratti? Si'a/ deeddeebiin hanga odeeffannoo? Koomunikeeshinii balaa taasisuurraatti? Ummata hirmaachisuu irratti? Amantaa boodattii hafaa jijjiiruu, ilaalcha, and miira dhimmoota aadaan walqabataan irratti jijjiiruu irratti? Amaloota sirrii jajjebeessuurratti? Kkf. Yaada kee fakkeenyaan naaf ibsuu dandeessaa? Meeshaaleen deeggarsa barnoota fayyaa koroonaaadhaaf qophaahaanii hoo?

5. Waa'ee sadarkaan qulqulina meeshaalee deegarsa barnoota fayyaa maal yaadda?

A. Waa'ee sadarkaa qulqulina meeshaalee deegarsa barnoota fayyaa maxxansaa?

Yaadachiisa: iftoomina (clarity), sirrina (accuracy), and ergaalee salphaa ta'uu?

Afaan naannoo ilaalcha keessa Ni galchuurraatti? Haqa-qabeessummaarraatti? Hawataa/ija Nama harkisuurraatti hoo? Sadarkaa barnoota tajaajilamtootaa xiyyeeffannoo keessa galchuurraatti hoo? Dubbifamuu ilaalchisee hoo? Tajaajilamtoota rawwiif kakaasuurratti hoo?

Ergaaleen, tartiiba qabachurratti hoo? Ergaaleen, agarsiisa/gochaa fi barreeffaamaan ergaa dabarsuu? Halluu fi hiikni akkaataa naannootiinii wal-simaa? Fakkii/suuraa aadaa tajaajilamtootaan fayyadamaa? Jechoonni, mallattooleenii baka bu'aan miira aadaa naannoo kabajuu? Jechoonni fi suuran wal-simataa? Maaloo yaada kee fakkenyaan ibsitaa? Kan waa'ee koroonaa irratti hoo?

B. Sadarkaa qulqullinnaa sagalee fi suur-sagalee akkamitti ibsita? ***Yaadachiisa***: Sagalee? Saffisa itti darbu/tamsa'uu? Dheerina tamsaasaa, callisaa? Carraaqqii fi yeeroo itti qabxii biroof deebii kennu? Sagalee/yeedalo? Dhikkisa/rukkuttaa? Ibsuu? Sochii fakkinaa? Maaloo, yaada keessaan fakkeenyaan ibsuu dandeessuu? Kan waa'ee koronaa irratti hoo?

C. Naannoo keesaanitti midiyaan afoolaa meshaa deeggarsa barnoota fayyaa Ni qophaa'aa? Sadarkaa qulqulinnaa fi fayyadamiinsa isaa akkamitti yaadda?

6. Atii fii hiriyoonni kee meeshaalee deegarsa barnootaa yoom fayyadamtu? ***Yaadachiisa***: Gorse dhuunfaa? Marii garee? Koonfiransii? Duulaan? Hojii oolaa-galaa? Kan maxxanfamaan? Dhuunfaan Kan tajaajilamtootaaf raabsamaan? Maaloo, yaada kee fakkeenyaan ibsi? Kan waa'ee koroonaa hoo?

7. Ragaan akka ibsuutti ogeeyyiin fayyaa muraasni meeshaalee deegarsa barnootaa yoo fayyadamaan muraasni hin fayyadaman. Dabalataan, naannoo tokko tokkootti dhaabataan yoo fayadamaan garuu naannoo birootti gonkumaa hin fayadamaan.

A. Wantoonni/Sababoonni ogeessoonni fayyaa idileen/dhaabbiin akka meeshaalee deegarsa barnoota fayyaa akka fayyadaman taasisaan maali? Wantootni gargaaraan/dandeessisaan/ maali? ***Yaadachiis***a: sababni biraa hoo? Akkamitti/maaliif? Maaloo, yaada keessaan fakkeenyaan ibsituu? Kan waa'ee koroonaa hoo?

B. Wantootni/sababoonni akka ogeessoonni fayyaa meeshaalee deegarsa barnoota fayyaa akka *hin fayyadamne godhu maalii*? Wantootni ogeessoonni fayyaa meeshaalee deegarsa barnoota fayyaa hojii idilee keessaatti akka hin fayyadamnee godhaaniif sababa ta'aan maalii? Danqaa/rakkoon jiru maalii? ***Yaadachiisa***: sababa biroo hoo jechuun? Akkamitti/maaliif? Maaloo, yaada keessaan fakkeenyaan ibsituu? Kan waa'ee koroonaa hoo?

8. Yaadni ati gara fuulduratti meeshaalee deeggarsa barnoota fayyaa irratti qabdu maalii?

Yaadachiisa: Sadarkaa qulqulinnaan walqabatee? Ittifayyadamiinsaan? Dhaqabiinsa/gahiinsa? KKF.

Galatoomaa!

Qajeelfama bargaafii meeshaalee deeggarsa barnotaa adeemsa qophii /omishaa keessaattii

I: Odeeffannoo Seenaa hirmaataa

umrii	saala	Sadarkaa barnootaa	Gosa ogummaa/barnootaa	Dhaabbata hojjatu/ttu	sadarkaa

II: Qajeelfama gaafii

1. Mata duree maal faa'a irraatti meeshaalee deegarsa barnoota fayyaa qopheessitanii beektuu?

2. Meeshaalee deeggarsa barnoota fayyaa Koronaa (COVID-19) walqabatee qopheessitanii beektuu? ***Yadachiisa :*** Miidiyaa Maxxansaa ykn midiyaa hawaasaa(mass media) ykn midiyaa Afoolaa

3. Adeemsa/sadarkaalee/tartiiba meeshaalee deegarsa barnootaa itti qopheessitaanii natti himuu dandeessaa?

4. Ergaalee ykn meeshaalee deeggarsa barnoota fayyaa qopheessuun dura odeeffannoo sassaabuuf/funaanuuf tooftaa maal fayyadamtu?

Yadachiisa : Waa'ee dhimmaa maalummaa rakkoo hubachuu?Hudhaalee jijjiramaa?Humna tajaajilamtootaa,Imaammata sagantaa kanaa irra jiru,Mallaaqa/Resources/dhimma kanaaf qophaahe hoo?Cimina,Hanqina,Carraa,Danqaan yeeroo qophii jiran/ SWOT? Meeshaalee deeggarsa barnootaa jiran? Fi kkf

5. Yeeroo tajaajilamtoota adda baastaanii fi ibsitaan qabxiilee maal fa'aa irratti xiyyeeffattuu?

Sadarkaa jiijjiirama amalaa tajaajilamtootaa? Haal-dureewwaan dimogiraafii, Haal-dureewwaan ji'ogiraafii? Haal-dureewwaan aadaa? Haal-dureewwaan xinsammuu? Muuxannoo kee fakkeenyaan naaf ibsuu dandeessaa?

6. Qophii meeshaalee deegarsa barnootaa keessaatti eenyuu fa'a hirmaachiftu?

Yaadachiisa:-*exipartoota/*experts/, tajaajilamtoota/Target audiences? muuxannoo keessaan fakkeenyaan natti himuu dandeessuu?

7. Meeshaalee deegarsa barnootaa qopheessuu osoo hin jalqabiin dura kaayoo komunikeeshinii jalqabaa ni qopheessituu?

YaadachiisaMuuxannoo kee fakkeenyaan natti himuu dandeessuu?

8. Meeshaalee deegarsa barnootaa fayyaa qopheessuu osoo hin jalqabiin dura karoora-raawwii komunikeeshinii ni qopheessituu? **Yaadachiisa: -** Muuxannoo keessaan fakkeenyaan natti himuu dandeessuu?

9. Gaafataa; Meeshaalee deegarsa barnootaa qopheessuu osoo hin jalqabiin dura karoora ibsituu wixinee /creative brief/ komunikeeshinii ni qopheessituu?

Yaadachiisa; Wixinee ibsituu maal of keessaatti hammata?

YaadachiisaMuuxannoo keessaan fakkeenyaan natti himuu dandeessuu?

10**.**Gosoota meeshaalee deeggarsa barnootaa fayyaa qophuu qaban yeeroo murteessitaan akkamiin murteessituu? **Yaadachiisa**:- hojiirra oolmaa isaan/applicability/,salphaatti fayyaduu isaanii/easy to use/,sadarkaa dubbisa isaanii/reading level/,salphaatti argamuu isaanii,gatii isaan barbaachisu/cost/,haqaatti barbaadamuu fi rakkoon tajaajilamtoota qunnamuu?taatee hamma dhaqabiinsa?Aadaa/ Culture?**Yaadachiisa:-**Muuxannoo hawaasa darbe? Filannoo karaalee qunnamtii hawaasa? Sadarkaa guddina amalaa? uumama ergaa, hanqina yeeroo qophiif barbaachisuu? Muuxannoo kee fakkeenyaan natti himuu dandeessaa?

11**.** Yeeroo ergaalee meeshaalee deeggarsa barnoota fayyaa qophaahuu qabanii maal fa'a irratti xiyyeeffattuu?

11. A. Jechoota filachuu irratti qabxilee maal fa'a irratti xiyyeefattu?

Yaadachiisa: Jecha salphaa fi gabaabaa?Dhadannoo(gabaabaa,bifa tarreeffamaan vs moo seenesaa dheeraadhaanii,jechoota seerluga irraa tolfaman/ syllabic make-up of words? moggoolee/ syntax?walitti hidhuu/conjugation?qubeessaa/ jechoota darbee fi ammee/spelling active voice versus passive voice?eddoo duwwaa banuu/Open white space? guddina /xiqina/ ergaalee sagalee qophaahanii/message tone/appeals?qalbii hawwachuu/The attractiveness of attention?Ilaalcha fooyya'aa adda addaa/consideration of different versions?

Yaadachiisa: Afaan tajaajilamtootaa? Haala barreeffamaa/A type style? guddinna jechaa ykn dhaadannoo? Guddisuu ykn gurracheessuu ykn jala sorooruu vs FAALLAAvs qubee guddaa fayyadamuu/ Language of the target audience / Size of words or slogan /The use of boldface/underlining versus all upper cases?

Yaadachiisa: Lakkoofsoota fi lakkoofsoota jechaan barreessuu, Loqooda hin barbaachiifnee ykn gabajee fayyadamuu dhiisuu ilaalchisee**,**Sadarkaa barnootaa tajaajilamtootaa ilaalchisee

Yaadachiisa:-Guutiinsa,ittifufiinsa,sirrinsa qabiyyee ilaalchisee qabxiiwwaan barbaachisoo xiyyeeffannoo keessa galchuu ilaalchisee;/Beekuu kan qabdan,Beekuu kan Feetaan,Beekuu kan wayyuu

Yaadachiisa: Odeeffannoo waq-taawaa/haqa irraatti hundaaye/ gochoota sirrii affeeru/ tajaajilamtootaaf yaada/qajeelcha kan kennuu,baarbaachisumma yaada kennuu,akkamiin amala/gocha sirrii itti raawwataan,maaloo yaada kee fakkeenyaan naa ibsuu dandeessaa?

11.B. Teessuma/boca irratti qabxiilee maal maal irratti xiyyeeffattaa?

11.C. Ergaalee agarsiisa waliin/ Message per illustration?

Yaadachiisa:-Yaad-rimee hedduu,fuula tokkorratti meeshaa tokkorratti,Yaadaa tokko keewwataan tokkoon,Eddoo Addii, Tartiiba ergaalee waqtiidhaan,Baayinna fuulaa, Agarsiisaa fi barreeffama kakaasu ykn afeeru, Maaloo yaada kee fakkenyaan naaf ibsuu dandeessaa?

Yaadachiisa:-Agarsiisa ilaalchisee qabxiiwwaan maal fa'a irratti xiyyeeffattuu? Suuraawwaan,fakkiiwwanii fi wantoonni mul'ataan ergaa waliin wal gituu?Halluun Agarsiisaa salphaa ta'uu fi hiikni isaa naannoo waliin walsimatuu?Fakkii/suuraan fayadamtaan aadaa tajaajilamtootaa waliin wal-simataa?Wantoota biroo agarsiisa keessaatti? Haala uffataa,teessuma, kkf. Faallaa vs Aaadaa tajaajilamtootaa. Agarsiisa dhugaa,Agarsiisa ykn suuraa fooyya'aa ija-hawwatu

Yaadachiisa:-Mallattoo qajeelaa fayyadamtuu? Mallattoo "X"dhaan Ergaa fuullee(pos) fi faallaa(Neg) Ergaaleen dub-duubee irraa gutuumatti adda ta'eedhaa? Maqaa qopheessaa /Guyyaa maxansaa,Dhaabata malaqa deeggare/ispoonsara kan qabuu/hammatee dhaa? Maaloo yaada kee fakkeenyaan naaf ibsuu dandeessaa?

11.D. Sagalee fi suur-sagalee ilaalchisee qabxiilee maal maal irraatti xiyyeeffattuu? What are the points you consider regarding Audio/Audio-visual?

Yaadachiisa:-Hamma Sagalee/loudness?Saffisa itti darbu/ Speed of delivery/Dheerina itti tamsa'uu,callisa/Length of delivery, silence? Hubannoo itti qabxii tokkoo gara qabxii biraatti ce'u?

12. Muuxannoon keessaan qormaata-duraa ergaalee fi meeshaalee raawwachuurraatti maalfakkaata?

Yaadachiisa:-Maal qorattu? Maaliif qorannoo raawwattu? Eenyuudhaaf qorattu? Eessaatti qorannoo duraa gaggeessituu? Mana hojii keessaatti,Dirree irraatti? Namoota meeqa qorannoo

duraa keessaatti hirmaachiiftuu? Akkamiin isaan filattu? Tooftaa Bargaafii kam yeeroo qorannoo duraa fayyadamtuu? Qorannoo duraa eenyuutu raawwata/taasisaa?

Yaadachiisa:-Meeshaa qorannoo duraa akkamii fayyadamtuu?Eessaa meeshaa qorannoo duraa kanneen hoo argattu?

Yaadachiisa:-Qabiyyee gurguddoon yeeroo qorannoo duraa eenyuu fa'aadha?dorgomaa ta'uu,dubbifamuu,hawwataa ta'uu,fudhatama qabaachuu?,hirmaachisuu,qulqullina agarsiisaa/jechootaa ,mallattoolee, bakka bu'oonni safuu/aadaa eeguu,kakaasuu

Yaadachiisa:-Bu'aa qorannoo duraa argataniin akkam gootuu? kuffisuu/dabarsuu ,yaada kana fakkeenyaan akkamitti hiiktuu?

12.A. Hirmaattoota waa'ee ergaalee kan akka jechoonii kunneen isaaniif maal hiika maalii akka qabaan ni gaafattuu?

Yaadachiisa:-Iftoomina,dirqamsiisuu,ergaa hin barbaadamne,jechootni fakkiin wal-simachuu? Waa'ee jechootaa maaltuu sinitti dhagahama? Jechoota irraa wanti hir'atu yoo jiraatee

12.B. Hirmaattoota gaafii akka maaltu isinitti muul'ataa gaafaattuu? Suuraawaan maal jechuudha? Wantoota isaan himaan kamuu? Waa'ee suuraa maaltu sinitti dhagahamaa? Waa'ee suuraa ifa wanti hintaane yoo jiraate?jijjiiramni fuuladuraaf karoorfamaan/eraamaan? maaloo yaada kee fakkeenyaan naaf ibsuu dandeessaa?

13. Hojiirra oolmaa meeshaalee deeggarsa barnootaa qopheessitee akkamiin ibisitaa?

Yaadachiisa:-Akkamiin raabsitaa,karoora/tarsiimoo raabsaa **Yaadachiisa:-**sirna ykn neetwoorkii raabsaa tolchitanii jirtuu? **Yaadachiisa:-**Meeshaan qophaahaan tajaajila kennaa jiraachuu ni mirkaneessituu?Maaloo yaada kee fakkeenyaan naaf ibsitaa?

14.Hordoffii fi gamaaggama meeshaalee qophaahaanii akkamiin ibsitaa ?

14.1.Maal faa hordoftu?what to monitor?

Yaadachiisa:-Meeshaa deeggarsa barnoota fayyaa eessaa fa'atti maxanfamanii/kaayamanii? leenjiin si'a meeqa akka kenname,walgahii advookeesii,si'a/lakk sagaleen qinleensaarra oolee, dhaqabiinsa,raabsaa/facaatii/ meeshaa deeggarsa fayyaatti fayyadamuu,maaloo yaada kee fakkeenyaan naaf ibsuu dandeessaa?

14.2. Akkamiin hordoftuu?How you monitor?

Yaadachiisa:-:-Daawwannaa,bargaafii bahiinsaa,ragaalee ilaaluu,unkaalee gabaasaan fayyadamuu,dhaabbiin meeshaalee raabsamaan eddoo raabsamanitti sakatta'uu

Yaadachiisa:-;-yeeroo waliigalteettiin qilleensarra ooluu isaanii midiyaalee irraatti tamsa'aan dhageeffachuu,daawwaannaa duirree dhaabbilee meeshaan itti raabsamanii meeshaaleen jiraachuu mirkaneessuu dhaabbiin raawwaachuu?Maaloo yaada kee fakkeenyaan naaf ibsuu dandeessaa?

14.3.Maal gamaagamtu?What you evaluate?

Yaadachiisa:-Yoom yoom meeshaa degarsa barnootaa fayyadamtu? Yeeroo marii dhuunfaa,yeeroo marii garee guddaa,koonfireensii,duulaa,

Yaadachiisa:-;- Bu'aa dhufeen,taatee tajaajilamtootaa irratti dhufeen,raabsaa bu'a qabeessaa?

Yaadachiisa:-;- Maaloo yaada kee fakkeenyaan naaf ibsuu dandeessaa?Etc.

14.4.Akkamiin meeshaalee deegarsa barnootaa madaaltuu? How you evaluate? Bargaafii,marii garee,daawwannaa oggeeyyii fayyaa fi abbootii adeemsa sagantaalee,akka tajaajilamatti keellaa fayyaaa dhaquun,amala haaraa mamilaa ilaaluun,raabsuun fi kaayuun, **Yaadachiisa:-**maaloo yaada kee fakkeenyaan naaf ibsi.

15. Hudhaan/danqaaleen yeeroo qophii meeshaa deeggarsa barnootaa sin qunnamaan jiruu?

GALATOOMAA!!

Waraqaa Odeeffannoo maamiltoota hirmaattota bar-gaaffiitiif (interview) kennamu.

Galumsaa fi barbaachisuummaa qorannoo kanaa:

Akkam nagaa dhaa! Ani maqaan koo_____ jedhama. Ani ogeessa fayyaa Yeroon ta‘uu kanan hojjedhus_____ (bakka hojii kee itti himi) dha. Ani **obboo Taayyee Dabalee** tiif ragaa qorannoo sasaabaan jira. Obbo Taayyee Dabalee Yuuniivarsiitii Jimaatti diigrii lammaaffaa barnoota Dagaaggina fayyaa fi barnootaa fayyaa barachaa jiraa.Waraqaa qorannoo isaas meeshaalee deegarsa barnootaa kooronaa adeemsa qopheessuufii fayidaa irra oolmaa isaa komunikeeshinii balaa koroonaa fi hirmaannaa hawaasaa irraatti qorachaa jira.

Yoo qo‘annoo Kan keessatti hirmaattan Odeeffannoon isin kennitan hedduu faayidaa qabeessa ta‘uura darbee kaayyoo dhaabbatni fayyaa qabu bakkan gahuuf gargaara. Kanaaf yeroo ammaa kanaa qo‘annoo kana keessatti akka hirmaattan fedhii keessa nan barbaada dabalataanis tajaajila fayyaa argachuuf dhuftan dabaree keessan eggatanii itti fayyadamuu danda‘uun keessan akkuma jiruutti Kan eegame dha.

Adeemsa bar-gaaffiicha

Qo‘annoo kana keessatti hirmaachuun yoo fedhii keessan ta‘e bar-gaaffiin keessumaa iyyuu waa‘ee Meeshaa deegarsa barnoota koroonaa waliin walqabatu isin waliin taasisa. Bargaaffin kunis karaa Karaalee/haala meeshaa deegarsa koroonaa ittiin qopheessanii fi iitti fayyadamtaan Kan ilaalu ta’aa. Bargaaffi Kan mijeessuudhaaf waraqaa gaaffi muraasa

waanan fayyadamuuf iddoo waraqaa irratti kennametti deebii keessan barreessaa. Bargaaffiin Kun daqiiqa 20 hanga 30 tti fudhachuu Ni danda‘an

Iccitii:-Odeeffannoon isin laattan Kun eeynumattuu dabarsamee hin himamu.Namoota qo‘annoo kana gaggeessan qofaatu odeeffannoo kana beekuu danda‘a.Maqaan keessan essumattuu hin barreeffamu, mallattoo dhoksaa waliigalaa adda ta‘e fayyadamuurraa Kan hafe.

Balaa ykn haala hin mijoofne:-Odeeffaannoo waa‘ee dhuunfaa ofii laachuun xiqqoo Ishii namati mijaa‘uu dhiisuu Ni danda‘a, ha ta‘u maale haalli Kun akka uumamu waan hin feeneef, yeroo kamiyyuu odeeffannoo Kan laachuun yoo isaa mijachuu baate didun mirga isaati.

Faayidaa:-Namni qo‘annoo kana keessatti hirmaatu waan hirmaateef faayidaan ykn kanfaltiin isaaf

kennamu akka hin jirre beeku qaba, garuu barumsi isin irraa argamu sagantaa kana guddisuufi dhukuba kooroonaa ittisuuf faayidaa guddaa qaba.

Mirga hirmaachuu didu ykn addaan kutuu:-Yeroo keessan hedduu mi‘aawaa ta‘e kana hojii birraa osoo hojjechuu dandeessani naaf laattani bargaaffi Kan keessaatti hirmaachuu keessaniifi odeeffannoo isin naaf laattaniif iddoo guddaan kenna.Haata‘umalee qo‘annoo kana keessatti hirmaachuufi dhiisuun mirga keessani. Ani yoomiyyuu murtii keessan Nan kabaja, kanaafuu fedha keessan ta‘uu baannan yeroo barbaaddanitti bargaaffii Kan addan kutuu Ni dandeessu.

Odeeffannoo dabalaataatiif teessoo armaan gadiin quunamtii gochuu Ni dandeessu

Gaaffii waliigalaa waa‘ee qo‘annoo kanaa irratti yoo qabatan;

Namni qo‘annoo kana akka addadureetti gaggeessa jiru: Taayyee Dabalee, Bill: **0910954078** email: taye.debele@gmail.com.

Waraqaa Eyyama maamilaan bar-gaafii irratti (interview) irratti hirmachuu agarsiisu.

Waa‘ee qorannoo kanaa haala gahan hubadheera. Barbaachisuummaan isaas sabaaboota meshaalee deegarsa barnootaa fayyadamuu dhabuu kanaan walqabataniin kkf fi akkaataa mamiltoonni itti tajaajila fayyaa jiruutti fayyadamuu danda‘anu fi tatamsaa‘inni dhiibee kana itti hirisamuun danda‘amuu irratti fala barbaaduuf ta‘a. Itti dabalatees immoo bar-gaaffiin Kun daqiiqaa 20-30 akka fudhatu natti himaamera. Qo‘annoochi dhibee gudda narran geessiisuu akka hin jiree haa ta‘uyyuu malee wanti deebii kennuu irratti namatti hin mijoofne akka jiruu natti himameera. Odeeffannoon kanarra argamuu qorannoon alatti icitumman isaa Kan eegame akka ta‘e hubadheera.

Ani qorannoo kana irratti fedhiikoo guutuudhaan hirmaachuuf fedhakoo yommuu kennuu yeroon fedheerratti bar-gaafficha addaan kutuuf mirga akkan qabu Nan beeka.

Maqaa hirmaataa, guyya fi mallatoo isaa/shee

_____, ____/____/____ (gg/jj/bbbb)

_____ mallatoo.

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university, and that all sources of materials used for the thesis have been fully acknowledged.

Name of student**: -** **Taye Debele**

Signature**:** _____ **Date**: _____

Name of the institution**: -** **Jimma University Institute of Health**

This thesis has submitted for examination with mine approval as University advisor

Name of advisor	**Signature**	**Date**:
1. Dr.Yohannes Kebede (PhD, Associate Professor)	_____	_____
2. Mr. Firanbon Teshome (MPH/HPHB,LECTURER)	_____	_____
3. Mr. Demuma Amdisa (MPH/HPHB,LECTURER)	_____	_____

Approval of internal examiner

As member of the board of examiners of the MPH thesis report open defense, we certified that we have read and evaluated the thesis report prepared by **Taye Debele** and examined the candidates report. We recommend that the report to be accepted for implementation and further actions as fulfilling the thesis requirements for the degree of Master of public health in health promotion and health Behavior.

Name of internal examiner: Dr.Zewdie Birhanu (PhD, Associate Professor)

Signature: _____ Date: _____

Name of external examiner: Dr.Mirgissa Kaba (PHD, Associate Professor)

Signature: _____ Date: _____