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ADDIS ABABA UNIVERSITY

COLLEGE OF HUMANITIES GRADUATE STUDIES

SCHOOL OF JOURNALISM AND COMMUNICATION

**DEPARTMENT OF PUBLIC RELATIONS AND STRATEGIC
COMMUNICATIONS**

**INVESTIGATING THE COMMUNICATION STRATEGY DURING
COVID-19 PANDEMIC: THE ETHIOPIAN PUBLIC HEALTH INSTITUTE
IN FOCUS**

BY: Samuel Abate

Advisor: Amanuel Abdissa

June, 2024

Addis Ababa, Ethiopia

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COVID-19 PANDEMIC: THE ETHIOPIAN PUBLIC HEALTH INSTITUTE
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**A THESIS GIVE IN TO THE SCHOOL OF JOURNALISM AND
COMMUNICATION IN PART OF THE REQUIRMENTS FOR THE
DEGREE OF MASTERS OF ARTS IN PUBLIC RELATION AND
STRATEGIC COMMUNICATION**

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Advisor: Amanuel Abdissa

June, 2024

Addis Abab



AFFIRMATION

This is to affirm that this thesis titled: **Investigating the Communication Strategy during Covid-19 Pandemic: The Ethiopian Public Health Institute in Focus** is my own new effort and as far as my understanding and trust is concerned, the thesis doesn't encompass the works of other individuals without appropriate academic acknowledgement. Also, I can assure that this paper has never been presented or being stand up to other academic fulfillment purpose in any languages.

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DOCUMENTATION OF ENDORSEMENT

It is to endorse that the paper prepared by Samuel Abate entitled: **Investigating the Communication Strategy during Covid-19 Pandemic: The Ethiopian Public Health Institute in Focus** and stand up as part of the requests of MA degree in journalism and communications, specialization in Public relations and strategic communications act in accordance with the guidelines of the university and come across the conventional principles in relation to uniqueness and quality.

Ratified by: Board of Examiners

Amanueal Abdissa _____

Advisor's Name	Signature	Date
_____	_____	_____

Internal Examiner's Name	Signature	Date
_____	_____	_____

External Examiner's Name	Signature	Date
_____	_____	_____

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ABBREVIATIONS

BCC= Behavioral Change Communication

CCRDA =Consortium of Christian Relief and Development Association

CEWARN=Conflict Early Warning and Response Mechanism

COVID-19=Coronavirus Disease 2019

CSOs=Civil Society Organizations

EOC=Emergency Operation Center

FBOs =Faith-Based Organizations

FGD=Focus Group Discussion

HEWs= Health extension workers

IAR= Inter Action Review

IDRC=International Development Research Center

MOH = Ministry of Health

MOWCY=Ministry Of Women, Children and Youth

NCCRS=National COVID-19 Communication Response Strategy

NGO= Non-Governmental Organization

NRIH=National Research Institute of Health

PHEOC =Public Health Emergency Operation Center

PSI= Population Services International

SMS =Short Message Service

SNNPR= Southern Nation Nationality People's Region

SPM =Strategic Plans Management

TV= Television

WWW= World Wide Web

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Abstract

Communication strategy is a means in which organizations used to communicate their targets so as to facilitate and achieve their long term strategic goal. The study aimed to investigate the communication strategy employed by EPHI during COVID-19 pandemic. Qualitative investigation strategy was applied to conduct the research. Purposive & judgmental sampling design techniques were used to select research participants. 14 research participants were selected and used as sources of primary. Data were collected through key informant interviews, focus group discussion and document analysis. Guided by WHO 2020 COVID-19 communication strategy framework and different communication theories namely crisis communication theory, excellence theory, multimedia approaches, system theory and integrated communication approach, qualitative data were analyzed thematically in accordance with the specific objectives of the study. The study found that combinations of various communication channels with different COVID-19 related messages were utilized by EPHI to reach the public. Printed form of communication channels, mass Medias, online communication platforms, telecommunication based communication channels; mass campaign and press release were the most commonly utilized communication outlets by EPHI in the time of corona virus epidemic. Accordingly, the study found that brochures, billboards, newspapers, posters, leaflets, and printed behavioral change communication tools (BCC) materials were important communication modalities during the pandemic to deliver messages to the public. Broadcasting COVID-19 related information using mass Medias such as TV and radio was also taken as an important communication alternative by EPHI during the pandemic and hence massive information on COVID-19 was disseminated using this platform. The institute also used online communication platforms particularly through official website, Facebook page, twitter page, telegram channel and YouTube to grasp members of the society who are familiar for different social media platforms. EPHI also tried to communicate the public through text messages and cell-phone ring tones. Besides, mass campaign in public spaces via politicians, public figures and opinion leaders was critically employed by EPHI during the pandemic. Through the utilization of these communication channels, better health information managing system, high involvement of stakeholders in the communication efforts, and high Medias consumption were found to be some of the positive outcomes observed during the pandemic. However, misperception and low risk perception, poor communication and information sharing practice and the existence of limited

communication access in rural parts of the country were found to be the foremost encounters that touch the communication efforts of EPHI during the pandemic. Inaccurate and false information has been circulating in different social media platforms in relation with how the virus originated its cause, its treatment, and its mechanism of spread. Thus, the circulation of misinformation on different media alternatives was a challenge to change the risk behavior of the public. Due to this reason, people tend to not hear, not remember, or misinterpret information the accurate information. Though, the rural community constitute huge portion of the national population, there were too limited access to information during the pandemic. Only few communication channels like Ethiopian radio, FANA and regional radio stations were accessed by the countryside populations. Despite the various challenges that affect the communication strategies of EPHI, the paramount importance to utilizing a combination of communication channels and the importance of innovative communication approaches are found to be important communication lessons learned from COVID-19 communication. The study recommended that EPHI and other concerned bodies should provide information to rural communities based and targeted information distribution strategies.

Keywords: Communication strategy, communication channel, challenges, EPHI, communication lessons, COVID-19

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

It is plausible to state the fact that communication is inevitable and it is a necessary condition for making meaningful interaction among human beings. With this regard, Watzlawick et al., (1967), meticulously stated that people are inevitably obliged to interact with one another. It is a process of conveying, swap over and distributing evidence to produce common indulgent for anticipated accomplishment among conversationalists. It has also a vibrant function in forming consciousness in the community. It should be polished and premeditated so as to get the anticipated amendment of conduct grounded on common thought amid the source and consumer (Tesfaye, 2020).

As far as the various organizations are operated by persons, they are expected to understand the essence, and the potential contributions of communication. Accordingly, maintaining operational evidence transmission can have a critical contribution in guaranteeing the ends of an institute in this swiftly changing and dynamic world. To this end, strategic communication is found to be an important tool of prevention during the COVID-19 pandemic (Bernhardt, 2014). Fundamentally, the principle was established basically to discourse the necessities for industries to think a new improved publicity methodology as an alternative of the usual publicizing. It forms a pathway where every single responsible organ understands the aims of others and also increases in value of the amenities obtainable (Ebenezer *et al*, 2020).

Strategy communication is an elegant succession of engagements intended at attaining definite purposes by means of communication means, skills, and methodologies to unravel difficulties on the ground (Kamlongera, 2004). The stratagem should be combined, have a continuing focus, be reactive to personal conduct alteration need, and must make best use of modification on a wider communal context (O'Sullivan, 2003). Likewise, for Page & Parnell (2019), strategic communication is communicating a fact which gratifies an extensive intentional end of a business by letting simplification of progressive scheduling.

In relation with organizational communication strategy, presence of multidimensional components should be given sufficient attention and matters that should be considered and deeply understood. In order to sustain an effective organizational communication, an operative communication strategy which involves a multi-faced and intentional plan should be designed. Accordingly, understanding and probing deep in to the nuances incorporated in the communication strategies of an organization in general and health sector in particular can have a tremendous contribution in saving the lives of many people with chronic diseases.

So as to make the health communication productive, it should be tactical, well-timed and actual (Bernhardt, 2014), and should also highlight on distribution of evidence that impact different targets and inspire the mark watchers to convey elongated as well as maintainable adjustment of deeds over and done with simply comprehensible ways of broadcasting (Schiavo, 2007). Henceforward, harmonization and partnership midst numerous participants are the indispensable constituents that lead health message in effect (Frieden, 2014).

The public health institute are one of the health sectors working for maintain the wellbeing of the entire people (Barillé *et al*, 2021). Accordingly, such institutes are expected to reach their information to the vast majority of the diversified cultural groups found in several countries. In connection with this, a communication strategy that embraces a well-articulated directions and mechanisms can bring remedies for organizations in this complex and dynamic world (Barillé *et al*, 2021). With this regard, (Viola et al., 2021) noted that communication in the health field has therefore played an essential role in the management processes of the COVID-19 pandemic. However, it is well recognized that public health is a highly difficult field in which to intervene with massive communication campaigns to inform citizens about health risks and disease prevention (Viola et al., 2021)

Apparently, a communication strategy is an antidote in minimizing risks and maintaining harmonious solidarities, interactions, and connections during the time of natural disasters, man-made calamities and health related catastrophes such as the corona pandemic and much other devastation (Barillé *et al*, 2021). By discerning the possible challenges and opportunities, an integrated communication strategy used in the public health institutes contributes a lot in terms of fostering partnerships, reaching information about health related issues to the larger public as well as attaining the articulated goals, visions and missions (Ibid).

Furthermore, the communication strategy of public health institutes indeed necessitates or requires an all-inclusive articulation of messages to be conveyed, channels employed, and how, and when the information is also disseminated due to the fact that health associated issues are universal and take account of the vast majority stakeholders (Dubé et al., 2022). Due to this reason, strategic communication is taken as essential preventive measure during the corona virus epidemic to public adherence and in turn to control the spread of the virus (Ibid).

The corona virus plague was disastrous disease across the entire world and many public health institutions were working on awareness creation, and information dissemination aiming at minimizing death of people. For the sheer efficacy of training, reporting, campaigning, teaching, vaccinating, and reminding people about the pandemic the Ethiopian Public Health Institute (EPHI) strived using multiple channels of communications. Without a doubt, one of the furthestmost startling disquiets claimed by intellectuals, amongst the agenda of the corona virus crisis since the very foundation was the danger of dishonesty and the capability to involve by the societies convoluted (WHO, 2020).

As soon as the first COVID-19 case report, the government of Ethiopia has strengthened its preparedness and response efforts to combat COVID-19 and has set up a well-organized national preparedness and response coordination mechanism through an Emergency Operation Center. Besides, the Ethiopian government has set up four different levels of coordination. The first set up was the National Disaster Risk Management Council led by the deputy prime minister's office. In addition, Public Health Emergency Management (PHEM) incorporated a multi-sectorial national task force led by the Minister of Health was another set up established to respond the COVID-19 pandemic. Moreover, the public health emergency management (PHEM) technical taskforce that has been managed by the Director-General of Ethiopian Public Health Institute (EPHI) was established. Finally, as part of the preparedness and response effort of COVID-19, the PHEM Technical Working Group led by the national incident manager was established. In doing so, as of 31st March 2020, a synergistic approach COVID-19 humanitarian action has been coordinated by the established Emergency Coordination Center and national and regional the task forces were established in all regions (Mekonnen, 2020).

The EPHI is a governmental organization which is responsible for the Ethiopian Ministry of Health and works on informing the larger public about the situations various diseases in common

and the corona virus epidemic in specific. The institution's strategic communication was obliged to be influenced by the adverse effect of the pandemic. The institute found to be the primary governmental institution to lead the aforementioned preparedness and response efforts to contest COVID-19 in collaboration with other responsible stakeholders.

Therefore, guided by WHO 2020 COVID-19 communication strategy framework and different communication theories namely crisis communication theory, excellence theory, multimedia approaches, system theory and integrated communication approach, this study assessed the communication strategies implemented by Ethiopian public health institute during the COVID-19 pandemic. In doing so, the study particularly tried to investigate the communication channels utilized; communication outcome recorded, lessons learned from the incident and the challenges faced by Public Health Institutes during the pandemic.

1.2. Statement of the Problem

It is undeniable fact that an effective communication strategy of a public health institution is a foundation for smoothing the disseminating of critical information, strengthening public participations, and eventually contributing to the realizations of positive health results (Barillé *et al*, 2021). In addition, it is a means for creating and maintaining coaxial interactions between the public health institute with various individuals, government and non-governmental agencies as well as the community at large (Dubé *et al.*, 2022). However, despite these theoretical facts, the selection of contents of messages, preference and application of communication channels, and identification of stakeholders in place affect the implemented communication strategy. This was practically evident during the COVID-19 pandemic communication and EPHI faced this problem as well. Thus, the current study tried to address these problems in reference with WHO 2020 COVID-19 communication strategy framework, crisis communication theory, excellence theory, multimedia approaches, system theory and integrated communication approach focused on contextual setting of EPHI.

As it is clearly stated in WHO (2020), one of the utmost imperative and in effect intrusions in community wellbeing foundation's reaction to every incident is to proactively lead into what is identified, what is mysterious, and what is being prepared to catch new evidence, with the

purposes of safety lives and diminishing adversarial outcomes. However, the implementation of communication strategy of EPHI during the pandemic was not in a manner that fitted the WHO communication principle. For instance, a study conducted by Mekonnen (2020) found out that governmental efforts have not been enough to reduce the spread of the virus. Thus, the current study tried to assess the communication outcomes of EPHI in accordance with the WHO 2020 COVID-19 communication strategy framework.

According to Cernicova-Buca & Palea (2021), the contests conveyed through the corona virus epidemic have highlighted the prominence of specialized communal message conduction grounded on right, well-timed, inclusive and easily reached statistics. Apparently, since the corona plague was critical and timely, institutions in general and the public health institutions were inevitably obliged to make structural adjustments in their communication strategies and modalities. Thus, during the corona virus plague, the community has an exigent necessity for truthful health facts. Large portion of the population was retrieving facts from numerous alternatives regarding the virus.

So far many researches were conducted and conclusions were shown in the area. (Barillé *et al*, 2021, Dubé *et al.*, 2022, WHO, 2020, Cernicova-Buca & Palea, 2021, (Kim *et al.*, 2022), Viola *et al.*, 2021, Crocchi (2020), Vraga & Jacobsen (2020), Tesfaye, 2020) & Mekonnen, 2020). The findings of previous researchers in the area found that there were underlying communication challenges during the pandemic. As to Cernicova-Buca & Palea, (2021), the corona virus epidemic confronted the communication mechanisms of community health establishments, administrations, and even global establishments because of the extent and concentration of the calamity. According to Viola *et al* (2021), reaching information to the target groups in the time of contagion was not an easy task due to the established unrealistic justifications about the pandemic, common sense relied perception and behavior of the public and traditionally driven explanations. To mention some of these unrealistic public justifications some community members thought that the virus was a disease for the Westerns, not for unindustrialized nations like Ethiopia. Several also contemplate the problem is imaginary, and they do not upkeep about it. Some also trust Divinity will save them from the problem (Tefaye, 2020). For Vraga & Jacobsen (2020), due to the dissemination of information from the various sources, there were struggle to find relevant information specific to individuals questions and needs.

According to Crocchi (2020), the disseminations of incorrect, regularly astonishing, evidence in the semblance of broadcast reportage, contradicting beliefs and shared values of social groups in relation with COVID-19, politicization of the pandemic, low public trust towards media outlets, and contradicting scientific debates towards the pandemic were some of the challenges during the pandemic.

Likewise, a study conducted by Tesfaye in 2020 on the community's reaction to the health announcement approaches to foil the spreading out of corona virus in Ethiopia found there fundamental challenges in the time of the plague. As to this study, the community's discernment and dearth of broadcasting materials were major defies during the pandemic. Moreover, as to Tesfaye's (2020) study, the community turn out to be careless in the deterrence actions that should be in placed because of their way of life, ethos, and collective effect as well as squat economic position. However, the challenges in the study are assessed from the public perspective and less attention was given for institutional perspective. Thus, this study tried to address the different challenges faced by EPHI including the challenges in changing the misperceptions of the public and challenges faced to reach the rural communities. The current study also tried to assess the lessons learned by EPHI from these institutional communication challenges faced during the pandemic.

Another study conducted by Mekonnen (2020) in Ethiopia also bring into being out that restricted administrative determinations have not been plenty to lessen the banquet of the virus was a challenge during the epidemic. This researcher also claimed that the government is found to be limited to communicate to high-risk and vulnerable groups during the corona virus pandemic. However, this study focused on the overall administrative actions taken during the pandemic and hence less attention was given to the communication part in particular.

In addition to the existing empirical evidences, the review of different documents in relation with EPHI COVID-19 communication during the pandemic also showed that there were underlying challenges that affect the communication effort of the institute. Among the others, underprivileged courtesy prearranged to corona virus at entirely intensities by way of all liable groups; lack of full information on circulating variant and circulation of Alpha and Beta variants and COVID-19 vaccine related misinformation and hesitancy were critical challenges during the pandemic as indicated on EPHI,2020 weekly bulletin.

Through addressing the above gaps, it is reasonable to see the communication the efforts made by the Ethiopian Public health institute, challenges confronted and finally communication lessons learnt during the COVID-19 pandemic. On top of this, assessing the communication strategies employed by the EPHI could mean a lot in terms of understanding the efforts made to minimize crisis, enhancing participation of diversified communities through utilizing various communication channels aiming at dissemination of information. Therefore, the perseverance of this research is to study the communication strategy implemented by Ethiopian Public Health Institute during the COVID-19 pandemic.

1.3. Research Questions

The current research is supposed to riposte the subsequent investigation queries.

- ✓ What were the communication channels utilized by Ethiopia Public Health Institute in disseminating information related to COVID-19?
- ✓ What were the communication impacts that could be expressed in terms of achievement or failure?
- ✓ What were the challenges and barriers faced by Public Health Institutes in communication management during the COVID-19 crisis?

And so, the research tried to answer the above questions. These points are also served as a foundation to prepare guiding questions of the research. Also, specific objectives are also prepared based up on the guidance of the above questions. Finally, the whole paper is framed in accordance with the prepared question in a manner to address them.

1.4. Objectives of the Study

The current research has the ensuing general and specific objectives.

1.4.1. General Objective of the Study

The general objective of the study is to examine the effectiveness of the communication strategy employed by the Ethiopian Public Health Institute (EPHI) in addressing the COVID-19 pandemic, from the perspectives of key stakeholders.

1.4.2. Specific Objectives

Below are the specific objectives of the research:

- ✓ To identify the communication channels and approaches utilized by EPHI to disseminate COVID-19-related information to the public and other relevant stakeholders.
- ✓ To evaluate the perceived effectiveness of EPHI's communication strategy in terms of its impact on public awareness, understanding, and adherence to COVID-19 prevention and control measures.
- ✓ To investigate the challenges and barriers faced by EPHI in implementing an effective communication strategy during the COVID-19 pandemic,

1.5. Significance of the Study

As the research is confined to examining the communication strategy employed by Ethiopian Public Health Institute in the time of the corona virus epidemic, it will have the following contributions.

This study will unfold the communication strategies especially the channels used by Ethiopia Public Health Institute to cope up with the severe epidemic, COVID-19 and provide valuable understandings. Examining the communication strategies employed by the Ethiopian Public Health Institute during the time COVID-19 pandemic will give a lesson for other organizations facing crisis. Furthermore, the study will show the potential challenges of communication strategies of the EPHI during pandemic. Accordingly, the institute will make a structural adjustment on the communication strategies employed. The study will further be a mirror for the EPHI in identifying the communication gaps which occurred during the COVID-19 pandemic. Moreover, this study will serve as a means of unfolding the best practices of the communication strategies used by EPHI during the COVID-19 pandemic disease so that other organizations can take lessons. Finally, the study will be a potential source for other researches who intend to study issues like COVID-19 and other disastrous occurrences. In the end the finding of this study will contribute significant amount to develop strategic health communication document to tackle the challenges of Covid 19 which is now listed as one of common communicable disease, that hugely impact health care service delivery of nations.

1.6. Scope of the Study

Conceptually speaking, this enquiry is specified to gaging the communication strategies executed by EPHI in the time of the corona virus contagion in terms of the communication channels used, the communication outputs recorded and the challenges encountered and lessons learned during the pandemic. With this regard, the organization studied is the Ethiopian Public Health Institute, the head quarter. In terms of the time scope, the study has focused on the communication strategies implemented in 2020/2021 fiscal year. The rationale to focus on this year is because the pandemic was at its peak in Ethiopia in 2020/2021. To address these thematic and temporal scopes, the study focused on the communication specific target population including communication director, coordinators and experts who are/were working at the communication department of EPHI during the pandemic.

1.7. Organization of the Thesis

The paper is arranged study into five sections. The first chapter compacts with upbringing of the study, avowal of the unruly, objective, scope, significance and precincts of the investigation that the investigator faced while conducting the current research. The subsequent section incorporated an appraisal of associated writings followed by the 3rd subdivision that consists of with the methodology of the process which particularly, embraces of the inquiry method, research strategy, the sample selection process, data gathering techniques, principled contemplations and validity of the research and how the collected data will be analyzed. The fourth part deals with the information analysis that made established on the articulated research questions of the issue. Finally, the 5th section encapsulated a brief summary, and the endorsements forwarded based on the major findings. In addition, the paper has preliminary and appendix parts. In the appendix part of the paper, guiding questions for key informant interview and FGD are attached. Also, points that pondered for document review are attached in the appendix part as well. Thus, efforts are made to organize the paper in accordance with the scientific process of the research parts.

1.8. Limitations of the Study

It is undeniable fact that while conducting a study, a researcher is deemed to face limitations. In connection with this, I the researcher may face limitations in collecting the data needed in time because of the bureaucratic administration system in the institute. Moreover, fearing their

position, the communication manager and the higher experts in the communication directorate may be reluctant and frustrated to provide the data needed for the study since the current condition of the country is not as such convenient that there is distrust among people.

The scope of the study is limited on the communication strategy of the Ethiopian Public Health Institute, which may limit the broader applicability and generalizability of the findings. However, since duplication and generalization of findings to similar contexts are not the concern of qualitative research, the researcher tried to show the EPHI context only to overcome the limitation.

Moreover, the study is limited to encompass the COVID-19 communication strategies from a multi-stakeholder perspective which may not show the national context beyond the Ethiopian Public Health Institute. The rationale behind this limitation is because EPHI was the leading institution to the COVID-19 pandemic preparedness and response so that the finding may show the true picture of the issue understudied.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. Review of Concepts Underlying in Communication

Communication is a course of communicating, swap over and distributing information to produce common thought for anticipated accomplishment amid conversationalists (Tesfaye, 2020 cited in Priya, 2009 & Halavais, 2004). . It has also a vibrant function in forming consciousness in the community. It should be polished and premeditated so as to get the anticipated amendment of conduct grounded on common thought amid the source and consumer (Tesfaye, 2020).

Strategy communication is an elegant succession of engagements intended at attaining definite purposes by means of communication means, skills, and methodologies to unravel difficulties on the ground (Kamlongera, 2004). The stratagem should be combined, have a continuing focus, be reactive to personal conduct alteration need, and must make best use of modification on a wider communal context (O’Sullivan, 2003). Likewise, for Page & Parnell (2019), strategic communication is communicating a fact which gratifies an extensive intentional end of a business by letting simplification of progressive scheduling.

Strategic communication could be applicable in different sectors like the health sector. As stated by Viswanath (2008), health communication is the study and application of a strategy for the generation, creation, and dissemination of health-related information, health-related interactions among individual, social actors and institutions, and their effects on different public, i.e., including individuals, community groups, and institutions which ultimately facilitate the processes in the prevention and treatment of diseases (Viswanath, 2008).

Communication is an operating system of a society having similar function as operating system of a given program like a computer or phone that helps the integration of different people in the systems (Trunner, 2014). Communication is a representative, albeit small, sample of ideas about communication from a wide range discipline (Hauser, 1997). From the above four definition it

can be understood that the communication needs to be effective as well as with high –quality information sharing and exchange.

According to Ebenezer *et al* (2020, p.36), the prior motive for consuming the integrated communication tool is to deliver operational extent of information to mark onlookers, rise transactions and for commercial endurance. Eldar (2014) also suggest that integrated communication a means of revealing trademarks advert in which the most appropriate and active approaches for communicating and building interface with their customer as well as other stakeholders such as employees, suppliers, investors, interest groups and the general communal. Accordingly, rudiments of an integrated communication can include broadcasting, missive, reliability, design consistency, strengthening and transactions configuration.

In line with this Jyothi (2010) asserts communication management as a process that helps to effectively work on the organizational goals. Communication management has a crucial role for the success of a given campaign and public plan accomplishment. Though its role is not given enough weight by stakeholders on one hand and campaign management methodologies are not followed by the leaders of the campaign on the other hand (Monteiro de Carvalho, 2013). Moreover; communication is not only important for a given campaign objective but also for tracking the gaps in communication and the risks for a campaign plan (Muszynska, 2015).

Application of the Campaign Plans at EHPI is much related with its success rate in line with planning, managing and controlling communication. The EHPI has worked on communication campaigns at different periods. As said in the previous part of the study, it has been confirmed different efforts are conducted towards the successful accomplishment of EPHI activities (Mekonene, 2020).

An intentional communication idea is a written plan showing the communication plan of a given organization on its organizational objectives. It integrates all organizational programs and advocacy efforts (Grunig, 1984). It helps to practice and deploy resources in efficient and strategic manner (Broom and Yeomas, 2006). Thus the strategic communication helps to persuade, influence behavior, attitude and overcome a given challenges and capitalize on the opportunities (Kendall, 1992; Fresenbet, 2018). Likely Hendrix (2000) the planning has to comprise the planning process to help the organization to pass by/overcome challenges and

capitalize on the opportunities in the same manner. In line with the planning the process and outcome have to work effectively based on the planning to reach on better prospects or outcomes.

Health communication strategy aims to change people's knowledge, attitudes and behaviors (KAB). In addition it is about the change of behavior of audiences (Sewasew, 2014). Therefore Federal Ministry of health communication strategy planned at EPHI is expected to guide the health campaigns scientifically. It further establishes the feedback and campaign FMOH directives and rules (Wondimu , 2018). It comprises of theories that can help to present from both school of thought at the same time. According to Sage (2014) the communication literature and strategy are related. Based on these constructive marks the study here under study refers towards strategic communication plan. Besides, both strategy and modern communication or campaign scholar have common shared values. Therefore it is for good to examine the health communication strategies as well.

In this process as stated above the objectives and formulation of action with strategies identified for response helps to apply effective communication. These stage plays communication process between the sender and receiver. A communications management process is a method by which formal messages are identified, created, reviewed and communicated within a project. Clear, accurate and timely communication is critical to the success of any project, as miscommunication can result in increased project risk. Clear project communication therefore ensures that the correct stakeholders have the right information, at the right time, with which to make well-informed decisions (Saunders, 2009).

2.2. Review of Theoretical Frameworks

2.2.1. Risk Communication Theory

Risk communication is the process of exchanging information among interested parties about the nature, magnitude, significance, or control of a risk (Sheppard *et al* (2012) cited in Covello 1992). It is a transmission based view, focusing on “the collection, processing, and dissemination of information required addressing a crisis situation” (Coombs & Holladay, 2010). Additionally, crisis communication is usefully viewed as a series of communicative practices and processes that seek to foster safety and organizational stability when normal operations are challenged by crises. Crisis communication in organizations is part of the larger interdisciplinary field of

disaster response and emergency management that includes organizational communication, public relations and strategic communication, issues management, organizational rhetoric, crisis management, and management science disciplines. The plurality of the disciplines converges in the investigation of best practices in the complex organizational ecologies of organizational crises (Coombs & Holladay, 2010). The concept for SCCT is a theory that is audience oriented, used for understanding psychological attitudes and attributes that participants/audiences have towards a leading organization during a crisis (Kyrnychok, 2017).

There is a general consensus that risk communication is a two-way process between the communicator(s) and the recipients of the messages, but beyond that, different definitions often include unique variables and understandings. Organized and centralized risk communication efforts grew out of legal and regulatory mechanisms regarding community right-to-know. As official risk communicators engaged with publics, interest increased in how such communication could be most effective, with initial questions focused on message creation but expanding to query how audiences' process and act on messages, leading to a deep body of risk communication research. Risk communication is focusing on information presentation, persuasion, and strategic messaging. Additionally, failures at controlling or managing risk effectively can lead to a crisis, or a crisis may lead to the necessity for risk communication (Coombs & Holladay, 2010).

Therefore, guided by the central essence of this theory, how the Ethiopian Public Health Institute (EPHI) communicated with the public during this COVID-19 unprecedented crisis has been assessed. Using the theory as theoretical basis, how EPHI develop and implement communication strategies to share information, address concerns, and maintain public trust during COVID-19 crisis situation was addressed. Furthermore, the EPHI's communication approaches specifically channels, and messaging used is analyzed in reference with this theory.

Moreover, the various factors that could challenge the effectiveness of EPHI's crisis communication in relation with such as the institution's reputation, accessibility of the utilized communication channels, misperception of targeted audiences towards the issue, and public negligent towards the communication messages are evaluated as per the arguments of this theory. Finally, this theory helps the current study to investigate the strategies employed by EPHI for COVID-19 crisis management and response.

2.2.2. System Theory

According to this theory, public relations professionals must constantly monitor their environment, intended goals, actions and feedback from stakeholders and publics in order to make the necessary changes to the organization to fit within the environment (Grunig, 2002). This theory seeks to show and develop hypothesis around characteristics that come within complex systems that seemingly could not arise in any single system within whole.

As a result, steered by the central essence of this theory, the current study tried to look into whether the communication channels utilized by EPHI during the COVID-19 pandemic consider the paramount importance of audience scanning, communication goal setting and stakeholders feedback or not. Moreover, the study tried to analyze whether the communications outcomes of the EPHI communication in the period of the contagion were effective or not. Finally, through the lenses of the central essence of the theory, the study tried to relate whether the COVID-19 communication plan of EPHI consider the important elements of communication inputs, throughput, output and feedback or not.

2.2.3. Excellence Theory

This theory specifies how communication strategies, management and public relations of an organizations make it more effective, how it has to organized and managed in order to contribute for organizational effectiveness and determine the value of communication campaign (Grunig, 2012).When organizations are effective their organizational reputations increase as well as perceptions from stakeholders on their services and products increase. According to Grunig (2012) the excellence theory explained the value of communications and public relations to organizations and society based on the social responsibility of managerial decisions and the quality of relationships with stakeholders publics (Grunig, 2012). In addition an organization to be effective it must work in ways that solve the challenges and achieve the goals of stakeholders as well as management. In addition this theory intends organizations need to scan their environment to identify publics who are affected by potential organizational decisions and in efforts to solve problems. It claims that organizations to be effective they have to solve their challenges and achieve the goals of both the publics and stakeholders.

Thus, using the assumption of this theory, the ways to solve communication challenges faced by EPHI during the pandemic are analyzed. Furthermore, the communication outcomes of the institute are addressed through the lenses of this theory. Thus, in this research efforts are made to evaluate whether the communication strategy of EPHI best fit the arguments of this theory or not. To this end, the key assumptions of the model are used as the evaluation parameter in relation with the case of EPHI in the time COVID 19 contagion. The consideration and involvement of key stakeholders in the communication efforts of EPHI is the crucial evaluation parameter among the others.

2.2.4. Multimedia Approaches

According to this approach, a single media isn't better over the other. For this approach, a single communication media doesn't result in the most effective to the behavioral change of the information consumers.

Based up on the central essences of this approach, the researcher tried to assess the types of media selected and implemented in the study area since the issue is one of the objectives of the study. This approach suggested the importance of multiple media outlets and the question "what about the case in the study area were assessed. Finally, the effectiveness of the implemented media types was also evaluated in the study. Thus, in the current research, efforts are exerted to see the application multimedia alternative by EPHI in the period of COVID 19 avoidance stratagems.

2.2.5. Integrated Approach

This approach focuses on the combination and utilization of multiple communication channels in a suitable proportion, contingent on the recognized handled desires, commercial, and administrative actualities of a public structure (Saunders, 2009). And thus diminishes the restrictions of the different single approaches (Morris, 2000). This approach ponders a requisite for access to unswerving systematic statistics. Through this approach, the current study tried to look into the types of information flow implemented, effectiveness and associated challenges in the study area. According to the approach different communication strategies should be

supplemented each other so as to be effective. Therefore, the study tried to assess whether different communication tools are integrated or not.

For that reason, the conclusions of the research is guided by the above four theoretical approaches namely system theory, excellence theory, multimedia approaches and integrated approach. These models are served as a mirror to understand and relate the findings of the current research from different dimensions.

2.3. Review of Empirical Literature

2.3.1. Overview of the COVID-19 Pandemic

At the end of December 2019, Chinese authorities alerted the World Health Organization (WHO, 2020) of pneumonia cases in Wuhan City, located in the Hubei province. The cause was unknown, and the disease was first referred to as 2019-nCoV and then named COVID-19. Two days later, the Huanan market was closed because it was suspected to be the source of the disease, since some of the patient presenting with the illness worked there. The disease has spread quickly throughout China, and then to the rest of the world. The virus has so far spread COVID-19: Communication Strategies during the Pandemic throughout all the inhabited continents and affected millions of people, killing thousands of them.

In 2020, the Ethiopian ministry of health and Ethiopian public health institute took different communication measures to tackle the spread of the pandemic. Different communication activities were carried out during these times. Among them, Ethiopian Public Health Institute Public Health Emergency Operation Center (EPHI PHEOC) and Ministry of Health prepared a six months response plan (January- June) based on three different scenarios. The COVID-19 preparedness and response strategy was taken as an extremely critical tool in this regard. This approach is expected to help in optimizing the ongoing response to the next phases of the COVID-19 pandemic by providing an evidence-based approach to identifying and implementing new actions based on the lessons learned (IAR, 2020).

Moreover, during the pandemic, EPHI designed a national risk communication plan in place, under the leadership of the government, through which a package of key messages has been

developed and shared with rapid response teams, the media, hotel managers, religious leaders, industrial park workers, airport crew and support staff, among others (Nahom, 2020).

Thus, COVID 19, starting from its first appearance in Huanan, China, it has spread throughout the whole world in a startling proportion. Though, the impact is lesser in Africa as compared with the remaining parts of the world, it also faced many challenges. As being part Africa, Ethiopia also faced a lot due to the pandemic. To reverse the problem, so many efforts were exerted by different sectors. EPHI took the greatest share to implement different preclusion dealings.

2.3.2. Communication Channels Utilized to Communicate COVID-19 Pandemics

Communication actors employ a wide range of ways to reach targeted audiences, including corporate brochures, the Intranet, newspapers, magazines, TV, radio, trade publications, and corporate websites (Sun, 2010). However, choosing the right medium for the right audience is crucial to achieve the goals of communication. Sound and effective communication strategy should be based on an overarching vision of what is needed to be achieved regarding a particular health issue (Tesfaye, 2020).

Healthcare information can be disseminated through various ways of communication; such as: interpersonal communication, health journalism, TV and electronic communication (Bernhardt, 2014).

Likewise, social media platforms possess an accessible democratic nature involved by and have contributed to constructing the theoretical frame of the current global pandemic caused by Coronavirus COVID-19 (Crocchi, 2020).

Besides, in recent years, large-scale communication has undergone profound technological structural changes, with the emergence of what has been called ‘mass-self communication’, based on horizontal multi-directional and interactive communication networks. Social platforms are prevalent today and almost everywhere. The Digital 2020 edition of the annual reports published shows that digital, mobile, and social media have become an indispensable part of everyday life for people all over the world. More than 4.5 billion people are using the internet at the start of 2020, while social media users have passed the 3.8 billion mark. In the context of the

COVID-19 pandemic, the searching for COVID-19 updates on the internet has jumped 50%-70% across all generations in 2020 (Crocchi, 2020).

In addition to the above, dissemination of key messages to targeted vulnerable populations, adolescents, and children through printed materials like brochures have been taken as an important communication channel in Ethiopia (EPHI, 2020). Similarly, for Tesfye (2020), fliers, brochures and leaflets were important communication channels used to disseminate alerting information about COVID 19 in SNNP. Besides, the Ministry of Health and EPHI have been very active in disseminating prevention messages on radio and television, at federal and regional levels. EPHI has also pitched in with text and phone messages, which reportedly reached 21 million people within days of being introduced (EPHI COVID-19 update, 2020). Stepping up inter-personal communication was also used as an alternative communication channel by EPHI during the pandemic (Ibid).

Furthermore, the Ministry of Ethiopian Health has disseminated a regular briefing. In the media campaign to address all citizens, Ethio telecom has been using cell-phone ring tones to remind and create awareness about the public health hygiene responses including frequent hand washing, maintaining a social distancing, and wearing of facemasks to fight COVID-19 (Mekonnen, 2020).

Supporting the above findings, Kaleab (2020) also stated that access to information platforms during the pandemic being used to transmit COVID19 related preventive messages, such as mobile phones, newspapers, and television and radio transmissions, reach a significant proportion of the population in urban centers, but many rural households are not reached. The effort of the Ethio telecom to provide preventive messages during phone calls is strategic and likely to reach a larger segment of the population than, for example, television transmissions (Ibid).

In addition to the above, MoH and EPHI jointly produced and disseminated risk communication materials through mass Medias, daily media briefings, printed BCC materials addressing wider community in response to COVID-19. Health education through toll free and hot lines, timely response to rumors to the general community, provision of COVID-19 related health education in collaboration with Ethio-telecom reaching all mobile phone users were also among the best

practices. Likewise, as an alternative communication channel a hotline – 8335 - is being used by EPHI to receive and respond to public calls and to monitor rumors and misinformation during the pandemic. EPHI is also using Talkwalker, a social listening tool, to monitor COVID19 conversations on social media to quickly pick up and address misinformation (Nahom, 2020).

Contribution of television and radio broadcast companies and social media networks were exemplary in informing the community about the preventive and control approaches (IRA, 2020). In line with this, a research conducted by Buzuneh & Dagne(2023) In Jigjiga Town found that more than half (56%) of the interviewees cited television as their information source.

Furthermore, a research conducted by Tesfaye (2020) on some selected zones of SNNPR found that the region's health communication office used the online platform to reach digitally literate group of the society. The office used websites and official social media accounts. Health professionals also marched on the main streets and squares of towns holding slogans that alerted the public. "The office uses social media mainly Facebook and Telegram to reach the public. We share real time information and update new cases, daily recoveries, and death tolls. Marches were also organized on the main streets, squares, and marketplaces to alert the public.

Public relations is the marketing function that evaluates public attitudes, identifies areas within the organization the public may be interested in, and executes a program of action to earn public understanding and acceptance. Public relations helps an organization communicate with its customers, suppliers, stockholders, government officials, employees, and the community in which it operates. Marketers use public relations not only to maintain a positive image but also to educate the public about the company's goals and objectives, introduce new products, and help support the sales effort. The company or organization attempts to get the media to cover or run a favorable story on a product, service, cause, or event to affect awareness, knowledge, opinions, and/or behavior. Techniques used to gain publicity include press releases, press conferences, feature articles, photographs, films, and video news releases (Lamb et al., 2010).

The rapid growth of the Internet and more recently, social media is changing the nature of how companies do business and the ways they communicate and interact with consumers. Every day more consumers around the world are gaining access to the Internet's World Wide Web (WWW) of information available to users. Electronic marketing allow users to perform a variety of

activities such as receive, alter, and share information and images, make inquiries, respond to questions, and

Even make purchases online. The Internet can also be used as a marketing communication tool in its own right because it is a medium that can be used to execute all of the elements of the promotional mix. In addition to advertising on the Web, marketers offer sales promotion incentives such as coupons, contests, and sweepstakes online, and they use the Internet to conduct direct marketing, personal selling, and public relations activities more effectively and efficiently (Belch, & Belch, 2018).

In general, Kim and Ferguson (2014) divided communication channels into two categories as controlled and uncontrolled media channels. Advertising, brochures, the company website, social media outlets, newsletters, annual reports, and so on are examples of company-controlled media channels, whereas uncontrolled media channels include news media, expert blogs, and non-company social media.

Concerning the effectiveness of magazine and newspaper, they are rated as very low and low by 47.3% and 34.5% of respondents respectively in a study conducted by Tesfaye (2020). As to this study, for 2.8% and 5.7% of the respondents, the effectiveness of these communication tools is very low and low respectively. Last of all, according to the remaining 9.7% of the respondents, the effectiveness of magazine and newspaper are medium. On the subject of the effectiveness of advertisement and promotion, it is rated as very high and high by 30.8% and 36.2% of the respondents respectively. In opposition with this, its effectiveness is very low and low which is rated by 4.8% and 8.3% of the respondents. Besides, the effectiveness of this communication tool is medium as it is rated by 19.9% of the respondents. The effectiveness of training is rated as very high and high by the sum of the majority (70.1%) of the respondents. In relation with the effectiveness of phone calls and text messages, it's very high and high as it's rated by the sum of 19.4 % of the study participants. Lastly, 19.9% of the respondents rated as medium. According to the majority of the respondents (89.8%), the effectiveness of internet to communicate agricultural information is very low and low. On top of this, for very small portion of the respondents (2.8%), it is very high and high. Besides, its effectiveness is medium for 7.4% of the respondents (Tsfaye, 2020)

Overall, studies asserted that no one single communication channel cues can be sufficient in addressing all strata of publics in an organization (Black, 1990). Accordingly, Wragg (1992) outlines 16 basic techniques available to communication strategists to effectively reach their target publics, such as press release, case histories or studies, feature article, advertorials, editorial interviews, event press support, analysis briefings, financial reports, political lobbying, newsletters and publications, video and film, conferences and seminars, product launches, special events, promotional items, and corporate image.

2.3.3. Communication Outcomes recorded during the COVID-19 pandemic

2.3.3.1. Changes in Media Consumption during COVID-19

In the time of corona virus epidemic, changes have been shown the media consumption across the globe. This means especially true in the time stay at home or blockage measures taken by the administrators whenever the pandemic stretched at its pick. A global survey conducted in March 2020 by Statista.com revealed that the following findings which may upkeep this claim.

“ coronavirus has had a direct impact on in-home media consumption around the world, with 35 percent of total respondents professing to have read more books or listened to more audiobooks at home and 18 percent having listened to more radio due to the COVID-19 pandemic, whilst more than 40 percent of consumers spent longer on messaging services and social media. Interestingly, although at least 50 percent of respondents in most countries said that they were watching more news coverage, figures for Australia and the United States were lower, amounting to just 42 and 43 percent, respectively. Australians were also the least likely to be reading more newspapers; just five percent of consumers said that they were doing so compared to the global total of 14 percent. Whilst 60 percent of Italians were spending longer on messaging services, in Japan the same was true for only eight percent of respondents, and survey participants from China and the Philippines were by far the most likely to be spending more time on music streaming services” (Crocchi, 2020).

The verdict of the above source further publicized the following points:

“Researchers showed increasing interests towards the stakeholders and widely discussed motivation of social media use, emotions, identification and generated online contents during crises (Fortunato, 2011; Procopio, 2007; Stephens, 2009). Some scholars were optimistic about

the effective function of social media. For example, Kim and Liu (2012) found that social media was more frequently used than the traditional one in the organizational crisis management. Schultz and Utz (2011) also found that the strategy of information on social media resulted in fewer negative crisis reactions than via traditional newspapers: newspapers might be credible to present issues, while Twitter had positive effects on secondary crisis communication (e.g., sharing and posting newspaper messages) and reactions (e.g., willingness to boycott). Meanwhile Brown has realized the empowering function of social media (2013) advising that organizations could effectively utilize the interactivity of social media, by creating dialogues with stakeholders, paying more attention to citizen-generated contents, adopting stakeholder desired strategies, cultivating opinion leaders on social media and creating texts, pictures or videos online in the same way for organizational legitimacy.”

2.3.3.2. High Interest towards Volunteerism and community engagement

According to COVID-19 practitioners’ report and empirical evidences, there was high interest of different community members towards volunteerism and community engagement during the pandemic. For instance, according to UNICEF (2020) COVID-19 update report, in Ethiopia around 5,000 community volunteers and health workers are being engaged on COVID-19 prevention interventions throughout the country. As to this report, this engagement and volunteerism in turn are expected to reach at least 2.5 million people with key prevention messages. Moreover, UNICEF is in the process of finalizing a partnership with the Ethiopian Red Cross to deploy 1,500 volunteers countrywide to reach nine million people, including refugees. During COVID-19 pandemic the professionals and other members of the community showed high interest to volunteerism and community engagement. Due to this reason, massive volunteer mobilization and management were conducted for COVID-19 response activities. There were full engagement of program graduates, residents, program coordinators, and resident advisors towards the COVID-19 national campaign. Online health professionals and volunteer registration platform were developed. Besides, mobile based and online training modality was prepared (IRA, 2020). These were the outcomes of the pandemic.

2.3.4. Challenges during COVID-19 Pandemic Communication

Ethiopia’s challenges to mounting an effective COVID-19 response included low socioeconomic status, under-developed health infrastructure, a weak health delivery system, and a large

population. Conversely, a young population with low risk of severe disease, a delayed pandemic surge, global experience sharing, public awareness creation, and domestic and international resource mobilization, particularly of their human resources, provided opportunities for optimism. Effective vaccines and novel therapeutics also give us hope. The uncertainties come from the pandemic's persistence with multiple variants that may shift the prevalence of severe illness in young people, the effect of altitude on oxygenation at baseline, and ongoing social and economic disruption. Moreover, access to vaccines and vaccine hesitancy due to disinformation and misinformation may pose additional challenges. COVID-19 will remain a global threat to health for the foreseeable future and pursuing an integrated approach has proven highly effective. Cognizant of this fact, facilities such as St Paul's Hospital Millennium Medical College and Hospital now include COVID care in the existing health system, combining COVID-19 care with essential health services. This standard will be the new normal for health facilities in the coming months. If the surge recurs or if we face other large-scale health challenges, we must learn from our vulnerabilities to mitigate the possible damage. Although mortality has been low, likely due to young demographics and early NPI interventions, the mortality in the elderly has remained high, and ICU mortality was elevated nation-wide. These gaps—common across Africa—highlight that LMICs must strengthen critical care capacity and infection control practices to face many of our health challenges.

2.3.4.1. Dissemination of Misinformation

As Crocchi (2020) stated that misinformation in a pandemic can negatively affect human health. Many false or misleading stories are fabricated and shared without any background or quality checking. Much of this misinformation is based on conspiracy theories, some introducing elements of these into seemingly mainstream discourse. Inaccurate and false information has been circulating about all aspects of the disease: how the virus originated, its cause, its treatment, and its mechanism of spread. Misinformation can circulate and be absorbed very quickly, changing people's behavior, and potentially leading them to take greater risks. These phenomena make the pandemic much more severe, harming more people and jeopardizing the reach and sustainability of the global health system.

2.3.4.2. Ignorance of Information

During the pandemic information processing was found to be affected by stress and uncertainty. People may not hear, not remember, or misinterpret information. People hold on to tightly held beliefs and may be less likely to engage in behavior that is counterintuitive. People may exhibit “confirmation bias” and seek out information that supports their beliefs (Kaleab, 2020). Due to this reason, many people tend to ignore the news though they accessed from different sources. Instead of applying the information for prevention purpose, they tried to justify and falsify the news through their own established believes on the issue.

2.3.4.3. Poor Information Management System

The COVID-19 pandemic communication was challenged by the existing poor information management system in many ways. Unavailability of automated system for reporting and information sharing mechanism under each section; Ineffective system for result communication; Poor data quality including incomplete data during sample collection, poor data quality; absence of concrete evidences for guiding risk communication and community engagement and interruption of short message service (SMS) and internet platforms were found to be some of the challenges in Ethiopia (IRA, 2020).

Thus, the existences of poor information management system affect the overall process of communication in the time of the corona virus plague in many ways. Contradicting news in relation with the problem was released as result of the poor information management system. Consumers of such news were also confused to filter the real from the unrealistic news that circulate in different media alternatives.

2.3.5. Communication lessons learned from COVID-19 pandemic

From the COVID-19 pandemic, important positive lessons are learned in the communication sector. Among the others, partners could be supportive if they are well communicated. For instance, in Ethiopia, there were roaster, plans and engagement with Civic associations, NGOs, and donors for resource mobilization. Experiences were gained on information management system which was adopted for COVID-19. There were audience targeted and tailored communication materials through preferred channels. Furthermore, weekly reporting mechanism was practiced during the pandemic (IRA, 2020)

Likewise, the COVID-19 pandemic found to be a reminder of the strategic importance of publicly accountable health systems, underpinned by investment in people and technologies. Lessons are also learned from the management of COVID-19 to adjust EPHI approaches to other future health and environmental crises, accordingly (EPHI, 2020).

EPHI's experience has provided critical answers to managing the pandemic in a populous low-income country. First, we constructed a unified national response, informed by clinical and public health experts with local expertise, and supported by professional societies. Next, we leveraged existing resources to expand continuing medical education and COVID infrastructure for hospitalized patients. Our response in referral hospitals included flexible planning and early adoption of new standards of care, including anticoagulation, steroid use, and awake proning. Our current case fatality rate gives us hope that these measures were effective, despite many uncertainties. Furthermore, as effective vaccines are the light at the end of the tunnel, we urge equitable vaccine distribution across developing countries like Ethiopia, and strong community engagement to create trust and to ensure global health security.

2.4. Theoretical Framework of the Study

The theoretical framework of the study is designed based on the WHO (2020) COVID-19 strategic communications framework. According to this framework, the communication strategy of an organization should be accessible, actionable, credible, relevant, timely and understandable. Based on this framework, the study assumed that the selection, utilization and integration of appropriate communication channels should be utilized in an accessible, actionable, credible, relevant, timely and understandable manner which is important pathways to institutional communication strategy. Based on this, the study tried to assess the various communication channels utilized by EPHI during the COVID-19 pandemic. In addition to this, the study assumed that if appropriate communication channels were used to communicate the COVID-19 pandemic, there would be positive communication outcome. Based on this conceptual argument, the positive communication outcomes recorded during the pandemic are addressed. The study also assumed that there were different communication challenges that affect EPHI's communication effort during the pandemic. Finally, the study also assumed that there would be important lessons that should be learned during the COVID-19 pandemic

communication. Thus, the study is guided by this conceptual framework as indicated in the figure 1 below.

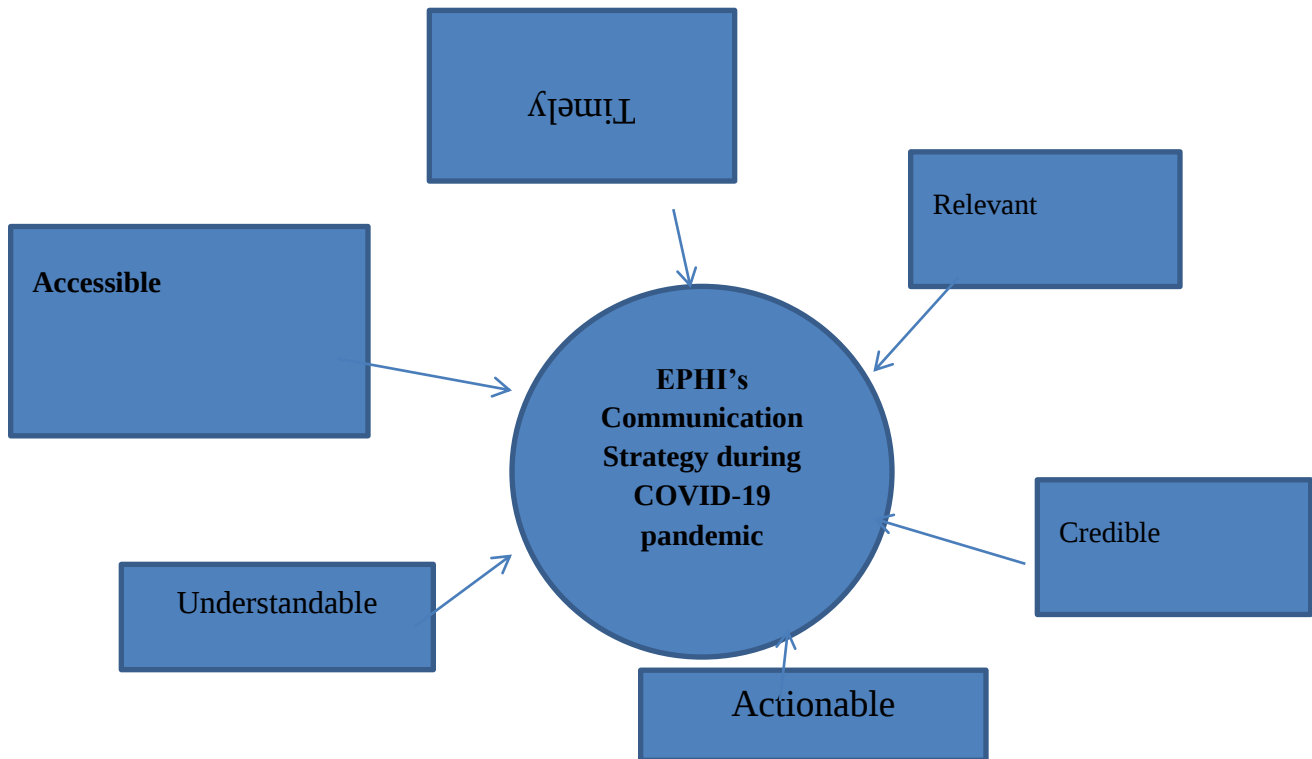


Figure 1. Theoretic Basis of the study (adopted from WHO 2020 COVID-19 communication strategy framework)

CHAPTER THREE

3. RESEARCH METHODS, DESIGN AND PROCEDURES

Under this section, descriptions of the study area, the research approach, design, the methods, instruments of data collection, sample selection process, and methods of data analysis are treated.

3.1. Descriptions of the Study Area

Ethiopian Public Health institute (EPHI) is the focus of the research. Currently, the institute re-established by the Ethiopian government under Regulation No.301/2013. The primary mandates of the institute is to conduct research and technology transfer, conduct public health risk surveillance for the early risk identification, detection, and prevention: strengthen national laboratories (Medical, Public Health detection and Research laboratories), alongside these to build the capacity of the Public Health workforces and manage national health data. The Institute aspires to be a center of excellence in public health in Africa. In order to achieve this vision, the institute will be guided by the values of continuous learning & improvement, creativity & innovation, evidence-based public health, human-centered, proactive & responsive, problem-solving approach, professionalism, rule of law, transparency, accountability, and timely action. From 2010/11 to 2014/15 and 2015/16 to 2019/20, the Institution implemented its first and second strategic plans and management (SPM-I and SPM-II), respectively, and achieved amazing and outstanding outcomes (EPHI, 2020).

As part of its official mandate, the institute has supported the ministry of health's COVID-19 pandemic prevention and control decisions through generating timely and relevant scientific results using predictive models, and established online research data repository and tracking systems, analytic and visualization tools. Therefore, this study tried to address the communication efforts exerted by EPHI during COVID 19 pandemic.

3.2. Research Approach

In order to attain the objectives of the study, the researcher used a qualitative research approach. Qualitative research approach contributes to a better understanding of social realities and to draw attention to processes, meaning patterns, and structural features (Joffe, 2012). Accordingly,

qualitative approach, by its nature, explores depth data aiming at revealing peoples' deep experiences, feelings and perceptions. This approach is chosen with the assumption that the study participants could describe the EPHI's experiences in their own voices.

3.3. Research Design

In connection with the issue under study, case study was employed and thus, the researcher collected data focusing descriptions of EPHI's communication strategies i.e. communication channels utilized, outcomes achieved, challenges faced and lessons learned during the pandemic.

3.4. Data Sources

3.4.1. Primary Data Sources

The primary data was obtained from higher officials, communication directors and experts of EPHI through key informant interviews and focus group discussion. Information that addresses all specific objectives of the study was utilized from these sources.

3.4.2. Secondary Data Sources

Relevant secondary data sources like, EPHI's strategic plans on COVID 19 response, reports, research updates, and other relevant secondary sources were reviewed and analyzed. For these purpose relevant secondary sources available from EPHI website and other social Medias, information broadcasted on the mainstream and print Medias have been accessed.

3.5. Data Collection Instruments

Key-informant interview, FGD, and document analysis were used as data collection instruments for this study. The selected data collection instruments are found to best fit to qualitative researches. In connection with this, such triangulation provided opportunity to minimize biases and inaccuracies regarding the issue under study. The nature, rationale as well as the context behind the application of the aforementioned data collection instruments is presented in the following section.

3.5.1. Key-Informant Interview

Key Informant Interviews (KIIs) are one data collection instrument used to gather primary data in a research. A "key informant" is someone who can provide detailed information and a unique perspective of a particular issue based on his or her expert knowledge. These in-depth interviews

are used to gather qualitative information that can provide an enhanced understanding of the quantitative data (Masweu, 2020). Thus, as far as this study is concerned, key informant interviews were conducted with purposively selected informants from the Ethiopian Public Health Institute communication directorate and other relevant departments. Thus, this enabled to explore details about deep understanding of the EPHI's experiences regarding the communication strategies of EPHI during the COVID-19 pandemic. Accordingly, the researcher used semi-structured interview to extract the data needed for the sheer efficacy of the issue under study. To this end, 6 key informants from the aforementioned directorates and departments were consulted out of the 13 total members of the EPHI communication directorate. These key informants were selected due to their active role and extensive experiences in communicating the COVID-19 during the pandemic. An interview guide was developed for this purpose to facilitate the face-face interview which is attached in the appendix part this paper.

3.5.2. Focus Group Discussion

A focus group discussion (FGD) is an in-depth field method that brings together a small homogeneous group (usually six to twelve persons) to discuss topics on a study agenda. The purpose of this discussion is to use the social dynamics of the group, with the help of a moderator/ facilitator, to stimulate participants to reveal underlying opinions, attitudes, and reasons for their behavior. In short, a well facilitated group can be helpful in finding out the 'how' and 'why' of human behavior (Kabir, 2016). So as to triangulate the reliability of the data collected through key informant interview, the researcher undertook FGD with purposively selected discussants. Accordingly, one FGD consisting of 7 discussants was held. Communication experts of different level (junior and senior) at EPHI were participated in the FGD. During the selection of discussants, their experiences and engagements during COVID 19 communication efforts of the institution were considered. Superintendent points have prepared to facilitate the group discussion session. These questions are prepared in a securitized way and a manner that address the three specific objectives of the research. In the process, the researcher tried to moderate the discussion via raising robing points and encouraging the passive members of the group discussion. From the beginning, efforts are mode to make more homogeneous so as to avoid skeptics among the discussants. The moderator (researcher) tried to crosschecked the truthfulness of ideas through forwarding assentation questions.

3.5.3. Document Analysis

As far as research work is concerned, document analysis a technique that is being employed to gather data. As Descombe (2007) stated, there are different kinds of documents that can be served as data sources and documents could be both visual and audio sources. The visual document sources include pictures, artifacts, and the audio like music whereas the written documents comprises of government publications and official statistics, newspapers, and magazines, records from meetings, letters and memos, diaries website page and the internet.

This study also employed document analysis for triangulation purpose as well as to enhance the validity of the findings.

Document analysis is a systematic procedure for reviewing documents both printed and electronic (computer-based and Internet-transmitted) material. Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge. Documents contain text (words) and images that have been recorded without a researcher's intervention (Glenn, 2009). Having these points in mind, the official documents of the Ethiopian Public Health Institute which are related to the issue under study were intensively analyzed and thematically reviewed. To this end, the national COVID-19 emergency preparedness and response plan; national public health emergency operation center (PHEOC) weekly reports; intra-action review (IAR) on public health preparedness and response to COVID-19 plans and reports were reviewed and analyzed.

3.6. Sample Selection Process

Sampling is a critical component of qualitative research as it involves selecting a group of participants who can provide valuable insights into the research questions. Likewise, a sample is a subset of participants drawn from the target population of the research (Shaheen, Pradhan, & Ranajee, 2019). As to this study, the researcher used purposive and judgmental sampling techniques so as to select the right informants, directorates and departments from the EPHI. Purposive and judgmental sampling involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon and it is where the researcher selects a typical sample based on specialist knowledge or selection criteria (Creswell, 2007). Accordingly, informants were selected purposively and judgmentally based on their knowledge, experience and position they have in Ethiopian Public Health Institute

communication directorate and other relevant departments and directorates. Applying this procedure, a total of 13 informants (6 for key informant interview and 7 for FGD) were selected and served as the sources of the primary data.

3.7. Data Analysis Procedures

With regard to the analysis qualitative data, interviews were recorded, and transcribed and analyzed thematically. The researcher chose thematic analysis, because thematic analysis is a way of identifying what is common to the way a topic is talked or written about, and of making sense of those commonalities (Joffe, 2012). Accordingly, the researcher employed thematic analysis so as to assess the communication strategies employed by the EPHI during the time of COVID-19. The collected data through different instruments were analyzed and interpreted to meet the objectives of the study. In doing so, themes and sub-themes were drawn as per the specific objectives of the study. Accordingly, communication channels utilized, outcomes recorded, challenges faced and lessons learned during the pandemic were the themes searched for this analysis. For this purpose, all the data that are collected using Amharic language were directly translated into English by the researcher and interpreted under each theme.

3.8. Validity and Reliability

According to Drost (2011), reliability is the extent to which measurements are repeatable when different people perform the measurement on different occasion, under different condition, supposedly with alternative instruments which measure the construct or skill. It can also be defined as the degree to which the measure of a construct is consistent or dependable. On the other hand, validity is the extent to which an instrument measures what it purports to measure. Validity is the trying to explain the truth of research findings (Zohrabi, 2013). Hence, for the truthfulness of the findings, the researcher employed triangulation strategy across the data collected from various data sources. In this regard, the validity of data collected through key informant interview, FGD and documents are triangulated. Furthermore, in order to augment the trustworthiness of the findings, the researcher employed a follow-up interview with participants and discussants using probing questions regarding the issue under study which eventually enable to generate thick data. The researcher also tried to use thick description on the themes and subthemes in the analysis of the study so order to enhance to the validity of the findings. Lastly,

in order to achieve or enhance trustworthiness of the study, the researcher further employed peer examination or review strategy.

3.9. Ethical Considerations

In this study, due attention was given to ethical issues during data collection, analysis, interpretation and report writing phases. Keeping the formality, I took a permission letter from the school of journalism, Addis Ababa University. Following this, I have discussed with the informants on the objective of the study. In doing so, I have contacted the informants based on their willingness and explained to them how the research would not let them put under risks. .

CHAPTER FOUR

4. PRESENTATION, ANALYSIS AND DISCUSSION OF THE FINDINGS

4.1. Introduction

In this section, the collected data through interview, texts from online media, and documents are presented, analyzed and discussed. Content wise, the socio-demographic characteristics of informants, the various communication channels utilized by EPHI during the pandemic, the communication outcomes recorded from the process, the challenges faced and finally communication lessons learned from the pandemic are thematically searched and analyzed accordingly. As part of this, sub-themes are drawn under each theme.

4.2. Socio-demographic profile of informants

Code	Anonymous Name	Sex	Age	Educational level	Position	Work experience
I-1	Abel	M	48	PhD	Top official	10 years
I-2	Kedir	M	45	MA	Director	6 years
I-3	Helen	F	35	MA	Expert	5 years
I-4	Alemu	M	38	BA	Expert	6 years
I-5	Ragassa	M	42	MA	Expert	11 years
I-6	Embet	F	33	MA	Expert	4 years
I-7	Sinshaw	M	33	BA	Expert	5 years
I-8	Temesgen	M	52	MA	Expert	18 years
I-9	Rehima	F	39	MA	Expert	7 years
I-10	Dadi	M	34	MA	Expert	5 years
I-11	Rahel	M	41	MA	Expert	8 years
I-12	Brook	M	46	PhD	Expert	9 years
I-13	Hailay	M	49	BA	Expert	15 years

Table 1. Coding of Socio-demographic Profiles of Informants

4.3. Communication Channels Utilized by EPHI to Communicate COVID-19

Pandemics

As the collected primary and secondary data indicated, EPHI utilized various communication channels to deliver proper information and precluding the banquet of corona virus. The overall intention of message distribution in various communication alternatives was to allow the citizens with the veracious facts. It has also worked on management of campaign management so as to lessen the risk of the contagion and wrong perceptions. For this purpose, in collaboration with other concerned stakeholders, EPHI tried to disseminate COVID-19 preventive messages and other factual information updates related with the pandemic using a combination of various communication channels. These communication channels could be categorized as printed form of communication channels, mass Medias; online communication platforms, telecommunication based communication channels, mass campaign and press release communication outlets. These communication channels are drawn as sub-themes and hence presented, analyzed and discussed in details as the followings.

4.3.1. Printed forms of Communication Channels

Among the various forms of communication channels, communication outlets that appeared in the print form were commonly utilized to communicate the COVID-19 related messages to the public. According to the responses informants of the study, brochures, billboards, newspapers, posters, leaflets, and printed behavioral change communication tools (BCC) materials were important communication modalities during the pandemic to deliver different messages to the public. Face-to face interview with informant from EPHI revealed his ideas about the institute's experience in this regard:

....During COVID-19, EPHI as primary responsible institute tried to disseminate different communication messages through printed form of communication alternatives. We hoisted many billboards in different public spaces in Addis and other large towns. We disseminated millions of brochures to different community based associations like idir and government institutions that are accessible to many community members. Also, the communication department of EPHI prepared many leaflets with important COVID-19 preventive messages and distribute to the people identified as vulnerable. Thus, EPHI tried to address the community through printed messages. (Face to face 1)

As supplementary evidence of the above first hand records, the tributary source review accessed as of different sources EPHI showed that printed forms of communication channels were important means to communicate the COVID-19 pandemic to the public. For instance, a joint COVID-19 response update paper prepared by EPHI and UNICEF in 2020 indicated that through brochures and posters messages were disseminated to targeted portion of the population. In this document the following information is highlighted as the following.

“Current efforts 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 Afan Oromo. More than 10,000 brochures have been distributed to vulnerable families under the Urban Productive Safety Net Program and the rest through the health system”

Therefore, as far as communication channels are concerned, EPHI has utilized different communication channels that appeared in the form printed materials. As indicated above, large number of the population has been addressed through printed form media outlets during the pandemic. This verdict is lined up with the scientific claims of preceding researchers focused on related thematic scopes. As part of it, a study conducted by Tesfye (2020) on the populace’s reaction to the wellbeing statement approaches to avert the spreading out of corona virus in selected districts of southern Ethiopia pointed out that fliers, brochures and leaflet were important news distribution alternatives to circulate notifying facts about the corona virus. This study also showed that placards and hoardings were also considered to influence the community’s attitude. Streamers contained of typescript and graphic memos in relation with corona virus’s diffusion, indicators, and stoppage contrivances were swung at communal places. As to Tesfaye (2020), different Commercial civil service such as lodging house and open overhaul suppliers were correspondingly tidy to hang down posters entailing of texts about the diffusion, signs, and hindrance options of the problem. Thus, it can be said that printed forms of communication alternatives were designed and distributed as per the WHO communication strategy frameworks of indicated in the theoretical framework of the paper. In other words, EPHI as a leading institution tried to make the message contents that were papered on printed materials as plausible, easy to get to and appropriate as the WHO framework entailed.

4.3.2. Mass Medias

Broadcasting COVID-19 related information using mass Medias was taken as an important communication strategy by EPHI during the pandemic. As to the informants of the study, massive information on COVID-19 was disseminated using this platform. Mass media alternatives like TV and radio were prominent channels in this regard. COVID-19 related news, advertisements, and warning notices were broadcasted in different governmental and privately owned TVs and radios. Media briefings and updates in relation with COVID-19 were the types of communication alternatives transmitted in these channels. Informant 4 explained his points on the issue as:

*“...During the pandemic, the roles of mass Medias such as TV and radio to deliver information about COVID-19 were very high. We tried to aware the public through extensive TV and radio news and notice messages. EBC, FANA, WALTA and other privatively owned mass Medias were the major actors to broadcast COVID-19 related information. We have reached significant number of the population using these channels.”***(Face- to- face 4)**

Another informant further strengthened the accounts of the above informant as:

*“...We have communicated the public about the prevention mechanisms of COVID-19 our using audiovisual aid with consistent wherewithal. For this purpose, we feed audios, videos and pictures with high resolutions for Medias in addition to their own. We arrange relevant people for an interview, documentary or graphics used for broadcasting.”***(Face-to- face 3)**

In addition to the direct accounts of the above informants, secondary data accessed from different sources of the institute. For instance, a report on public health preparedness and response to COVID-19 in Ethiopia that organized by MoH and EPHI in October 2020 indicated that jointly the two institutions produced and disseminated risk communication materials through mass medias and daily media briefings addressing wider community in response to COVID-19. As to this report, contribution of television and radio broadcast companies was exemplary in informing the community about the preventive and control approaches.

Therefore, as the collected primary and secondary data indicated using mass media communication channels like radio and television, massive communication messages of COVID-19 prevention were disseminated. This result is found to align with the verdicts of preceding researchers undertaken in comparable circumstantial concentrations. To relate the finding of some of these finding, Kaleab (2020) stated that right to use to facts distribution options for the period of the virus being hand-me-down to convey COVID19 associated precautionary posts through television and radio. As to him, using these communication channels, it is possible to touch a momentous part of the inhabitants in metropolitan hubs. Likewise, a study conducted by Buzuneh & Dagne (2023) in Jigjiga town found that the mass media alternatives like TV set and radio set were the paramount means for thinning out awareness about the COVID 19 prevalent. Thus, these types of media alternatives were designed in a manner that is well-timed, easily reached, plausible, pertinent, believable, and applicable which would be embraced in accord with WHO 2020 COVID 19 communication tactic basis indicated in subdivision two the current research.

4.3.3. Online Communication Platforms

Different Online communication platforms played an important role to communicate the public about the prevention mechanisms and care messages during the pandemic. According to the research participants, EPHI has utilized different societal broadcasting platforms to mindful the community. As to them, the institute considered the virtual alternatives to grasp the community members who are familiar to it. The institute make used of official website, Facebook page, twitter page, telegram channel and YouTube channel to communicate the public about the pandemic. Informant-5 pinpointed his points on the issue as:

“... During the COVID-19 pandemic, EPHI used social media mainly website, Facebook and Telegram to reach the public. We share real time information and update new cases, daily recoveries, and death tolls. For this purpose, a communication expert was assigned to manage these official social Medias of the institute. Almost all new information related with the pandemic was posted in these social Medias .thus, as EPHI communication department the social media alternatives played an important role to disseminate relevant information to significant portion of the population. Due to its importance of easy to reach, EPHI widely employed this modality among the others”. (FGD -5)

Another informant who was mandated to own the social Medias of the institute also added his experience on the issue as the following.

“...As a communication expert of EPHI, I was assigned to communicate COVID-19 related information to the public during the pandemic. We have all social media platforms. As we did on the mainstream Medias, I posted similar information on our social Medias. More importantly, our Facebook page was commonly accessible by many people. All updates, awareness raising messages, care notices and other relevant prevention messages were regularly posted on these platforms...” (Face-to-face 7)

Another informant also added the following idea:

“....We have more than 67,000 Facebook followers, 8500 for telegram, 65000 for Instagram, and 18,000 for linked in. Moreover, we have twitter for our premium customers, and we have also our own website and YouTube channels.” (Face-to-face 8)

In line with the unswerving interpretations of the overhead informants, the file scrutiny from different sources revealed similar information about the utilization of social Medias by EPHI during the pandemic. The analysis of these documents confirmed that social Medias like Facebook, website, telegram, twitter and YouTube found to be very essential communication channels to communicate the pandemic to the public. Accordingly, a report on community health readiness and reaction to COVID 19 in ETHIOPIA indicated that the following social media alternatives were used to communicate the public during the pandemic. In this regard, the EPHI foremost website, EPHI COVID19 website, Facebook page, twitter page, telegram channel, YouTube channel and MoH Website were important social media platforms to communicate the public.

Furthermore, a COVID-19 updating document prepared by EPHI and UNICEF in October 2020 showed that Talk Talker, a shared eavesdropping contrivance were well thought-out to closed-circuit television COVID19 conversations on social media to quickly pick up and address misinformation. Besides, as point out in a report on COVID 19 readiness and reaction in Ethiopia, more than 200 daily situational reports and daily media briefings, 25 weekly bulletins, 20,000 risk communication materials (brochures, posters etc) were disseminated to the wider

community via EPHI/MOH websites and social media networks addressing more than 20 mill population.

Therefore, as the data collected from informants and document analysis indicated that in addition to other communications channels, online communication platforms or social Medias particularly web-searches, facebook, telegram and twitter were widely consumed by EPHI to transfer COVID 19 facts to the targeted audiences during the pandemic. This discovery is reinforced by erstwhile research upshots. In view of that, Sun (2010) bring into being that such forms of collective broadcasting had a crucial in enabling two directional information exchanges. More importantly, virtual types of means can endure announcement and dealings among communicating thespians and the broad community because of to their prompt reaction natures. Likewise, supporting this finding, Crocchi (2020) pointed to that this types of modalities retain an easy to get to autonomous contents convoluted by and have underwrote to making the imaginary surround of the existing worldwide contagion instigated by COVID 19. Moreover, a study conducted in some selected ones of SNNPR by Tesfaye (2020) revealed similar findings with the current study. According to Tesfaye (2020) finding, the SNNPR concerned bodies considered virtual platforms to deliver evidences and hence 260 facebook posts, and 10 newscast cases about COVID 19 were shared to the followers or audiences of the platform. The study conducted by Buzuneh & Dagne (2023) also indicated that around 44% of their study participants hunted statistics about COVID 19 avoidance stratagems as of trustworthy bases such as from cybernetic source alternatives of local concerned institutions, WHO, and CDC. Finally, a study conducted on the medical experts' sources of information indicated that the foremost widely accessed options for retrieving COVID 19 related info among health experts were found to be facebook and telegram with approximate percentage of 83% and 57%, respectively.

Thus, virtual media alternatives were designed in a manner that is well-timed, easily reached, plausible, pertinent, believable, and applicable which would be embraced in accord with WHO 2020 COVID 19 communication tactic basis indicated in section two of the paper. EPHI gave high emphasis for the implementation of such alternatives to tackle the existing problem of the time.

4.3.4. Telecommunication Based Communication Channel

In addition to mass media, printed forms of communication channels and online communication platforms, EPHI utilized telecommunication based communication channels during the pandemic. In collaboration with Ethio telecom, EPHI tried to communicate the public through text messages and cell-phone ring tones. Using these techniques, large number of the population has been reached during the pandemic. An informant demonstrated his points on the issue as:

“...During COVID-19 pandemic, all mobile users in Ethiopia were received timely and reliable information through text messages and ring tones. Ethio telecom, as a prominent responsible national company, took this responsibility. EPHI’s role was sharing updated information to Ethio telecom. Using these alternatives, critical awareness creation messages were delivered to the public.” **(Face-to –face 9)**

Furthermore, a document analysis of the study also confirmed that the role of Telecommunication was very high during the pandemic. For instance, an intra action review report on community health preparation and reaction to COVID 19 in ETHIOPIA that organized by MoH and EPHI in October 2020 indicated that Health education through toll free and hot lines, timely response to rumors to the general community, provision of COVID 19 related health education in collaboration with Ethio-telecom reaching all mobile phone users were also among the best practices. Furthermore, a COVID 19 updating document prepared by EPHI and UNICEF in October 2020 showed that a hotline coded as 8335 was made open for the community by the collaborative initiative of Ethiopian tetelecom and EPHI to collect and retort to free calls and to screen reports and fabrication. Another COVID-19 update document prepared by EPHI in December 2020 also indicated that Ethiopian telecom has slanted in by means of transcript and telephone memos, which supposedly get hold of 21 million individuals as soon as the few days of its commencement of the initiative.

Another document analysis that focus on the COVID19 situation report in Ethiopia showed that as the pandemic communication determination, ministry of women, children and youth with united nations child and education fund’s official maintenance, has disseminated short message service in Amharic language to 34 million individuals calling for their upkeep to safeguard females and teen-agers who might façade dangers or be facing femininity centered vehemence (unicef, 2020).

Consequently, conferring to the retorts of the upstairs squealers and text analysis, Telecommunication was played an important role to communicate the public during the pandemic. Here, the conclusion of this specific investigation is found to go parallel with is many enquiry verdicts undertaken in related contextual bases (Mekonnen, 2020 & Kaleab, 2020). To relate the findings of some of these researches, Mekonnen (2020) indicated that Ethio telecom had introduced telephone reminding loop tones to prompt and generate cognizance about the community health sanitation comebacks including recurrent finger coating, upholding a collective separation, and wearisome of face pack to combat COVID19. Also, supporting the current finding, Kaleab (2020) in his study also stated that access to information platforms during the pandemic being used to transmit COVID19 related preventive messages, such as mobile phones reach a significant proportion of the population in urban centers. As to him, the effort of the Ethio telecom to provide preventive messages during phone calls is strategic and likely to reach a larger segment of the population than for example, television transmissions.

4.3.5. Mass Campaign as Communication Channel

Like other communication channels, mass communication campaign expressed in the forms of daily media briefings, health education through public spaces and timely response to rumors to the general community via politicians, public figures and opinion leaders was critically employed by EPHI during the pandemic. The literature reviews also support this argument. According to the 2020 action review report on COVID-19 communication in Ethiopia, the contribution of mass Medias like television and radio broadcast companies were exemplary in informing the community about the preventive and control approaches (IRA, 2020). In line with this, a research conducted by Buzuneh & Dagne(2023) In Jigjiga Town found that more than half (56%) of the interviewees cited television as their information source. As to the informants, medical experts also partaken on the core roads and tetragons of townships devising catchphrases that draw somebody's attention to the civic. An informant from EPHI explained the issue as:

“...Campaigns were taken as important communication alternative to communicate the pandemic to the public during the pandemic. To this end, massive campaigns were taken place across public hotspot areas and places of social gatherings. Influential figures like politicians including the PM of the country, minister of ministry of health, artists, and others were the taken

as positive catalysts of the campaigns. For this purpose, we have organized marches on the main streets, squares, and marketplaces to alert the public... ” (Face-to –face 2)

Therefore, campaign as communication alternative was highly utilized by EPHI and other stakeholders during the pandemic. Supporting this finding, Tesfaye (2020) in his study outlined that fights on different broadcasting modalities which appeared with organized awareness raising contents “ምክንያት አልሆነም” to reflect “I won’t be a cause!” which could be considered as part of the prevention initiatives of the institute. Thus, through the implementation these broadcasting alternatives were scrutinized to make the contents of the disseminated updates easy and clear as it is framed by world health organization in the time of COVID 19 predicament.

4.3.6. Media Brief

Media brief is taken as an essential news distribution option in the course of the COVID 19 crunch. It was chosen to deal out fresh updates, headway and best practices of prevention for carefully chosen media actors for publicizing drives. During this time, precautions are made to not deliver unreliable information about the issue instead factual information about the pandemic are delivered. According to Mekonnen (2020), the MOH tried to arrange for a consistent updating that appear the form of press release. An informant illustrated the issue as:

“...Through press release, officials of EPHI and MOH tried to deliver important information about the pandemic. Many media briefings are given by minster of MOH and executive director of EPHI.”(FGD-13)

Additionally, the issue is also absorbed by the study participants in the time of FGD session as the following:

“...In most cases, we have prepared press releases during COVID-19 pandemic. For example, whenever the 1st COVID-19 case was confirmed, media brief was given to Medias. There were selected Medias that invited and released the news on the issue. Medias that participated in the press release communicated the means of transmission so as aware the public.” (FGD-11, 13)

Therefore, according to the above informants’ responses, EPHI organized press release to different Medias. Using this alternative, significant portion of the population has been reached

during COVID-19 pandemic in Ethiopia. Press release as communication tool is effective to broadcast public evidences since it is rated as very high and high by the sum of 55.9% of the respondents (Tesfay, 2020). Contradicting this, for the sum of 27 % of the respondents, its effectiveness is very low and low. Lastly, for 17 % of the respondents, its effectiveness is medium (mekonen, 2020). In inference, like other platforms, press release was taken as an integral part of the communication approach of by EPHI in the time of the COVID 19 head in Ethiopia. In the process, political figures like the prime minister of the country, minister of MOH and other concerned officials who were leading the sector took the initiatives of providing media briefs at different times. The imitative help the intervention to change the established naïve justifications and delusion of the community towards the problem.

4.3.7. The Integration of Communication Channels

In the nutshell, as shown above, EPHI utilized a combination of different communication channels to communicate the COVID-19 pandemic during the crisis. Accordingly, efforts have been made to integrate the mainstream, printed and online forms of communication channels. This found to be in line with the integrated communication theory and multimedia approaches. One the other hand, the preference and implementation of communication channels is found to contradict the central essences of excellence theory and crisis communication theory. Unlike the arguments of these theories, the preference and implemented of communication channels have one way nature i.e. from EPHI to the public. Whereas according to crisis communication theory, there is a general consensus that risk communication is a two-way process between the communicator(s) and the recipients of the messages (Coombs & Holladay, 2010).

4.4. Communication Impacts Recorded During the COVID-19 Pandemic

Regardless of the negative bearings of COVID 19, important impacts of communication outcomes were recorded in the area of communication. The following are considered as positive outcomes recorded during the pandemic. This particularly true in the implementation communication strategies. Good health information managing system, high involvement of stakeholders in the communication efforts, and high Medias consumption were some of the positive impacts observed during the pandemic.

Aligned with the above claim, a worldwide assessment piloted in march 2020 through virtual data pool publicized that large portion of the population were spending their time on medias like

reading supplementary files or listening to extra audio recorded records at home-based, heeding to various radio set because of the COVID 19 contagion and expend their period on reading text message and virtual media alternatives (Crocchi, 2020). Besides, there was high interest of community members towards volunteerism and community engagement during the pandemic. For instance, in Ethiopia around five thousand public unpaid helpers and medical experts were engaged on COVID 19 prevention interventions throughout the country (UNICE, 2020). However, it doesn't mean that the whole communication processes and efforts were evaluated by positive outcomes. Thus, the negative communication outcomes that were seen during the pandemic are interpreted under the challenges of communication.

4.4.1. Use of Health Information Systems for Data and Research

During the COVID-19 pandemic, there were better use of information system and research. As the informants of the study, both information providers and receivers of COVID-19 showed better exposure of information utilization and use it accordingly as compared with the case before the pandemic. As part of this, researchers showed high interest to conduct researches and tried to offer latest evidence to the community. Supporting this claim, Tesfay (2020) in his study indicated that during COVID-19 pandemic EPHI as a leading institute tried to establish COVID-19 database in a well-organized manner. As to him, this data base was used as the source of information for many stakeholders including WHO. An informant from EPHI explained the issue as the following.

“...During the pandemic, health and communication experts at EPHI had commitments to find reliable and updated information, manage the information, and deliver accurate information to the targeted audience about the pandemic. As information receiver, the public also had high interest to access COVID-19 related information.” (Face-to face-8)

Another informant further added his points as:

“...During the pandemic, many researchers were engaged in research works across the globe and throughout Ethiopia. Many research findings that focused on the causes, prevention mechanisms and experiences gained across the world were released. Thus, researchers tried to disseminate new information about COVID-19 based on their findings.” (FGD-12)

Therefore, according to the above informants, changes are shown on health information management, utilization and research due to the COVID-19 pandemic. Thus, the current investigation outcome is impersonation with the verdicts of associated researchers piloted in comparable circumstantial concentrations. To relate some of them with the current upshot, a study conducted by Huluka and his co-investigators (2022) instituted that throughout the pandemic, clinical teams collected data to adapt planning and patient care to the local context and to conduct relevant research. As this study, broader data were used in WHO and Ethiopia Public Health Institute (EPHI) studies.

4.4.2. High Involvement of Stakeholders

During the corona virus epidemics, the participation and involvement of both the internal and external towards the broadcasting of EPHI's preventive measures were very high. Internally, EPHI's employees, managers and different departments had high involvements on the communication efforts of the institute. Thus, to address these stakeholders, announcement posts, tackles and schemes were intended inform them which were somehow atypical as of the announcement memos organized for external patrons. Usually, these in-house interested parties were addressed through mails and notice dispatched on inner boarding, telephone requests, electronic mail, and clutch telegrams, physical discussion with individuals and zoom conferences. Stuffing of the memos was wished-for as notifying notices, requests, guidelines, impulses, assessments and cautions.

Moreover, as far as involvement of stake holders are concerned, different government organs were primary external stakeholders of EPHI in the time of the pandemic. What's more, owners and actors of different media outlets were external stakeholders of the EPHI in the time of the pandemic in basis of their volunteerism engagement. Consequently, media actors as primary interested party of EPHI's COVID 19 preclusion efforts played a crucial involvement to publicize COVID 19 related news for the public. To this end, EPHI's communication unit invited media actors through different means of communications. NGO and some other concerned partners of EPHI were also external stakeholders that showed high interest towards the COVID 19 preclusion determination of the institute in the time of the plague.

As a consequence, the high interest and involvement of the above internal and external stakeholders towards the COVID-19 communication of the EPHI is considered as a positive

outcome brought by COVID-19. During the pandemic different stakeholders were involved in the communication efforts of EPHI. According to the 2020 national emergency preparedness and response plan of Ethiopia, massive involvements were shown from the community, private segment, public establishments, devotion centered entities, implementing partners, development partners and the Government towards the preventing strategies of the pandemic. As to UNICEF (2020) COVID-19 update report, in Ethiopia, different members of the community like the media, guesthouse bosses, spiritual front-runners, manufacturing workforces, airstrip squad and maintenance cane, amongst others were exceedingly betrothed to the statement determinations of the nation in the course of the contagion. A communication director at EPHI explained the issue as the following:

“During the pandemic, the involvement of different stakeholders towards the communication efforts of EPHI was very high. As part of this, a national committee was established that comprised stakeholders such as the Ethiopian Ministry of health, medical professionals’ association, civil societies and international organizations under the leadership of the prime minister’s office played an important role to communicate the pandemic. This committee facilitated streamlined communication and task distribution, enhancing overall effectiveness.” (Face-to face-2)

A research conducted by Simegn (2023) on the roles PR to corporate social responsibility of Coca Cola Company supported this argument through the following direct accounts

“The communication department specifically the communication manager and the communication specialist of Coca coa company are assigned to ensure and evaluate how the sustainability tasks are communicated properly. We have also started payment mainstream Medias to publicize our CSR projects and progresses. For example, so far, we have invited Medias during school project inauguration. During Covid-19 pandemic, we provide preventive materials in kind for different members of the community which were valued 6.5 million birr. The supports were delivered by Ethiopian Red Cross Society and Addis Ababa, Diredawa and Mekelle city administrations. We have communicated these supports using different mainstream Medias. Public and Private TVs and Radios have given wide media coverage for these CSR initiatives”

Above and beyond, international and national organizations were striving their effort to support the communication effort of EPHI. To this end, IMF, EUROPEAN UNION, world bank group, UNICEF, Ethio-telecom, Jack Ma and Alibaba Foundations , ERCS, and many other civic associations provide technical and financial supports to the communication effort of country in general and communication of EPHI in particular (CEWARN, CCRDA & IDRC, 2020).

As far as stakeholders' involvement is concerned, unicef, has provided and involved numerous supports beginning from the initial phases of the COVID 19 intervention efforts of EPHI. As a cutting-edge of this look, it tried to give direction and opened sense of urgency for nearly 5 thousand persuasive figures and participants of different communal options across the entire districts of the nation on COVID 19 anticipation and resistor actions. As part of the unicef's involvement around one thousand and five hundred candy striper and more than two thousand devout frontrunners were armed with the understanding and know-how to provide truthful facts on the stoppage of COVID 19 spread and cure alternatives in conglomerate with red cross society. The undertakes and spiritual front-runners have been charming the people on COVID 19 avoidance, with an expected grasp of more than 4 million folks in 134 wereda level administrations in four regional states namely Amhara, Oromia, SNNP, and Tigray regions and Addis Ababa and Dire Dawa city administrations (CEWARN, CCRDA & IDRC, 2020). This statement is constituted with the central cruxes of excellence model (Grunig, 2012). Bestowing to this model, organizations need to sightsee their surroundings to ascertain populaces who are exaggerated by impending managerial pronouncements and in struggles to resolve problems (Grunig, 2012). Hence, as it is argued by the proponents of the prototype, EPHI in its communication scheme tried to explore and seeker the participation and engagement of primary stakeholders during COVID 19 contagion. This finding is also found to be in line with the concepts of crisis communication theory. As to the theory, risk communication is the process of exchanging information among interested parties about the nature, magnitude, significance, or control of a risk (Sheppard *et al* (2012) cited in Covello 1992). It is a transmission based view, focusing on "the collection, processing, and dissemination of information required addressing a crisis situation" (Coombs & Holladay, 2010). Additionally, crisis communication is usefully viewed as a series of communicative practices and processes that seek to foster safety and organizational stability when normal operations are challenged by crises. Thus, this specific best

fits with the crisis communication theory since many stakeholders have involved in the communication efforts of EPHI during the pandemic.

4.4.3. Increased Media Consumption

An important positive dimension brought during the COVID-19 pandemic is that the public showed high interest towards the access and utilization of different Medias. Unlike the case before the pandemic, the public across different levels showed high media consumption. This claim is accompanied by the empirical evidences look over from different sources. For instance, an international appraisal piloted through virtual pooling alternative exposed that the coronavirus caused a straight influence the trend and preference of home stayed based media access around the sphere of the globe. As to this finding, around 35% of the total participants who filled the virtual pool confessing to have declaimed extra files or eavesdropped to additional books converted to audio formats at home and nearly 20 % of listened to extra radio set because of the COVID 19 epidemic. What is more, the remaining 40% of participants of this assessment disbursed longer on construing text messages and virtual media alternatives (Statista.com, 2020)

In addition, as to the report of the above analysis, 50% of the participants in utmost nation states supposed that looking extra newscast coverage; figures for Australia and the United States were lesser which amounted to just 42% and 43% correspondingly. Australians were also the minimum prospective to be construing additional reporters since just 5% of the participants said that they were doing so compared to the worldwide aggregate of 14%. In terms of text messages consumption variations have been shown amongst countries where 60% of Italians were consumed this modality as compared with 8 % participants from Japan on the same media channel. On the other hand, the survey participants from China and the Philippines were by most likely to spend their time on melody pour out recreations (Crocchi, 2020).

Consequently, according to the empirical evidences, the COVID 19 disaster has considerably greater than before newscast ingesting for conventional media earlier and anther the contagion had taken effect. TV set newflash and wired sources have seen noteworthy upticks, and more people identify television as their main source of news, providing temporary respite from a picture of steady decline. Consumption of printed newspapers has fallen as lockdowns undermine physical distribution, almost certainly accelerating the shift to an all-digital future. At

the same time, the use of online and social media substantially increased in most countries. Global concerns about misinformation remain high (Tesfaye, 2020).

4.5. Communication Challenges and Barriers Faced by Public Health Institutes during the COVID-19 Crisis

4.5.1. Misperception and Low Risk Perception

During the COVID-19, EPHI faced different challenges while it tried to communicate the pandemic to the public. Misperception and low risk perception were the major challenges in this regard. A study conducted by Tesfaye (2020) also indicated that how the public perceive Coronavirus was another challenge for the successful transmission of the messages and health education. As to him, even though messages meant to alert the public transmitted abundantly in various media outlets, the public remained in the state of dissonance. Due to this reason, the public still perceived that corona virus was non-existent and undermined its danger. Likewise, as part of this challenge, the public undermines the COVID-19 virus (Tesfaye, 2020). Informants from EPHI narrated the problem as:

“...Misinformation circulating through social Medias and public dialogues regarding the COVID-19 vaccine, leading was a headache of communication which led to wastage of valuable information. This underscored the need for continuous improvement in communication strategies to combat misinformation effectively.”(Face-to face 1, 6)

In addition to the above account of the informant, relevant document review on the issue stated that low risk perception was a critical communication challenge during the pandemic. According to EPHI’s 2020 national COVID -19 report the following are found to be the foremost communication encounters that distress the communication efforts of the institute negatively.

“Low risk perception of society was the major communication challenges that affect the whole communication processes in different ways. Due to this large members of the society were reluctant to the care messages delivered by EPHI. As to the report, lack of media coverage of Covid-19 prevention and control as per the severity of the pandemic was also another challenge during the pandemic. On the other hand, some senior government officials and political leaders were not role models in the prevention and control of Covid-19. This also affected the communication efforts negatively.”

Likewise, according to the December 2020 national inter action review report on COVID-19; there were limitations in addressing risk factors to communities at Zonal and Woreda levels. The risk communication activities were limited to mass and social media messaging which does not reach to the rural areas. This affected the overall septicity inhibition and rheostat actions and reporting of suspected gears from the community. Moreover, as to the report, the surveillance was not functioning adequately at a lower levels due to absence of electronic reporting mechanism at health facilities, poor data quality including incomplete data during sample collection, and weak system for communicable disease detection.

The inter action review report further indicated that the communication approach among each sections and sectors were uncoordinated. Sometimes EPHI faced challenges in accessing data, reports, and developed documents. Several teams communicate with same partners and sectors for the same purpose were not well coordinated.

4.5.2. Poor Communication and Information Sharing Practice

According to the inter action review on COVID-19 report, poor communication and information sharing practice, poor data quality, delayed development and implementation of proper indicators for strategic shift and slow and un-coordinated modeling were communication challenges faced by EPHI during the pandemic. Besides, absence of concrete evidences for guiding risk communication and community engagement efforts and interruption of short message service (SMS) and internet were found to be the challenges of communication during the pandemic. As indicated in the 2020 national emergency preparedness and response plan of Ethiopia poor inter-pillar coordination and communication were communication challenges during the pandemic. As to this plan, the use of data by the leadership was poor. Moreover, as indicated in the document, the lack of a spokesperson to engage with the media has led to many challenges. There is a lack of electronic data collection, lack of a monitoring and evaluation system for staff protection and assessment in every health facility (National Emergency Preparedness and Response plan, 2020).

In addition to the above, Bischler, Asheber, & Hobson, (2020) pinpointed that the absence of more appropriate data on households affected by the economic shock from COVID-19 was a challenge in Ethiopia during the pandemic. As to this study, in the context of a number of other

shocks, it is therefore not clear whether the response targeted those households most affected by the COVID-19 crisis.

On the other hand, the peril statement, which is tranquil, acquaintance centered and well-timed communication doesn't be pertinent work in in many circumstances due to the prevailing misperception of the public about the pandemic. The combined effects of poor understanding of society about the pandemic and the terrifying nature of communication messages, the public tend to look into another options and may desist themselves from their doings and challenge the effectiveness of the whole communication process (Tesfaye, 2020).

4.5.3. Limited Communication Access in Rural Parts of the Country

Though the rural community constitute huge portion of the national population, there were too limited access to information during the pandemic. Only few communication channels like Ethiopian radio, FANA and regional radio stations were accessed by the countryside populations. As to the participants of the research, due to this, there were high misconceptions about the cause and prevention mechanisms of the pandemic. An informant forwarded her points on the issues as:

“...The rural communities of the country had very limited access to COVID-19 related information during the pandemic. How to provide accessible information to this group was really a challenge to communication team of EPHI. We tried to reach the rural communities through limited national and regional stations in different languages but were not enough. Also we tried to address these communities by providing trainings to influential figures and local officials. We also tried to aware this group through health extension workers. However, the communication outlets were not still enough to provide regular and timely message related with the pandemic”. **(Face-to-face 3)**

However, despite the above challenges stated by the informant, different communication alternatives were implemented to reach the rural communities of the country.

Therefore, according to the above informant's response, despite the different efforts, reaching the rural communities was a difficult communication task during the pandemic. The situation in turn affected the rural communities to have misperception towards COVID-19 pandemic. Thus, this statement is in parallel with the discoveries of prior researchers. In aligned with the

communication practice, a study conducted in Jigjiga town by Buzuneh & Dagne (2023) on factors underlying covid-19 prevention practice and strategy indicated that a sizeable proportion of the rural population does not have access to the media platforms used to publicize COVID-19 prevention measures. Moreover, without aggressive interventions, access to water and soap are suboptimal to adopt the hand-washing recommendations, particularly in rural areas. As to this study, the low proportion of households with electricity, refrigeration, or internet connection and the relatively high prevalence of partner violence suggest that implementing the stay-at-home and work-from-home measures were challenging. As study conducted by Bischler, Asheber, & Hobson (2020) also found that in practice, communication and outreach is often a challenge even during routine program implementation, which casts some doubt on the effectiveness of the outreach and communication activities of the response to COVID-19.

In conclusion, the sphere contagion, COVID 19 has defied the different parts of the rondure. The contagion marks the social, political and economic dynamics of the world. As indicated from the above discussion, the announcement tract of the world was also confronted by the tricky. How to converse and by what means could reach the whole population about COVID 19 prevention were important questions that are challenged by the COVID 19.

4.6. Communication Lessons and strategies Learned From the COVID-19 Pandemic Communication

Despite the various challenges that affect the communication strategies of EPHI, COVID-19 pandemic brought important lessons and implication to communicate critical public health risks. The following are found to be important lessons learned from COVID-19 communication during the pandemic. According to the inter action review report on COVID-19 in Ethiopia, from the COVID-19 pandemic, important positive lessons are learned in the communication sector. Among the others, partners could be supportive if they are well communicated. According to this report, experiences were gained on information management system which was adopted for COVID-19. In addition to this, from EPHI (2020) COVID-19 report, it is pointed out that the COVID 19 contagion is found to be a reminder of the strategic importance of publicly accountable health systems, underpinned by investment in people and technologies. As this institutional report, lessons are also learned from the management of COVID-19 to adjust EPHI

approaches to other future health and environmental crises. Therefore, the following are found to be the important lessons learned from COVID-19 communication.

4.6.1. The Need to Utilize a Combination of Communication Channels

As learned from COVID-19 communication, a single communication channel is not enough to communicate the public health risks that affect large number of population. Instead, the amalgamation of diverse announcement passages comprising automated communications, mainstreaming Medias, media briefs, telecommunication based communication alternatives, printed forms of options are found to be more effective to communicate public health pandemics like COVID-19. By means of to the snitches of the research, these announcement modalities are essential communication outlets to address the civic for enormous reasons. As shown in the COVID-19 pandemic, the limitations of a single communication channel are filled by the other alternative communication channel so that accessibility becomes inclusive across different community members. The following direct account provided detailed justification on the issue as:

“Integrated communications helps to meet employee need and it is important for getting public feedback as well as enables EPHI to know what to do on public desires. Therefore, recognizing the merit of IC EPHI must strive a lot in helping the communication activities should be integrated in the time of corona virus epidemic” (Face-to-face 6).

Another informant also added the following.

“...In my opinion, a single communication tool alone may not be sufficient to effectively disseminate information. Public epidemic is a multifaceted and dynamic issue, and reaching target audience at large with diverse backgrounds and varying needs requires a multifaceted approach. Different communication tools have their unique strengths and reach different segments of the community. For example, while mobile apps and SMS messaging may be effective in reaching tech-savvy parts of the community, radio broadcasts are crucial for reaching those in remote areas with limited internet access (Face-to face 8)

Another informant advances the above personal accounts of the informant as:

“...All communication tools are not equally effective in the practice to broadcast corona virus pandemic. Some communication modalities are more preferable and hence are effective more than the others. For example, communication tools that are powerful to transmit practical experiences and tangible evidences are easily acceptable and effective for such public health diseases. Our community members believe what they see than what they hear theoretically. In this regard, information shared with public figures, radio, TV, training, press release and combinations of multiple communication tools are more effective (FGD, 12).

Therefore, combination of different media outlets to reach the public based on the need of the public and the context is found to be an important lesson gained during COVID-19 communication. This was practically evident during the pandemic as there information dissemination through the use of banners that contain different message of prevention such as: steps of hand wishing, how to use face mask, and keeping physical distance. As part of the mixing, EPHI urged organizations to convey short messages about COVID 19 while they make their own announcements. Public announcement moving through the town by car was also taken as an integral part of this effort. During integration of different communication alternatives, the languages used were appropriate to the society. Native languages in the areas were used in the print and broadcast media to transmit messages about COVID 19. In local and national broadcast media, native languages had been used significantly by the health office communication experts to transmit messages about corona virus.

Supporting the above finding, Tesfaye (2020) indicated that media combination was the main strategy of the health communication by the ministry of health and regional health bureau. Health communication officers in the regional health bureau made endeavors to make communication easier and understandable to the society, as per recommended in the National Communication Protocol for COVID 19. In this research, the researcher observed that in the residential areas, activities they made and also learned during in depth interview from informants that health communication experts integrated various media together in order to reach various groups of societies. As to this study, the implementation of various media, i.e., traditional, print, mainstream, and online media to reach all social groups are found to be important lessons learned during the pandemic. Thus, realizing the power of combined media use, the health office

used all types of media diffused information. Moreover, Yimam *et al* (2020) also indicated that apart from curbing this outbreak, efforts should be made to devise comprehensive measures to prevent future outbreaks of zoonotic origin. Also, as outlined by PSI (2023), Successful combination requires a well-defined and organized pathway for clients to access multiple services during the same health center visit.

Moreover, an inquiry conducted by Tesfaye (2020) indicated that the effectiveness of combination of multiple communication tools is very high and high as it is rated by 44.2% and 55.8% of the respondents. The effectiveness this access to diverse sources is manifested in a manner that it empowers the consumer to make better decisions, increase awareness, manage risks, access alternative, and promote sustainable practices on their life.

Therefore, some selected communication tools are effective to disseminate information in the time of public health epidemics like corona virus. For instance information shared with neighboring political and public figures, radio, TV, advertisement and promotion, training, press release and combination of multiple communication tools are effective. Likewise, the effectiveness of media brief, phone calls and text messages and internet are found to be very high

In a nutshell, the above findings indicated that the application of a single communication tool is not as such preferable and effective to change behavior of individuals instead combination of multiple communication tools is more effective. This is due to the fact that a multi-pronged communication approach that leverages various tools such as mobile apps, SMS, radio, social media, and extension services is likely to be more effective in reaching and engaging a diverse community.

4.6.2. The Need to Train Communication Actors

Before reaching COVID-19 to the public, providing awareness rising trainings to different actors of communication is found to be an important lesson learned during the pandemic to effectively communicate the issue under focus. Considering the importance of this, more than 22,000 health extension workers were trained through the mobile, online, and other platforms developed by EPHI/MOH on inter personal communication, case management, surveillance etc (IAR, 2020). As part of this lesson, as indicated on the 2020 national preparedness and repores report of EPHI,

basic training was provided for 98 Federal police and defense forces communication experts in relation to COVID-19 prevention strategies.

Furthermore, as indicated on the Ethiopia's COVID-19 vaccination program review document, incorporating healthcare worker and mobilizer training during supportive supervision to improve adoption of the modified client flow during the integrated COVID-19 campaign was essential to effectively reach the public. Daily debrief meetings reviewing data and presentations of successes and lessons learned facilitated timely action and rapid scale-up of the modified client flow by all health facilities and vaccination posts was also found to be important lesson observed during the pandemic (PSI, 2023). According to this document, capacity building of health workers on COVID-19 protocols is vital to the successful integration of COVID-19.

4.6.3. Data Management and Resources mobilization

Despite some limitations, important lessons were learned during COVID-19 pandemic on data management and resources mobilization. As the document analysis on inter action review on COVID-19 indicated, enhancement of data visibility (dashboard at EPSA, EOC, resource mobilization), a server-based documentation platform by the EPHI, health education through toll free lines and timely response to rumors to the general community and provision of COVID-19 related health education in collaboration with Ethio-telecom reaching all mobile phone users were important communication lessons gained during the pandemic. Additionally, institutionalization of electronic based reporting system for surveillance, testing, and case management were also important experiences observed during the COVID-19 pandemic communication. Moreover, as the document review on vaccine management during the pandemic showed that technician had to be hired to update the software to allow for COVID-19 vaccine communication and this needed to be done for each of the 11 cities of the country.

4.6.4. The Importance of Innovative Communication Approaches

In addition to the above, important lessons are learned from COVID-19 communication regarding the important of designing innovative communication approaches to change the misinformation and misperception of the public. As it is stated in the EPHI's (2021) national emergency preparedness and response plan, in addition to the traditional approaches to increasing awareness about the pandemic, about transmission mechanisms and prevention

methods, the following innovative communication approaches need to be used to address the problems:

“The first innovative communication strategy is, changing the misinformation of the community through engaging and empowering communities as a main strategy for countering misinformation using opinion leaders, social structures like Idir, religious leaders, professional associations, and others. Engage HEWs and Volunteers for home-to-home health education and promotion activities on COVID-19 Regularly mainstream message to address mis and dis information (including vaccine related mis and disinformation) using various media outlets. Share stories of patients and families (testimonies) affected by the pandemic to the wider public as frequently as possible. Continuously communicate about the situation in treatment centers. Regularly communicate about new Covid-19 strains and associated risks. Strengthen collaboration with Media Organizations’ owners or heads or experts .Incentivize Medias, creative art group, and social media influencers to promote innovative communications.”

Therefore, as document analysis indicated the need to think beyond the commonly used communication strategies to change misperceptions of the public is found to be an important lesson learned from COVID-19 communication. Supporting this argument, Fekadu *et al* (2022) also indicated that urgency of improving the innovation communication strategies drastically is essential to change information bias during public health pandemic as it is clearly seen during COVID-19 pandemic.

4.6.5. Lessons Learned from Community Dialogues

The need to consider community dialogues is an important communication alternative as it is seen during COVID-19 communication. In this regard, the role of health extension to facilitate public discussions on COVID-19 prevention mechanisms was very high. Health extension workers (HEWs) in Ethiopia are integral to reaching community members and supporting local health centers. Supervised by health center staff, their role is to provide community members with vital health information and promote healthy behaviors and PHC services within the community. In the form of campaign, HEWs played an important role to facilitate and organize community dialogues. To engage communities with low COVID-19 vaccination uptake, HEWs hosted community dialogues with specific groups (members of women’s association and

development groups, older adults, youth associations, and community representatives) to generate demand. Activities during the dialogues included education on COVID-19, modes of transmission, vaccination and group discussions on myths and misconceptions of the disease and vaccine. The dialogues gave HEWs the opportunity to discuss and address any concerns community members had regarding COVID-19 vaccines. Project staff conducted in-person interviews with participants immediately before and after their attendance at 10 randomly selected community dialogue sessions to measure their attitudes toward COVID-19 vaccination.

According to PSI (2023), during the pandemic, a total of 177 community dialogue sessions were held one week prior to and during the May 2023 COVID-19 vaccination campaign, which were attended by more than 5 thousand people in which majority are male (516 males and 4,839 females). As to this document, one-to-one and one-to-small group discussions (such as community dialogues) were able to address vaccine hesitancy and bring positive intention and attitude toward COVID-19 vaccines. Coordination meetings contributed to creating strong inter-sectorial collaboration to vaccinate industrial park workers, a priority population. This could be taken as an important lesson gained from the COVID-19 communication. Health communication strategy aims to change people's knowledge, attitudes and behaviors (KAB). In addition it is about the change of behavior of audiences (Sewasew, 2014). Therefore Federal Ministry of health communication strategy planned at EPHI is expected to guide the health campaigns scientifically. It further establishes the feedback and campaign FMOH directives and rules (Wondimu , 2018). It comprises of theories that can help to present from both school of thought at the same time. According to Sage (2014) the communication literature and strategy are related. Based on these constructive marks the study here under study refers towards strategic communication plan. Besides, both strategy and modern communication or campaign scholar have common shared values. Therefore it is for good to examine the health communication strategies as well.

CHAPTER FIVE

5. SUMMARY AND RECOMMENDATIONS

5.1. Summary of the Findings

The study tried to reconnoiter the communication strategies implemented by EPHI during COVID-19 pandemic. Guided this overall thematic focus, the various communication channels utilized, communication outcomes recorded, challenges faced and communication lessons erudite from the COVID 19 communication are explored in this research. To the culmination of the process, first hand data were composed over and done with key informant consultations and focus group discussion. To undertake the process, various views of the concerned informants were picking up to amass the first hand information. In addition, existing empirical and theoretical evidences were retrieved, reviewed and analyzed.

In this study, a total of 14 informants were participated in the key informant interview and FGD. Informants consisting of sexes, diverse age group, educational background, positions and work experiences were consulted for this research.

The study found that combinations of various communication channels having different COVID-19 related messages were utilized by EPHI to reach the public. Printed form of communication channels, mass Medias; online communication platforms, telecommunication based communication channels, mass campaign and press release were the most commonly used communication outlets used by EPHI during the COVID-19 pandemic.

The study found that brochures, billboards, newspapers, posters, leaflets, and printed behavioral change communication tools (BCC) materials were important communication modalities during the pandemic to deliver different messages to the public. Broadcasting COVID-19 related information using mass Medias was also taken as an important communication alternative by EPHI during the pandemic and hence massive information on COVID-19 was disseminated using this platform. Mass media alternatives like TV and radio were prominent channels in this regard. COVID-19 related news, advertisements, and warning notices were broadcasted in

different governmental and privately owned TVs and radios. The institute also used online communication platforms to reach digitally literate group of the society particularly through official website, Facebook page, twitter page, telegram channel and YouTube. Additionally, EPHI utilized telecommunication based communication channels during the pandemic. In collaboration with Ethio telecom, EPHI tried to communicate the public through text messages and cell-phone ring tones. In addition to these communication alternatives, mass campaign expressed in the forms of daily media briefings, health education through public spaces and timely response to rumors to the general community via politicians, public figures and opinion leaders was critically employed by EPHI during the pandemic. Finally, press releases are found to be important communication channels during the COVID-19 pandemic to release new updates, progress and best practices of prevention for selected and limited Medias so as to broadcast it.

In terms of the communication outcomes recorded during the COVID-19 communication, better health information managing system, high involvement of stakeholders in the communication efforts, and high Medias consumption were found to be some of the positive outcomes observed during the pandemic. As positive outcome, both information providers and receivers of COVID-19 showed better exposure of information utilization and use it accordingly as compared with the case before the pandemic. As part of this, researchers showed high interest to conduct researches and tried to provide up-to-date information to the public. Likewise, the high interest and involvement of different stakeholders towards the COVID-19 communication of the EPHI is found to be a positive outcome brought by COVID-19. Another important positive dimension brought during the COVID-19 pandemic is that the public showed high interest towards the access and utilization of different Medias. Unlike the case before the pandemic, the public across different levels showed high media consumption.

Despite the above positive outcomes, the study found that there were many underlying challenges that affect the communication of COVID-19 pandemic negatively. Misperception and low risk perception, poor communication and information sharing practice and the existence of limited communication access in rural parts of the country were found to be the major challenges that affect the communication efforts of EPHI during the pandemic. Low risk perception of society was the major communication challenges that affect the whole communication processes

in different ways. Due to this large members of the society were reluctant to the care messages delivered by EPHI. Furthermore, the study found that poor communication and information sharing practice, poor data quality, delayed development and implementation of proper indicators for strategic shift and slow and un-coordinated modeling were communication challenges faced by EPHI during the pandemic. Finally, the study found that though the rural community constitute huge portion of the national population, there were too limited access to information during the pandemic. Only few communication channels like Ethiopian radio, FANA and regional radio stations were accessed by the rural communities during the pandemic.

The study also found that COVID-19 pandemic brought important lessons and implication to communicate other critical public health risks. Accordingly, the paramount importance to utilizing a combination of communication channels, the need to provide extensive train to communication actors, the necessity of data management and resources mobilization, the importance of innovative communication approaches community dialogues are found to be important communication lessons learned from COVID-19 communication.

To provide details on the above lessons, as learned from COVID-19 communication, a single communication channel is not enough to communicate the public health risks that affect large number of population. Instead, the integration of different communication channels including electronic communications, mass media, press release and public meeting are found to be more effective to communicate public health pandemics like COVID-19. Moreover, before reaching information to the public, providing awareness rising trainings to different actors of communication is found to be an important lesson learned during the pandemic to effectively communicate the issue under focus. Most importantly, the need to think beyond the commonly used communication strategies to change misperceptions of the public is found to be an important lesson learned from COVID-19 communication. In this regard, the first innovative communication strategy is, changing the misinformation of the community through engaging and empowering communities as a main strategy for countering misinformation using opinion leaders, social structures like Idir, religious leaders, professional associations, and others. The need to consider community dialogues is an important communication alternative as it is seen during COVID-19 communication. In this regard, the role of health extension to facilitate public discussions on COVID-19 prevention mechanisms was very high. Health extension workers

(HEWs) in Ethiopia are integral to reaching community members and supporting local health centers. These important communication lessons draw an implication to communicate other public health pandemics.

5.2. Recommendations

Based on the finding of the study, the following points are recommended for concerned practitioners and potential academicians.

5.2.1. Recommendations for Practitioners

- Gaps and limitations are observed on providing accessible media alternatives to the rural communities of the country. Thus, EPHI and other concerned bodies should provide information to these groups based on targeted information distribution strategies. To do so, public dialogues, inter-personal communication that focuses to provide information to influential figures of the community should be considered as alternative communication outlets.
- EPHI should have well organized information management system for similar potential public health problems like COVID-19
- The selection of media channels should be carefully considered during pandemic communication.
- Frequent assessments on public's reaction, trust and satisfaction about the appropriateness of selected and broadcasted public health communication channels and associated effectiveness shall be conducted. In doing so, the existing communication strategies of EPHI should be improved in accordance with the public feedbacks.
- Since Covid 19 is listed like other communicable disease, EPHI has to strive to produce cultural sensitive strategic communication document to tackle the pandemic impact on health service delivery of the nation.

5.2.2. Recommendations for Further Researches

Further research should be conducted on the following specific public health communication strategies

- The prospects and challenges of communication channel preference during public health pandemics
- The effectiveness of communication in public health
- the Nexus between public health communication and Marketing promotion
- The Nature of Communication messages during public health pandemics
- EPHI should take a lesson from COVID-19 to provide ongoing and proactive communication intervention to change misperception of the public on other potential public health pandemics to ensure public safety and combat misinformation effectively.

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Online sources

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Ethiopian Public Health Institute COVID-19 Website <https://covid19.ephi.gov.et/>

Ethiopian Public Health Institute Facebook Page <https://www.facebook.com/ephipage/>

Ethiopian Public Health Institute Twitter Page <https://twitter.com/EPHIEthiopia>

Ethiopian Public Health Institute Telegram Channel <https://t.me/EthPHI>

Ethiopian Public Health Institute YouTube Channel <https://www.youtube.com/channel/>

Ministry of Health, Ethiopia Website <http://www.moh.gov.et/>

Appendix I

Guiding Questions

Part I. Personal Information of the Respondents

Institution -----

Sex-----

Age-----

Level of education-----

Position -----

Work Experiences in the communication area

Part II. Guiding Questions related with communication channels utilized by Ethiopia Public Health Institute in disseminating information related to COVID-19

Do you believe that various communication channels were utilized by EPHI to communicate COVID-19 during the pandemic?

If your answer is “YES” for question number 1, what type communication channels were used to communicate COVID-19 related information during the pandemic? (Probing: mainstream medias, social medias and others)

Which types of communication channel were widely used by EPHI to communicate the COVID-19 pandemic? What were the reasons to rely on these communication channels among the others?

Part III. . Guiding Questions related with the communication outcomes recorded during the COVID-19 pandemic

How do you evaluate the outcomes of the utilized communication channels during the pandemic (probing: positively and negatively or achievements and failures)

Do you think that the communication strategies implemented during COVID-19 Pandemic were effective? If yes, what were the achievements and failures resulted from the implemented communication strategies?

What are the reasons behind these achievements and failures in relation with the utilized communication channels in particular and the implemented communication strategies in general?

Part IV. Guiding Questions related with challenges faced by Public Health Institutes in communication management during the COVID-19 crisis.

What were the challenges that EPHI faced to communicate COVID-19 pandemic (Probing: specific challenges related with communication personnel or professionals, resources, publics, stakeholders attention etc.)

How do you explain the impacts of these challenges on the outcomes of the communication?

How these challenges were addressed and managed?

Part V. Guiding Questions related with the communication lessons learned by EPHI during the
COVID-19 pandemic

What are the communication lessons learned by EPHI from COVID-19 pandemic? (probing:
lessons from the strength, weakness and challenges)

What are the implications of these lessons for EPHI's future communication strategies in
particular and for the national health communication strategies in general?

Based on your experience from COVID-19 communication, what is your overall suggestion on
the health communication strategies?

Appendix 2

Guiding Points to secondary sources analysis

No	Guiding points to secondary sources review	Specific sources of the review	Points focused on the review	Alternative to access the sources
1	COVID-19 Communication Plans of EPHI	2020/2021 plans	Plans used to various communication channels	Google search Physical access of the document from EPHI
2	COVID-19 Communication Reports of EPHI	Reports release on	Utilized communication channels	Google search

		printed documents, newspapers, billboard, TV, Radio, Facebook, twitter, press release etc.	Communication outcomes recorded Communication challenges faced Lessons learned from the process	h Print, main stream and social media access
3	Scientific papers Focused on COVID-19 communication in Ethiopia	Papers disseminated on open access webs	Utilized communication channels Communication outcomes recorded Communication challenges faced	Google search

			Lessons learned from the process	
4	EPHI's Strategic Planning and Management	2020/2021 plans	Plans used to various communication channels	Google search Physical access s of the docu ment from EPH I

