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BARRIERS AND ENABLERS TO COVID-19 COORDINATION AND RESPONSE IN ZIMBABWE: CASE OF ZVIMBA RURAL DISTRICT

BY

AGNESS NYAWASHA

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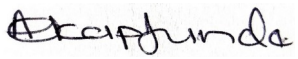
Abstract

Different interventions were adopted and established by government of Zimbabwe to control and prevent the spread of COVID-19 in the country. Even if these interventions were in place, new cases of COVID-19 continued to be recorded in the country every day. This study presents an investigation on barriers and enablers to COVID-19 coordination and response in Zimbabwe, case of Zvimba district. A descriptive survey design was used in this study and purposive sampling was used to select a sample size of 35 heads of coordination structures. Data was collected using questionnaires and key informant interview guides. Data was then captured and analyzed using Excel. About 60% of the selected participants were men while 40% were females. Results of the research showed a positive relationship between broad, grassroots stakeholder involvement and resourcefulness on one hand and positive outcome of COVID-19 coordination and response. Key enablers to COVID-19 coordination and response included involvement of key stakeholders particularly grassroots community structures and leadership. The stakeholders had clearly delineated roles and functions that worked in a complementary way. Key COVID-19 information was effectively disseminated through community champions who formed the bedrock of the health delivery system. This was complemented by use of social media riding on the penetration of the modern telephony technology in rural areas. Despite positive factors that enhanced success, negative COVID-19 myths, misconceptions and misinformation undermined coordination and response efforts. For example, there was low risk perception among rural communities. These included the belief that Blacks were immune to the pandemic and that COVID-19 was an "urban disease". As a result, there was resistance to taking COVID-19 vaccines and inconsistent compliance with government and WHO COVID-19 protocols. Based on the findings, it was recommended that strengthening grassroots structures and institutions are key attributes to effective response to COVID-19 and addressing myths, misconceptions and misinformation should be an integral part of COVID-19 response and any other epidemic as these may undermine response efforts.

Keywords COVID-19 pandemic; barriers; enablers; coordination; response; interventions;

Declaration Page

I declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted and will not be submitted to any other university for the award of a degree.

AGNESS NYAWASHA	AN
Student's Full Name	Student's Signature (Date)
Mrs Abigail Kapfunde	
Main Supervisor's full name	Main Supervisors' Signature (Date)

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Dedication

I would like to dedicate this dissertation to my husband Addmore Nyawasha my children Tinotenda, Ropafadzo, Ralph and Ronald for their moral and financial support.

List of Acronyms and Abbreviations

AUREC	Africa University Research Ethic Committee
CDC	Centre for Disease Control
CPU	Civil Protection Unit
DDRR	District Disaster Risk Response
EHT	Environmental Health Technician
IPC	Infection Prevention Control
MoHCC	Ministry of Health and Child Care
NGO	Non-Governmental Organisation
PPE	Personal Protective Equipment
RDC	Rural District Council
RRT	Rapid Response Team
SADC	South African Development Committee
SHOC	Strategic Health Operations Centre
SPRP	Strategic Preparedness and Response Plan
VHW	Village Health Workers
WHO	World Health Organisation

Definition of terms

Barriers	Refers to obstacles that prevent effective coordination and response to a pandemic.
Coordination	Coordination refers to organizing people or groups so that they can work together.
Coordination structures	Refers to integration of efforts of group members to provide unity and action to achieve common or set goals.
COVID-19	Refers to a contagious disease caused by severe acute respiratory syndrome coronavirus 2.
Enablers	Actions or activities that promote effective coordination and response to happen
Pandemic	Pandemic refers to an epidemic of infectious disease or disease outbreak that spread across a large geographical area such as countries or continents, affecting a large number of people.
Vaccination	Refers to the administration of a vaccine to produce immunity against a disease or virus.
Risk	Refers to the condition that increase the chance of developing a disease or expose one to a virus, germs or pathogen.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

COVID-19 is one of the deadly infectious disease that has spread across the globe leaving governments with no option but to enforce World Health Organization regulations. Different interventions have been adopted and established by government of Zimbabwe as strategies to control and prevent the spread of COVID-19 in the country. These interventions include establishment of COVID-19 coordination structures, lockdowns, wearing of masks and promotion of personal hygiene. Even if these interventions are implemented, new cases of COVID-19 are being recorded around the country every day. This study presented an investigation into barrier and enablers to COVID-19 coordination and response in Zvimba Rural District. This chapter focused on study background, description of the programme, problem statement, objectives, justification of the evaluation and limitations.

1.2 Background to the study

Coronavirus disease (COVID-19) is a deadly disease which is continuously affecting both developed and under developed countries in the world. Banerjee (2020) explains that, COVID-19 is an infectious disease caused by a new respiratory syndrome coronavirus strain named SARS-CoV-2. A virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. A person can be infected by breathing in the virus when he or she is within close proximity of someone who has COVID-19, or by touching a contaminated surface and then touch eyes, nose or mouth. COVID-19 symptoms range from none to life-

threatening illness and infected people remain contagious for up to two weeks, and can spread the virus even if they are asymptomatic.

Paintsil (2021) explains that, on the 30th of January 2020, the Director-General of the World Health Organization (WHO) declared COVID-19 outbreak as a Public Health issue which needed Emergency International Concern and issued a set of temporary recommendations to contain the spread of the virus. On the 11th of March 2020 WHO further declared covid-19 a global pandemic after the spread of the virus continued unabated. According to the WHO dashboard, between 31 December 2019 and 7 April 2021, 132,046,206 confirmed cases of COVID-19, including 2,867,242 deaths were reported globally. From this WHO dashboard, America was ranked at the top with 57,035,136 number of confirmed cases, while Africa was ranked fifth out of six continents with 3,137,631 confirmed cases.

Dzinamarira, et al. (2020) note that in Zimbabwe, the first imported COVID-19 case was reported on 21 March 2020 and local transmission started on 24th of March 2020. On May 5, about 34 confirmed COVID-19 cases were recorded including four deaths. Although the transmission rate was lower than other countries, the Government of Zimbabwe declared COVID-19 crisis a “national disaster” on March 17, 2020 as a move to curb the spread of this disease. It enforced emergency regulations and deployed personnel to provide response services. As of 7 April 2021, 36,984 cases had been confirmed including 1,531 deaths (Makurumidze, 2020). According to the Zimbabwe COVID-19 Weekly Disease Surveillance Report statistics, as of 14 December 2020, Mashonaland West province had recorded 542 confirmed cases of COVID-19 including 12 deaths.

Government of Zimbabwe activated coordination structures from national, provincial, district to sub-district levels to coordinate response to the pandemic. For a quicker reaction, coordination of COVID-19 response set and expanded on existing emergency response structures that are often used to respond to other disasters like droughts, disease outbreaks, cyclones and floods in the country, no new structures were developed. These structures include the Civil Protection Unit (CPU) and they are currently coordinating testing and vaccination, which are in progress at rural district hospitals and clinics around the country.

Smith (2021) pointed out that, coordination between different actors takes place at different levels, connected both horizontally (across government departments and organisations) and vertically (from centralised to more localised actors). Coordination is also needed within different domains including strategic or policy-related actions, and more operational actions concerning aspects of technical design and processes of implementation. These coordination actors play a fundamental role in coordinating interventions for disasters and pandemic. However, there are different factors that may contribute to their success or failure. This study therefore, seeks to investigate barriers and enablers to COVID-19 coordination and response in Zvimba Rural District Council.

1.3 Problem statement

Despite availability of measures to reduce the spread of COVID-19 since its outbreak in 2020 in Zimbabwe, new cases continue to be recorded in the country. Against this backdrop, the need to strengthen coordination and response to COVID-19 remains a priority as the future of the pandemic remains uncertain without cure yet discovered. This research therefore, seeks to investigate the barriers and enablers to COVID-19

coordination and response as factors that influence effective management and control of COVID-19. In order to illustrate the scale of COVID-19 in the country, table 1 below indicates COVID-19 statistics from Ministry of Health and Child Care (MoHCC) COVID-19 dashboard between October to December 2021.

Table 1: COVID-19 daily statistics from Ministry of Health and Child Care

Month	**Recorded new cases**	**Cumulative**	**Recorded deaths**	**Total deaths recorded**
October 13	92	132 108	3	4 648
November 13	35	133 428	0	4 696
December 13	4 872	172 012	2	4 740

Zimbabwe Covid-19 SitRrep (2021)

1.4 Purpose of the study

The purpose of this study was to investigate barriers and enablers to COVID-19 coordination and response in Zimbabwe focusing on Zvimba Rural District as a case study, with a view to providing recommendations for strengthening and improving current and future coordination and response efforts.

Even if COVID-19 different interventions are in place to prevent and control spreading of COVID- 19 virus, there is continuous recurrence of COVID-19 outbreaks in the country and cumulative number of deaths related to this disease continues to rise. This is a proxy indicator for weaknesses in the coordination and response mechanisms in place. COVID-19 pandemic is unique therefore, should be the coordination and response mechanisms.

1.5 Objectives

1.5.1 Broad objectives

To investigate barriers and enablers to COVID-19 coordination and response in Zvimba Rural District from 2020 to 2021.

1.5.2 Specific Objectives

1. To identify barriers and enablers to effective COVID-19 coordination and response in Zvimba Rural District.
2. To determine ways to address barriers to effective COVID-19 coordination and response in Zvimba Rural District.
3. To determine ways to strengthen effective COVID-19 coordination and response in Zvimba Rural District.

1.6 Research questions

1. What are the barriers to effective COVID-19 coordination and response in Zvimba Rural District?
2. What are the enablers to effective COVID-19 coordination and response in Zvimba Rural District?
3. How barriers can be addressed to promote effective COVID-19 coordination and response in Zvimba Rural District?
4. How is COVID-19 coordination and response resourced in Zvimba Rural District?
5. What can be done to strengthen COVID-19 coordination and response enablers in Zvimba Rural District?

1.7 Justification

Since the first detection of the COVID-19 disease in Zimbabwe, there have been several interventions by the government, the private sector, communities and individuals to support its citizens in the prevention, control and management of COVID-19 cases including among the less privileged in societies like rural areas. However, fewer efforts have been made to evaluate barriers and enablers to effective COVID-19 coordination and response. Therefore, there is a knowledge gap on barriers and enablers to effective COVID-19 coordination and response in Zimbabwe. Hence, this research with a view to providing recommendations that will contribute towards improving current and future COVID-19 response in the country.

1.8 Delimitations of the study

The study focused on heads of departments who were directly involved in district and sub-district COVID19 coordination and response in Zvimba Rural District. At district level, data was collected from head of departments, which include Civil Protection Unit and Rapid response teams. At sub-district level, ward Environmental Health Technicians (EHTs), councilors and nurses in-charge of health institutions were included in the study. Community leaders like chiefs, Faith Based Organisations, volunteer groups, village heads and headmen were also included in the study.

1.9 Chapter summary

This chapter presented the background to the study explaining what COVID-19 is, how it started, damages it caused to the country and world at large. It also identified the coordination structures put in place by the government to assist in the prevention and control of the pandemic. Measures put in place to prevent and control the spread of the pandemic were also given. The problem statement showed that, despite availability of

measures to reduce or prevent the spread of COVID-19 since its outbreak in 2020, new cases continue to be recorded in the country. The purpose for this study was to investigate effectiveness of these coordination structures in the management of current and future pandemic response efforts. The research objectives formulated for this study only focused on district and sub-district coordination structures in Zvimba Rural District.

CHAPTER 2:REVIEW OF RELATED LITERATURE

2.1 Introduction

Literature review in an overview of the previously published works on specific topics which enables researchers to find out what has already been researched in order to identify gaps within the chosen topic. Therefore, chapter 2 explored the barriers and enablers to effective coordination and response to COVID-19 and other related pandemics globally, continentally, regionally and locally. It also investigated on interventions or recommendations given to address these barriers and ways to strengthen enablers to effective COVID-19 coordination and response. Socio-Ecological framework was used to identify current and future effective COVID-19 management strategies at all levels of disaster risk management.

2.2 Overview of COVID-19 Response

Public health emergencies that affect the public's health, safety and quality of life challenge the health preparedness and response capabilities of governments in the world. Therefore, to address such problems global, regional, national or individual efforts are needed to resolve them. These public health emergencies are mainly caused by disasters that may be biological, chemical, accidents, terrorism and communicable contagions. Saba, et al (2020) highlighted that, global public health emergencies that happen recently include severe acute respiratory syndrome SARS (2002-2004), H1N1flu pandemic (2009), Ebola virus pandemic, cholera and the current COVID-19 virus pandemic.

Currently, rapid growth of COVID-19 cases has caused havoc throughout the world. It became a global pandemic within a short period due to extreme infection and death rates. The impact of COVID-19 has forced all nations to institute measures to contain, suppress, and mitigate the pandemic. According to Casale (2020), advisory measures put in place include enforced lockdown to promote social distancing, working from home, and safe hygiene practices. Legal measures enforced include global travel restrictions, reduction or postponement of elective and non-urgent health services and surgeries. Most nations authorised lockdowns and curfews to enforce social distance by limiting the movement, number of people on gatherings and interaction of people. Saba, et al. (2020) view that, for these measures to address COVID-19 successfully, they should heavily dependent on social structuring and behavioural change strategies at all levels.

2.3 Theoretical framework and variables

Dayan, et al (2021) explain that, theories assist in designing research questions, guide the selection of relevant data, interpret data, propose explanations of underlying causes or influences of observed phenomena. That is, theories can play a fundamental role in assisting researchers and leaders to understand norms, values and behavior of people so that they can plan effective and successful health promotion programs. Social Ecological Model (SEM) was used, in order to understand COVID-19 coordination and response and its contribution to effective control and management of COVID-19 cases in the country.

Casola, et al (2021) explained that Social Ecological Perspective is a framework that is mainly used to understand the range of factors that influence health and wellbeing of people. (ibid) went on to say Centre for Disease Control and Prevention adapted the

Socio Ecological Model so that it can be used in different health promotion interventions. It systematically guides time-sensitive research and implementation of individual, community and policy level interventions to mitigate the impact of epidemics which included COVID-19. Fig 1 below presents components of the socio ecological model.

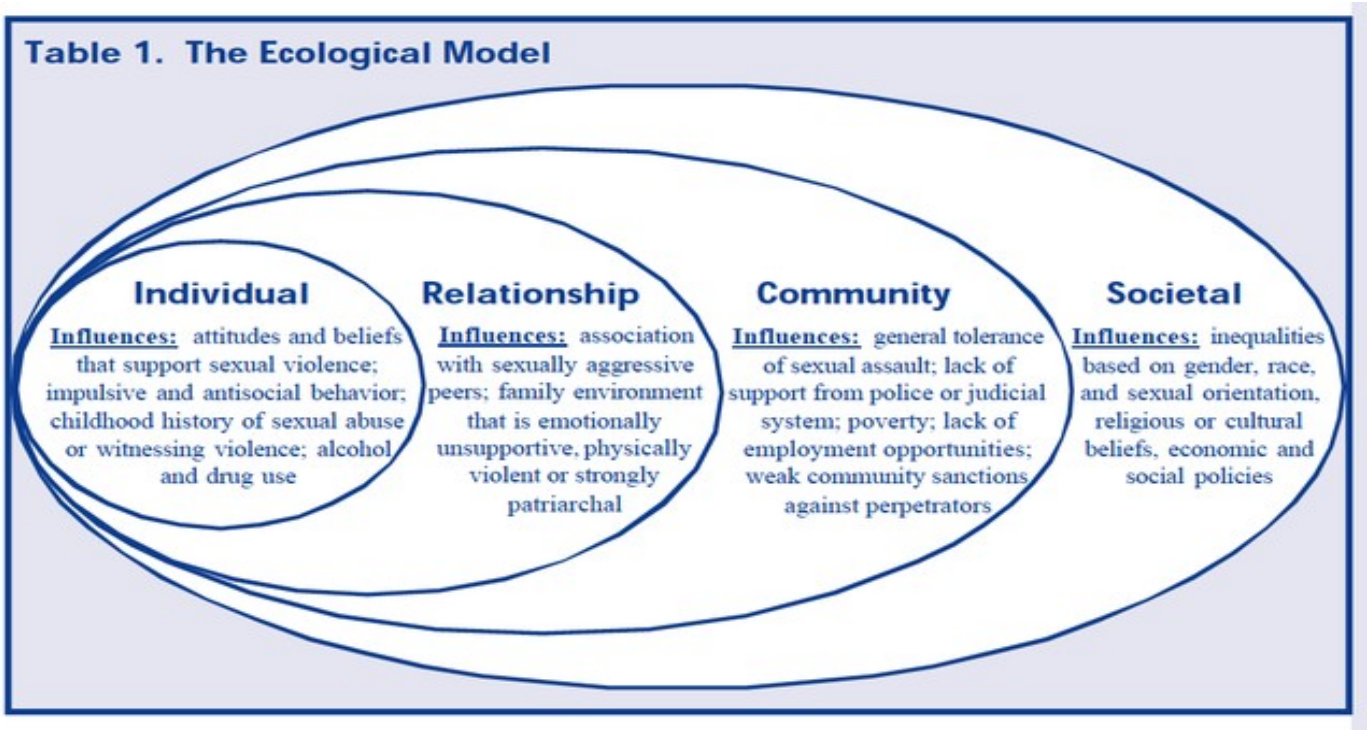


Figure 1. Socio Ecological Model

This model provides a framework on how researchers can understand various factors at various levels that can be enablers or hindrance to effective control and management of COVID-19 and other related pandemics.

That is, Social Ecological Model can be used to get the best results out of people at risk of COVID-19 virus by approaching the situation while addressing all levels of the framework. This is supported by Ingram, et al (2021) who said, different situations can be complicated at different levels, introducing a multi-faceted approach is the best way to overcome a problem that can lead to increased risks of contracting COVID-19 and associated morbidity and mortality. Therefore, to address barriers to effective COVID-19 coordination and response key stakeholders must consider influencing factors from individual to enabling environment level.

According to Ahanhanzo, et al (2021), multiple levels addressed by Social Ecological Model include intrapersonal, interpersonal, community or institutional, organizational levels and public policy or enabling environment. These levels indicated that for coordination structures and policy makers to address a challenge, the root cause of the problem must be identified first.

2.4 Advantages of using social ecological model in health research

According to McCormick, et al (2021) socio ecological model conceptualize health broadly and focus on multiple factors that might affect health negatively if not addressed well. The researchers understand that health can be affected negatively or positively by interaction between the individual, community, physical, social and political

environments. Therefore, it is of great important to understand the factors first before planning and implementation coordination activities or interventions.

Socio Ecological Model was used in a study carried out in Nigeria by Uchendu, et al (2020) on healthcare professional group in the Nigerian healthcare system. The frontline healthcare providers were responsible for promoting healthy lifestyles to patients and families. Therefore, the study was carried out to understand the determinants of Nigerian nurses' personal health promotion behaviors which was unknown and explore the perceived facilitators and barriers for them to be engaged in Health Promotion. Findings show that there were no organizational and policy level initiatives and interventions to facilitate their engagement in Health Promotion Behaviours like health eating and exercising. Their determinants span across all five levels of the Socio Ecological Model. That is, engagement in healthy behaviors was influenced by societal and organizational infrastructure, perceived value for public health. In addition, job-related factors such as occupational stress, high workload, and shift-work; cultural and religious beliefs; financial issues; and health-related knowledge had an impact on their Health Promotion Behaviours. This means, organizations should provide facilities and services to support healthy lifestyle choices in nurses and other health care providers. Government policies should prioritize the promotion of health through improving workplace setting, by advocating the development, implementation, regulation, and monitoring of healthy lifestyle policies.

A research carried out by Al-Jayyousi, et al (2021) in USA on attitudes of people towards COVID-19 vaccines and the potential influencing factors. These factors influence public attitudes towards COVID-19 vaccines and were embedded within

different levels of Socio Ecological Model. Results obtained shows major challenges to getting a COVID-19 vaccine include vaccine hesitancy, skepticism, refusal, and anti-vaccine movements. In addition, certain characteristics of COVID-19 vaccines themselves influenced public attitudes towards accepting the vaccines. Therefore, for effective coordination and response it is important to understanding different population needs and the factors that may influence public attitudes towards the vaccines.

A research carried in United States of America by Levy (2021) shows that assessment of gender roles in COVID-19 vaccine hesitancy revealed that men are more willing to accept the vaccine than women, and this held true across cultures. Women were reported to have adopted more negative views about vaccination while men showed a lower belief in rumors and conspiracy theories surrounding COVID-19 virus. However, this finding should be interpreted with caution in light of sex distribution, as sampling bias cannot be ruled out. Similar to previous findings, the current review found variations in vaccine acceptance and uptake across different race and ethnic minorities. Blacks, Hispanics, Chinese, Asian, non-Irish, mixed, or other ethnicities were more hesitant and more likely to reject the vaccines. The literature attributed this attitude to religious and cultural beliefs, norms, and concerns. High education level and high-income status were associated with positive attitudes toward vaccination, owing to minimal barriers related to knowledge, health literacy, and cost concern.

2.5 A focus on Intrapersonal or individual level in responding to COVID 19 pandemic

Cowan, et al (2021) explained that a person's behaviour is influenced by factors which include age, education level, sexual orientation and economic status. These factors are of

great importance for coordination structures to consider when developing public health strategies during planning and implementation of COVID-19 interventions. For example, economic status can be linked to an individual's ability to access healthcare. Therefore, health care services should cater for all people in the community regadless of their economic status.

A study carried in United States by Ingram, et al (2021) showed that, socio-economic stress may affect low paid workers as they place themselves at greater risk by working long hours and missing meals in order to meet the financial needs of themselves and their families. They can also go to the extent of going to work while ill or in unsafe conditions such as during the COVID-19 pandemic. Many people were forced by family situtions to break lockdown policies. This enabled them to contribute to the recurrence of disease outbreaks and pandemics. Results from this study also indicated that workers in small businesses were more likely not to receive health insurance, not paid time off, this then drive these workers to be less likely to seek preventive health services or health care when they experience symptoms of illness.

Casola, et al (2021) went on to say, individual level is also concerned with an individual's knowledge and skills. Knowledge about COVID-19 can assist an individual to understand more about the disease and their susceptibility to it. Therefore, coordination of interventions during COVID-19 and future pandemics should target an individual to help them understand the seriousness of the disease and its overall threat. The study carried out in America after community sensitisation on COVID-19 vaccine by Latkin, et al (2021) showed that all participants indicated that they have knowledge about COVID-19 and more than half of the participants that is 59.1 % of the sample

received COVID-19 vaccine. Those who were not vaccinated showed that they had lower levels of trust in the Centre of Disease Control (CDC) as source of COVID-19 information. The recommendations given to address this barrier indicated that to build confidence in people, coordination structures should conduct vaccine promotion campaigns to promote social network diffusion strategies, cross-partisan messaging and address gender and racial challenges. Therefore, the study points out that, coordination teams and policy makers should understand that knowledge alone is not enough to change attitudes of individuals in some situations but, it helps to influence key attitudes and decisions they make.

Midline assessment o COVID-19 on Knowledge, Attitude, Practices and Behaviour (KAP/B) and Social Norms done by Ministry of Health and Child Care (May, 2020) used Socio-Ecological Framework to understand why COVID-19 cases were continuing to be recorded in the country even if measures were in place. This framework assisted to explain individual behaviour within the social context that forms the individual environment and describes human behaviour as influenced by individual characteristics that include knowledge, attitudes and beliefs at the individual level.

Literature showed that, effective and sustainable management of epidemics require interventions that are targeted at individual level aiming at changing individual attitude knowledge, skills, behaviours and practices. These can be achieved through training of the targeted individual and door-to-door campaign that target people at individual level.

Saba, et al (2020) noted that, attitude of an individual is shaped by family, friends, healthcare providers, and employers. Social networks and organizational factors also

affect the attitude of an individual toward COVID-19 and other pandemics. That is, people mostly listen and follow instructions from those people whom they perceive as role model. A study done in UK by Grimes (2021) showed that misleading information shared on social media platforms contributed to making individuals hesitant to take the vaccine. In addition, 78% of the participants in one study stated that their decision to get a vaccine was supported by their families and friends especially when someone of their family members or friends was vaccinated. Therefore, COVID-19 coordination and response interventions must target families.

2.6 Significance of addressing interpersonal relations in COVID-19 coordination response

According to Casola, et al (2021), interpersonal relations refers to the relationships and social networks that an individual is involved. These include families, friends and traditions. To promote behaviour change to address COVID-19 issues at this stage, communication and social change in these social institutions should be considered. Mbunge, et al (2020) explained that, results from the study carried out in South Africa after distribution of PPEs by different organisations showed that, mask wearing was not viewed by most rural communities as an important action that protect them and their families from contracting or spreading COVID-19. This is because COVID-19 had not yet wreaked the same level of destruction in these areas compared to urban communities. It is possible that individuals in rural communities may not even know a single person with the virus and for them mask mandates are unnecessary and a burden.

Casola (2021), noted that, 11.8% of American households living under the poverty line, may not be able to purchase masks in person or online. They ended up using same masks

every day, which are unclean and contaminated. Therefore, coordination structures and policy makers must understand these situations so that they include them during planning and implementation of interventions.

2.7 Roles of Community networks in coordination and responding to COVID-19

Ingram, et al (2021) defined community as a Social Ecological Model level that focuses on the networks between organizations and institutions that make up the greater community. Community structures are often important in determining how populations behave and what customs they uphold. It is important for coordination structures to understand community set up, culture, norms and values to determine where different health behaviours originate because it is the most influential component that can promote behaviour change. These institutions can mobilise resources and ideas together in order to improve community health. Ahanhanzo, et al (2021) noted that, research carried out in West Africa showed that coordination structures at community level learnt to manage epidemics from the 2014 Ebola outbreak which claimed 11,325 lives. This led to the development of a coordination structure called ECOWAS Regional Centre for Surveillance and Disease Control to prepare and respond to future epidemics. Laboratories were also established to promote testing. These established services helped a lot in strengthening management of COVID-19. This literature assisted researchers to find out the effectiveness and sustainability of the coordination structures in the management of current and future epidemics.

2.8 Organisations and COVID-19 coordination and response

Organizations were explained by Liu, et al (2021) as crucial instruments in the development and promotion of behaviour change as they often enforce them through

restrictions and regulations. Examples of organisations include schools, health institutions and work places. These organisations have the responsibility of keeping their members safe from COVID-19. Schools can do this by making facemasks, sanitisers and hand washing facilities available. The important role played by organizations during implementation of COVID-19 response is to provide opportunity to reach more people in different sectors of the community. Organizations can provide counselling, immunization services and effective insurance plans for their members. Lyons, et al (2019) pointed out that, for people to embrace COVID-19 rules and regulations, social mobilization should be used at the organizational level. For example, schools can dissemination knowledge on safe health practices among students and teachers who then carry this information to their families. Therefore, coordination structures can be assisted by these organisations to carry out COVID-19 implementation strategies.

According to Levy (2021), the World Health Organisation (WHO) was developed to coordinate and lead global health. It has established the Strategic Preparedness and Response Plan (SPRP2021) and other documents for the year 2021. This response plan and other supporting documents were built on what has been learnt about a virus and they aimed to guide the coordination and actions that should be followed from the global, regional, and national covid-19 coordination and response and to overcome challenges. WHO is advocating for universal healthcare to ensure equitable access to covid-19 health products like vaccines by bringing together nations, scientists, and health professionals.

2.9 Public Policy and the enabling environment

Baral, et al (2013) explained that policies and laws that make up the broadest level of the Social Ecological Model are instigated at local, national and international levels. They went on to say, government should establish laws that are sustainable and enforce them. These policies have the potential to impact and promote behaviour and social change to a large number of people. That is if they manage to address intrapersonal, interpersonal and community needs. According to Tiffany, et al (2020), a study carried out in United States on the changing practices of Nephrology shows that it is of great importance to adjust policies according to situation. For example, allocation of resources according to needs. This study also indicated that Oxford COVID -19 Government Response Tracker was introduced to continuously provide updated dataset that is readily usable and comparable to promote policy measures.

Lone, et al. (2020) went on to say, WHO also developed enabling environment through coordinating the Strategic Health Operations Centre (SHOC). SHOC holds meetings regularly to keep abreast of covid-19 developments. The SHOC coordinates information and responses through a network of WHO teams, member states, and partner organisations. It also provides advice, tracking cases, and monitoring essential resources in the field then an Emergency Committee advises the Director General, who makes the ultimate decision on when and whether to declare a public health emergency of international concern.

According to Paintsil (2020), in Southern African region enabling environment for COVID-19 response is supported and coordinated through Southern African

Development Community (SADC). The main objectives of SADC are to attain economic development through peace and security, poverty alleviation and promote quality life for the people of Southern Africa. It promotes regional integration, to support those who are socially disadvantaged through heads of states and council of Health Ministers. This committee coordinates mobilization of resources through National Trust Funds and National Resource Mobilization Strategies to manage national disasters and pandemic responses. SADC assisted in the mobilization of regional support toward containment of the COVID-19 pandemic and mitigation of its socio-economic impact in the region.

2.10 Enablers to Covid-19 coordination and response

According to Dzinamarira, et al (2021), following the declaration of COVID-19 as a national disaster on March 19, 2020, Zimbabwean government strengthened and accelerated preparedness and response to this disease. These include, following the WHO regulations by putting covid-19 response structures from national, provincial, district to sub-district levels to coordinate COVID-19 response. Maulani, et al (2020), postulated that, the Zimbabwe Preparedness and Response Plan for COVID-19 was launched with eight pillars for coordination.

The government also established a National COVID-19 Response Taskforce, which consist of representatives from different ministries, which is further divided into sub-committees that are tasked to monitor the pandemic situation and coordinate the response to the crisis. The taskforce is also tasked to mobilise financial resources locally and internationally to cushion the country from negative impact of the pandemic, and to disseminate information related to the disaster. Overall, high-level coordination and

planning is led by the Permanent Secretary for the Ministry of Health and Child Care (MoHCC) working with permanent secretaries of other ministries.

Coordination of all emergences in Zimbabwe is done through the Civil Protection Unit (CPU), which is housed and operates under the Ministry of Local Government. The current response in Zvimba rides on this structure. Existing government departments, private and non-governmental organisations make up this structure, whose regular activities include initiating preparedness, prevention, community development and mitigation programmes.

In Zvimba district, the CPU coordinates COVID-19 response and there is a sub-committee called Rapid Response Team (RRT), which is responsible for COVID-19 testing, contact tracing and report to CPU. The RRT works with sub-district coordination structures and institutions like health centres, local leadership and village health workers/volunteers who are part of the Zimbabwe primary health care delivery system. From the Water and Sanitation side, the District Water and Sanitation Sub-Committee (DWSCC) also supports the work of the CPU. Therefore, using SEM this study investigated on the effectiveness and sustainability of district and sub-district committees put in place by Zvimba Rural District to respond to COVID-19.

2.11 Barriers to effective COVID-19 coordination and response

Ahanzo et al (2021) explained that, it is challenging to bring together different actors, from different disciplines, and with different mandates, guiding principles, visions, and interests. Knowledge about COVID-19 vaccines is limited as illustrated in numerous studies. Unfavorable attitudes toward vaccination was related to misbeliefs, conspiracy beliefs, and antivaccine beliefs inadequate knowledge and health literacy

lower perceived risk, threat, severity, and susceptibility political conservatism, partisanship and engagement and religious conviction Nevertheless, the factors associated with more vaccination acceptance included positive subjective norms and attitudes towards vaccination in general and COVID-19 vaccination in particular, high perceived benefits self-efficacy, institutional and government trust previous exposure to flu or other vaccines and prosocial concerns [Enhancing these factors may improve the vaccination uptake rate.

Ahanhanzo, et al (2021) Propagation of myths and conspiracy theories around vaccines and promotion of the COVID-19 sentiment, combined with exposure to persuasive tactics, can convince the person that the vaccine is harmful. Accordingly, public health organizations, healthcare professionals, and media platforms can collaborate to guarantee information accuracy, deliver health promotion programs to improve levels of health literacy to enable the target population to make an informed decision. In addition, this psychosocial environmental impact implies that strategies to overcome hesitancy can be framed within models that consider these multifaceted and multileveled factors.

2.12 Impact of COVID-19 in Zimbabwe

Since the onset of COVID-19 pandemic in Zimbabwe, it strained public health sector as there were no preparedness and response mechanisms in place to control and prevent the spread of the disease. A study done by Murehwanhema, et al (2021) showed that the public health sector in sub-Suharan Africa including Zimbabwe was largely reported as fragile at the onset of the COVID-19 pandemic causing many challenges to effective management of the virus. These include inadequate national budget and resource allocation towards building and capacitating the public health sector. These barriers

resulted in widespread shortage of medical consumables and equipment. Due to the surge of COVID-19 new cases, health sector also experience shortage of space for admitting and treating sick COVID-19 patients.

Chimene, et al (2021) went on to say the worsening situation in the health sector was also fueled by continuous migration of health professionals to greener pastures due to hyperinflation. This led to high shortage of health staff in health facilities leading to work burden and low morale in staff. To address staff shortage, health sector increased working hours and assign staff to more than one task. Therefore, there is need for government to scale up workforce during pandemics.

Since 2021, Zimbabwe continued to face multiple hazards dominated by two waves of the COVID-19 outbreak. Containment measures introduced in 2021, which included lockdowns, school shutdowns, and curfews. These severely affected business operations and had destructive impacts on industry, and the informal sector. COVID-19 contributed to tough the fragile livelihoods of the vulnerable population of Zimbabwe. Economic challenges contribute much to increased prices of goods and services According to ZIMVAC (2021), urban population was more impacted by the economic challenges with 2.4 million people in urban areas becoming food insecure. This means most people in Zimbabwe were living under the poverty datum line. Despite a good harvest in the 2020 – 2021 agricultural season, some rural populations were also facing food insecurity, particularly during the lean season starting in October 2021. In the short term, therefore, given the economic impact of COVID-19, the economic outlook is locked on public health and the evolution of the COVID-19 vaccination process.

2.13 Gaps in Literature

COVID-19 is a newly discovered disease, which is contributing to high morbidity and mortality globally. As such, there is little literature available from studies done in-countries to understand effective ways of managing the pandemic. Meanwhile, there is no known cure for COVID-19 and there are gaps in information on effective ways to prevent or halt the spread of the epidemic. In the same vein available literature showed that there were very few studies and documentation on COVID-19 that had been done specifically to determine barriers and enablers to coordination and response programmes in Zimbabwe.

2.14 Chapter summary

Experience from COVID-19 coordination and response highlighted several promising experiences which will assist to improve coordination between key players like stakeholders and policy makers. Lack of it will contribute to challenges in designing and implementation of shock response The Social Ecological Model is a framework that is highly used during planning and implementation of Public Health programmes including COVID-19 response. This model promotes effective coordination and response. It also allows policy makers to identify the root cause of a problem first. Reviewed literature indicated that barriers should be addressed first to develop sustainable coordination and response programmes for current and future pandemics. Collected literature also shows that in order for coordination and response activities to be effective, it is necessary to include multiple levels as espoused by the Social Ecological Perspective.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Chapter 3 described methodology and procedures for data collection, handling and analysis during the course of the research. Methodology give research scientifically sound findings which helps the researcher to keep the research on track and manageable. It presented sub-topics such as the research design, study site, population and sampling methods. It also presented how data was collected, processed and analysed, while observing ethical issues and COVID-19 regulations.

3.2 The Research Design

To carry out this research on barriers and enablers to COVID-19 coordination and response at district and sub-district levels the researcher used a descriptive-survey research design. According to Boaz (2018), descriptive study designs are scientific research methods which include observing and describing the behavior of a subject without influencing it in any way. This research design assisted the researcher to gather data from subjects to accurately and systematically describe the situation around COVID-19 coordination and response

3.3 Study site

The research was conducted in Zvimba Rural District in Mashonaland West Province that share boundaries with the capital city, Harare. The district's main town is Murombedzi which is located at a distance of 110 km from Harare. There are 35 wards in Zvimba district. The study was carried out at Zvimba Rural District Council and in three randomly selected wards, which are ward 3, 9 and 15.

3.4 Study Population

The study targeted a population of 225 which was made up of all people who are directly involved in disaster risk reduction management in the district. These include eight heads of departments at district level, 35-nurse in-charge, 35 councillors, 35 Environmental Health Technicians, 70 village heads and 70 Village Health Workers.

3.5 Sample and Sample Size

To select a sample of participants, purposive sampling was used since only heads of departments who were directly involved in COVID-19 coordination and response were included in the study to come up with a sample size of 35.

3.6 Inclusion/exclusion

This study only included heads of departments who were directly involved in COVID-19 coordination and response activities from District to sub-District level. At district level, District Health Executive, which include District Medical Officer, Lab technician, Health Promotion Officer, IPC and Rapid Response Team (RRT) focal persons were included. Other participants were District Administrator from Zvimba Rural District Council and Private Organisations. Only Non-Governmental Organisations implementing COVID-19 response projects were included in the study. At sub-district, all 35 wards in Zvimba district were included in the study, but not all people in these 35 wards were included. The study only included Environmental Health Technicians (EHTs), councillors, and COVID-19 frontline nurses. Lastly, at village level, only Village Health Workers (VHW) and community leaders were involved in the study.

3.7 Sampling procedure

A multi-stage sampling technique was used to select study participants from the district, ward and village levels. Basit, et al (2013) explained multistage sampling as process of conducting two or more stages of random sampling based on the hierarchal structure of clusters. Use of multi-stage sampling was to avoid the problems of randomly sampling from a population that was larger than the researcher's resources could handle. Multi-stage sampling gives researchers with limited funds and time a method to sample from such populations. This sampling procedure in essence is a way to reduce the population by cutting it up into smaller groups, which then can be the subject of random sampling. As long as the groups have low between-group variance, this form of sampling is a legitimate way to simplify the population.

Firstly, the population was clustered to group population according to geographical location that is district, wards 1 to 3 and villages 1 to 3 per ward. Cluster sampling is more useful when a survey needs to be conducted over a larger population for you to survey it as a whole. At district level purposive sampling was used to select eight heads of departments who are key stakeholders in COVID-19 response. Purposive sampling or judgmental sampling was defined by Bertsimas, et al (2022) as a non-probability sampling in which researchers rely on their own judgement during selection of participants to be included in the study or research.

At sub-district level, random sampling was used to select the wards included in the study. All 35 wards were assigned numbers and lucky deep was used to select three wards, these are wards 3, 9 and 17. To carry out the lucky dip without bias the researcher assigned a number to each ward and put them of cards. The cards were placed

in a box and shuffle them then picked cards one by one until the sample size required was enough. Purposive sampling was then used to select two nurses in-charge of health institutions, three Councilors, three Environmental Health Technicians who work in the three selected wards.

Lastly, villages were grouped into clusters according to three selected wards (ward 3, 9 and 17). Two villages were then randomly selected in each cluster. To carryout random sampling, all 14 villages were assigned numbers and do lucky deep. Purposive sampling was used to select ten community leaders and eight Village Health Workers in the selected villages from the three wards.

3.8 Data Collection

3.8.1 Data collection instruments

Data collection instruments assist the researcher to collect information from respondents. During the course of this study, interview guide and questionnaire were used to collect data from participants. Interview guides with open-ended-questions were administered to selected Zvimba Rural District Council, and government departments that make up the Rapid Response Team (RRT), Non-governmental organisations. These interviews assisted the researcher to collect qualitative data. Basit, et al (2013) explained an interview in qualitative research refers to a conversation where the questions are asked by the interviewer to prompt information from the interviewee. While, a questionnaire consists of set of questions for the purpose of gathering information from respondents through survey or statistical study.

Questionnaires were then administered to all other selected participants at sub-district level to collect quantitative data. While, secondary data was collected through desk

review of District Disaster Responds Reports (DDRR) and archival documents. Archival documents were used to review what was done to address pandemics and disasters in the past so that the researcher can explore strengths and weaknesses of each technique used.

3.9 Validity and Reliability

Validity

According to Schroeder, et al (2020), validity refers to the degree to which an instrument accurately measures what it intends to measure. In this case, the researcher was assisted by work mates to read the interview guide and questionnaires to evaluate whether the questions were going to effectively capture data that answer research questions. Secondly, the researcher carried out a pilot test on a subset of the intended population from Zvimba District CPU committee members and these subjects were not included in the final study. Collected data was then analysed using Microsoft Excel.

Reliability

To measure reliability of the research instruments, the researcher used internal consistency reliability. Hamilton (2020) defines internal consistency reliability as the correlation between multiple items in a test that intend to measure the same construct. Test is viewed as unreliable if it responses to different items which contradict. In this case, Cronbach's alpha was used to assess if the tools were able to measure effectiveness of coordination structures in Zvimba rural District. The researcher created questionnaires with sets of statements that respondents agree or disagree with. The general rule of thumb is that Cronbach alpha of .70 and above is good. Cronbach alpha coefficient of .806 was calculated using SPSS software.

3.10 Pretesting of instruments

Survey questionnaires and interview guide were administered to some members of the target population to pin point problem areas, reduce measurement error and respondent burden. Pretesting also helped the facilitator to determine if respondents were able to understand the questions and do adjustments. These interviews were conducted face-to-face observing COVID-19 regulations.

3.11 Data Collection Procedure

Data from the key stakeholders at the Zvimba Rural District Council was collected through face-to-face and telephone interviews for those who were not in their offices by the time data was collected. Interviews helped the facilitator to probe more questions to clearly understand how effective coordination structures at district level so that meaningful and sufficient qualitative data can be collected. Open-ended questions were used to create room for the researcher to probe and explore more in-depth information from the participants. In this case, the researcher arranged and agreed on time with each participant before conducting interviews. The facilitator agreed with the interviewee to note down important points from the discussion on the interview guide to keep records.

Questionnaire was then self-administered to all other selected participants from coordination structures at sub-district. The researcher was assisted by Environmental Health Technicians to administer the questionnaires to selected participants in their wards and villages.

3.12 Data Analysis and Organization

Collected raw data from district and sub-district stakeholders was first coded manually for it to be easy to manage. It was then captured and cleaned on excel manually by the

researcher. Wang, et al (2019) explained that, data cleaning involves the detection and correction of inconsistencies and errors in data set. Therefore, data cleaning assisted the researcher to check for consistence, correctness and completeness of collected data and make adjustments. The opinions and responses from the respondents were cross-checked with the checklist from facility records and reports to increase accuracy**.** Coded quantitative data was then analysed using Microsoft excel.

3.13 Ethical Considerations

The study was carried out according to the standard ethical guidelines. Permission to conduct the study was sought from and granted by Provincial Medical Director (PMD) and Africa University Research Ethic Committee (AUREC). The researcher also sought permission to conduct the research from District Administrator of Zvimba Rural District Council. Informed consent was obtained before data collection commenced from all the study participants. The objectives and purpose of the study were explained fully to the participants individually. Participants were then given opportunity to ask questions for them to clearly understand the objectives of the study before they sign the consent form. Their choices to accept or reject participation were valued. Confidentiality was also assured and no identifier information was written on the questionnaires and interview guides.

3.14 Chapter Summary

A descriptive survey research design was used to collect qualitative and quantitative data. Data collection instruments, which include interview guide and questionnaire, were used to collect data. Interviews were used to collect qualitative data and questionnaires collected quantitative data that was then cleaned, coded manually and analysed using

Microsoft Excel. These data collection tools were conducted following COVID-19 WHO and government of Zimbabwe regulations. Purposive sampling was used to select respondents who are directly involved in COVID-19 coordination and response.

CHAPTER 4:DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents results of the study under sub-sections which include demographic data, challenges and enablers to COVID-19 coordination and response, as well as suggested ways to rectify the challenges and sustainability of coordination and response interventions. Analysed results from qualitative and quantitative data are presented to support results from quantitative data. These findings are presented under themes and in the form of tables, bar graphs and pie charts. Comments are given after the presentation of each data analysis to interpret meaning from the results.

4.2 Demographic data

4.2.1 Characteristics of the participants

Fig 1 below indicates participants' distribution by gender among the 35 participants drawn from district and sub-district levels. A total of 27 participants responded to the questionnaire while 8 were interviewed and these were mainly heads of departments and institutions.

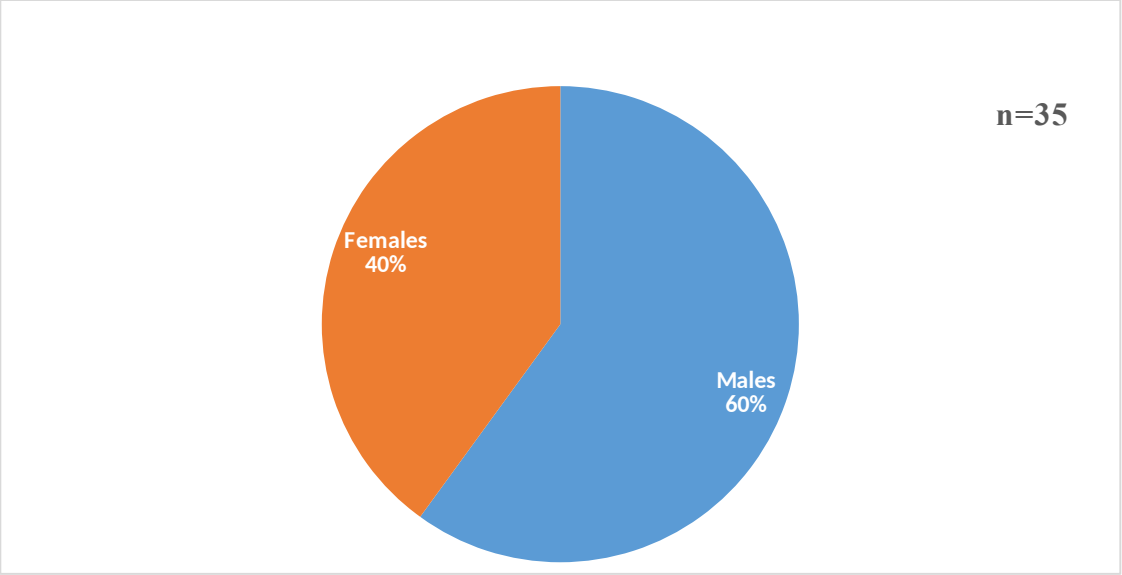


Figure 2: Respondents by gender

Figure 2 above highlights that 60% of the selected participants were men while 40% were females. These results indicate that men occupied leadership positions more than women as the research targeted people in leadership positions at all levels. Poor participation of women in leadership positions remains a cause for concern in Zimbabwe. This state of affairs increases the risk for women's issues being sidelined or not adequately addressed as the district and the country responded to the COVID-19 pandemic. Such issues included among others, access to clean safe water for improved hygiene and sanitation in the COVID-19 context. Going forward, women needed full representation as their gender issues may fail to be addressed throughout the pandemic and other coming disasters.

4.2.2 **Age of respondents**

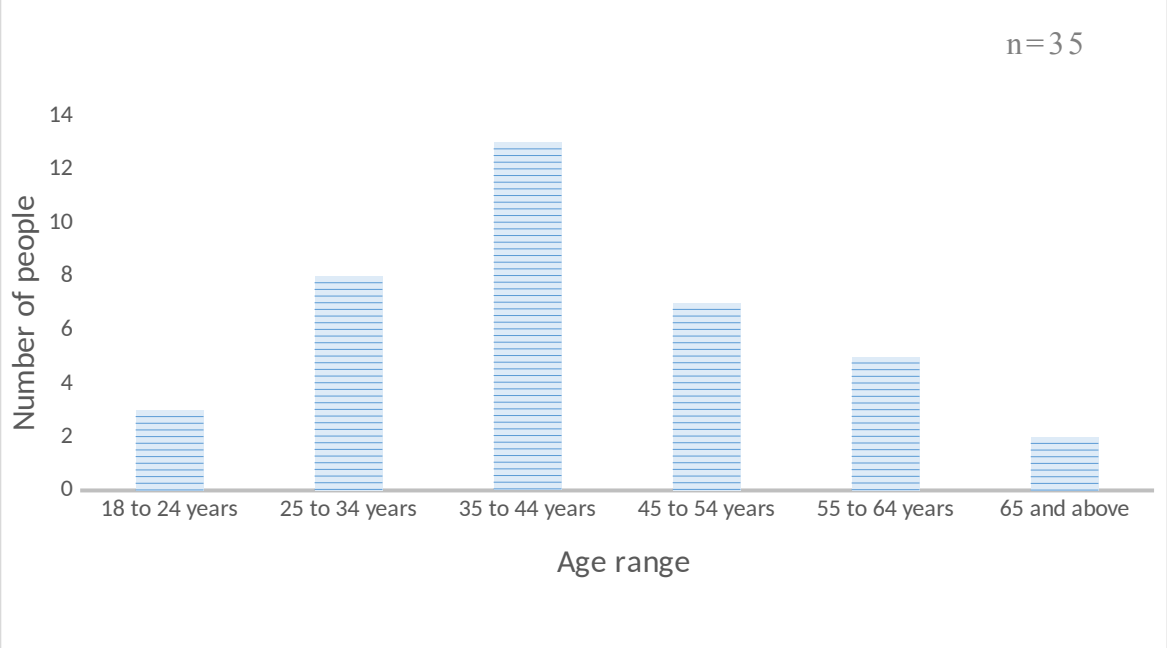


Figure 3: Description of participants by age

Analysed data in fig 3 indicates that most of the respondents were between the age of 35 to 44 years (13), followed by 45 to 54 years (8), 25 to 34years (7), 55 to 64 years (4) and lastly age group between 18 to 24 years (3). This age distribution shows that responses were provided by mature and experienced people whose responses can be relied upon. It also shows that both old and young people actively participated in the management of COVID-19. This was also a fair representation of the Zimbabwe society which was dominated by young and middle-aged people who are the working class.

COVID-19 coordination and response situation in Zvimba District

4.3 Enablers to effective COVID-19 coordination and response

4.3.1. Delineated roles and functions

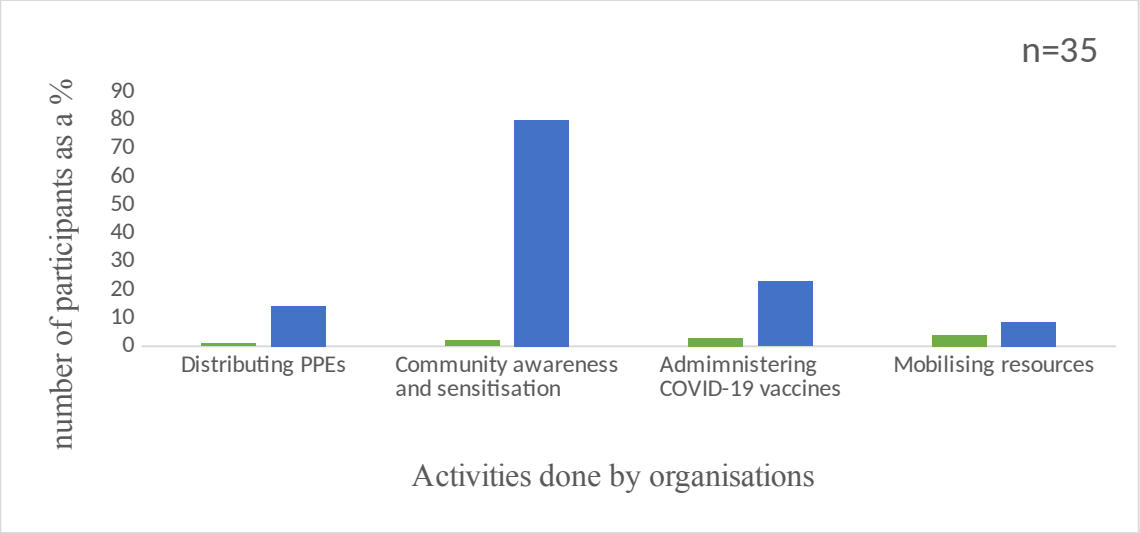


Figure 4: Roles and responsibilities

Analysis above shows that most participants are involved in community awareness and sensitization (80%), 23% indicated that they are involved in administering COVID-19 vaccines, while 14% are involved in distributing PPEs and 9% indicated that they are responsible for mobilizing resources. These results indicated that the district coordination structures have delineated roles and functions which are relevant and critical for effective COVID-19 response.

4.3.1 Distinct and complementarity of interventions implemented to control and prevent the spread of COVID-19

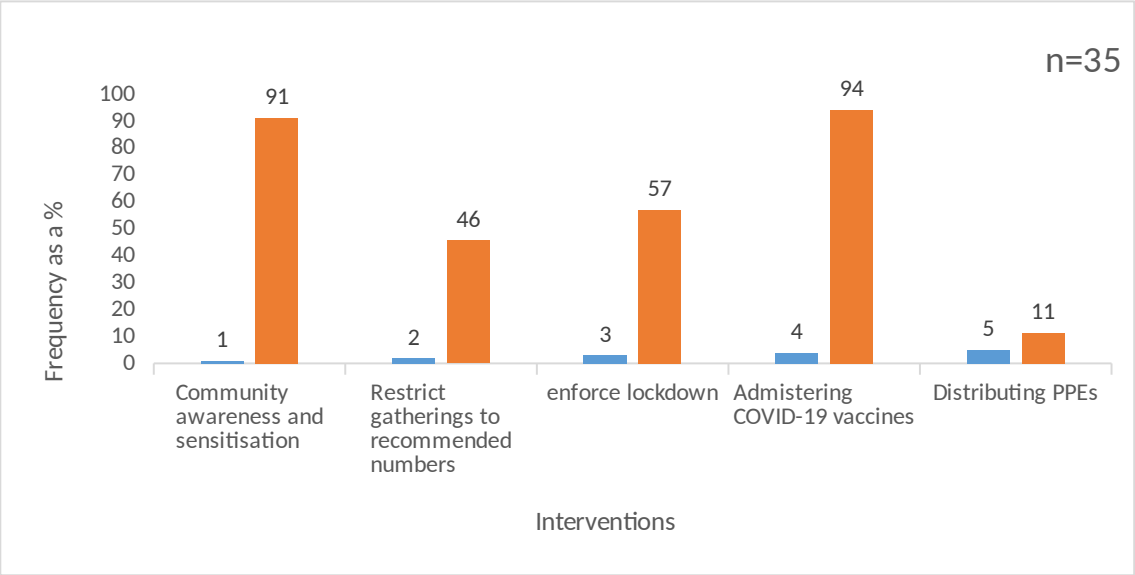


Figure 5: Complementarity of activities

Results shows that interventions employed in the district to control and prevent spread of COVID-19 virus were varied and complementary. They included administering of COVID-19 vaccines (94%), community awareness and sensitization (91%), enforcement of lockdown measures (57%), restriction of gatherings according to World Health Organisation (WHO) regulations (46%). The varied activities formed a robust and well-coordinated intervention programme which produced positive and desirable results. These results were supported by the results obtained from the interviews done at district level which showed that these interventions contributed to the decline of new covid-19 cases in the district between 2020 and 2021.

4.3.2 **Actor constellation**

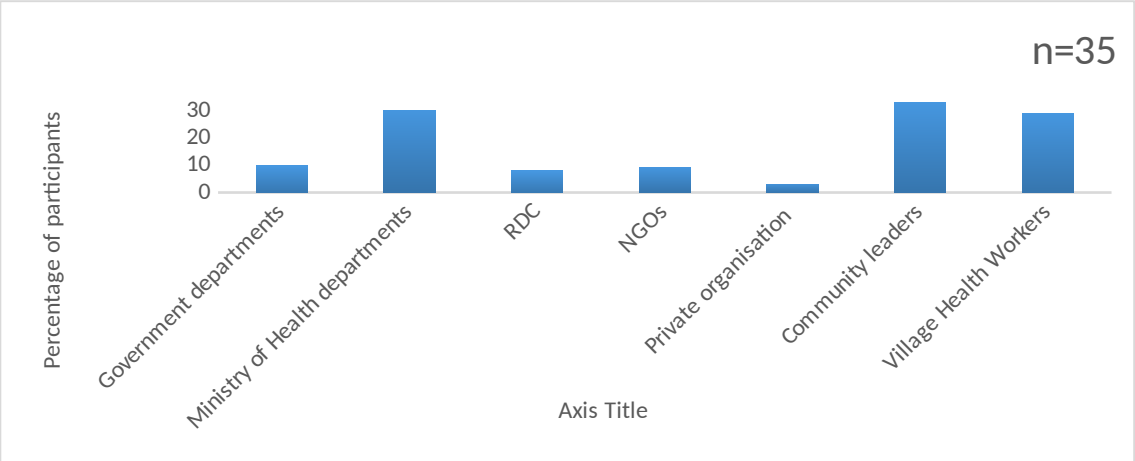


Figure 6: Actor constellation

Analysis of results shows that a successful COVID-19 response programme requires concerted efforts by various actors at all levels. Fig 4 shows that community leaders made up the largest group involved in COVID-19 coordination at community level (33%) followed by Ministry of Health and Child Care professional (30%) and Village Health Workers (29%). These results indicate a high degree of involvement of grassroot structures in the coordination of COVID-19 activities in Zvimba district. Involvement of grassroot structures increased contact time with communities in COVID-19 messaging and knowledge dissemination which was key in sustaining COVID-19 response. This was critical in ensuring enforcement of WHO and government COVID-19 protocols, guidelines and and regulations. Other government departments, NGOs, RDC and private organisations provided essential services in the prevention and control of COVID-19. These structures worked together as they formed COVID-19 Risk Communication and Community Engagement taskforces at all levels.

4.3.3 **Decentralised channels for dissemination of COVID-19 information**

Table 2: Information dissemination channels information is disseminated

Coordination structure	Number of responses	Percentage
Civil Protection Unit	2	7%
Health facilities	13	50%
VHW	23	80%
Local leaders	3	10%
Social media	19	61%
Television	4	10%
Relatives and friend	8	21%
Neighbour	6	20%

Multiple information dissemination channels were used during COVID-19 response. Table 2 above shows that most information COVID-19 infection, prevention and control was disseminated through VHWs (80%) followed by social media (61%) particularly WhatsApp and cellphone text messaging. Village health workers (VWs) were on the lowest tier of the Ministry of Health and Child Care structure and they resided in communities where they had close and day-to-day contact with community members. Working and disseminating information through VHWs was appropriate and effective as they were the first line of defense in primary health care. They lived closest with communities hence they had more contact time with people. They were also trusted by communities because they were chosen and appointed by the communities. The above

analysis also shows wide-scale use of the mobile phone technology in dissemination of COVID-19 messages and information. The use of social media and mobile phone technology was relevant and effective given the wide penetration of the mobile telephony in rural communities of Zimbabwe. Other important channels used to disseminate information included health centres (50%) when people visit clinics and hospitals, community champions in the form of local leaders and peer groups.

4.3.4 **Community-wide targeting and vulnerability**

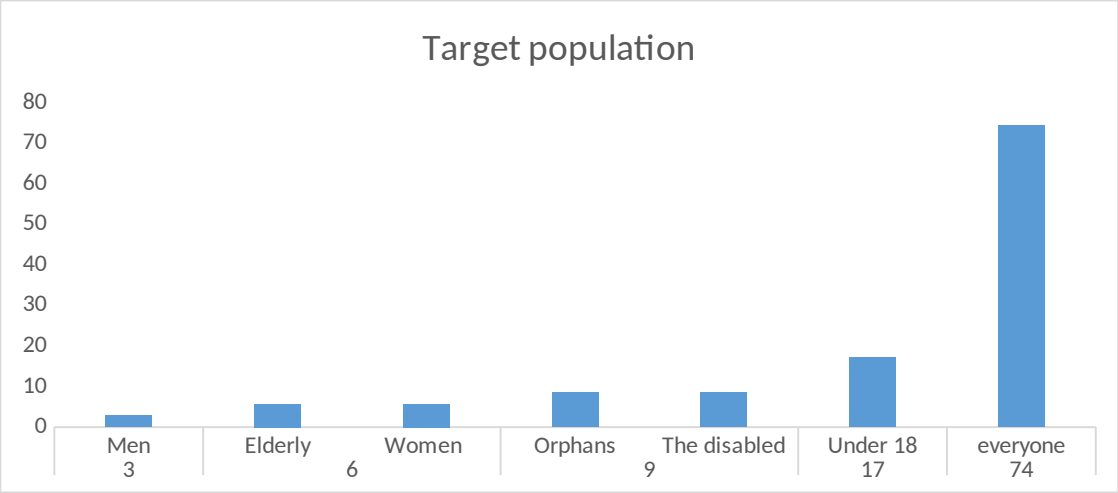


Figure 7: Target population during COVID-19

Fig 7 above indicates that major activities done by COVID-19 coordination structure targeted all members of the community (74%) for greater impact. COVID-19 was a community-wide pandemic, which required targeting everyone in the response matrix because everyone was at risk of contracting the pandemic. However, other interventions targeted specific vulnerable groups of the community such as the elderly and people living with disability according to their unique needs in the spirit of leaving no one behind. This was important for effective COVID-19 response as people's needs varied according to different circumstances.

4.4 Challenges to effective COVID-19 coordination and response

4.4.1 Lack of adherence to COVID-19 regulations

Table 3: Adherence to COVID-19 protocols

People adhering to COVID-19 protocols	Frequency	Percentage
Yes	16	46%
No	5	14%
Sometimes	12	34%
Not sure	2	6%
Total = n	35	100%

While the majority of respondents indicated adherence to COVID-19 regulations like using face mask and social distancing, a significant percentage inconsistently observed the regulations resulting continued spreading of the pandemic. Some of the reasons for not adhering to the WHO and government protocols included the perception that COVID-19 was an "urban disease" and people living in rural areas were not at risk. As illustrated in table 4, other reasons included lack of resources to purchase the required personal protective equipment and sanitisers.

Table 4: Reasons for not adhering to Covid-19 protocols

Not at risk	5	41%
No money to purchase PPEs/sanitizers	5	41%
COVID is in towns only	2	18%
Total = n	5	100%

4.4.2 Stakeholder involvement in planning of COVID-19 interventions

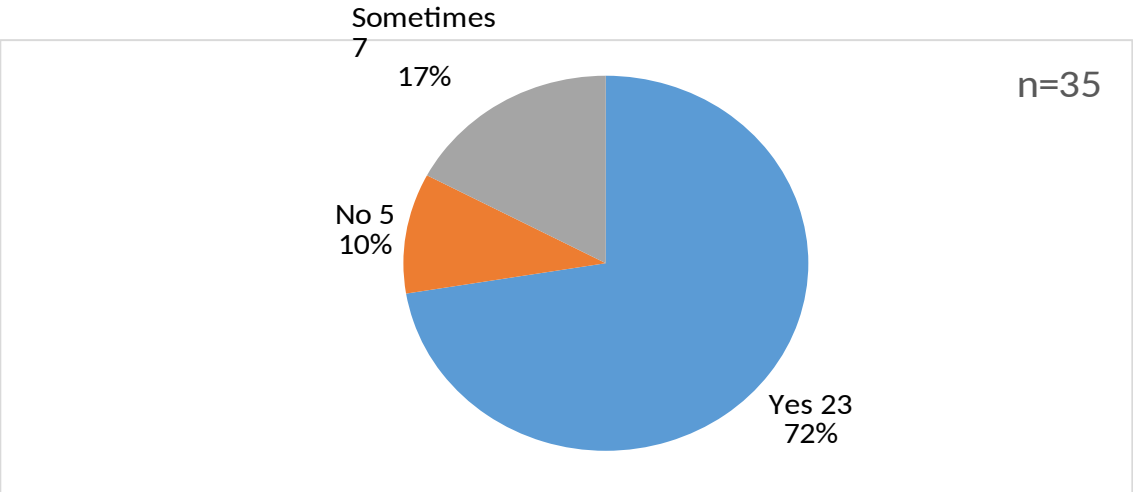


Figure 8: Stakeholder involvement in COVID-19 planning

While the majority of stakeholders indicated involvement in planning COVID-19 interventions, further analysis showed that decisions were only made at higher levels while grassroot structures and stakeholders were mere recipients of instructions. This compromised ownership of decisions which ultimately affected sustainability of interventions. A broader and all-encompassing planning process is critical for effective and sustainable COVID-19 response in the district.

4.5 Sustainability of coordination and response interventions

4.5.1 Funding COVID-19 coordination and response interventions

Table 5: COVID-19 Funding streams

	Yes	No	Not sure	Grand Total
Government	4	2	0	6
Local people	0	1	1	2
Non-governmental Organization	8	7	4	19

Private Organizations	1	5	2	8
I do not know	1	1	0	2

Results shows that the largest percentage of resources for COVID-19 response coordination came from non- governmental organisations (NGOs). Government contribution was in the form of vaccines, personnel, and sometimes vehicles and fuel. The risk was that COVID-19 coordination efforts could not be sustained after withdrawal of NGO funding. More sustainable interventions require support from local authorities and national government to finance COVID-19 activities if the efforts are to continue in the far future. However, the COVID-19 structures were built on existing government institutions and staff that would continue to exist and function beyond the life of NGO projects. Coordination activities were done through government extension workers at ward level and health personnel from health centres as well as village health workers/ volunteers who were already part of ongoing government primary health care delivery system. Local leadership that permanently resided in communities further supported this arrangement. Such a set-up helped increase sustainability of COVID-19 coordination activities to a large extent.

4.6 Institutional arrangements

Research findings showed that successful COVID 19 response was a product of functional institutions. COVID-19 coordination and response in Zvimba was built on existing emergence response structures. The structures existed at district and sub-district levels. They included the Civil Protection Unit (CPU), the Risk Communication and Community Engagement committee and the District Water and Sanitation Sub-committees (DWSSC). These structures had long, past experience in responding to

epidemics like cholera. Building on existing institutions enabled the district to leverage on human and organizational capabilities of the district which were quickly transferred to COVID-19 response. This resulted in improved efficiencies in response time and effectiveness in stakeholder coordination.

4.7 Enabling policy

Government had enabling policy in place in the form of the National Health policy (2019) which emphasizes on universal primary health care. Based on this policy, a community-wide response to COVID-19 was initiated in order to reach out to all people and ensure the needs of people were addressed. The policy enhanced collaboration among stakeholders in responding to COVID 19. The policy prioritized and demanded district health professionals at all levels to work with non-governmental and private players in responding to COVID 19. This enabled various actors to have access to communities and all areas requiring support. Government health professionals were also available to work with all non-governmental and private players in responding to the pandemic.

4.8 COVID 19 myths, misconceptions and misinformation

COVID-19 outbreak and response was accompanied by an over-abundance of misinformation, misconceptions and myths which undermined coordination and response efforts. Owing to the myths and misconceptions and misinformation, people became complacent and resisted COVID-19 vaccines and any form of intervention. Firstly, there was a low risk perception at individual and community levels. One of the respondent said, “Blacks rarely die due to coronavirus. It’s just a disease which infects them (whites). Just like common cold the disease will disappear. We have been lied to

about many people falling sick due to COVID-19," There were also false claims on cure and prevention of COVID-19. People commonly believed that coronavirus could also be treated by simply bathing in hot water. There was also a strong belief that COVID-19 had climate boundaries, that is, it was believed that the disease could not thrive in hot climate conditions. As such, Zvimba district being one of the districts with hot temperatures, was believed to be safe from the pandemic. A man in rural Zvimba area believed that alcohol gave some immunity to COVID-19.

Several people belied that vaccines were part of a conspiracy by Western countries to wipe out black people in Africa. As such there was strong resistance to take up vaccines in Zvimba. Others believed COVID-19 was connected to religion, as such Christians believed the pandemic was an act of the devil and the solution was in prayers instead of taking vaccines. One of the respondent said, "I am Christian, God is always on my side and I am immune to the virus".

Youths believed that COVID 19 was a disease for old people so they believed that they were not at risk of infection. Compliance to COVID 19 protocol among youths was relatively low if compared to other population groups. Rural folks believed that COVID 19 affected urbanites only because of their poor diets and overcrowding. Rural communities believed their diet (mainly traditional foods) improved their immunity to the pandemic. They also believed rural communities were sparsely populated hence their risk to COVID-19 infection was zero. Therefore, compliance to COVID 19 protocol was very low in rural communities. This made it very difficult to coordinate and implement COVID 19 interventions. This finding was corroborated by survey results where 60% of rural respondents who believed they were not at risk of contaminating COVID 19 virus.

4.9 Gender in COVID-19 response

Results of the study showed that COVID-19 affected women more than men as they were the main care givers in the home. Lack of water supply for hygiene increased health burden on women. Despite this, men occupied key decision-making roles and responsibilities in COVID-19 coordination and response. This skewed relationship had the risk of women needs sidelined. As a result, key gender needs such menstrual hygiene management due to lack of access to clean safe water were not adequately addressed during COVID-19 response.

4.10 COVID-19 trend in Zvimba

Analysed data from key informants indicated that COVID 19 confirmed cases and deaths were generally low in Zvimba Rural District. In the period from January to December 2021, the highest number of COVID-19 new cases were recorded between May and June. The surge was a result of imported cases after tobacco farmers delivered their crop to Karoi auction flows in the neighbouring district, Hurungwe. This demonstrated that coordinating structures in Hurungwe district failed to put in place adequate measures to prevent the spread of the pandemic among tobacco farmers. Following this surge, more efforts were applied to contain the pandemic in Zvimba, which resulted in the gradual decrease and flattening of the curve until December 2021. Once again, was attributed to stronger coordination of response particularly continued community education, sensitisation and awareness campaigns.

4.11 Chapter summary

Chapter 4 presented analysed data on enablers and challenges that contributed to effective COVID-19 coordination and response in Zvimba Rural District. Firstly, factors that contributed to effective coordination and response were analysed and suggested

measures to strengthen them were highlighted. These included clear delineated roles and functions, participation of various and well-coordinated stakeholders at all levels, as well as community-wide targeting including targeting of vulnerable people. Secondly, challenges to effective coordination and response were analysed and suggested ways to overcome these challenges were discussed to promote sustainable COVID-19 coordination and response in Zvimba district. Key challenges included negative myths and misconceptions on COVID-19 where rural communities perceived COVID-19 as a disease of urban areas and that they were not at risk. This resulted in inconsistent adherence to government and WHO COVID-19 protocols resulting in continued spreading of the pandemic. Data were presented in the form of tables, graphs, tables and pie charts.

CHAPTER 5: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings, conclusions and recommendations based on the data analysed in the previous chapter. Some limitations have been identified. The effectiveness of the DOTS strategy for control of pulmonary TB was researched by determining to what extent some of the objectives of the DOTS strategy have been attained.

5.2 Conclusions

Based on the results of the research, the following conclusions were made which had implications on future COVID-19 response planning and coordination:

i) There was a positive relationship between institutional arrangement, organisation, structuring and resourcefulness on one hand and positive outcome of COVID-19 intervention on the other. Successful COVID-19 coordination and response in Zvimba was enabled by involvement of various stakeholders that included government, non-governmental organisations, and grassroots community structures and leadership. The stakeholders had clearly delineated roles and functions that worked in a complementary way. Key COVID-19 information was effectively disseminated through community champions such VHW who form the bedrock of the health delivery system at community level. This was complemented by use of social media riding on the penetration of the modern telephony technology in rural areas;

ii) COVID-19 coordination and response were built on existing health delivery systems that ensured continuity of interventions into posterity. Grassroots structures at village level that included VHWs and local leadership together with ward-level government extension workers as well as health professionals from local clinics and hospital were part of the COVID-19 coordination structures. These institutions were permanent and part of ongoing district primary health care delivery system which was key for sustainability of COVID-19 activities;

iii) Successful COVID-19 coordination and response was built on robust community-wide interventions with special targeting of vulnerable people such as the elderly and people living with disability to ensure no one was left behind; and

iv) Despite existing positive factors that enhanced success, embedded negative COVID-19 myths, misconceptions and misinformation undermined coordination and response efforts. These included the belief that COVID-19 pandemic was an "urban disease" and that rural people were not at risk. As a result, there was inconsistent compliance with government and WHO COVID-19 protocols resulting in continuous spreading of the virus;

v) The bulky of funding for activities of the COVID-19 coordination structures in Zvimba came from NGOs which compromised sustainability of interventions beyond withdrawal of external funding by NGOs.

5.3 Recommendations

Based on the conclusions above, the following recommendations were proffered:

- Strengthening structural and organisational arrangements are key attributes to effective response to COVID-19 or any pandemic. This includes building coordination and response efforts on existing health delivery systems structures and leveraging on local resources for sustainability;
- Addressing negative myths, misconceptions and beliefs should be an integral part of COVID-19 response as they can be counterproductive to all positive attributes to success; and
- While funding from NGOs is critical in supporting government efforts in fighting COVID-19 and other pandemics, local funding streams from local authorities and government should remain central while external funds come as complementary. This approach is key in achieving sustainability of COVID-19 interventions.

REFERENCE

Al-Jayyousi, G. F., Sherbash, M. A. M., Ali, L. A. M., El-Heneidy, A., Alhussaini, N. W. Z., Elhassan, M. E. A., & Nazzal, M. A. (2021). Factors influencing public attitudes towards COVID-19 vaccination: A scoping review informed by the socio-ecological model. Vaccines, 9(6), 548. **https://doi.org/10.3390/vaccines9060548**

Andrew, S. A., Arlikatti, S., Chatterjee, V., & Ismayilov, O. (2018). Ebola crisis response in the USA: Communication management and SOPs. International journal of disaster risk reduction, 31, 243-250.

Ahanhanzo, C., Johnson, E. A. K., Eboreime, E. A., Issiaka, S., Traoré, B. I., Adohinzin, C. C., & Okolo, S. (2021). COVID-19 in West Africa: regional resource mobilisation and allocation in the first year of the pandemic. *BMJ Global Health*, 6(5), e004762.

Baral, S., Logie, C. H., Grosso, A., Wirtz, A. L., & Beyrer, C. (2013). Modified social ecological model: a tool to guide the assessment of the risks and risk contexts of HIV epidemics. *BMC public health*, 13(1), 1-8.

Basit, A., Fawwad, A., Qureshi, H., & Shera, A. S. (2018). Prevalence of diabetes, pre-diabetes and associated risk factors: *second National Diabetes Survey of Pakistan* (NDSP), 2016–2017. *BMJ open,* 8(8), e020961.

Bertsimas, D., Shtern, S., & Sturt, B. (2022). Two-stage sample robust optimization. *Operations Research*, 70(1), 624-640.

Boaz, A., Hanney, S., Borst, R., O'Shea, A., & Kok, M. (2018). How to engage stakeholders in research: design principles to support improvement. *Health Research Policy and Systems,* 16(1), 1-9.

Casale, M. (2020). COVID-19: Can this crisis be transformative for global health?. *Global Public Health,* 15(11), 1740-1752.

Casola, A. R., Kunes, B., Cunningham, A., & Motley, R. J. (2021). Mask Use During COVID-19: A Social-Ecological Analysis. *Health Promotion Practice*, *22*(2), 152-155.

Chimene, M., Nhari, L. G., Dzobo, M., Mhango, M., & Dzinamarira, T. (2021). COVID-19 rapid response in a limited resource setting (notes from the field): Chinhoyi Provincial Hospital, Mashonaland West Province, Zimbabwe. *The Pan African Medical Journal*, *39*

Cowan, E., Khan, M. R., Shastry, S., & Edelman, E. J. (2021). Conceptualizing the effects of the COVID-19 pandemic on people with opioid use disorder: an application of the social ecological model. *Addiction science & clinical practice*, 16(1), 1-6.

Dayan, S., & Romero, D. H. (2018). Introducing a novel model: the special theory of relativity for attractiveness to define a natural and pleasing outcome following cosmetic treatments. **Journal of Cosmetic Dermatology,** 17(5), 925-930.

Dzinamarira, T., Mukwenha, S., Eghtessadi, R., Cuadros, D. F., Mhlanga, G., & Musuka, G. (2020). Coronavirus Disease 2019 (COVID-19) Response in Zimbabwe: A Call for Urgent Scale-up of Testing to meet National Capacity. *Clinical Infectious Diseases*..

Hamilton, M. (2020). Judicial gate keeping on scientific validity with risk assessment tools. *Behavioral sciences & the law*, *38*(3), 226-245.

Ingram, M., Wolf, A. M. A., López-Gálvez, N. I., Griffin, S. C., & Beamer, P. I. (2021). Proposing a social ecological approach to address disparities in occupational exposures and health for low-wage and minority workers employed in small businesses. *Journal of exposure science & environmental epidemiology*, 1-8.

Grimes, D. R. (2021). Medical disinformation and the unviable nature of COVID-19 conspiracy theories. *PLoS One*, 16(3), e0245900.

Latkin, C., Dayton, L. A., Yi, G., Konstantopoulos, A., Park, J., Maulsby, C., & Kong, X. (2021). COVID-19 vaccine intentions in the United States, a social-ecological framework. *Vaccine*, *39*(16), 2288-2294.

Levy, D. L. (2021). COVID-19 and Global Governance. *Journal of Management Studies*, *58*(2), 562-566.

Liu, Z., Guo, J., Zhong, W., & Gui, T. (2021). Multi-Level governance, policy coordination and subnational responses to COVID-19: Comparing China and the US. *Journal of Comparative Policy Analysis: Research and Practice*, *23*(2), 204-218.

Lone, S. A., & Ahmad, A. (2020). COVID-19 pandemic–an African perspective. *Emerging microbes & infections*, *9*(1), 1300-1308.

Lyons, S. T., Schweitzer, L., Urick, M. J., & Kuron, L. (2019). A dynamic social-ecological model of generational identity in the workplace. *Journal of Intergenerational Relationships*, *17*(1), 1-24.

McCormick, B. A., Porter, K. J., You, W., Yuhas, M., Reid, A. L., Thatcher, E. J., & Zoellner, J. M. (2021). Applying the socio-ecological model to understand factors associated with sugar-sweetened beverage behaviours among rural Appalachian adolescents. *Public health nutrition*, 24(11), 3242-3252.

Makurumidze, R. (2020). Coronavirus-19 disease (COVID-19): A case series of early suspected cases reported and the implications towards the response to the pandemic in Zimbabwe. *Journal of Microbiology, Immunology and Infection*, *53*(3), 493-498.

Maulani, N., Nyadera, I. N., & Wandekha, B. (2020). The generals and the war against COVID-19: The case of Zimbabwe. Journal of Global Health, 10(2).

Mbunge, E. (2020). Effects of COVID-19 in South African health system and society: An explanatory study. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, *14*(6), 1809-1814.

Murewanhema, G., & Mutsigiri-Murewanhema, F. (2021). Drivers of the third wave of COVID-19 in Zimbabwe and challenges for control: Perspectives and recommendations. *The Pan African Medical Journal*, 40. Northern Region of Ghana, West Africa.

Paintsil, E. (2020). COVID-19 threatens health systems in sub-Saharan Africa: the eye of the crocodile. *The journal of clinical investigation*, *130*(6).

Saba, C. K. S., Nzeh, J., Addy, F., & Karikari, A. B. (2020). COVID-19: Knowledge, perceptions and attitudes Schroeder, R. W., Martin, P. K., Heinrichs, R. J., & Baade, L. E. (2019). Research methods in performance validity testing studies: Criterion grouping approach impacts study outcomes. *The Clinical Neuropsychologist*, 33(3), 466-477.

Smith, G. (2021). Overcoming Barriers to Coordinating Across Social Protection and Humanitarian Assistance: Building on Promising Practices. Policy paper. June. Social Protection Approaches to Covid-19: *Expert advice (SPACE)*. https://www. calpnetwork. org/publication/space-overcoming-barriersto-coordinating-across-social-protection-and-humanitarian-assistance-building-on-promisingpractices/(last accessed on 12 November 2021).

Speklé, R. F., & Widener, S. K. (2018). Challenging issues in survey research: Discussion and suggestions. *Journal of Management Accounting Research*, *30*(2), 3-21.

Uchendu, C., Windle, R., & Blake, H. (2020). Perceived facilitators and barriers to nigerian nurses' engagement in health promoting behaviors: a socio-ecological model approach. *International journal of environmental research and public health*, 17(4), 1314.

Wang, X., & Wang, C. (2019). Time series data cleaning: A survey. *IEEE Access*, *8*, 1866-1881.

World Health Organization. (2021). *COVID-19 strategic preparedness and response plan: operational planning guideline: 1 February 2021 to 31 January 2022* (No. WHO/WHE/2021.03). World Health Organization.

World Health Organization. (2020). Coronavirus disease (COVID-19): situation report, 182.

APPENDICES

Annex 1: Budget for the research

Item	Amount (USD)
Stationary - printing of questionnaires -eversharp pens (50) @15 cents each =$7.50	$50.00
Transport (Fuel). Harare to Murombedzi return trip (120 kilometres) plus Local travel (50 kilometres) Total mileage is 170km. Fuel at 7km/litre 170km=28 litres*$1.34/l	$37.52
Lunch +breakfast $20/day*2 days	$40
Airtime – lump sum	$20
Accommodation @ US 50/night*2 days	$100
Daily allowance for research assistant @ USD10/day*2 days	$20
Total	**USD317.50**

Annex 2: Gantt chart

Study Activity	**Months**					
	April	**August**	**Septembe r**	**Octobe r**	**Novembe r**	
	1	**2**	**3**	**4**	**5**	**Deliverable**
Gathering literature review.						Proposal
Desk review of COVID-19 documents and reports.						
Field Data Collection.						
Data entry and analysis.						
Presentation of first draft research document.						First draft research document
Submission of Final Research Document.						Final report Paper

Annex 3: Informed consent form

STUDY TITLE: AN INVESTIGATION INTO EFFECTIVENESS OF DISTRICT LEVEL COORDINATION IN RESPONSE TO COVID-19 OUTBREAK: CASE OF ZVIMBA RURAL DISTRICT.

Personal information

My name is **Nyawasha Agness**, a final year student from Africa University. I am carrying out a study on effectiveness of coordination structures at district and sub-district levels in response to COVID-19 outbreak.

General information

1. Participants must read and understand this form before signing
2. Participants are kindly asked to participate in this study by answering questions/filling in blank spaces.
3. Participants have the right to refuse taking up part in the study or withdraw without affecting any future relations.

Purpose of the study:

The purpose of the study is that, Zimbabwean government did not develop new coordination structures to manage COVID-19 but it uses the existing structure from national, provincial, district and sub-district levels. Therefore the purpose of this study is to investigate how effective are these structures and recommend if they can be used in future disasters.

Procedures and duration

1. **Interview:** The participant should read the consent form and sign before the interview. During this session the participant will be asked to answer questions which the interviewer is going to ask while noting important points on the interview guide which will then be used during data analysis. It is expected that this will take about 15-20 minutes.

2. **Questionnaire:** The participant should read the consent form and sign before answering any questions. The researcher with the help of Environmental Health Technicians will self-administer the questionnaires. This process is going to take 15-20 minutes.

Risks and discomforts

- COVID-19 is a very sensitive issue which may cause psychological problems like discomfort, depression, stress and anxiety as the research may reminds participants about their past experiences like losing their dearest ones and sickness due to this disease.
- Loss of confidentiality if information is not handled with care.

Management of risks and discomfort

- To manage psychological risks on the respondents, private rooms or place will be used during interviews. The interviewer will give assurance to the respondents that their problems can be solved and refer them specialist in health centres.
- Participants are also going to be given room to answer or not to answer questions which are sensitive.
- Participants' responses will not be shared in a way that identifies him or her. No names or identifiers will be written down or on the questionnaires.

Benefits and/or compensation

- There are no benefits or compensation.
- Instead, the results from this research will assist government and other key stakeholders to understand if existing coordination structures are still functional.
- Weaknesses and strengths of coordination structures will be identified.

Confidentiality

The study is going to be carried out according to the standard ethical guidelines. Informed consent will be obtained before data collection commenced from all the study participants. The objectives and purpose of the study will be explained fully to the participants individually. Participants will then be given opportunity to ask questions for them to clearly understand the objectives of the study. Their choices to accept or reject participation will be valued. Confidentiality is going to be assured and no identifier information will be recorded.

Voluntary participation

Participation in this study is voluntary. Therefore, if you decide not to participate in this study, your decision will not affect your future relationship with Africa University. If you chose to participate, there is room to withdraw your consent and to discontinue participation without any penalty.

Offer to answer questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

Authorisation

If you have decided to participate in this study please sign this form in the space provide below as an indication that you have read and understood the information provided above and have agreed to participate.

---------- ----------

Signature of Research Participant/ legally authorised representative Date

If you have any questions concerning this study or consent form beyond those answered by the researcher including questions about the research, your rights as a research participant, or if you feel that you have been treated unfairly and would like to talk to

someone other than the researcher, please feel free to contact the Africa University Research Ethics Committee on telephone (020) 60075 or 60026 extension 1156 email aurec@africau.edu

Name of Researcher: Nyawasha Agness

Annex 4: Research instruments

Instrument 1

Interview guide for District key stakeholders

My name is Nyawasha Agness from Africa University. I am here to investigate into barriers and enabler to COVID-19 coordination and response in Zvimba Rural District Council. Results from this research may assist government and other key stakeholders to understand why COVID-19 new cases are still being recorded in the country, find solutions to these challenges and strengthen them. You have been chosen as one of the respondents in this study. Your responses will remain confidential and will not be shared in a way that identifies you. The responses to this questionnaire will be analysed collectively than individually. Would you like to continue?

Yes □

No □

Section A: Demographic Data (Tick where applicable)

Sex	Female	Male

Age	

Section B: Barriers and enablers into effective COVID-19 coordination and response

1. What is your role in coordination and response to COVID-19?
2. Explain interventions you are implementing to control and prevent the spread of COVID-19 virus in your district.
3. What success have you achieved so far in your COVID-19 coordination and response in the district?
4. What factors or attributes have contributed to this success?
5. How long do you take to respond to a suspected case of COVID-19 from the time it is reported? Probe: Explain why you take that long.
6. May you explain any challenges you are facing in coordinating and responding to COVID-19?
7. How are you addressing these challenges explained in question 4?
8. Explain how you are mobilizing resources for COVID-19 coordination and response in your district.
9. Are you able to continue operating without external funding? Explain your answer.

10. From your experience in coordination and response to COVID-19 pandemic, what recommendation(s) would you give to improve sustainability of COVID-19 interventions in your district and country at large?

THANK YOU FOR YOUR TIME AND PARTICIPATION IN THIS STUDY

Instrument 2

Questionnaire guide for ward level respondents

My name is Nyawasha Agness from Africa University. I am here to investigate on the effectiveness of district and sub-district coordination structures put in place for covid-19 response by the Zvimba Rural District Council. Results from this research may assist government and other key stakeholders to understand if existing coordination structures are still functional. You have been chosen as one of the respondents in this study. Your responses will remain confidential and will not be shared in a way that identifies you. The responses to this questionnaire will be analysed collectively than individually. Would you like to continue?

YES	
NO	

Section A: Demographic Data (Tick where applicable)

Position		
Sex	Female	Male
Age		

Section B: Barriers and enablers into effective COVID-19 coordination and response

Questions	**Possible answers**	**Code**	**✓ Tick**
1. Are you involved in COVID-19 coordination and response interventions?	YES	1	
	NO	2	
3. What is your role in coordination and response to COVID-19 pandemic?	Community awareness and sensitisation	1	
	Mobilising resources	2	
	Distributing PPEs	3	
	Administering vaccines	4	
	Other specify	5	

8. List interventions implemented in your area to control and prevent the spread of COVIID-19.	Community awareness and sensitisation	1	
	Mobilising resources	2	
	Distributing PPEs	3	
	Administering vaccines	4	
	Enforce lockdown	5	
	Restrict gatherings to recommended numbers	6	
	Other specify	7	
15. Which organisation(s) are you working with in coordinating and responding to COVID-19 pandemic?	1. Government departments	1	
	2. Ministry of health departments	2	
	3. Rural District Council	3	
	4. Non-governmental organisations	4	
	5. Private organisations(e.g. churches)	5	
	6. Community leaders	6	
	7. Village Health Workers	7	
	8. Other specify	8	
23. What structures are in place for responding to COVID-19 pandemic?			
24. How do you disseminate/ receive health information about COVID-19?	Health facilities/centres	1	
	VHWs	2	
	Local leaders	3	

(Tick all applicable)	Social media	4	
	Radio	5	
	television	6	
7. Which group of people do you target when coordinating or responding to COVID-19 pandemic?	Elderly	1	
	Orphans	2	
	Women	3	
	Men	4	
	Disabled	5	
	Everyone	6	
	Other specify	7	
Beliefs, myths and misconceptions 8. From your experience, are people adhering to COVID-19 protocols?	YES	1	
	NO	2	
	SOMETIMES	3	
9. If no, give reasons.	Not at risk	1	
	No money to purchase PPE and sanitizers	2	
	Disease is in urban areas only	3	
12. If no, give reasons. 7. Other (specify) ……..	Shortage of PPEs		

	Fear of contracting COVID-19 virus		
	Shortage of health staff		
Perceptions and attitudes of people towards COVID-19 suspected cases and their families			
Are people in your community Complying to COVID-19 regulations	YES	1	
	NO	2	
	SOMETIMES	3	
8. How long do you take to report suspected COVID-19 cases?	Less than 24 hours	1	
	Less than 10 days	2	
	11-20 days	3	
	21-30 days	4	
	More than a month	5	
13. Are you given opportunity to share your knowledge and ideas	YES	1	
	NO	2	
	SOMETIMES	3	
16. List challenges you are facing in coordinating and responding to COVID-19 in your area.			
17. Who provide resources for COVID-19 coordination and	Government	1	
	Non-governmental Organisations	2	

response in your area?	Private organisations	3	
	Local people	4	
	I do not know	5	
	Other specify	6	
18. Do you think you can continue coordinating and responding to COVID-19 without external funding?	YES	1	
	NO	2	

19. From your experience in coordination and response to COVID-19 pandemic, what recommendation(s) would you give to improve sustainability of COVID-19 interventions in your district and country at large?

……
……..

THANK YOU FOR YOUR TIME AND PARTICIPATION IN THIS STUDY

Instrument 3

Gwaro remibvunzo yetsvakurudzo

Zita rangu ndinonzi Nyawasha Agness. Ndirikudzidza nezvekuongorora zvehutano namagariro akanaka evanhu munharaunda (Public Health) paAfrica University. Ndirikuita tsvakurudzo pamusoro pemukana wekubudura uye kuenderea mberi kwemapoka ayo arikubatsira kufambisa basa rekudzivirira kupararira kwechirwere cheCOVID-19 munharaunda ino yeZvimba icho chanetsa pasi rose. Zvichabuda mutsvakurudzo ino zvichabatsira hurumende nevatungamiri vemapoka akasiyana kuti vanzwisise mashandiro ari kuitwa namapoka ose arikuona nezvekudzivira kupararira kweCOVID-19 kuti angabudirira here kudzivirira kupararira kwechirwere ichi. Muri vamwe veavo vasararudzwa kuti vapinde muchirongwa ichi.Ndinokuvimbisai kuti mhinduro dzamuchapa nedzichapiwa nevamwe dzichaongororwa dzakabatanidzwa. Izvi zvireva kuti zvatakurukura zvinoperea pano hakunazve mumwe achawana mukana wekuziva kana kuona mhinduro dzamapa nekuti hapana pachanyorwa zita renyu papepa rino. Mungada here kuenderera mberi?

Hongu □

Kwete □

Chikamu A: **Demographic Data** (Tick where applicable)

Chigaro		
Uri munhuyi	mukadzi	Murume
Zera		

Section B: Zvinokanganisa kana zvinoita kuti zvirongwa zvekudzivirira kupararira kweCOVID-19 kubudirire.

Mibvunzo	**Mhinduro dzingashandiswa**	**✓ Tick**
1. Imi murimowo here muzvirongwa zvekubatsira kudzivirira kupararira kweutachiwana hweCOVID-9 munharaunda?	HONGU	
	KWETE	
2. Imi basa renyu kunyanya nderei pakudzivirirwa kwekupararira kweutachiwana hweCOVID-9?	Kukurudzira vanhu nekuvadzidzisa	
	Kuunganidza mari nezvimwe zvekuhandisa	
	Kugovera zvombo zvokudzivirira kupararira	

	kwechirwere (PPEs)	
	Kubaya mavakisini eCOVID-19	
	Kana paine zvimwe mungatizivisawo	
3. Ndeapi mabasa amurikuita munharaunda menyu ekudzivirira kuparariira kweutachiwana hweCOVID-19?	Kukurudzira vanhu nekuvadzidzisa	
	Kuunganidza zvombo zvekushandisa	
	Kugovera zvombo zvokudzivirira kuparariira kwechirwere (PPEs)	
	Kubaya mavakisini eCOVID-19	
	Kusimbisa mutemo unoita kuti vagare mudzimba dzavo vasingasangane navamwe vanhu	
	Kusimbisa mutemo unoita kuti vanhu vasaungana	
	Kana paine zvimwe mungatizivisawo	
10. Ndeapi mabazi amuri kushanda nawo munharaunda menyu kuitazvirongwa zvekudzivirira utachiwana hweCOVID-19?	9. Mapazi ehurumende	
	10. Bazi rezveutano	
	Kanzuru	
	Non-governmental organisations	
	Mapazi akazvimiririra(e.g. churches)	
	Hutungamiri hwemunharunda (	
	Vanambuya nanasekuru utano	

	Kana paine vamwe mungatizivisawo	
18. What structures are in place for responding to COVID-19 pandemic?		
19. How do you disseminate/ receive health information about COVID-19? (Tick all applicable)	Health facilities/centres	
	VHWs	
	Local leaders	
	Social media	
	Radio	
	television	
25. Which group of people do you target when coordinating or responding to COVID-19 pandemic?	Elderly	
	Orphans	
	Women	
	Men	
	Disabled	
	Everyone	
	Other specify	
26. Munotora nguva yakadii kumhanára COVID-19 cases?	Maawa aripasi pemakumi maviri nemana(24hours)	
	Mazuva aripasi pegumi (10 days)	
	Mazuva gumi nerimwe kusvika makumi mairi (11-20 days)	
	Mazuva makumi maviri nerimwe kusvika makumi matatu 21-30 days	
	Mazuva anodarika mwedzi	

31. Murikuwaniswawo here mukana wekuisawo pfungwa dzenyu panoitwa hurongwa hose hwekudziviriri COVID-19?	Hongu	
	Kwete	
	Nedzimwe nguva	
34. Ndeapi matambudziko amurikusangana nawo pamurikuita zvirongwa zvekudzivirira kuparariira kweutachiwana hweCOVID-19?.		
35. Ndiyani ari kukubatsirai nezvekushandisa munguava yechirwere cheCOVID-19?	Hurumende	
	Mapazi akazvimiririra (NGOs)	
	Private organisations	
	Vanhu vemunharaunda	
	Handizi	
	Kana paine vamwe motiziviswo	
36. Sokufunga kwenyu vanhu vemunharaunda vanogona kuenderera mberi nekudziviriira kuparariira kwechirwere here kunyangwe pasisina zvokushandisa zvinobva kunze?	Hongu	
	Kwete	

37. Neruzivo rwamavanarwo pamusoro pekudzivira kuparariira kwechirwere cheCOVID-19, ndezvipi zvamunokurudzira kuti zviitwe kuti zvirongwa zvibudirire munharunda menyu nemunyika yose?

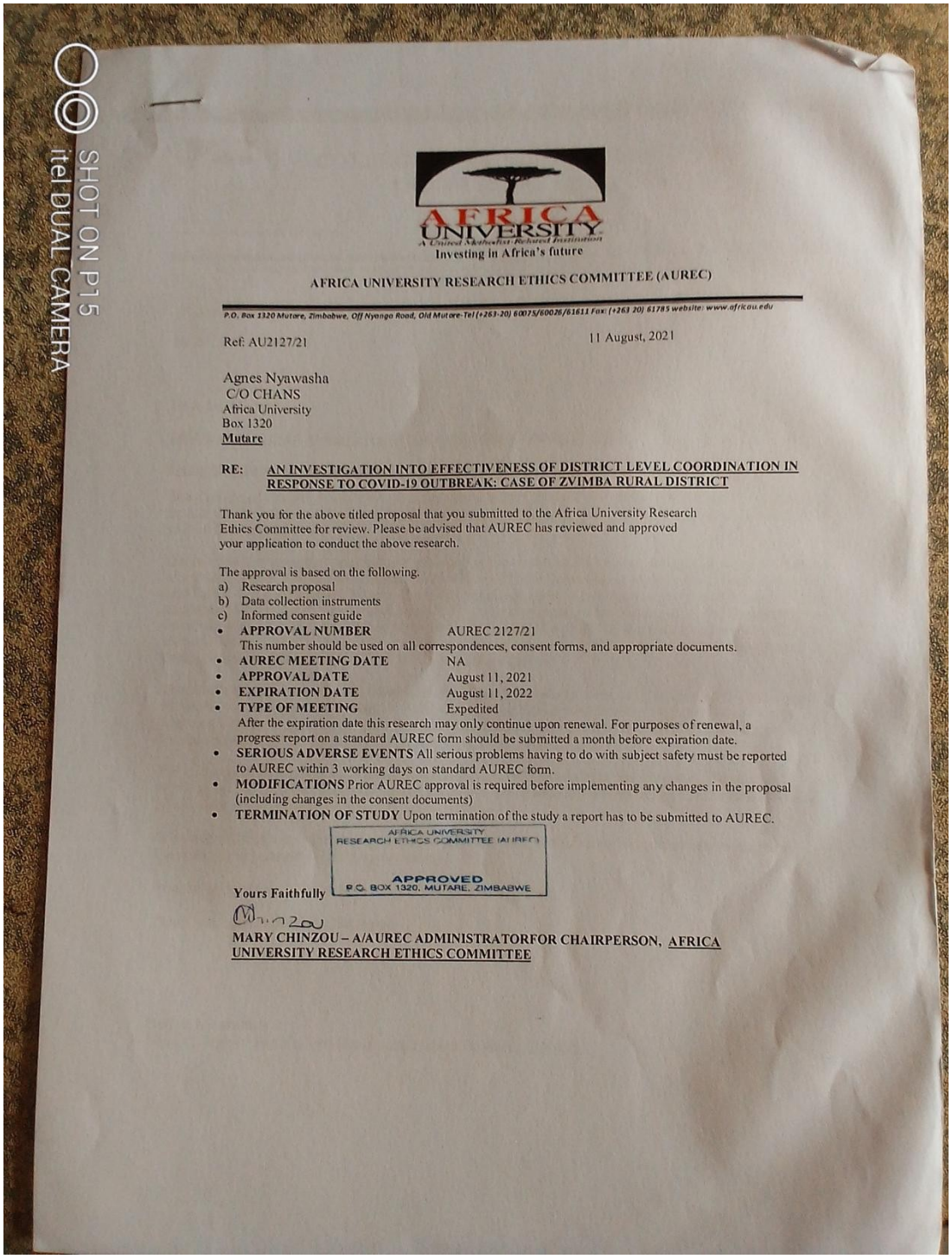
……
……..

TINOTENDA NENGUVA YENYU UYE KUPINDA MUCHIRONGWA CHINO.

Annex 5: Approval letters

Annex 5.1: Approval letter from Provincial Medical Doctor (PMD)

Annex 5.2: Approval letter from Africa University Research Ethic Committee



AFRICA UNIVERSITY
A United Methodist-Related Institution
Investing in Africa's future

AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611 Fax: (+263 20) 61785 website: www.africau.edu

Ref: AU2127/21

11 August, 2021

Agnes Nyawasha
C/O CHANS
Africa University
Box 1320
Mutare

RE: **AN INVESTIGATION INTO EFFECTIVENESS OF DISTRICT LEVEL COORDINATION IN RESPONSE TO COVID-19 OUTBREAK: CASE OF ZVIMBA RURAL DISTRICT**

Thank you for the above titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following.

a) Research proposal
b) Data collection instruments
c) Informed consent guide

- **APPROVAL NUMBER** AUREC 2127/21
  This number should be used on all correspondences, consent forms, and appropriate documents.
- **AUREC MEETING DATE** NA
- **APPROVAL DATE** August 11, 2021
- **EXPIRATION DATE** August 11, 2022
- **TYPE OF MEETING** Expedited
  After the expiration date this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before expiration date.
- **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
- **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
- **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.

AFRICA UNIVERSITY
RESEARCH ETHICS COMMITTEE (AUREC)
APPROVED
P.O. BOX 1320, MUTARE, ZIMBABWE

Yours Faithfully

MARY CHINZOU – A/AUREC ADMINISTRATORFOR CHAIRPERSON, AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE