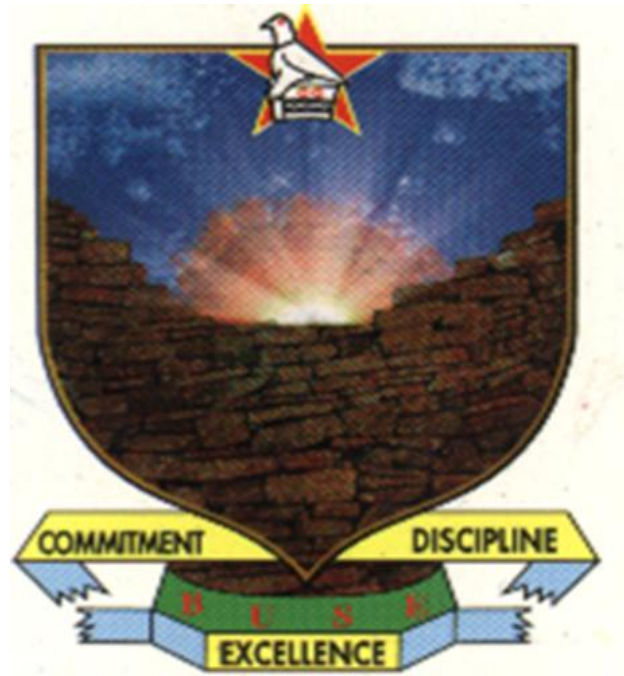


**ZIMBABWE'S SECURITY STRATEGIES AND INTERVENTION METHODS
TO THE COVID19 PANDEMIC. A CASE STUDY OF WEDZA DISTRICT**



BY

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ABSTRACT

This study aims at investigating Zimbabwe's security strategies and intervention methods to major pandemics such as Covid19 in Wedza District. The study employed a case study research design to explore the security strategies and intervention methods that were used in Wedza district. The research was informed by the interdependence theory to show how interaction was important during the peak of the virus. A mixed approach research methodology was also employed; this approach entails that both qualitative and quantitative research methodology were used to investigate the strategies and methods that were employed by Wedza District. The research also analyzed primary and secondary data. Primary data was gathered through in depth structured interviews and questionnaires. Secondary data was gathered from Mount Saint Mary's mission hospital. The researcher also employed purposive sampling technique. The content was analyzed together with raw data that was collected through questionnaires and interviews. The research findings are also indicative of the fact that Wedza District was largely able to contain the pandemic through the use of measures that were recommended by the World Health Organization. However, when it came to vaccination uptake, the research found out that the response was quite encouraging even though the District had not yet reached its target of the vaccinated populace. The study concluded that the strategies most of the strategies that that were employed in Wedza District to contain corona virus were highly effective. However, the study also found out that when it comes to the issue of voluntary compliance still a lot needs to be done. Preparedness in hospitals and clinics there is a lot that needs to be done. As a result, the researcher recommended that from district, provincial and national levels the government should put in place rapid response teams that would respond quickly to a pandemic of a similar pandemic strike again.

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First and most importantly I would like to appreciate the moral and social support that I got from my wife Tafadzwa. Indeed, she played a crucial role during the processes of carrying out this study. She kept on encouraging me during the times when I was losing hope to go on with this study. Her tolerance and patience exhibited a strong woman in the journey of life. Indeed, the engagement became deeper towards the end of this manuscript. I appreciate her constant encouraging words at the end of the tumbling research journey. For the same reason, she also provided financial support for various phases of carrying out my fieldwork.

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Above all, I would like to express my deepest gratitude to God who gave me inspiration, health and strength to carry out this research. I thank you Lord for giving me the spirit of perseverance to realize the fulfillment of this academic project.

DECLARATION BY STUDENT

I, **FUNGAI MARSHAL MUCHENJE**, solemnly declare that the information of this dissertation prepared in partial fulfillment of Masters of Science in International Relations at Bindura University of Science Education has not been presented, submitted or published in this nature. Previous works have been duly accredited and acknowledged

Signed Date.....

APPROVAL FORM

TITLE OF DISSERTATION: Zimbabwe’s security strategies and intervention methods to major pandemics. A case study of Wedza district.

1. To be completed by the Student

I certify that the dissertation meets the preparation guidelines as presented in the Faculty Guide and instructions for typing project.

B200129B.....Date...../.....2021

Signature of Student.....

2. To be completed by the Supervisor

The dissertation is suitable for submission to the Faculty

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3. To be completed by the chair of the department

I certify that the required procedures have been followed and preparation criteria have been met for this project.

.....Date...../.....2021

Signature of Chair.....

DEDICATION

This dissertation is dedicated to my wife Tafadzwa Sandra Muchenje and my two beautiful children Ryleigh Shona Muchenje and Tinevimbo Ayden Muchenje for their unwavering support, and for always giving me the strength to go on. I would like also to dedicate this dissertation to my late parents Daisy and Luis Muchenje as well as my sister Nyasha Muchenje and everyone who made this project a success. “*Merci*”

ABBREVIATION AND ACRONYMS

COPD	Chronic Obstructive Pulmonary Disease
CSIS	Center for Strategic and International Studies
WHO	World Health Organization
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus2
IHR	International Health Regulations
GoZ	Government of Zimbabwe
CSIS	Center for Strategic and International Studies
LIC	Low Income Countries
LMIC	Lower-Middle Income Countries
ODI	Overseas Development Institute
SARS	Severe Acute Respiratory Syndrome
UN	United Nations

UNECA	United Nations Economic Commission for Africa
SSA	Sub-Saharan Africa
ACSS	African Center for Strategic Studies
PPE	Protective Personal Equipment
WHA	World Health Assembly
HRP	Humanitarian Response Plan
IDVI	Infectious Disease Vulnerability Index
ICG	International Crisis Group

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CHAPTER ONE

1.0 BACKGROUND TO THE STUDY

The Covid 19 pandemic is disease that is becoming prominent and is a result of an extremely infectious virus called SARS CoV-2. It results in a vast health and economic onus all over the world. This pandemic was initially discovered in Wuhan, China in December 2019. Shen et al (2020), note that the disease however, to date has no treatment that has been identified yet. Certain researches evaluating the results of various deterring measures have been published to date. The maximum range of Covid 19 infection varies from subclinical, self-deterring tract sickness to intense as continuous pneumonia that has multi organ incapability and consequently the results are fatal.

In addition, the prominent transmissible virous infections like the SARS CoV2 exert a reasonably large amount of potential danger to human security, health and human security. Since, it's initial manifestation in December 2019 in Hubei province in the city of Wuhan China; SARS CoV2 infections quickly stretched out rapidly across the world. Africa registered its first case in the continent in Cairo Egypt on 24 February 2020. Albeit the world's amount of Covid-19 cases and infections has multiplied rapidly since the start of the pandemic, also, the amount of new infections and fatalities detected in the African continent and countries in Sub Saharan African countries remained proportionally minimal. Some have however attributed these to lack of testing or dependable data. In a notable manner, there is no important rise in unknown pneumonias or fatalities on the continent which could conceivably show the efficaciousness of the intervention strategies put in place by several governments on the African continent. Nevertheless, there has not

been an all-encompassing evaluation of sub Saharan Africa's answers to the Covid-19 pandemic that might have possibly assisted in hindering the unrestrained eruption of the pandemic hitherto.

The pandemic resulting from the SARS-CoV 2 virus has elicited an emergency response from virtually all countries around the international community. Since the beginning of the Covid-19 pandemic, the world's top priority has been to contain the spread of the SARS-COV-2 virus in order to reduce the disease fatalities and to limit the patient burden health system. According to the African Center for Strategic Studies (2020), despite the uncertainty and unanswered question around the management of the newly emergent SARS-COV-2 infection, states in Africa also fay the world's endeavour to fight the Covid-19 pandemic.

Governments and concerned stakeholders have thus joined hands in attempting to mitigate the transmission of Covid-19. (Logier, et al 2021) the virus transmits through direct and indirect contacts. Human to human transmission, by and large takes place when one comes into physical contact the next person who is infected. Also coughing droplets, sneezing and talking too closely to infected people aids transmission. Transmission can also result from not so obvious ways such as impure or contaminated surfaces or objects then bring the hands to the face. Covid-19 is more infectious during the first initial stages of showing symptoms. There are however there are some cases of people who are asymptomatic but infected. Studies have revealed that the advent of new threats to humanity such as these pandemics require the world to collaborate and work together since the world has become a global village and some of these new threats are not bounded by geographical location.

It has thus been noted that the experiences of Sub-Saharan African countries such as Zimbabwe in handling ongoing outbreaks and managing infectious diseases, such as tuberculosis, Ebola, HIV and malaria came in handy in the combat against Covid-19. Pre-existing plans on public health interventions, community intervention and engagement programs and the workforce composed of emergency medical experts and trained health care workers were quickly redirected to ensure a quick response to Covid-19.

The WHO's Director-General Tedros Adhanom Ghebreyesus speaking at a briefing on Covid-19 in Washington DC said that many African countries had a slow response to Covid-19, and this was because of myriad of reasons, ranging from lack of adequate resources, mismanagement of Covid relief funds and poor form governance from some African governments. It is therefore from this background that the researcher seeks to evaluate African state's security strategies and, for major pandemics prior to and during Covid-19.

1.1 Purpose of the study

The purpose of this research is to investigate Zimbabwe's security strategies and response to pandemics prior to or during Covid-19.

1.3 Statement of the problem

(Goodman & Carmichael 2020) note that since the beginning of the COVID-19 pandemic, the world's top priority was to contain the spread of SARS-CoV-2, to reduce disease fatalities and to limit the patient burden on health systems. Further, Goodman & Carmichael (2020) postulates that, despite the uncertainty and unanswered questions around the management of the newly emergent SARS-CoV-2 infection, African countries

joined the global effort to battle the COVID-19 pandemic. Many African states, including Zimbabwe faced challenges coping with the pandemic. Especially, when it comes to the issue of Protective Personal Equipment (PPE) and inadequate beds for those being treated for Covid-19. Furthermore, another problem came when there were returnees from other countries such as South Africa who had to be kept in quarantine centers. Goodman & Carmichael (2020) further postulate that one of the major challenges faced was that most of the people who were required to do a mandatory quarantine were coming mostly from the first world countries. Most of these expected quality food provision which quarantine centers could not provide; hence cases of people running away from these centers were quite on the rise. According to the World Health Organization (2022) most of the countries in the world implemented dusk to dawn curfews and nation-wide lockdowns to enforce social distancing measures and limiting movement of people essential service providers only. These measures were mainly put in place to prevent large volumes of new infections that would result in a high demand for hospital services, potentially leading to a surge in countries with fragile medical and health infrastructure. Therefore, the main challenges that Africa faces in the response to COVID19 pertain to lack of local biotechnological production and limited research capacity or expertise in specialty fields, thus making African countries unable to conduct sufficient testing and focused research studies related to disease transmissibility, vaccine or cure research relevant to the local context.

1.3 Objectives of the study

The researcher seeks to:

- investigate the Security Strategies and response to curb major pandemics such as Covid-19 in Wedza District.

- assess the effectiveness of intervention methods employed by Wedza District's Health department in combating Covid-19.
- examine the Covid-19 vaccine uptake in Wedza district.
- examine the challenges faced by the district in implementing of intervention methods to curb the spread of the virus.

1.4 Research questions

1. What security strategies did Wedza district put in place to curb major pandemics such as Covid-19?
2. How effective were the intervention methods employed by the government department of health in combating Covid-19 in Wedza district?
3. How did the people respond to the Covid -19 vaccine in Wedza district?
4. What are some of the challenges that were faced in the implementation of intervention methods to curb the spread of the virus in Wedza district?

1.5 Justification of the study

The public health and emergency response literature concerning the Covid-19 pandemic generally surrounds the health consequences of the Covid-19 outbreak itself. With just three documented pandemic events in the United States within the past 100 years, pandemics are difficult to evaluate and exceedingly difficult to predict. Morbidity and mortality rates of the three previous pandemic events are well documented, but provide little value in predicting the intensity of future occurrences. It is thus, the researchers hope that this research will reach various stakeholders who can make use of this research. The researcher hopes that through Bindura University library, this research can be made

accessible to these stakeholders. This research could help in the planning, health and national security sectors if they consider and make use of the findings and recommendations in their future development and pandemic combating and mitigation plans in case similar pandemics such as Covid-19 strike again. Planning ahead is generally seen as more efficient and more effective than measures taken during a pandemic crisis. It may help communities in this region to derive ways of health security strategies that can be relied on in times of health crisis. It is also crucial for one to note that this research is going to add academic prowess to the body of academic knowledge nationwide and beyond.

1.5.1 Scholars

This research will be also crucial to those that have researched in this same area validating their work and filling up the rift that may have been in existence as to what measures have been taken to fight Covid-19 in Zimbabwe and beyond and how it has been dealt with particularly by WHO and the Government of Zimbabwe. The research will become an axiological reference point and point of departure for further scholarly works.

1.5.2 Non-Governmental Organizations

Various non-governmental organizations such as the World Health Organization are to benefit from this research as they can look at strategies that are already implemented and challenges encountered. This will also help in crafting new strategies and avoid unnecessary repetition of less effective mitigation strategies in the fight against pandemics and also replication of effective strategies in the wake of a crisis

1.5.3 National laws

The study will help the government of Zimbabwe to assess its existing laws towards major pandemics and to possibly amend them and come up with new laws where necessary.

1.5.4 Health department

The national health department will make use of this research in promoting of new strategies to combat major pandemics. It will help to Increase disease awareness campaigns, improve health service provision and improve healthcare infrastructure in the country and beyond.

1.6 Assumptions of the study

The researcher assumes that;

- Wedza District will be able to mitigate the spread of the virus.
- During vaccination people will voluntarily receive vaccination and herd immunity will be successful.

1.7 Significance of the study

Although there is a plethora of excellent research publications addressing this new menace of COVID-19, however this research aims to provide a comprehensive update of ongoing COVID-19 pandemics in Zimbabwe in general and Africa in particular and highlighted the main topics which include; etiology, epidemiology, vulnerability, and economic impact of COVID-19 in African continent. It is therefore hoped that this work could be useful in addressing the continent's challenges related to the outbreak and will become the benchmark reference for future studies (Ahmad & Aijaz Ahmad 2020). The research will also help in mitigating similar pandemics in future and also provide for ways in which these

can be arrested in the foreseeable future. This research will also be useful to the ministry of Health as it will provide ways in which the government of Zimbabwe will use to cope with such epidemics should they occur in future.

1.8 Delimitations of the study

The study will use Zimbabwe's Wedza District to investigate the district's security strategies, and response to Covid-19. Therefore, the targeted participants in this research will be Heads of Government departments and their subordinates and residents of Wedza thus; the District Administrator, Officer in Charge of the Zimbabwe Republic police, the district's health superintendent other health workers, policemen and women in the District. The research will be focused on the district's state of affairs in the wake of the Covid-19 pandemic. Furthermore, the research will be mainly focused on Mount Saint Mary's Hospital Wedza Rural Hospital and Chigondo clinic; this was a result of their closeness to the researcher. This research was conducted from September 2020 to November 2021. This study will be confined to interdependence theory since during this pandemic many Countries have assisted or sought assistance from other countries in an attempt to fight Covid-19. Thus, interaction took a prominent position during this pandemic.

1.9 Limitations of the study

The research findings might not be relevant in other districts that have different conditions than Wedza District. The researcher is only confined to Wedza District because of travel restrictions that were put in place by the Government of to slow the spread of Covid-19. Inaccessibility of communities in the district due to bad roads may limit the number of communities to be interviewed or participate in this research. However, efforts will be made to make sure that all vulnerable components of the communities take part in the study

to make it more representative and accurate in exposing the issues associated with access to Protective Personal Equipment and other essential services.

1.10 Definition of terms

1.11 Corona Virus

Corona virus an emerging virus and several authors have attempted to define the virus. (Deepak et al 2020), note that Corona virus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). According to (Gülseven et al 2020), the first case was identified in Wuhan, China, in December 2019. The disease has since spread worldwide, leading to an ongoing pandemic. Corona virus disease 2019 (COVID19) is a pandemic mainly resulting from a severe acute respiratory syndrome corona virus 2 (SARS CoV-2). It was declared on March 11, 2020, by the World Health Organization as pandemic disease. The pandemic has yet to find a medicine or vaccine and thus countries have been forced to look for drastic measures in combating the pandemic.

1.12 Security Strategies

(Shoshana et al 2012) postulates that the goal of the National Health Security Strategy (NHSS) is to strengthen and sustain communities' abilities to prevent, protect against, mitigate the effects of, respond to, and recover from disasters and emergencies (Lombardo, 2013). (Hofreiter, 2006) also argues that Security is judged as a decisive condition (guarantee) of person, social group, state existence that allows protecting and multiplying their material and cultural wealth.

1.13 Pandemic

A pandemic is an epidemic occurring on a scale that crosses international boundaries, usually affecting people on a worldwide scale. A disease or condition is not a pandemic merely because it is widespread or kills many people; it must also be infectious. According to (Fisher, 2021) For instance, cancer is responsible for many deaths but is not considered a pandemic because the disease is not contagious (i.e., easily transmittable) and not even simply infectious (Milsky, 2021)

1.14 Organization of the study

This research will be documented in the subsequent chapters:

Chapter 1: The introductory chapter provides the problem and its setting, statement of the problem, justification of study, aim of study, research objectives and key research questions, research hypothesis delimitation, limitations of the study, definition of key terms as well as the layout of the thesis.

Chapter 2: The second chapter reviews the related literature. It reviews the literature on the state of, of Wedza district and the intervention methods employed to fight major pandemics. The literature review will be structured as follows; conceptual framework, theoretical framework and previous empirical studies or research studies.

Chapter 3: This chapter evaluates the rationale hypothesis of the research; that is methodology; design, population, sample, sampling techniques, research instruments, validity and reliability of instruments data collection procedures and ethical considerations.

Chapter 4: The chapter analyses and interprets the research findings. It also presents the research findings on security strategies, and intervention methods to major pandemics

such as Covid19 in Wedza district. Several statistical tests will be undertaken with the help of Statistical Package of the Social Science (SPSS).

Chapter 5: This chapter summarizes the main findings and contributions of this research. It provides the discussion of the findings, summary, conclusions and recommendations.

1.15 Chapter summary

The chapter presented contextual background to the study. The chapter also looked into the purpose of the study, the problem statement, and objective of the study, research questions and also the significance of the study. The chapter also provides the delimitations and limitations of the study. The coming chapter will review the related literature and the theoretical framework guiding this research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 INTRODUCTION

The former chapter examined the research problem and its setting. This chapter reviews the literature related to the topic on the Zimbabwe's security strategies and intervention methods to major pandemics such as Covid-19, focusing mainly on Wedza District. Literature review is very crucial because it provides the interpretation of existing literature in light of updated developments in the field. The literature reviewed is aimed at identifying previous works on the security strategies and intervention methods that can be employed to hinder the smearing of major pandemics such as Covid-19.

2.1 Theoretical Framework

The study is informed by the interdependence theory. International Crisis Group (2020), the current COVID-19 crisis has reminded the world of the negative impact of interdependence, most notably for the poor and conflict-affected countries that look set to be hit particularly hard. But it has also highlighted the inadequate global mechanisms the world has for coordinating an effective and equitable response to the pandemic. Covid-19 has necessitated two broad models, or analytical lenses, for thinking about the development of global policy amid the Covid-19 pandemic.

Furthermore, (Welsh, 2021), postulates that interaction in this crisis is unequivocally relevant, what we might call global policy communication, whereby the policies of one

state produce not so much negative externalities for others, but rather crucial sources of information for others in their own response to the pandemic Welsh (2021).

2.2 Interdependency theory

The theory of interdependence was first introduced by (Harold Kelley and John Thibaut 1959). The theory states that interpersonal relationships are defined through interpersonal interdependency, which is "the processes by which interacting people influence one another's experiences" (Van Lange and Balliet, 2014: 65). According to (Clausewitz,1982), war is unthinkable without an enemy; the success of planning depends on the reactions of the antagonist just as his success depends on the former's reactions. Thus, national officials can learn about others' approaches simply through publicly available sources, without much interaction with policymakers from the countries where those experiences originated. Clearly the COVID-19 crisis calls for coordination, at the very least, to facilitate an adequate supply of healthcare and testing equipment; to share test treatment results and the development of vaccines; and to amplify and synchronize fiscal action to address the economic effects of the pandemic (Welsh, 2021).

Another tenet of interdependence that has also affected cooperation during this Covid-19 pandemic is the concept of constructional interdependence. This concept according to (DeWilde, 1991), does not owe its popularity to some negative sense, but its reputation is due to the opposite extreme, thus interdependency as the consequence of mutually perceived necessity for cooperation. This also explains the ways in which countries the world over worked to fight Covid19, especially during the preliminary days of the pandemic where most of the Protective Personal Equipment came developed countries. This form of interdependence follows another word 'dependence' namely need and want

Hence, in the wake of the Covid19 pandemic there is desperate need for cooperation, especially for countries in the South that grossly rely on foreign assistance. According to (DeWilde, 1991), this sometimes is called symmetrical interdependence; however, this is an inadequate term since it implies impartial apportionment of costs and advantages which is verifiably doubtful and theoretically not a precondition for a relationship of mutual benefits.

Furthermore, another tenet of interdependence is conspiratorial interdependence. This concept does not work either because it gives this false impression that these relations are harmonious. (Clausewitz, 1982) notes that the quality of interdependence is dominated by dogma at the right angle with the ideal of interdependence which states that two can do more than one. Which therefore means that cooperation is vital as cooperation creates surplus value; none of the actors can create alone. In other words, the actors are only interdependent as far as surplus is concerned, but still independent with regard to the rest of their other activities. Thus, this paper is premised on this theory because the havoc caused by the pandemic has made cooperation necessary as countries would want to increase interaction with other members in the international system in order to be able to fight Covid-19. According to Brus (1991) the concept of interdependence was best illustrated by De Wilde (1991). See the figure below.

2.1.4 The concept of interdependence

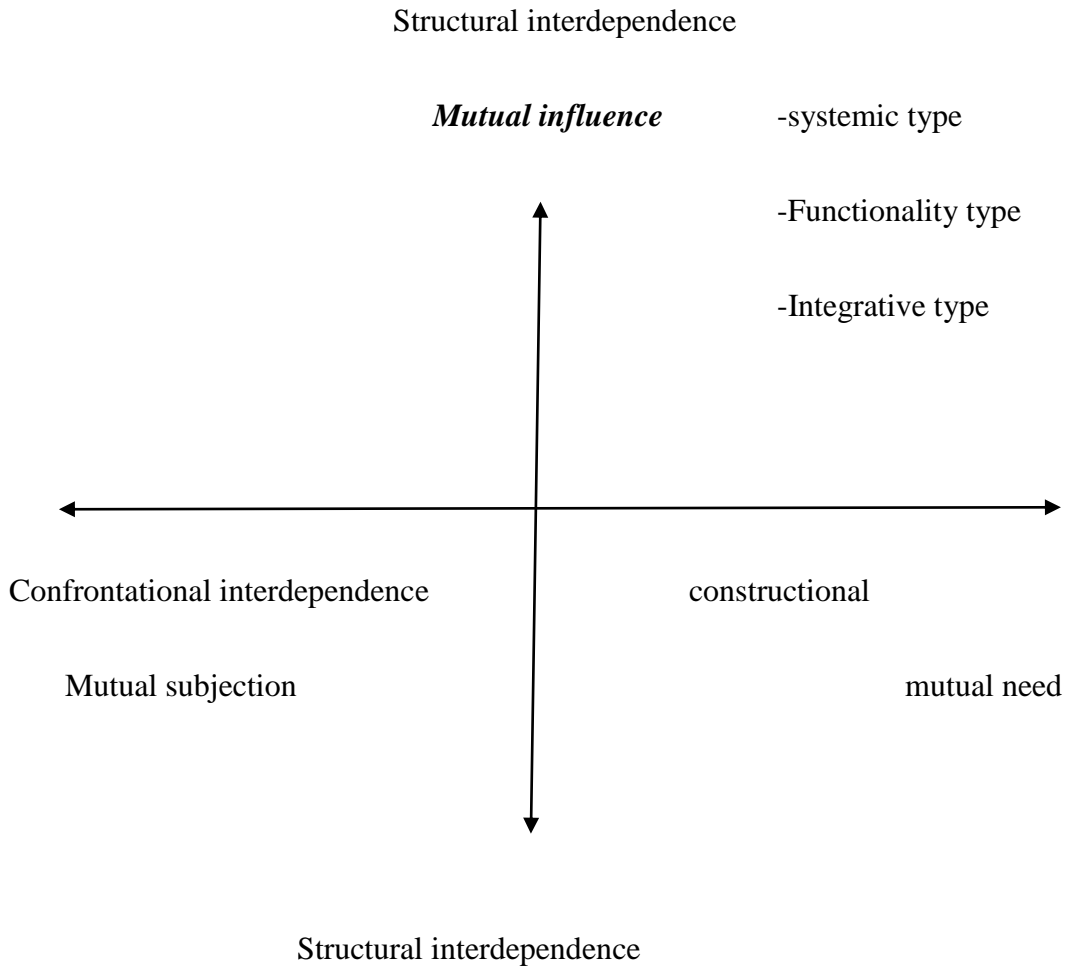


Figure 2.1

Structural interdependence can be operationalized into three dimensional concepts addressing how given actions are mutually affected by another's mutual behavior. The second dimension involves the character of the mutual involvement (confrontational and constructional) aspects (Keohane & Nye 1977). Then the final dimension concerns the (a) symmetry of the mutual involvement (the distribution of costs and benefits).

2.3 Conceptual framework

In this case, the research paper will conceptualize the concepts of security strategies and major pandemics. (Creswell, 2013) postulates that conceptual framework is an analytical tool with several variations and contexts that represents the researchers synthesis of literature review on how to explain a phenomenon or maps out the actions of the actions required in the course of the study given the previous knowledge of other researchers point of view and observations on the subject of research (Madhupal Shettian, 2017).

2.3.1 Security Strategies

One of the notable features of existing national security doctrine is the willingness to identify pandemics as a national security threat, without building a sufficient response capability, and while largely decoupling this threat from a traditional understanding of the role and functions of security and intelligence systems .(Davies, 2013). According to (Knudsen, 2012), national Security Strategy (NSS) provides a unified national strategy for democratically legitimate defense and public security provision. There are three key concepts about the relationship between pandemics and security. (Davies, 2013) also postulates that, first associating health policy commitments with security can elevate the level of priority given to an issue and deliver results. While the UN 110 member States could not meet their IHR core capacities by 2014, the majority of these States are working towards an implementation path with the WHO Director-General (Davies 2013).

Furthermore Davies (2013) notes that health security has not distorted policy by drawing attention away from the health crises that affect most of the world's population (WHO 2009a:24). In truth, elevated global and national involvement in pandemic prevention and response has helped to elevate the goal of universal health-care coverage. According to

Davies (2013), it is now widely recognized that effective prevention and response to a pandemic requires national health systems that are accessible and equitable. Furthermore, according to the (WHO 2009), Universal health-care coverage is not the only answer in strengthening health systems but many states, such as China, perceive it as a core part of their effective response to disease outbreak events.

2.3.2 Major Pandemics

Commentators such as Morens, Folkers & Fauci (2009), have questioned whether one could effectively deal with a pandemic when we could not agree on what a pandemic is or whether we were experiencing one. According to (Doshi, 2011), Pandemics are for the most part disease outbreaks that become widespread as a result of the spread of human-to-human infection. According to Morens, Folkers & Fauci (2009), beyond the debilitating, sometimes fatal, consequences for those directly affected, pandemics have a range of negative social, economic and political consequences. These tend to be greater where the pandemic is a novel pathogen, has a high mortality and/or hospitalization rate and is easily spread. According to Lee Jong-Wook (2005), former Director-General of the World Health Organization (WHO), pandemics do not respect international borders.

The association of pandemics with national security threat grew to prominence in the 1990s and came into being in 1995, under the tutelage of the World Health Assembly (WHA) agreed to revise the International Health Regulations (IHR), the only international legal framework governing how WHO and its member States should respond to infectious disease outbreaks, on the grounds that revision was needed to take “effective account of the threat posed by the international spread of new and re-emerging diseases” (WHO 2005). In 2005, the IHR revisions were adopted as WHA Resolution 58.3.4 Article 2

announced that the scope and purpose of the instrument was “to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks”. Since its entry into force in 2007, signatory States have been working, individually and collectively, to meet their core capacity requirements under the new framework.

The 2020 Humanitarian Response Plan (HRP) document notes that at least 4 million vulnerable Zimbabweans are facing challenges accessing primary health care and drought conditions trigger several health risks. In addition, according to (Oyenubi, 2021), extreme weather conditions can increase vulnerability to infectious diseases, including vaccine-preventable and vector-borne illnesses. The difficult economic environment has had a negative impact on the health delivery system, particularly from the last quarter of 2019 to the first quarter of 2020. (Oyenubi, 2021), also postulate that the capacity of disease surveillance is not sufficient at all levels and this is increasing the risk of delayed identification and response to disease outbreaks. The capacity of laboratories to detect priority disease conditions is also inadequate due to a shortage of reagents and equipment.

In addition, the Africa Center for Disease (2021), argue that Africa has a high level of respiratory diseases as it is host to 22 of the 25 most vulnerable countries to infectious diseases, according to the 2016 Infectious Disease Vulnerability Index report (IDVI) (2019). The incidence of both infectious and non-communicable diseases such as Chronic Obstructive Pulmonary Disease (COPD) or asthma is high in Africa.

Since the beginning of the outbreak in China, several countries in the African continent have started implementing strategic plans to deal with the outbreak (Tozivepi et al, 2020). Several countries in the African region implemented early comprehensive and strict public

health and social measures at the onset of COVID-19 pandemic. These measures were maintained for many months and for some until a substantial decrease in transmission was observed. In countries such as Kenya and Rwanda they have already suspended all international gatherings and events until further notice as a precautionary measure (Christopher Fraser et al 2004).

Furthermore, Multiple factors can weaken epidemic, in low-income countries (LICs) is challenged by the general weakness of health structures: poor quality of healthcare, low human resources capacity, lack of equipment and facilities and vulnerable supply chains. Daou, (2020), on France 24 noted that the CSIS (Center for Strategic and International Studies) estimates the financing gap in epidemic, at \$4.5 billion per year in LICs and LMICs (lower-middle income countries). The ODI (Overseas Development Institute) also highlights those countries with constrained fiscal resources are less resilient and more vulnerable to epidemics, with less scope for fiscal and monetary interventions. While most governments across Africa already rely heavily on assistance from donors in the health area, finding domestic resources to pay for the response will become increasingly difficult. UNECA estimates Africa will be hit by an unanticipated increase in health spending of up to \$10.6 billion due to corona virus and by inflationary pressures due to supply side shortages in food and pharmaceuticals (Gilbert 2020).

Africa has notably one of the weakest health systems globally as Goodman (2020), notes that the main challenges that Africa faces in the response to COVID19 pertain to lack of local biotechnological production and limited research capacity or expertise in specialty fields, thus making African countries unable to conduct sufficient testing and focused research studies related to disease transmissibility, vaccine or cure research relevant to the

local context. This lack of expertise thus requires international integration through interdependence. (Nhari et al 2020), note that many African countries are relying on equipment and reagents imported from outside the continent.

Integration should be based upon the perceived need and search for solutions to technical problems and issues (Nhari, 2020) the creation of cooperative transnational linkages for dealing with technical issues could result in a learning process that changed attitudes about cooperation and spread to other technical issue areas. In the case of Zimbabwe, during the initial stages of Covid-19 there was neither expertise nor equipment to detect and consequently control the spread of the virus hence there was need for integration with other member states to deal with the virus. (Nhari, 2020) further postulates that the majority of African countries lack specialized medical capacity that is critical for handling severe cases of COVID-19, such as intensive care unit (ICU) beds^{11,58} and mechanical ventilators⁵⁹. Therefore, the main priority on the African continent was to contain the infection, initiate immediate testing for suspected cases and to start medical intervention prior to development or progression to severe clinical disease.

2.4 Strategies for Major Pandemics; The International SARS experiences

During the pandemic influenza According to the CDC, quarantine and containment measures employed to delay or mitigate the effects of a spreading virus proved to be essential lifesaving measures. (Matthews, 2005), notes that while the United States lacks recent experience with infectious disease on a large scale, several countries throughout the world have experienced a large-scale epidemic and have had varying degrees of success with community mitigation and interventions in recent years. In general, there are two approaches to implement containment measures. (Tozivepi et al 2006) postulate that, the

first method is through solicitation of voluntary public compliance and cooperation. This is generally accomplished through intensive public health education, transparency of planning and extensive risk communication. The second means is through forced compliance via unilateral government implementation and strict enforcement of containment and intervention measures. This is typically accomplished with substantial police or military enforcement supported by the threat of fines or possible imprisonment.

2.4.2 Quarantine of international travelers.

Zimbabwe just like any other country in the world started screening passengers at airports, additionally; mandatory quarantine was also put in place. Similarly, during the period of pandemic influenza government of Hong Kong established a dual form of compliance characterized by stringent government enforcement of quarantine measures and significant investment in public information and education campaigns. In order to ensure enforcement likewise Canada did the same during the same era, however compliance was voluntary, (Matthews, 2006). Statutory Instrument No 108 of 2021 in relation to ports of entry and exit, cabinet announced that citizens returning to Zimbabwe were to be quarantined at their own expense. Quarantine orders for travelers require individuals to stay at home or in temporary lodging

Furthermore, during pandemic influenza the government of Hong Kong also recognized that while voluntary compliance was an objective, it was likely that forceful compliance measures would be necessary as well (Rothstein et al, 2006). This is equally important for planning mitigation efforts in the United States. While voluntary compliance is strived for, demonstrating that the government is capable of enforcing interventions will also contribute to compliance. Contrary to Canada and Hong Kong, according to Alben (2007),

in China during pandemic influenza the mode for compliance was almost authoritarian as the central government empowered police to make arrests for violation of quarantine and isolation order. The same *modus operandi* was also adopted by Zimbabwe during Covid 19.

The statutory instrument 108 of 2021 stipulates those tourists and non-resident without proof of a valid negative PCR test certificate could be denied entry into Zimbabwe. Citizens and residents of Zimbabwe without proof of a valid negative PCR test certificate will be required to quarantine for 10 days at a designated facility at their own expense this is statutory instrument according to Statutory Instrument 108 of 2021, issued by the government of Zimbabwe. According to (Watson et al 2020), these state orders apply equally to both travelers and returning residents, avoiding constitutionally prohibited discrimination against non-residents, but may impermissibly interfere with exclusive federal power to regulate interstate commerce. During the 2014-2016 West African Ebola epidemics, courts upheld state quarantines against travelers returning from affected countries if justified by individualized assessments of exposure levels and symptoms. Quarantines applicable to all travelers irrespective of individual risk could be challenged in the courts. The same method was also implemented by the Government of Zimbabwe to try and reduce the level of transmission from international travelers.

2.4.3 Survey of attitudes concerning compliance to pandemics during pandemic influenza

To better understand the public perception and acceptance of mitigation and intervention provisions with disease, the Harvard School of Public Health and a group of academic researchers undertook public surveys during 2004 in Hong Kong, Taiwan, Singapore and

the United States. The purpose of the surveys was to measure attitudes concerning voluntary compliance with containment and intervention measures for some future virus. Citizens in Hong Kong, Singapore and Taiwan at the time of the survey, had recently experienced the 2003 SARS epidemic and the attempts of government to implement containment and quarantine procedures. (Hatchett, 2007) argues that although the surveys concluded that there was widespread support for containment or quarantine in certain circumstances, the information extracted from the study emphasized the criticality of trusted and reliable sources of information concerning containment policy and planning.

2.4.5 Measures taken by countries to reduce the spread of Covid 19

Several local governments have imposed during the curfews to limit gatherings, particularly in states where governors have been reluctant to impose stay-at-home orders. States and localities have often issued curfews during natural disasters or periods of civil unrest. Courts uphold time-limited curfews in exigent circumstances unless those curfews are arbitrary or discriminatory.

As recommended by the World Health Organization countries globally put in place stay at home parameters. Even though the parameters and methods of enforcement vary considerably, governors and mayors have directed or advised the majority of the US population to stay home, with limited exceptions for meeting essential needs (e.g., food shopping or refilling a prescription) and outdoor physical activity (e.g., walking or jogging). Modeling studies for COVID19 suggest that intensive physical distancing could help maintain health system capacities. According to (Matthews, 2006) the results of these studies support the belief that community interventions will have significant impact in reducing the spread of influenza and lessening mortality rates. Likewise, the Government

of Zimbabwe implemented stay at home orders. This was one of the most effective ways of combating Covid 19.

Individual freedom is not absolute as it is balanced against compelling public health necessities (Alben et al 2007) also notes that when surveyed in the Harvard Study relative to their ability to keep children home from school and the public off the streets and also close workplaces the results were both encouraging and provided insightful areas that require continued support and assistance to the community.

The study conducted by the Harvard School of Public Health (2006) state that at a minimum, health authorities should state clear, evidence-based criteria for when and how stay-at-home orders will be implemented, as well as when they will be eased or lifted. Although the courts grant wide leeway during emergencies, discriminatory enforcement would not be permitted. When possible, physical distancing should be sought through volunteerism, appealing to civic responsibility rather than by punitive measures that erode the public's trust.

In addition, countries in the world also encouraged social and physical distancing as ways to reduce the spread of Covid19. According to Hawkins University (2021), social distancing also known as physical distancing, is currently the most effective way to prevent the spread of the virus from person-to-person. It's important because the virus primarily spreads via respiratory droplets in the air when people sneeze, cough, or touch surfaces where the droplets have landed.

“You're more likely to have exposure if you're physically closer to someone who could be exposing you without even knowing it,” (Hawkins University, 2021) . “Distance protects

you from touching and from droplets.” According to (Ferguson, 2021), to implement social distancing, many states issued shelter-in-place orders, which require people to stay at home, except for essential activities like grocery shopping and going to the doctor. When people do go out for these errands, the CDC recommends they physically distance themselves at least six feet away from another person and avoid gathering in groups.

2.5 Strategies employed to mitigate the spread of Covid 19.

In a bid to contain and manage the spread of Covid-19, governments across the globe closed down their national borders while restricting internal migrations. Lockdown measures were the most common response adopted by many countries to reduce the spread of the virus while managing the symptoms of the infected (Alonso-Zaldivar et al, 2020). Zimbabwe like other countries announced its first 21-day lockdown measures starting on March 30, 2020. Additional measures were covered in statutory instruments further promulgated and passed. Some of the extraordinary measures introduced to combat Covid-19 are considered drastic as they infringe on basic human rights (Mavhinga, 2020).

The government of Zimbabwe through Statutory Instrument 83 of 2021 effected closure of airports and restrictions on aerial transportation in order to limit the spread of Covid 19. According to the Statutory Instrument part III Section (7) aerial transport services are prohibited except the operation of such services (whether commercial, private, chartered or scheduled) engaged in the carriage of staff for essential services, the carriage of sick persons to hospitals and other health care providers, the carriage of persons referred to in section 4(1)(a) (vi) or (vii), and the transport of water, fuel, food, basic goods, medical supplies needed to combat Covid-19 and other medical supplies, and the carriage of police, Defense Forces personnel and other enforcement officers.

In addition, (Gumel et al 2021) studied the impact of quarantine and isolation on the transmission dynamics of SARS. They assumed that everyone quarantined progress to isolation. The control measures in their work were assumed to be time-independent control measures. However, there is a possibility that some people will not develop symptoms after the quarantine. So, they return to susceptible class to avoid being infected in the isolation center. (Gumel et al 2021) also note that it is well known that behavioral change played a very important role in the spread of diseases. Public health education contributed to people's behavioral changes towards infectious diseases such as Cholera and Ebola virus disease. It will help the health personnel to reach out to people and influence them to adopt new behavioral changes and practice personal hygiene.

Again, (Oppenheim, 2018) postulates that since there is no specific treatment or vaccine available for Covid-19 probably because it is a new disease, and vaccine development usually takes up to 18 months. There is no approved medicine that eradicates the virus; however, treatment is mainly supportive. It is because of these realities that governments across the world have resorted to no pharmacologic measures. For instance, the Nigerian government has sensitized its citizenry on the need to adopt safety measures such as wearing of disposable surgical face masks, regular hand-washing with plenty of soap under running water, and the use of alcohol-based hand sanitizer in the absence of soap and water among others as recommended by the WHO.

In addition, according to the World Health Organization (2020) many governments worldwide are spending billions of the United States 'dollars as well as soliciting aids from well-spirited individuals and organizations towards combating the Covid-19 pandemic. Furthermore, many countries have imposed compulsory self-quarantine and restricted

movements of their citizenries (lockdown/sit at home), closure of businesses, and borders as preventive measures. Nevertheless, according to the emerging major problem in the spread of Covid-19 is human-to-human transmission in a heterogeneous community. Sadly, the implementation of these interventional policies of governments (e.g., total lockdown of movement, businesses, and fear of quarantine/isolation) has thrown up another new challenge in the fight of the disease because of hunger and poverty especially in developing countries in sub-Saharan Africa where governments lack social securities. Therefore, there is the need to find cost effective ways of halting the Covid-19 pandemic with minimal economic and social disruptions to avert impending catastrophic economic rupture.

2.6 Intervention methods

Since Covid-19 is a new pandemic, no country had ready made plans to fight and no method was proven to be the most effective. According to (Wang et al 2021), as Covid-19 was sweeping through the world at a very fast rate, no country could avoid the threat. Every country very much hopes to control the epidemic as soon possible, and even hope to end the epidemic.

2.6.1 What was the general response and uptake of the vaccine by the people in the district?

The third objective sought to examine the acquisition of the vaccine to be administered as one of the major intervention methods and the general response and uptake of the vaccine in Wedza district.

2.6.2 Zimbabwe's vaccine acquisition and roll out.

Zimbabwe got its first consignment of the Covid-19 vaccine on the 15th of February 2021 with the roll-out of the vaccination program beginning 18th February 2021. At the time of writing, the BBIBP-CorV vaccine which is produced by the Beijing Institute of Biological Products and Sinopharm, is approved for use in Bahrain, China, Egypt, and UAE. Zimbabwe received 200,000 doses as a donation from the Chinese government with a further 600,000 doses bought by the Zimbabwean government expected to arrive in March 2021. The doses received have been prioritized for frontline workers, especially medical personnel, the elderly, and those with underlying conditions. According to the MoHCC (2021) Zimbabwe expects to receive a donation of 75,000 doses of the Covid-19 vaccine from the Indian government. The country aims to inoculate at least 10 million of its 16 million citizens to achieve herd immunity. As of 2 March 2021, two weeks into the vaccination program roll-out, only 25,000 doses had been administered to healthcare and other frontline workers

2.6.3 South Africa's vaccine acquisition and roll out.

South Africa on 1 February 2021 became one of the first African countries to receive a Covid-19 vaccine. The country received a million doses of the AstraZeneca/Oxford Covid-19 vaccine, produced by AstraZeneca-SK Bioscience (AZ-SKBio) and the Serum Institute of India (AZ-SII). According to Dzobo (2020) the roll-out of the AstraZeneca/Oxford Covid-19 vaccine was suspended on the 8th of February 2021. Following the release of results that showed the vaccine has low efficacy against the Delta variant of this corona virus, the variant most common in the South African population According to the SABC News, (2021) on the 17th of February 2021, South African began a roll-out of the Johnson

and Johnson Covid-19 vaccine with an initial 80,000 doses. In addition to being effective against the Delta.V2 variant, this vaccine, compared to AstraZeneca/Oxford and other currently available ones, is cheaper and requires only regular refrigeration for storage. The country has secured a total of 9 million doses of the Johnson and Johnson Covid--19 vaccine with 20 million doses of the Pfizer/BioNTech expected at the end of the first quarter of this year.

2.6.4 The Threat of COVID-19 Vaccine Hesitancy in South Africa and Zimbabwe

Herd immunity, which offers some protection to unvaccinated individuals, is compromised when widespread vaccine acceptance is not achieved, and disease outbreaks result. A recent survey by financial technology company CompariSure (2021) reported that 52% of South Africans will not take the Covid-19 vaccines with religion, fear of needles, and unconsented government tracking being reported as some of the deterrents. According to Mkandawire (2020), similarly, a Zimbabwean Covid-19 vaccine hesitancy survey preliminary report revealed that 50% of Zimbabweans would accept the vaccine while 30% and 20% were unsure and would reject, respectively. Several communities in Africa have always resisted vaccines, irrespective of the type and form of vaccination. In addition, (Dzobo, 2020) notes that, for instance, in Zimbabwe, the Apostolic Faith community religious group, which makes up a third of the population, is historically known to have poor health-seeking behavior, including vaccine uptake.

Technological rigidity and conservativeness have also been a major challenge in the fight against Covid-19 in Zimbabwe. Kouamou et al (2021), notes that there is an urgent need for the government to effectively overcome theological rigidity on health-related issues among the apostolic sector as it negatively affects any vaccination program. In South

following the release of results that showed the vaccine has low efficacy against the Delta variant of this coronavirus, the variant most common in the South African population ignore (Mukandavire, 2020) The halt in South Africa's roll out of the AstraZeneca/Oxford vaccine may further diminish public trust in Covid-19 vaccinations, as an impression is being generated those vaccines may not be effective after all specifically for Delta.V2 but also in general.

The roll-out of the Sinopharm vaccine in Zimbabwe may face poor acceptance due to the lack of publicly available evidence on its effectiveness against the Covid-19 variant (Mukwenha, 2020). In support of the above (Dinga, 2021), postulates the sources of health and vaccination related information play vital roles in the choices people make about vaccinations, with current research pointing to information overload, misinformation, and myths on the internet and social media platforms as potential threats to vaccine uptake. Covid-19 is the first pandemic in history in which technology and social media are being used on a massive scale to keep people safe, informed, productive, and connected. Mukwena (2020) further postulates that at the same time, the technology people rely on to keep connected and informed is enabling and amplifying an infodemic that continues to undermine the global response and jeopardizes measures to control the pandemic. In South Africa, some health workers have started to question the efficacy of the Covid-19 vaccine. Similarly, in Zimbabwe, nurses have been reluctant to get vaccinated. Frontline workers are a major conduit of correct information. When there is a lack of clarity, uncoordinated approaches, and differences amongst the public health experts, Covid-19 vaccine hesitancy among communities will be unavoidable. (Tozivepi et al) 2020 postulates that in Zimbabwe after decades of poor service delivery and cases of high-profile corruption within the

Covid-19 national response may compromise communities' trust in the vaccine. The threat of vaccine hesitancy is not restricted to our study context alone. (Ramski et al, 2021) postulates that in France, a sample of working-age adults expressed vaccine hesitancy for vaccines manufactured outside the European Union.

The same study by (Kouamou et al 2021) also reveals that a lower perceived severity of Covid-19, gender, age, lower educational level, poor compliance with recommended vaccinations in the past, and no report of specified chronic conditions as factors associated with outright vaccine refusal. A study conducted in Ireland and the United Kingdom found that vaccine hesitancy/resistance was evident for 50% and 31% of these resistant to a Covid-19 vaccine were less likely to obtain information about the pandemic from traditional and authoritative sources and had similar levels of mistrust in these sources compared to vaccine-accepting respondents. These findings from other countries in different geographical locations and socio-economic characteristics underscore the need to prioritize the threat of COVID-19 vaccine hesitancy in the African context.

In addition, although the administration of the vaccine is going on very well in Zimbabwe, many people are still not properly informed regarding the decentralization of the vaccination centers. Additionally, according to (Kouamou, 2021) the administration of the vaccine in the country is still largely done on paper records and there is no adequate system to track people who are due for their second dose. Due to this lack of a proper tracking system, the country has run out of the second doses of the Sinopharm/Sinovac vaccines, leaving thousands of people partially vaccinated as of 9th June 2021. (Mashe, 2021) also adds that regrettably, Zimbabwe has been experiencing a surge in cases and has been battling the third wave since the 4th June 2021 to date, attributed to a general complacency

in adhering to the preventative measures both in the communities and work places. Moreover, the opening of the tobacco sales floor markets and the gold mining business has led to people gathering. Thus, farming and mining towns have been greatly affected and classified as hotspots in the country.

2.7.1.1 Cumulative cases in Zimbabwe

The ministry of Health constantly provides daily updates of the cumulative Covid 19 cases and according to the Ministry of Health and child care report of 04 September 2021 the cumulative cases were as follows;

Table 2.7.5

New Cases	Cumulative cases	Active cases	Total tests
94	125 425	5870	2704
New recoveries	Total Recoveries	Recovery Rate	Cumulative tests
50	115 089	91%	1289319
New dearth	Total deaths	Vaccinated 1st dose	Vaccinated 2nd dose
09	269 8632	2 698 632	170 093

Source: Ministry of Health and Child Care. (Covid daily update 4 September 2021)

2.8 Chapter summary

In summary, the chapter reviewed literature on the state of, and responses and intervention methods that were put in place by several countries. The literature was reviewed under the interdependence theory. Some of the aspects discussed includes strategies that were put in place to reduce the spread of the pandemic, i.e., quarantine for international travelers, social distancing, a ban that was on gatherings, curfews and Stay-at-home Orders. The chapter also looked at the effectiveness so some of these strategies. The chapter also reviewed literature on how South Africa acquired its vaccine and the roll out process. Challenges faced in the rolling out of the, ranging from hesitancy and lack of information that was provided on the people by the government. The next chapter presents research methodology, design, population, sample and data collecting methods.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The preceding chapter reviewed literature related on the security strategies and preparedness and intervention methods to major pandemics such as Covid 19 in Wedza district. This chapter describes the methodology used in this study. This study made use of qualitative research methodologies to answer the questions that have been raised for the study. The chapter also presented the research paradigm, the research approaches, research design, the target population, sampling techniques, data collection strategies, pilot testing validity, reliability and ethical considerations and data presentation analysis and interpretation proposal.

The study also employed pragmatism paradigm. The rationale behind the choice of this paradigm is the research question, where the use of a combination of quantitative and qualitative approaches completely addresses the research problem. Therefore, the pragmatic research philosophy provided for the adoption of mixed methods as the data collection method which opened the opportunity for the study to be objective and subjective in analyzing the points of view of the participants. This paradigm was opted for because of its suitability for this research as the researcher had the opportunity to use both qualitative and quantitative analysis.

3.1 Research methodology

For this study, the researcher used qualitative research approach to answer questions on the security strategies as well as intervention methods to major pandemics experience during Covid 19 from the standpoint of the participant. The mixed approach also helped the researcher to generate and analyse interviewed data. In addition, in-depth interviews were used to solicit qualitative data from the participants and then generalisations were consequently drawn from the responses. Furthermore, the researcher employed the use of quantitative research approach for this research. The quantitative approach was used to collect numerical data through the use of close ended questions. Further, the researcher used a questionnaire with closed questions to enable respondents to participate independently and their responses will be generalised. The researcher employed closed questions because he will be seeking objective answers on the general response to the Covid 19 vaccine.

A research methodology is a plan and procedure that consists of the steps of broad assumptions to detailed methods of data collection, analysis, and interpretations. The researcher employed both qualitative and quantitative. (Madenga, 2017) argues that qualitative research methodology mainly focuses on in-depth exploratory research framework. Further, it is noted that in qualitative research the objective stance is rudimental, the researcher is the instrument, and ‘subjects’ become ‘participants’ who may contribute to data interpretation and analysis.

The mixed method approach combines qualitative and quantitative research methods, in order to provide ‘a better understanding of research problem than either approach alone (Creswell, 2013). This corroborates findings by (Charmaz, 2014) who postulates that both

quantitative and qualitative methods are actually compatible, meaning that the two can be used within a single study. In this study, the mixed methods approach enabled the researcher to collect and analyze data, and integrate the findings using both qualitative and quantitative approaches. In addition, the researcher made use of mixed methods research since it allowed the researcher to employ various methods to explore the research problem.

Furthermore, the researcher opted for mixed method as it is easy to describe and to report and helpful in designing and validating an instrument. In this case, the researcher believed that what works best in a particular situation should always be used in another scenario regardless of any assumptions that can arise in relation to that particular situation. The mixed method approach thus, helped the researcher to employ a myriad of ways to explore the security strategies and intervention methods to major pandemics such as covid19 in Wedza district.

This research also made use of a case study research design. (Mouton, 2001) as cited in (Madenga, 2017) defines a research design is ‘a plan or blueprint of how you intend conducting research. The researcher opted for this design because it enabled him to provide a quantitative or numeric description of trends, attitudes or opinions of a population by studying a sample of the population. In this study the researcher administered a case study to a sample of the population to describe the attitudes, opinions and behaviors of the population. The case study research design enabled the researcher to describe the characteristics of the study population and ensure a more accurate sample to gather results in which to draw conclusions on Zimbabwe’s security strategies and intervention methods to major pandemics such as covid19 in Wedza district.

Since this is seemingly a new area of inquiry, the researcher opted for exploratory research. According to (Azorin et al 2007), an exploratory mixed methods research design is the procedure of first collecting quantitative data to explore a phenomenon, and then collecting qualitative data to explain relationships found via the quantitative data. Therefore, this design is a two-phased ‘sequential’ mixed methods research design. In this case, the researcher collected data qualitatively through questionnaires and interviews. The results of the first method ‘qualitative’ were therefore used to help develop or inform the second method ‘quantitative’. The researcher also used Secondary data which was be collected from the district hospital. These secondary data sources included statistical documents that the researcher sourced from the district’s hospital and Wedza police station.

3.2 Target Population and sample

Population parameters and procedures are critical for the success of the study. Dooley (1984) defines population as the total of all potential elements to whom the survey results are to be generalized. (Borg & Gall 1989), define research population as all the members of a real or hypothetical set of people to which a researcher wishes to generalize the results of a research. In this study, the target population was the group to whom the researcher wanted to apply the results of the study (Saunders, *et al.*, 2012). (Jacobs, 2010) as cited in (Madenga ,2017) defines research population as the larger group from which individuals are selected to participate in a study. This means that population is the whole or an entire count of people or objects with characteristics under study. The target population of this study was 65 people consisting of The District Medical Officer, 3 Doctors, 2 Clinical Officer, Officer in Charge of Wedza District, 5 traffic officers, 3 workers from the District Administrator’s office, 50 people residing in Wedza. This target population is necessary in

ensuring sampling validity, that is, ‘the degree to which a test samples the total area of interest’.

Adding on, the researcher drew a sample from the targeted population and it was from this sample that generalizations were drawn from. (Charmaz, 2014) defines a sample as a group that is chosen from a population from which to collect data. In this case, sampling is a process of selecting representative subset of observations from a population to determine the characteristics of the random variable under investigation and the aim is to get a sample that is as representative as possible of the target population (Saunders, *et al.*, 2012). Findings from a systematically selected representative sample can be regarded as sufficiently valid and reliable to be safely generalised to the target population.

3.3 Sampling techniques

In order to answer research questions, the researcher used a mixed methodology. Thus the researcher employed a stratified sampling and convenience sampling techniques. These sampling techniques; stratified random sampling technique was ideal since it answered the research questions. Stratified sampling ‘involved dividing the population into groups or strata defined by the presence of certain characteristics’ from each stratum (Adler & Clark 2011:120). Stratification refers to the process of classifying sampling units of the population into homogeneous units. In this case this technique guided the researcher to purposively divide the study population into the district medical Officer, medical Doctors and Clinical Officers, the Officer in Charge and the members of the Zimbabwe Republic Police’s traffic department, employees from the District Administrator’s Office and residence from Wedza district. The assumption is that each stratum has different perceptions on Zimbabwe’s security strategies and intervention methods to major

pandemics such as covid19 in Wedza district. The researcher also grouped the population into different strata since some of the participants are actually the ones that were helping with implementing some of the intervention methods in order to reduce the spread of the Virus.

Furthermore, the researcher also employed convenience sampling technique. Convenience sampling technique is a type of non-probability or non-random sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate were also included for the purpose of the study (Creswell & Clark 2011). For the purpose of this research the researcher made use of purposive sampling technique to purposively select some of the participants of this research such as the District Medical Officer and the other medical practitioners because they are vital for this research as the researcher wanted sources of Secondary data. In support of this, (Creswell, 2013) adds that convenience samples are sometimes regarded as ‘accidental samples’ because elements may be selected in the sample simply as they just happen to be situated, spatially or administratively, near to where the researcher was conducting the data collection process. The researcher resided close to a hospital, therefore chances were high that the researcher would accidentally come into contact with people who might willingly volunteer information and consequently become participants for this research. Furthermore, the convenience sample helped the researcher to gather useful data and information that he would not have been able to able to gather using other sampling techniques such as probability sampling, which require more formal access to lists of populations.

3.4 Data collection tools

These refer to the instruments that the researcher used to gather data. Thus, the researcher for this study employed both quantitative and qualitative data collection tools. These data collection tools are discussed below.

3.4.1 Qualitative

Amongst the several tools that can be used to collect qualitative data the researcher opted for in-depth interviews and document analysis.

3.4.1.1 In-depth interviews

In this study personal interviews were used to solicit data from the participants. The researcher interviewed 5 people, 3 from the District Administrator's Office, The Officer in Charge and The District Medical Officer. These enabled the researcher to have access to what people think 'attitudes and beliefs' about the intervention methods that the government was putting in place to reduce the transmission levels of Covid. Interviews had an advantage because they allowed for a face-to-face verbal communication. Interviews also provide immediate feedback and the method was more effective as subjects preferred to talk more than writing and there was a high response rate and a lot of information was gathered as Sidhu, (1984) notes that after the interviewer gained rapport or established a friendly and secure relationship with the subject, certain confidential information may be obtained. Thus, this was the case as the researcher managed to source some very important information from the respondents through interviews after he had established a positive rapport with the subjects. The interview questions will be based on the methods that the district was employing to curb Covid 19 and also the general response and adherence to

these intervention methods. The researcher will also solicit information on the general uptake of the vaccine amongst the people of Wedza mainly those in the public service.

3.4.1.2 Document analysis

This entails an orderly method for reviewing documents in the form both printed and electronic format. Just as other analytical processes, in qualitative research document analysis calls for the data to be observed carefully and expounded in order to generate meaning, acquire understanding and discover verifiable knowledge. For the purposes of this discussion, the researcher will have a chance to view and analyze statistical data on the general response to vaccination and the rate at which people in Wedza voluntarily got vaccinated. Through document analysis the researcher will also have a chance had the chance to analyze the level of preparedness in the district when it comes to the issue of PPEs and P.C.R. Documents that were used for systematic evaluation are in different forms and they included manuals; background papers; statistical data; minutes and newspapers. Document analysis allowed the researcher to get a good source of background information on the vaccine uptake as the researcher had the opportunity to analyze the vaccine that was availed by the ministry of Health for the district against the number of vaccinated people in the district. Document analysis also helped the researcher in providing a behind the scenes look at the vaccination program that was not directly observable.

In addition, for quantitative data, the researcher used questionnaires and interviews to collect quantitative data. Some of the data that was used for this research was also gathered from statistics that were taken at the hospital.

3.4.1.3 Questionnaires

The researcher used questionnaires for this study in this case; a questionnaire is an efficient data collection tool for this research. The researcher self-distributed the 50 questionnaires to the respondents for this research. The distinctive feature of a questionnaire is that it is answered without assistance. In addition, Creswell (2013,) notes that questionnaires are the only and easiest ways of getting information from a large set of people. Creswell (2013) further asserts that a questionnaire is very important as it is able to reach a large population. Thus, it was easy to collect information from scattered respondents including those beyond the physical reach of the researcher at a relatively low cost. The researcher noted that questionnaires allowed anonymity which tended to encourage honest responses where sensitive areas are involved. Furthermore, questionnaires were more objective and convenient as respondents completed them at their own time and pace.

3.5 Validity and reliability

Validity and reliability are the most important aspects to be considered when evaluating a particular instrument.

3.5.1 Validity

Validity is an evolving complex concept because it relates to the inferences regarding assessment results. Focusing on the consequences of the inferences made implies that they should be appropriate and adequate. Messick (1989, p. 6) points out that inferences are hypotheses, and when these inferences are validated, it amounts to hypothesis-testing. As a result, validity is seen as evaluative judgements that are made on the inferences of assessment results or test scores, that is whether correct interpretations are made and actions are taken based on the inferences. These evaluative judgements need to be correct

and reflective of the truth. Therefore, reliability in this study refers to the consistency of measurement over time that provides the same results on repeated trails. In order to have reliability the researcher conducted a pilot study. The questionnaire and the interview were pilot tested 5 people (health personnel). Validity can be defined as the correctness or credibility of an account, explanation or interpretation that a researcher may come up with. It is also “concerned with the integrity of the conclusions that are generated from a piece of research” (McCaig 2010).

Credibility is also another important aspect when conducting research. Reliability refers to the conscious effort to establish confidence in an accurate interpretation of the meaning of the data (Whittmore et. al, 2001, p. 530). In other word, does my results reflect the real-world phenomenon, or if my interpretations reveal truths external to my investigation. Through the use of different cases to investigate the phenomenon it will strengthen the credibility of my findings. A careful description of pitfalls in the case study method will be given, with ways that the researcher will work around them. The aim of this is to reduce the conditions that can negatively affect the credibility of the thesis, and also give the reader the ability to assess credibility for themselves. Through the use of an “informant list” the researcher attempted to provide the reader with greater ability to assess the authenticity of the findings. Authenticity, which is closely linked to credibility, relates to the portrayals of meanings that the sources of information experienced (Whittmore et. al, 2001, p. 530).

3.5.2 Reliability

To test the quality of studies, one can try to achieve reliability, internal validity and external validity (Yin, 2014). Whittmore, Chase & Mandle (2001), in their review of the concepts of reliability and validity, points out that they stem directly from quantitative research. As

such the concept applied the same standards of quality testing as in “positivistic philosophy” (p.523). Saunders, *et al.*, (2012) note that, reliability is the extent to which the same test would give the same results if it could be taken by the same respondents under the same conditions. Therefore, reliability in this study refers to the consistency of measurement over time that provided the same results on repeated trails. In order to have reliability the researcher conducted a pilot study in which the questionnaire and the interview schedules were tested to 5 health practitioners.

3.6 Pilot testing

One of the fundamental stages of a research is pilot studying. Pilot studies help researchers identify design flaws, refine data collection and analysis plans; gain experience with and train the research team; assess recruitment processes; and learn important information about participant burden prior to undertaking the larger study (Prescott & Soeken, 1989; Beebe, 2007). In order to check if participants experienced difficulties in completing survey instruments, the researcher carried out a pilot study. The researcher noted that the participants in the pilot study faced some challenges with some of the questions the researcher was prompted to modify item wording, change the order in which questions are presented, or alter the instrument format. For this research the questionnaire was given to the research supervisor since she is the expert in this area. The supervisor was thus used as a participant for the pilot testing of the research instruments in order to make valuable observations, which then assisted the researcher to simplify the wording on the data collection instruments should the need arise.

3.7 Data Presentation and analysis

From the questionnaire data which was collected from the closed sections was analyzed quantitatively and data from the open-ended questions and from in depth interviews was analyzed qualitatively through direct quotes from the participants as these direct quotations are often very revealing. The researcher also examined quantitative raw data obtained from the local Hospital using SPSS, Microsoft and descriptive statistics. This data was categorized and presented in tables, pie charts and graphs and narrations to address the purpose of the research study. The researcher sought for and was granted approval to carry out this research from Bindura University. These are ways that the researcher will employ when collecting data.

3.8 Ethical considerations

Ethics are concerned with the creation of a trusting relationship between those who are researched and the researcher (Charmaz, 2014). Research that involves human subjects or participants raises unique and complex ethical, legal, social and political issues (Creswell, 2013). In this case, the research ethics were specifically interested in the analysis of ethical issues that were raised when people are involved as respondents in research. The integrity, reliability and validity of the research findings relied heavily on adherence to ethical principles. The following are some of the ethical issues the researcher observed in this study.

3.8.1 Informed consent

(Creswell, 2009) posits that it is mandatory for researchers to work within a framework of acceptable practices. This view is also supported by Lobbort and Charmaz (2004) who notes that for the researcher to work within a framework of acceptable practices, they

should guarantee their subjects protection from physical, psychological, social, economic or legal harm. In this study, the researcher promoted informed consent through informed refusal. Thus, the researcher then explained the purpose of the study, condition of the research and request participants' consent. This view concurs with Labott & Johnson (2004) who argue that it is imperative for the researcher to make sure that the participant is given enough time to consider and volunteer their participation in the research.

3.8.2 Confidentiality

The researcher ensured that the rights of the research subjects are protected. In support Charmaz, (2014); Collis and Hussey (2003) note that although researchers know who has provided the information or are able to identify participants from the information given, would in no way make the connection known publicly. To gain confidence from the participants the researcher made his position clear to the subjects on how the data gathered will be presented. Thus, the researcher kept the promises and professionalism that will enable the research subjects to disclose relevant information without fear. Furthermore, according to Mantzorou & Fouka, (2011), the issue of confidentiality and anonymity was closely connected with the rights of beneficence, respect for the dignity and fidelity. Sharing the same view, Saunders, *et al.*, (2012) suggests anonymity is protected when the subject's identity cannot be linked with personal responses. Thus, in this study the respondents were free to give and/or withhold as much information as they could and to maintain confidentiality that went beyond ordinary loyalty.

3.8.3 Deception

Deception means not telling people that they are being researched, not telling the truth, telling lies, or compromising the truth (Collins, 2010). It may also lie in using people in a

degrading or dehumanizing way (Charmaz, 2014; Collins, 2010). In this study, the researcher informed the subjects so that he would not expose them to unduly painful, stressful or embarrassing experiences without their knowledge. Thus, the researcher as much as was possible avoided deception by telling the participants the whole truth pertaining the research objectives.

3.8.4 Respect for privacy

Respect for people's privacy is one of the most important aspects when it comes to how people conduct research. One of the conditions on which informed consent rests is that participants' privacy was respected. Privacy refers to "persons and to their interest in controlling the access of others to themselves," and no participant was ever be forced to reveal information to the researcher that the participant did not wish to reveal (Perlman, (2004). Safe guarding this information is a key part of the relationship of trust and respect that exists between the researcher and the participant. Sharing the same view, Creswell, and Clark, (2011) argue that a researcher cannot decide on behalf of other persons on those delicate issues. Thus, all aims, instruments and methodology must be discussed with the prospective subject and the research workers prior to the investigation. Charmaz, (2014) notes that whenever subjects refuse to report personal information as they regard it an invasion of privacy, the researcher must have to respect their views and this may even apply to report of age, income, marital status, and other details that the subject may regard intimate. It can be also implied that privacy can be invaded when researchers study certain groups without their knowledge and without identifying themselves. The researcher will thus consider the setting in which the data would be collected to avoid undue invasion of privacy of participants.

As such, the following ethical considerations were adhered to; informed consent was sought from study participants. This was after they had been informed of the purpose of the research and assured of the confidentiality and anonymity of their responses. In addition, participants were also informed that their responses were to be used for academic purposes only. Participants were also notified of their rights, either to withdraw their participation from the study or to not even participate without any penalty. The names of study participants were coded using pseudonyms. The reason behind the use of pseudonyms is to protect the identity of research participants. Anonymity is one of the most crucial ethical considerations in research. As such, it should always be observed when conducting research. Participants were informed that their real names would not be published; they developed interest and started to open up. Therefore, safe-guarding of participants` identity and privacy play a fundamental role in ensuring co-operation from research participants.

3.9 Summary

This chapter discussed the research philosophy and research design which was employed for this research. Furthermore, the target population, sample and sampling techniques to that were used for this research and the use and the size of the sample were also discussed. The researcher also discussed data collection procedures and the justification for the use of questionnaires and in-depth interviews were also discussed. The chapter also discussed the validity and reliability of the study instruments that were used for this study as well as how the researcher conducted the pilot study for the research. Ethical issues were considered, confidentiality and privacy of revealed information and analysis of data and presentation in relation to research questions and objectives stated.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

The previous chapter looked at the research methodology employed in this study. This chapter focused on data presentation and analysis of the data collected through the questionnaires, and interview research instruments. Narrations and descriptive statistics such as frequency tables, and pie charts were used to aid the analysis of data because they provided effective illustrations in depicting relations and trends. The data will be presented under the following themes; security strategies, response to major pandemics, intervention methods challenges, challenges and vaccine uptake.

4.1 Data presentation and analysis

4.1.1 Reliability test

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent (High-Stakes testing)
$0.7 \leq \alpha < 0.9$	Good (Low-Stakes testing)
$0.6 \leq \alpha < 0.7$	Acceptable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

(Source: Streiner, 2003, p.102)

Table .1: Reliability Statistics of instruments (Questionnaire)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized items	N of items
1.000	1.000	20

Table 4.1 given above is the reliability statistics of the instrument. The reliability is 1 which is greater than 0.9. According to Cronbach's Alpha score's level that reflects (high stakes testing) reliability of the measuring instrument. Furthermore, it also indicates high levels of internal consistence with respect to a specific sample.

4.1.2 Demographic Data

The respondents were asked about their gender and gave the following responses presented in Table 4.1 below Table 4.1:

Gender of Respondents (N=50)

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	22	44.0	44.0	44.0
Valid Female	28	56.0	56.0	100.0
Total	50	100.0	100.0	

Source: field data questionnaire

Data collected from the field show that 22 (44%) of respondents who took part in this research are male while 28 thus (56%) are female. Therefore, women constitute the highest number of people who participated in this study.

Table 4.2 Categories of respondents (N=50)

Gender Cross tabulation

Category	Gender		Total
	male	female	
Count	3	0	3

Officer in Charge's office	% within category	100.0%	0.0%	100.0%
	% within gender	13.6%	0.0%	6.0%
	Count	4	2	6
Clinical Officer	% within category	66.7%	33.3%	100.0%
	% within gender	18.2%	7.1%	12.0%
	Count	5	10	15
Nurse(s)	% within category	33.3%	66.7%	100.0%
	% within gender	22.7%	35.7%	30.0%
	Count	5	7	12
Government Employee	% within category	41.7%	58.3%	100.0%
	% within gender	22.7%	25.0%	24.0%
	Count	5	9	14
Wedza Resident	% within category	35.7%	64.3%	100.0%
	% within gender	22.7%	32.1%	28.0%
	Count	22	28	50
Total	% within category	44.0%	56.0%	100.0%

% within gender	100.0%	100.0%	100.0%
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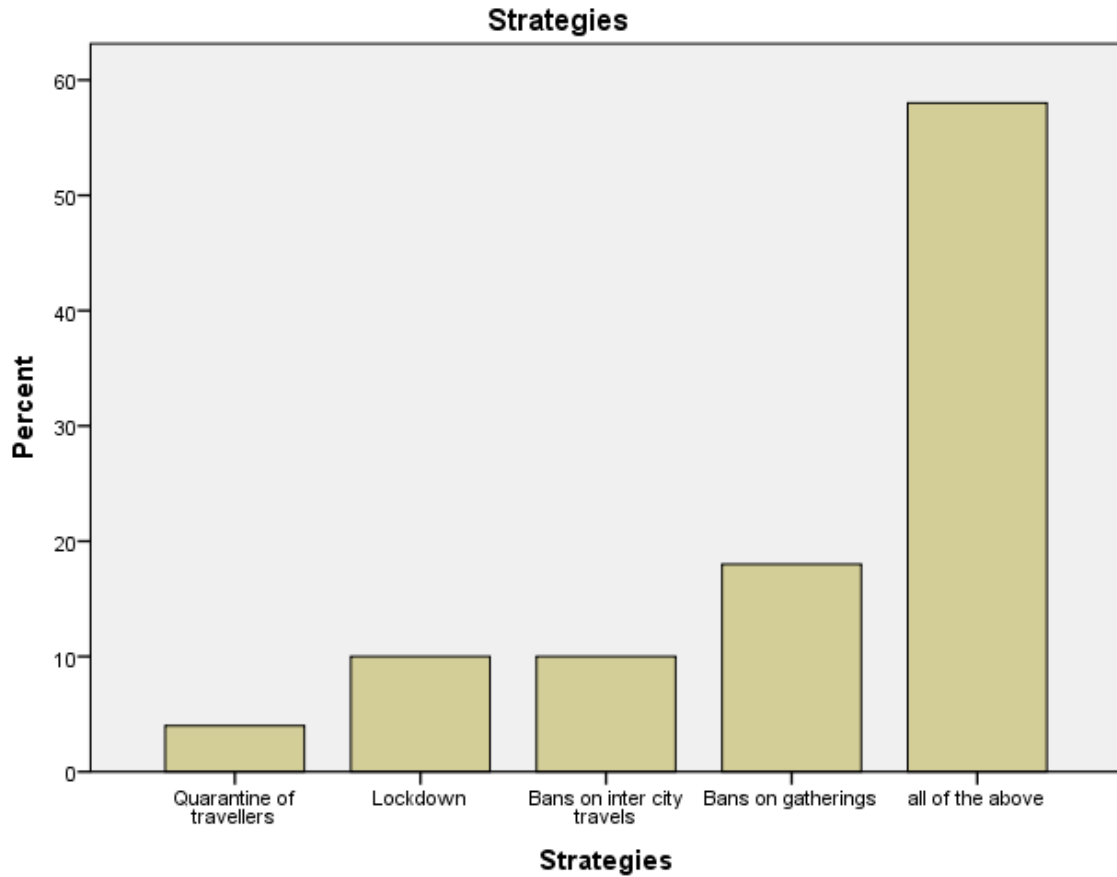
Source: field data Questionnaire

The table above shows that 3(6.0%) of respondents are from the Officer in Charge’s office. A further 6(12.0%) are clinical Officers while 15(30%) are nurses. In addition, 12 (24%) are government employees and 14(28%) are residents from Wedza district. Finally, 22(44%) of the respondents were male while 28(56%) are female.

4.1.3 Empirical Data presentation and discussion of findings

Theme 1: Security strategies and intervention methods to curb major Covid19 (N=50)

Table 4.3



Source data field Questionnaire

The bar graph above shows the security strategies that were put in place by Wedza district to minimize the spread of Covid 19. From the data gathered the researcher found out that the district put in place strategies like quarantine of patients suspected to be infected lockdown and imposed a ban on all gatherings. These intervention methods are also in tandem with the WHO guidelines and also the Statutory Instrument 83 Of 2020 which put into effect a lockdown. According to the S.I national lockdown” means the restrictions on the movement of persons and on intercity, terrestrial l, airborne and cross border traffic prescribed by this Order. According to the data gathered through interviews from the

District the Medical Superintendent said that the District imposed a lockdown in line with the Government directive as stipulated in the Statutory Instrument 83 of 2020.

Furthermore, he went on to say;

The total and strict lockdown enabled the country in general and Wedza district in particular to curb the spread of the virus

From the first objective the theme of security strategies and response employed in Wedza district to curb Covid 19 in Wedza district emerged. The researcher found out that the district employed a myriad of strategies to curb Covid 19 and the strategies ranged from quarantine of travelers and patients who were symptomatic, lockdowns, bans on non-essential travels and gatherings. These strategies proved to be effective as the data shows that 58% of the respondents said that quarantine of travelers coming into the district and of patients who were symptomatic was effective a method to curb the spread of Covid 19.

The district's response was also swift as closure of schools as was directed by the government. On regular intervals people from the district would move around sensitizing people on what should be done to remain safe and protected. Furthermore, 60% of the respondents said that the lockdown was effective as it reduced the rate at which the disease was spreading. Bans on gatherings and intercity travels were also effective as they also reduced the spread of the virus. Asked about the implementation of these security strategies one respondent said

Quarantine centers were set up in schools such as Mt St Mary's High School and Chemhanza High School, however these were not used as the hospital and district

was never overwhelmed by people needing such services, as those people who needed quarantine and isolation were put in the hospital

Moving on, some of the security strategies employed included sanitizing and washing of hands as well as mandatory wearing of masks. Asked about some of the enforcement measures to ensure compliance a respondent from the law enforcement agents said that,

At regular intervals members of the Police would be moving around public places to enforce the Covid 19 regulations and ensure compliance

This corroborates well with what DiGiovanni et al (2006) notes that community intervention methods, in order to be successful, are likely to require personal and public sacrifice in terms of restricting the freedom of individual movement and should that fail then there is need for enforcement to ensure compliance. Furthermore, according to the (Public Health (COVID-19 Prevention and Containment Act 2020) dictates that all intercity transport is prohibited except the operation of intercity transport services engaged in the carriage of staff for essential services, the carriage of sick persons to hospitals and other health care providers, the carriage of persons referred to in section 4(1) (a) (vi) or (vii), the transport of water, food, fuel, basic goods, medical supplies needed to combat COVID-19. These security strategies were the ones that were also imposed in Wedza district.

Moving on ban on gatherings was also imposed as the government was trying to decongest workstations. During the time of writing the researcher also found out that even the D. A's offices in Wedza were still operating with a depleted staff complement as the district was still trying to contain the virus. One of the staff members also said "*we are working hand*

in hand with the police to make sure that there are no gatherings for whatever reason”.

This is also in accordance with the dictates of the statutory instrument where it states that of the Public Health (COVID-19 Prevention and containment (2020), Subject to the order on the ban on gatherings, for the period of 21 days from the 30th March, 2020, to the 19th April, 2020, no gathering of more than two individuals in any public place are permitted except in the following cases; a gathering at a stopping point for the purpose of using a transport service referred to in section 4(2), provided that not more than fifty individuals at a time are gathered for that purpose, and that every individual at the gathering complies with the social distancing rule; (b) a gathering at a funeral service, provided that not more than fifty individuals at a time are gathered for that purpose, and that every individual at the gathering complies with the social distancing rule (Public Health (COVID-19 Prevention and Containment, 2020).

Theme 2; effectiveness of the methods employed in combating Covid19 in Wedza district? (N=50)

Table 4.4

Quarantine of travelers and patients

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no idea	6	12.0	12.0	12.0

very ineffective	4	8.0	8.0	20.0
Ineffective	11	22.0	22.0	42.0
Effective	23	46.0	46.0	88.0
very effective	6	12.0	12.0	100.0
Total	50	100.0	100.0	

Source Data field questionnaire

Table 4.3 above present data on the effectiveness of the intervention methods that were employed government's department of health in combating Covid 19 in Wedza District. The statistics show that on the use quarantine as an intervention method 12% of the respondents had no idea whether quarantine of travelers and patients had either a positive or negative effect on the pandemic. Moving on 8.0% was of the opinion that quarantine was ineffective while 22% said that quarantine of travelers was ineffective. In addition, 46% opinionated that the intervention method was effective and finally 12% said that the intervention method was very effective. Therefore, over 58% percent of the respondents said that the method of quarantine was effective in combating Covid 19.

Table 4.4

Lockdown. (N=50)

	Frequenc y	Percent	Valid Percent	Cumulative Percent
no idea	2	4.0	4.0	4.0
very ineffective	2	4.0	4.0	8.0
Ineffective	11	22.0	22.0	30.0
Effective	24	48.0	48.0	78.0
very effective	11	22.0	22.0	100.0
Total	50	100.0	100.0	

Source Data field questionnaire

Furthermore, one of the intervention methods that was employed was a total lockdown. From the data collected 4.0% of the respondents said that they had no idea whether lockdown had any significance in combating Covid 19, while 4.0% also said that a lockdown was very ineffective as an intervention method. In addition, 22% of the respondents said that it was ineffective as an intervention method, while 48% opinionated

that it was effective. Finally, 22% said that the strategy was very effective. Thus, generally the researcher concludes that lockdown was effective as an intervention method.

Table 4.5

Ban on intercity travels. (N=50)

	Frequency	Percent	Valid Percent	Cumulative Percent
no idea	2	4.0	4.0	4.0
very ineffective	7	14.0	14.0	18.0
Valid ineffective	14	28.0	28.0	46.0
effective	19	38.0	38.0	84.0
very effective	8	16.0	16.0	100.0
Total	50	100.0	100.0	

Source data field questionnaire

Ban on intercity travels was also another intervention method that was put in place to attempt to combat Covid 19 and from the data collected 4.0% of the respondents said that they had no idea whether the ban had any positive or negative impact on combating Covid 19 while 14% opinionated that it was very ineffective. Furthermore, 28% of the respondents said that the strategy was ineffective against 38% who said that it was effective. Finally, 16% of the respondents said that the strategy was very effective.

Table 4.6

Ban on gatherings. (N=50)

	Frequency	Percent	Valid Percent	Cumulative Percent
No idea	4	8.0	8.0	8.0
very ineffective	4	8.0	8.0	16.0
Valid ineffective	14	28.0	28.0	44.0
effective	15	30.0	30.0	74.0
very effective	13	26.0	26.0	100.0
Total	50	100.0	100.0	

Source data field questionnaire

Wedza district-imposed bans on any form of gathering in an attempt to combat Covid 19 and 8.0% of the respondents said that they had no idea whether the ban on gatherings had any positive result as an intervention method. Again, 8.0% of the respondents were of the opinion that the intervention method was very ineffective, while 28 % opinionated that that the strategy was ineffective. 30.0% of the respondents said that the strategy was effective, while 26 % of the respondents said that it was very effective. Thus, in a nutshell, the ban gatherings were effective a strategy in combating Covid 19.

Table 4.7

Vaccination. (N=50)

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	40	80.0	80.0	80.0
Valid NO	10	20.0	20.0	100.0
Total	50	100.0	100.0	

Source Data field questionnaire

Objective 3 sought to examine Covid 19 vaccine uptake in Wedza district. From the sampled population the researcher’s findings show that 80.0% of those sampled had been fully vaccinated while 20.0% had not received the vaccine. The researcher sought reasons why they had not been vaccinated and one respondent said

Not enough information was shared with the public on the vaccine; thus, I am not sure about the side effects of the vaccine that is why I have decided not to take up the vaccine

One other respondent cited religious reasons as reasons why he had not been vaccinated yet. He had this to say

my church does not allow us to take vaccinations of any form that is why I have not been vaccinated and we use remedies that we are given by our church leaders to fight the pandemic.

Table 4.8

Age 16 and 17

TARGET	16 and 17	CUMULATIVE	COVERAGE
3806	23	2184	57%
VACCINATED	TEAMS	TEAMS CONTRIBUTION	% CONTRIBUTION
202	3	95	47%

Age(s) 18 and above

TARGET	DOSE 1		DOSE 2	
46611	23973	51%	16993	36%

Source Mt St Mary's Hospital

Table 4.8 above shows data collected at Mt St Mary's Hospital and the data is presented by age. The data shows that for ages 16 years and 17 years the target population is 3806

and just 202 have been vaccinated the exercise started. The district coverage was at 57% during the time of writing. Then, as for ages 18 and above the target was 46611 and for dose 1 23973 (51%) people had received the 1st dose, while 16993 (36%) had received the second dose. According to the information gathered from the statistician at the hospital, the reason for the huge variance between dose 1 and 2 was because some people would then receive the second dose in another district after having received the first one in Wedza district.

The issue of Covid 19 vaccine uptake also emerged from the data analysis and was communicated by a participants' response to interview. The participant who happens to be a health expert had this to say

The ordinary people were suspicious of the vaccination exercise at its initial stages in Wedza district and the exercise received mixed responses from the generality of the people that I interacted with. Reception of this vaccination exercise depended on class, variables such as age, religious affiliation and literacy or illiteracy levels. Also, there were quite a number of mythologies surrounding the vaccine exercise.

Another respondent also said that

From the perspective of class, we have seen its better response from the educated elite, teaching fraternity, health fraternity and the civil service in general. Age is also another factor that affected how the people responded to vaccination; the elderly responded faster than the younger generation. Amongst the young there were myths about virility, sexuality and reproductive health among other issues

The issues raised above affected the vaccination exercise as was noted by Dzinamarira et al (2021), in Zimbabwe, the Apostolic Faith community religious group, which makes up a third of the population, is historically known to have poor health-seeking behavior, including vaccine uptake.

In addition, the studies assumed that vaccine uptake will be voluntary. However, from what the researcher gathered through data analysis the people in Wedza district vaccination was not voluntary as the researcher noted that vaccination target for the district still stands at 51%. The researcher also noted that there is a variance between the numbers of those who have received the first and second doses. This was because those who would have received a first dose in Wedza might go and receive the second one in another district.

Objective 4 sought to examine the challenges faced by the district in implementing intervention methods to curb the spread of Covid 19. According to the data collected the researcher discovered the district had challenges in keeping people away from public places such as bars and growth points, as well as shopping centers and vending places.

One respondent said that

The government also imposed a ban on intercity travels which the Police were enforcing. This was done to minimize the spread of Covid 19. She said “we have manned a 24-hour roadblock just as the government has instructed us to monitor the movement of people in and out of the district.

Theme 4: Challenges faced by the district.

The theme of the challenges faced by the district in dealing with Covid 19 also emerged as a theme from the objective. The novel Covid 19 is a new pandemic hence dealing with it proved a challenge to the district especially considering that not much was known about the virus. In the interview at the Hospital, the respondent interviewed one respondent who had this say;

Around half of the people who died in the Hospital needed ventilators and unfortunately we never had any and up to date we still do not have ventilators and this was a challenge to us. We also did not have adequate Protective P Equipment and that made it difficult for us to attend to patients as we feared contracting the virus.

Asked further the respondent said;

Another challenge that we faced was that in local funerals that I attended physical distancing as very difficult to implement. I discovered that there was a lot of disregard for Covid19 regulations as I noted that people were hugging and shaking hands. Also, in isolated cases curfew breakers were also rampant in Wedza you could actually see people at the backdoors of beer halls, shops during the night showing the Covid19 regulations were not respected by the generality of the masses.

This resonates well with Sanford (2006) who notes that community mitigation and interventions, when enacted under the stressful conditions of a pandemic, will require significant public support and cooperation from the community itself. This is why in the

case of Wedza the police were called in to enforce the laws towards mitigation of Covid 19. A respondent from the Police said;

Constructing a strategy for effective implementation of containment options and gaining public confidence in the implementation will prove to be a far more challenging obstacle than merely identifying the components of the plan. How to effectively implement community mitigation and intervention strategies through voluntary citizen compliance is a task that is too daunting for us as the police as most people still do not understand that this being done to protect the masses from the virus

In addition, one respondent when asked about the challenges that were faced in implementing the methods that were used to curb the spread of Covid 19 commented that.

the methods employed by the government were all useful but the main problems that were faced by those trying to implement these strategies was that most people leave from hand to mouth so it was difficult to keep them at home since they would be hunting for money to buy the next meal and this made it very difficult for those that were enforcing these restrictions

Another challenge that was faced was that information discernment on the vaccine was not very thorough as there were a lot of misconceptions about the virus. One respondent said;

I think the disease only affects those who are old and only those with underlying health conditions. The respondents also went on to say that “I strongly believe that this disease originated from a lab after a failed scientific experiment

As a result, misconceptions have consequences on long- or short-term control efforts against the disease and it is one the health hazards in combating Covid 19. Thus according to the Bloomberg School of Public Health at Johns Hopkins University (2020) noted that, Open and frequent communication will become the facilitator of public education and the foundation of building trust leading to compliance with mitigation efforts. Uncertainty and confusion will likely be, at times, unavoidable consequences of a pandemic and ever present in pre-pandemic planning. Nothing compromises integrity and trust more than contradictory information. In order to limit these effects, the government will be required to provide reassurance, constant updates on relief measures being employed, and provide guidance and actions that citizens can take to protect themselves.

4.3 Chapter Summary

The chapter presented and analyzed the data collected from respondents and participants. Data was collected using questionnaires and interviews. Secondary data was gathered from the hospital statistics Pie charts and tables were used to present quantitative data while narrations were used to present qualitative data. The next chapter presents the study summary, conclusion and recommendations as well as areas for further research. Thus, some of the measures had to be voluntary

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

In the previous chapter the researcher presented the study data, analysis as well discussion. This chapter is thus going to present a summary of the study, including the major findings, conclusions and recommendations and areas for further research.

5.1 Summary

The study was carried out to examine Zimbabwe's security strategies to major pandemics such as Covid19. The study was confined to Wedza district. The study was prompted by the fact that the world was plunged into a crisis as a result of Covid 19. The researcher then sought to find out whether the strategies and intervention methods that the Country was putting in place were helping in combating Covid 19. The researcher then decided to study the effectiveness of these methods in Wedza district. The sample for the study was drawn from people in Wedza district and 50 people were sampled, these included Medical Superintendent, nurses, and members of the Zimbabwe Republic Police and residents of Wedza district. The philosophical base of the study was the pragmatism paradigm and a case survey was employed as a research design.

The findings of the study were; the intervention methods employed to reduce the spread of Covid 19 included quarantine for travelers, ban on gatherings, ban on intercity travels, sanitization, wearing of masks and lockdown. It was then noted that amongst these myriad of responses ban on gatherings was the most effective way to reduce the spread of the virus. The strategies are also in tandem with the WHO guidelines as well as the dictates of Ministry of health in Zimbabwe from the Statutory Instrument 83 of 2020. The study also noted that with regard to the issue of vaccine the district has made positive strides; however there are some people still resisting the vaccine citing religious and health reasons. Prior, the researcher had also assumed that the people of Wedza would voluntarily get vaccinated but that is not what the researcher found on the ground.

5.2 Conclusion

Objective 1: Investigate the Security Strategies and response to curb major pandemics such as Covid19 in Wedza district

The researcher found out that the district employed a myriad of strategies to curb Covid 19 and the strategies ranged from quarantine of travelers and patients who were symptomatic, lockdowns, bans on non-essential travels and gatherings. These strategies proved to be effective as the data shows that 58% of the respondents said that quarantine of travelers coming into the district and of patients who were symptomatic was effective a method to curb the spread of Covid 19.

Wedza district also made use of the members of the Zimbabwe Republic Police to assist with enforcing Covid 19 compliance, since some members of the community were failing to comply. Thus, community mitigation efforts, in order to be successful, will require extensive cooperation and communication in areas of the community not necessarily familiar to public health operations. This corroborates with (Holmberg, 2006), who notes that many communities are traditionally uncooperative with law enforcement. Communication will be required between and among government, private industry, community organizations and individuals. On regular intervals people from the district would move around sensitizing people on what should be done to remain safe and protected.

Objective 2: Assess the effectiveness of intervention methods employed by the District's Health department in combating Covid19.

The corpus of methods that were employed by Wedza district to curb Covid 19 was highly effective during the time when Covid was at its peak. There were quite a myriad of measures that were put in place by the ministry of health in conjunction with Wedza district together with its sister ministries in the government department in various parts of Wedza district. Some of the measures that were put in place include, lockdown, ban on gatherings, lockdown ban on travels, masking up, sanitizing. These methods include and these were received quite well by the ordinary people in Wedza. Considering that Covid 19 is a new novel the response was quite resounding.

Then also the use of the curfew was also assisted in reducing the spread of Covid 19. The police also played a pivotal role in enforcing some of these measures, especially

compliance within communities. This concurs with the Harvard School of Health (2006) which notes that the role of the government is that of a facilitator bringing together the key partners in the process of securing compliance with community intervention Physical distancing was also observed especially in hospitals, clinics and public places. The study also noted that these strategies also faced challenges especially at funerals it was difficult for people to observe these regulations. Over all, the measures that were employed were highly effective.

Objective 3 Challenges faced by the district in implementing intervention methods to curb the spread of Covid 19.

The researcher noted that Wedza district faced a number of challenges in trying to curb the Covid 19 virus. These challenges include lack of compliance from the masses, such as not wearing masks and breaking of curfew regulations. Hospitals as well were not fully equipped since the virus is new and it's the first time district is getting to deal with such a pandemic. Another challenge that was faced was that information discernment on the vaccine was not very thorough as there were a lot of misconceptions about the virus. Also, constructing a strategy for effective implementation of containment options and gaining public confidence in the implementation proved to be a far more challenging obstacle than merely identifying the components of the plan. Finding ways to effectively implement community mitigation and intervention strategies through voluntary citizen compliance is a task that is too daunting for us as the police as most people still do not understand that this being done to protect the masses from the virus.

Objective 4: Examine the Covid19 vaccine uptake in Wedza district.

The study found out that when it comes to the vaccination process the people were generally reluctant to get vaccinated. The study also found out that the bulk of those vaccinated were mostly those in the Civil service. It was also noted that many people who shunned vaccination cited religious reasons as the reasons why they had not gotten vaccinated. The ordinary people were suspicious of the vaccination exercise at its initial stages in Wedza district and the exercise received mixed responses from the generality of the people that I interacted with. Reception of this vaccination exercise depended on class, variables such as age, religious affiliation and literacy or illiteracy levels. Thus, slightly over 50% of the target population had received the first dose while, 36% received the second dose. By and large, the researcher noted that vaccine uptake in Wedza district was generally slow.

5.3 Recommendations

The Covid 19 pandemic is not over as it continues with its deadly march, and a specter of new waves of the disease will continue to haunt the district and the country at large until a vaccine is developed. The researcher makes the following recommendations to ensure that a pandemic of this nature and magnitude never happens again.

- ❖ True and reliable information play an important role in the fight against the Covid 19 pandemic. Thus, open and frequent communication is vital as it becomes the facilitator of public education and the foundation of building trust leading to compliance with mitigation efforts. Albeit, uncertainty and confusion will likely be, at times, unavoidable consequences of a pandemic and ever present in pre-pandemic planning. Nothing compromises integrity and trust

more than contradictory information. Therefore, in order to limit these effects, the government should be able to provide reassurance, constant updates on relief measures being employed, and provide guidance and actions that citizens can take to protect themselves.

- ❖ It is important for the leadership to ensure that the government has the most consistent, visible and credible media presence and information for public consumption to avoid the spreading of false information.
- ❖ Satisfying public needs for openness in planning, basic human needs and ensuring economic security are vital keys to compliance with government efforts to curb Covid 19
- ❖ There is need for the district's health infrastructure facelift so that should the pandemic remain in our midst the district will be able to cope without much difficulty.
- ❖ The district should designate a focal within for health security, including pandemic response and preparedness. This office would have a leading role in coordinating the multiple government departments and agencies in anticipating, preventing and responding quickly to major disease outbreaks.
- ❖ The government must set up national and multilateral public health systems and institutions that will be able to respond quickly when a novel pathogen strikes, as the cost of such complacency and negligence can be tallied in the lives lost and livelihoods upended.

5.4 Areas for further research

1. Strategy for vaccine development, production and distribution.
2. The impact of Covid 19 the education system in Wedza district.
3. Assessing the effectiveness of the mitigation strategies being used to mitigate the effects of the Covid 19 pandemic in Wedza District.

5.5 Conclusion

The above chapter has looked at the summary of the whole dissertation from the first to the last chapter. It also looked at the conclusions which were drawn by the researcher based on the research objectives as well as research findings. Further, the chapter also provided a discussion of possible solutions that can be adopted and recommendations based challenges found when the researcher got into the field for data collection. Finally, the researcher provided areas for further studies in the area of Covid 19 and major pandemics in order to look into vacuums based on the research findings.

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APPENDIX A: SPECIMEN QUESTIONNAIRE

Dear Respondent,

My name is FUNGAI.M MUCHENJE; I am Master of Science in International Relations student at Bindura University Science Education. As part of my studies, I am required to do a study on a topic of my choice and thus, I kindly request for your assistance by participating in this survey. My research topic is entitled. *Zimbabwe's Security Strategies and Intervention methods to major pandemics such as Covid19. The case of Wedza district.*

Please answer the questions below by writing or ticking in the appropriate boxes. Do not write your name or sign on the questionnaire for confidentiality purpose. The questionnaire is for academic research purposes only. Therefore, the information shall be treated with privacy and confidentiality

SECTION A: Demographic Data

1. I am (**Please Tick**) [] male [] female

2. Which of the following category do you belong to?

1. District Medical Officer []

2. Officer in Charge []

3. Clinical Officer []

4. Nurse/ Police Officer []

5. Government employee []

6. Resident of Wedza []

SECTION B: Empirical data

Research question 1: What security strategies and intervention methods does the Ministry of Health put in place to curb major pandemics such as Covid 19?

3. Which of the following security strategies and intervention methods does the ministry of health put in place to minimize the spread of the virus?

1. Quarantine of travelers	
2. Lockdown	
3. Bans on inter City travels	
4. Bans on gatherings	
5. All of the above	

Using a **LIKERT SCALE** (very effective =5, effective=4, ineffective = 3, very ineffective = 2, no idea = 1) answer the following questions

Research Question 2 How effective were the intervention methods employed by the government department of health in combatting Covid19 in Wedza district?

4. Tick in the appropriate box

	5	4	3	2	1
1. Quarantine of travellers					
2. Lockdown					
3. Ban on intercity travels					
4. Ban on gatherings					

State Any other

.....

.....

.....

For those strategies that were not effective what could have been the cause.....

.....

.....

Research Question 3: How did the people respond to the Covid 19 vaccine in Wedza district?

.....

.....

.....
.....
Were you vaccinated?

YES

NO

If NO, why?

.....
.....
.....

For the District Administrator (Wedza District), The Officer in Charge (ZRP Wedza) and The District Medical Officer (Wedza District).

What are some of the challenges that were faced in trying to implement the security strategies and intervention methods to curb the spread of the virus?

.....
.....
.....
.....

Research question 4: Challenges Faced in the implementation of intervention methods to curb the spread of the virus, especially resistance the Covid 19 vaccine

Which of the following do you think is the most effective mitigation strategy towards the spread of Covid 19? Tick the appropriate box

1. Sanitizing and wearing of masks	
2. Decongestion of workplaces	
3. Quarantine of international travelers	
4. Ban on gatherings and intercity travel	
5. Isolation of suspected cases	
6. All of the above	

APPENDIX 2

INTERVIEW GUIDE

KEY INFORMANT INTERVIEW

FOR;

THE MEDICAL DISTRICT MEDICAL OFFICER

THE DISTRICT ADMINISTRATOR

THE OFFICER IN CHARGE

Introduction

My name is FUNGAI.M MUCHENJE; I am Master of Science in International Relations student at Bindura University Science Education. As part of my studies, I am required to do a study on a topic of my choice and thus, I kindly request for your assistance by participating in this survey. My research topic is entitled. Zimbabwe's Security Strategies and Intervention methods to major pandemics such as Covid19. A case study of Wedza district.

What are some of the security strategies and intervention methods did the district put in place to curb Covid 19?

- 1 In your view were the strategies and intervention methods employed by the district's Covid task force in Wedza district effective?

- 2 How did the people respond to the Covid 19 vaccine in Wedza district?
- 3 What do you think are the challenges faced in the implementation of intervention methods to curb the spread of Covid 19 in Wedza District, especially in relation to resistance to the Covid 19 vaccine?
- 4 What strategies can be recommended in order to improve intervention methods in Wedza District?