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Summary

The Covid-19 pandemic had forced policymakers to find the appropriate precautionary responses to mitigate the threats associated with it. Unfortunately, such responses have ripple effects on other sectors of society. Such effects could be severe on people, especially the vulnerable in rural communities (Bukari et al., 2021). Therefore, this study aimed to investigate to what extent some rural communities in Ghana were coping with the Covid-19 pandemic. Accordingly, the research questions selected for the study were *1) What are the impacts of the Covid-19 pandemic on some rural communities in Ghana? 2) What are the resilience strategies adopted by some rural communities in Ghana in their crisis response against the Covid-19 pandemic?* And *3) What are the influences of crisis communication and trustworthiness during the Covid-19 pandemic in some rural communities in Ghana?*

The study focused on available related theories on crisis typologies, crisis response strategies (informal crisis management and resilience), trustworthiness, and crisis communication.

The exploratory research design and abductive research strategy were used for this study. Both literature surveys and online/telephone interviews were used to collect data about the Covid-19 pandemic coping strategies in the selected rural societies. An analysis of the literature surveys was used to generate some thematic concepts, which were later used to prepare a semi-structured interview guide to seek the views of thirty local leaders from ten selected rural communities in Ghana. The purposive and convenience sampling techniques were used to select the local leaders consisting of traditional leaders, faith-based leaders, civil society organization leaders, and assembly members. These local leaders were selected because of their vital role in managing the Covid-19 pandemic in their rural communities.

At the end of the study, it was identified that the Covid-19 pandemic had both positive and negative impacts on the selected rural communities. However, to a large extent, the negative impacts outweighed the positive impacts. Some of the positive impacts included 1) attention and awareness of good hygienic etiquette, 2) an increase in health capacity to the rural communities, and 3) increased innovative ideas and ways to adjust to the Covid-19 pandemic. The negative impacts included 1) health impacts such as people being sick and losing their lives or losing loved ones, 2) psychological impacts, 3) impact on the educational sector, 4) economic hardship, 5) losing socio-cultural values, 6) increase in social violence, increase in early girl child marriage, and child labor and 7) increase in distrust among policymakers. These negative impacts are more integrated as they have ripple effects on the day-to-day activities of the community members. This had made the less privileged and poor people in the selected rural communities much disadvantaged and much more destitute during this period of the pandemic.

The study identified that most respondents were coping with the Covid-19 pandemic in the selected rural communities. These respondents were coping with some precautionary responses to minimize the

spread of the virus, such as washing hands regularly, social distancing, wearing a nose mask, avoiding public gatherings, observing the ban on festivals, and eating healthy food. Moreover, the majority of the respondents were involved with the crisis management processes. Most of the respondents were cooperating, collaborating, improvising, compromising, being flexible, and adapting to the safety responses outlined by policymakers. Most of the respondents engaged in a shared responsibility to control the spread of the virus and reduce the negative impacts associated with the Covid-19 pandemic. To achieve these, most of the respondents were being flexible with their socio-cultural values, providing financial support to vulnerable community members, engaging in contact tracing activities, and improvising by being innovative to create their face masks and hand sanitizers. Some of the respondents also indicated that they were facing some challenges relating to 1) the increased economic hardships in their communities; 2) less attention given to their community by policymakers; 3) issues of politics and less engagement of local leaders in the Covid-19 decision-making process; and 4) the continuous spread of false information about the Covid-19 virus in their communities.

The study showed that policymakers being trustworthy was necessary for the selected communities to adhere to the precautionary measures. However, trustworthiness alone was not enough since policymakers needed to improve their communication with the selected community members. Therefore, the study identified a nexus between crisis communication and trustworthiness as crisis communication influences policymakers' trustworthiness and vice versa. Crisis communication factors such as openness, transparency, accuracy, consistency, and the timing of sharing information influence trustworthiness in policymakers during crisis management. At the same time, trust-building factors such as involving (collaborating and coordinating) community leaders and members and respecting socio-cultural norms and values of the community influence the willingness of people to listen and accept the crisis responses communicated.

Consequently, the study identified that policymakers might find it challenging to implement the safety responses identify for the crisis if other crisis actors cannot make meaning to such responses or distrust the policymakers. Therefore, I have suggested a crisis typology that is based on trustworthiness and crisis communication among crisis actors. I have argued that crisis communication and trust-building are developmental processes that could grow high or low as time goes on. The combinations of the level (rate) of developments (high or low) for both communication and trustworthiness could provide a particular type of crisis at each moment. From such perspective, I have argued that crises could be classified into four namely 1) controllable, 2) uncertain, 3) complex and 4) uncontrollable crises.

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Chapter 1: Introduction

This study is themed around crisis typologies, crisis response strategies (informal crisis management and resilience), trust, and communication focusing on how some rural communities in Ghana are coping with the Covid-19 pandemic. In this chapter, the background of the study is presented, followed by the problem statement. Then, I elaborated on the research problem and questions. The limitations of the study are also presented in this chapter. Lastly, an overview outlining the organization of the study is presented.

1.1: Background of the study

Understanding and coping with crisis response activities have continuously become a challenge for most crisis actors (Boin, t'Hart, Stern, & Sundelius, 2016). Today, countries are more interconnected than before. For instance, it is easy to travel from one country to another, making it easy for a health crisis to affect others. This interconnectedness had made it challenging for policymakers to coordinate and collaborate effectively during crises as new crises easily cross boundaries, including new actors and involving new sectors of our society (Ansell, Boin, & Keller, 2010; Blondin & Boin, 2020). There are complexities and uncertainties associated with this interconnectedness (Perrow, 1984). The involvement of different actors with different ideas, coupled with tight interconnectedness, makes it complex and ambiguous to find a solution to such crises. Therefore, such crises have no stopping rule (search for solutions never stops). In cases where solutions are obtained, the solutions are not true or false but can be judged as good or bad (Rittel & Webber, 1973).

In December 2019, the world was faced with a deadly virus caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which is commonly referred to as Covid-19. The World Health Organization (WHO) was informed of the first case of Covid-19 at the close of the year 2019. Some residents from Wuhan of Hubei province in China, who were operating dealers in the Huanan Seafood market, were the first victims of the deadly virus (WHO, 2021). In early January 2020, Covid-19 has become a transboundary crisis. Covid-19 emerged outside China to Thailand, and then it spreads across Europe, Asia, America, Africa, and across the globe (WHO, 2021).

On March 12, 2020, Ghana confirmed the first cases of Covid-19, which were two imported cases from Norway and Turkey. Thereafter, the government of Ghana started to educate and request the citizens to take precautionary measures such as regular washing of hands with soap under running water, using alcohol-based hand sanitizers, observing at least two meters of social distancing, and using face masks (Ghana Health Service, 2020). In addition to these precautionary measures, the government also undertook mass disinfection and fumigation exercises in some communities and towns.

As of April 1, 2020, Ghana has recorded 195 cases of Covid-19 with five (5) deaths (Ghana Health Service, 2020). This forced the government to take strict measures to close Ghana's borders, schools, marketplaces, hotels and locked down some cities. These strict actions aimed to control the spread of

the Covid-19 virus and to save people's life resulted in other severe socio-economic challenges in the country. For instance, Amewu, Asante, Pauw, & Thurlow (2020) posits that the lockdown affected the economic status of most people, making some poorer. Also, an observation by the UN Women group in Africa identified an alarming rise in violence against women and girls in Ghana since the Covid-19 pandemic started due to lockdowns, social isolation measures, and school closures (UN Women, 2020).

These socio-economic challenges and other factors forced the government to relax some restrictive measures such as lockdowns. As the days passed, the number of Covid-19 cases increased. As of May 30, 2021, Ghana had recorded some 93,898 cumulative confirmed cases with some 785 fatalities (Ghana Health Service, 2021). The Ghana Health Service had projected that cases would increase if the safety measures are ignored. As a result, the policymakers started a campaign to educate the citizens on understanding, making meaning and applying basic safety protocols such as self-quarantine, isolation, hand hygiene, cough etiquette, face mask usage, and a few to mention (Prah, 2020).

1.2: Problem statement

The OECD (2020) opined that coping strategies need to be different during a crisis as far as urban and rural settlements are concerned. For instance, locking down a rural community worsens the socio-economic challenges of that community. Furthermore, locking down urban communities forces several urban dwellers to move away from cities to spend the lockdown in secondary houses or with their families in rural communities. This movement increases the risk of spreading the virus to lower-density areas. It also burdens the public health services designed for rural communities (OECD, 2020). Accordingly, a one-policy fit for all approaches may not be appropriate for addressing such crises, especially when many stakeholders are involved. Trust, collaboration, coordination, and communication during crisis response are crucial (Boin, t'Hart, Stern, & Sundelius, 2016). These should not only happen at the formal level during the crisis. Consequently, a lack of collaboration, coordination, and communication from informal response groups at the community level could be a recipe for the crisis response to fail. Therefore, there is the need to involve some representatives of the affected communities since that could improve resiliency during the crisis (Brugh, Sorokin, & Scott, 2019).

The crisis response for the Covid-19 pandemic in Ghana had been centralized, structured, and planned for formal government agencies spelling out what to do, when to do what, and how to do that (Antwi-Boasiako, Abbey, Ogbey, & Ofori, 2021). This diplomatic approach to (formal) crisis management fosters vertical communication. This usually results in a delay in information to be shared among stakeholders, which affects coordination (Boin & 't Hart, 2010). For instance, according to GhanaWeb (2021), the government of Ghana promised to provide every school with Personal Protective Equipment (PPEs) before the reopening of schools on January 19, 2021. Sadly, most rural schools did not receive such PPEs as promised, and the lucky schools that received the PPEs received them very late. Therefore, most families (parents) expressed their dissatisfaction with this development and refused to send their

children to school. The GhanaWeb news agency expressed that the bureaucratic challenges made some community members, religious groups, and non-profit - Non Governmental Organizations (NGOs) step forward to provide some support such as basic PPEs to rural schools (GhanaWeb, 2021).

From the above assertions, there is a gap between the structured and centralized Covid-19 responses from policymakers in Ghana versus what is actually happening in the rural communities. In order to address this problem, there is a need for community engagement. Community engagement includes the involvement and participation of individuals, groups, and structures within a parameter of a social boundary or catchment area of a community for decision-making, planning, design, governance, and delivery of services (Barker et al., 2020). So, community inclusion during crisis response fosters communication, trust in policymakers, social mobilization, community participation, community action, and empowerment (Gilmore et al., 2020). This makes the community members active rather than passive participants during the crisis response phase (Laverack & Manoncourt, 2016). It is vital to point out that community engagement and participation alone are not enough. For communities to be resilient enough, they need the necessary knowledge, tools, skills, and technical support to implement the required sustainable and low-cost interventions (WHO, 2009).

In this light, this study aimed to explore the resilient strategies adopted in some rural communities in Ghana to cope with the Covid-19 pandemic. Therefore, the explorative design and abductive research strategy are used to interpret and understand the intersubjective social accounts of the respondents.

1.3: Research problem and question

Over the years, crisis researchers have expanded our understanding of the crisis management field with their studies. Most of such studies have identified some valuable tasks and activities for policymakers to manage a crisis effectively (Quarantelli, 1988; Boin & ‘t Hart, 2010; Boin, t’Hart, Stern, & Sundelius, 2016; ’t Hart, 1993). Therefore, it is easy to assume that there will be successful crisis management if policymakers follow such tasks and activities (Quarantelli, 1988). However, this has not been the case for the Covid-19 pandemic. Boin, Ekengren, & Rhinard (2020) has argued that some crisis factors such as slowness in the crisis development, level of attention given to the crisis, level of uncertainty, and complexity could make managing the crisis hard enough for policymakers. They refer to such crises as “creeping crises.”

The Covid-19 pandemic started slowly as an outbreak in Wuhan, China, which received less initial attention from local, regional, and international policymakers. After that, policymakers are trying to find the appropriate precautionary responses to mitigate the threats. Unfortunately, such responses had not been effective (Bukari et al., 2021). Consequently, policymakers are on the brink of losing their credibility since they are not excelling in responding to the crisis (Boin, t’Hart, Stern, & Sundelius, 2016). Policymakers have to also excel in communicating the crisis responses to the crisis actors too. However, the uncertainties about the pandemic have made it difficult for policymakers to provide

accurate and timely information to their citizens. Therefore, crisis responses are more likely to fail since there is a lack of communication and trustworthiness between policymakers and other crisis actors (Brugh, Sorokin, & Scott, 2019).

As policymakers struggle to manage the Covid-19 pandemic responses, people living in rural communities are the most vulnerable since such communities have "chronic problems such as poverty, inequality, congested roads, or budget shortages" (Boin, Ekengren, & Rhinard, 2020, p. 125). Therefore, it is reasonable to explore the impacts of the pandemic on rural societies, the crisis responses being used, and how crisis communication and policymakers' credibility influences rural members to cope with the identified crisis responses. Based on this assumption, I am motivated to address the following research problem:

To what extent are some rural communities in Ghana coping with the Covid-19 pandemic?

From this perspective, I have proposed three research questions that would allow a more in-depth understanding of the research problem.

1. *What are the impacts of the Covid-19 pandemic on some rural communities in Ghana?----**RQ1***
2. *What are the resilience strategies adopted by some rural communities in Ghana in their crisis response against the Covid-19 pandemic? --**RQ2***
3. *What are the influences of crisis communication and trustworthiness during the Covid-19 pandemic in some rural communities in Ghana? ---------------------------------------**RQ3***

Creeping crises and their responses could have ripple effects on the activities of the crisis actors and their communities. Therefore, in **RQ1**, I explored the impacts of the Covid-19 pandemic on the population in the selected rural communities in Ghana. **RQ2** allowed me to understand the strategies that some rural community members adopt to reduce and cope with the impacts of the Covid-19 pandemic. In **RQ3**, the motive is to understand the role of crisis communication and trustworthiness before and during the Covid-19 pandemic. The influences of these two components (communication and trustworthiness) on resilient strategies adopted in reducing the impacts of the pandemic by local policymakers were explored. Furthermore, **RQ3** explored the nexus between crisis communication and trustworthiness. The findings from the explorations could provide a new dimension of thinking towards crisis typology based on how crisis actors communicate and build trust.

1.4: Limitations

The theoretical scope for this thesis focused on the concept of crisis, crisis typologies, crisis phases, crisis management/resilience strategies, crisis communication, and trust. There are many concepts about crises; however, I decided to focus on crises' subjective and objective perspectives. I also decided to focus the presentation of the crisis phases as opined by Kruke (2012) since his crisis phases concept looks simpler and could be associated with Westrum's (2006) different resilience approaches. This study was limited to the crisis management strategies such as preparedness, prevention, adaptation, flexibility,

improvisation, coordination, communication, and trustworthiness (credibility). This study focused on the crisis management strategies appropriate for the pre-crisis and acute crisis phases. Less attention was given to the post-crisis phase since the Covid-19 crisis had not ended during this study.

The contextual scope of this study was limited to ten selected rural communities in Ghana. Thirty local leaders engaged in the Covid-19 pandemic management were selected to express their views on some thematic topics like the impacts of the pandemic, crisis responses adopted, crisis communication, and trustworthiness for policymakers. The restrictive measures put in place during the pandemic limited the choice of method to collect data for the study. To overcome this challenge, I had to depend on the internet for secondary and primary data. Therefore, online literature surveys (secondary data) and online/telephone interviews (primary data) were used to collect data to address the research questions. Literature surveys were limited to online articles, journals, and reports. The study does not go in-depth in any of the specific views and ideas expressed by the respondents during the online/telephone interviews. Although the research problem could be applied to many respondents in Ghana, I decided to focus on only the ten selected communities and thirty respondents due to factors such as resource constraints and the Covid-19 travel restrictions. I decided to select Ghana for the study since I am a Ghanaian who had direct experience living in rural Ghana. This makes it easy for me to understand some of the cultural heritages in most rural communities. Moreover, I have most of my close relatives, family members, and friends living in different rural communities across Ghana. These informants supported me in reaching the respondents.

1.5: Organization of work

The study was organized as follows. In Chapter 2, attention is given to some health crises and the overview of Ghana. Moreover, the thin line between an outbreak, epidemic, and pandemic is explained. Some health crises over the last century are also discussed. After that, a short description of Ghana, especially the healthcare system in rural Ghana, is presented.

Chapter 3 explained the related theoretical framework used for the study. The subjective and objective perspective of the crisis concept is discussed. Some crisis typologies and crisis phases are presented. Some crisis management concepts such as stakeholder engagement, flexibility, improvisation, and coordination are also discussed. After that, the concept of trustworthiness and crisis communication are elaborated. Later, community resilience and some factors that influence resilience during crisis management are also presented.

In Chapter 4, an overview of the methodological choices made for the study is presented. An account of the research design, research strategy, background of the researcher, as well as some heuristics and biases are described. Furthermore, I presented the research processes, the data collection instruments, and methods used to analyze the data. Some reflections regarding reliability and validity, the ethical considerations, and strengths and weaknesses for the approaches used for the study are discussed.

In Chapter 5, the literature survey and interview findings are presented accordingly.

In chapter 6, the empirical findings of the data collected are discussed in line with the related theoretical frameworks. I decided to present chapter 6 in four main parts. The first three parts addressed each of the three research questions set for the study. Furthermore, in the last part, I presented a proposed crisis typology based on the level of communication and trust among the crisis actors.

Finally, the conclusions, recommendations, and need for further research are presented in chapter 7.

Chapter 2: Health Crises and Overview of Ghana

In this part of the chapter, attention is given to some health crises and an overview of Ghana. In section 2.1, I explained the thin line between an outbreak, epidemic, and pandemic. Some health crises over the last century are also discussed. Section 2.2 follows a short presentation of Ghana, especially the healthcare system in rural Ghana.

2.1: Health crises: outbreaks, epidemics, and pandemics

The mammoth negative impacts of health crises require that stakeholders act swiftly to prepare, prevent, adjust, cope, and recover from potential health crises. In the Centers for Disease Control and Prevention (CDC) view, public health institutions and other key stakeholders need to prepare communities to respond to and recover from health threats and emergencies (CDC, 2019)**.** When a community is not able to manage unexpected health threats, it could become an outbreak. According to the World Health Organization (WHO), an outbreak is defined as *"the occurrence of cases of a disease in excess of what would normally be expected in a defined community, geographical area or season."* Accordingly, an outbreak is when an illness happens in unexpectedly high numbers. Usually, this would be two or more cases of a specific disease or illness. However, in some extreme situations, a single case could represent an outbreak. An outbreak could last days or years and may stay in one area or extend more widely (Robinson, 2020). When an infectious disease spreads quickly to more people than experts would expect, then it becomes an epidemic. The thin line between an epidemic and an outbreak is that an outbreak is often used for a more limited geographic area (CDC, 2012). A pandemic is declared when an epidemic has spread over several countries or continents, threatening many people's health. Therefore, a pandemic could be defined as "*an epidemic occurring worldwide, or over a very wide area, crossing international boundaries, and usually affecting a large number of people"* (Last, 2001, p. 131). The table below shows some of the health crises that the world had experienced over the last century.

Health crises	Year
Covid-19	2019
Zika	2016
Ebola	2014
Cholera	2010
H1N1 flu pandemic	2009
Severe Acute Respiratory Syndrome (SARS)	2003
HIV - AIDS	1984
Polio	1952
Great flu pandemic / Spanish flu	1918
Smallpox	1901

Table 1: Health Crises

The smallpox epidemic in Boston infected more than 1,500 people in 1901, which resulted in over 270 reported deaths. The epidemic lasted for almost two years (Archivist, 2001). Another health crisis that

occurred in the early 1900s was the Spanish flu. The great flu pandemic (Spanish flu) of 1918 and 1919 is estimated to have killed between 30 million and 50 million worldwide (Ryan, 2013).

In the early part of the 20th century, polio became one of the most dreadful diseases. Many victims of polio were able to recover. However, some suffered temporary or permanent paralysis and even death. Many polio survivors were disabled for life. Today, many countries are declared as "polio-free countries" due to the availability of vaccines (Boseley, 2002).

In 1984, the world was hit with another health crisis called Acquired Immunodeficiency Syndrome (AIDS). Scientists identified the human immunodeficiency virus, or HIV, as the cause of AIDS. About 37.9 million people were living with HIV worldwide in 2018, and 24.5 million of them were receiving medicines to treat HIV, called antiretroviral therapy (ART). Sub-Saharan Africa is most affected by HIV and AIDS worldwide and accounts for about 61% of all new HIV infections (CDC, 2021). In Ghana, the estimated number of people living with HIV is around 342,307 (Ghana AIDS Commission, 2019).

Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a coronavirus called SARS-associated coronavirus (SARS-CoV). SARS was first reported in Asia in February 2003. According to the World Health Organization (WHO), a total of 8,098 people worldwide became sick with SARS during the 2003 outbreak. Of these, 774 died (WHO, 2004).

In the spring of 2009, another "influenza A (H1N1) virus" emerged. This new H1N1 virus contained a unique combination of influenza genes not previously identified in animals or people. This virus was designated as the "influenza A (H1N1)pdm09 virus". The Centers for Disease Control and Prevention (CDC) estimated that over 151,700 people worldwide died from (H1N1)pdm09 virus infection during the first year the virus circulated (CDC, 2019).

In 2010, Haiti experienced a deadly cholera outbreak after the catastrophic earthquake that killed over 200,000 people and displaced over 1 million. This cholera outbreak was the worst in recent history, with over 820,000 cases and nearly 10,000 deaths (CDC, 2020).

In 2014, the West African sub-region suffered the largest health crisis in its history, the Ebola epidemic. The Ebola Virus Disease (EVD) started from a small village in Guinea and spread across many West African countries. The virus causes severe bleeding, organ failure and which could lead to death. Humans may spread the virus to other humans through contact with bodily fluids such as blood. The Ebola initial symptoms included fever, headache, muscle pain, and chills. Later, a person may experience internal bleeding resulting in vomiting or coughing blood. By 2019, many West African countries were declared Ebola-free countries by the WHO. An estimated 28,616 cases of EVD and

11,310 deaths were reported in Guinea, Liberia, and Sierra Leone (CDC, 2019). As at the time of this study, there were no confirmed Ebola cases in Ghana.

The Zika virus disease was caused by a virus transmitted primarily by Aedes mosquitoes, which bite during the day. The symptoms included mild fever, rash, conjunctivitis, muscle and joint pain, malaise, or headache. Most people with Zika virus infection do not develop symptoms. Zika virus infection during pregnancy could cause infants to be born with microcephaly and other congenital malformations, known as congenital Zika syndrome. Infection with the Zika virus is also associated with other pregnancy complications, including preterm birth and miscarriage (WHO, 2017).

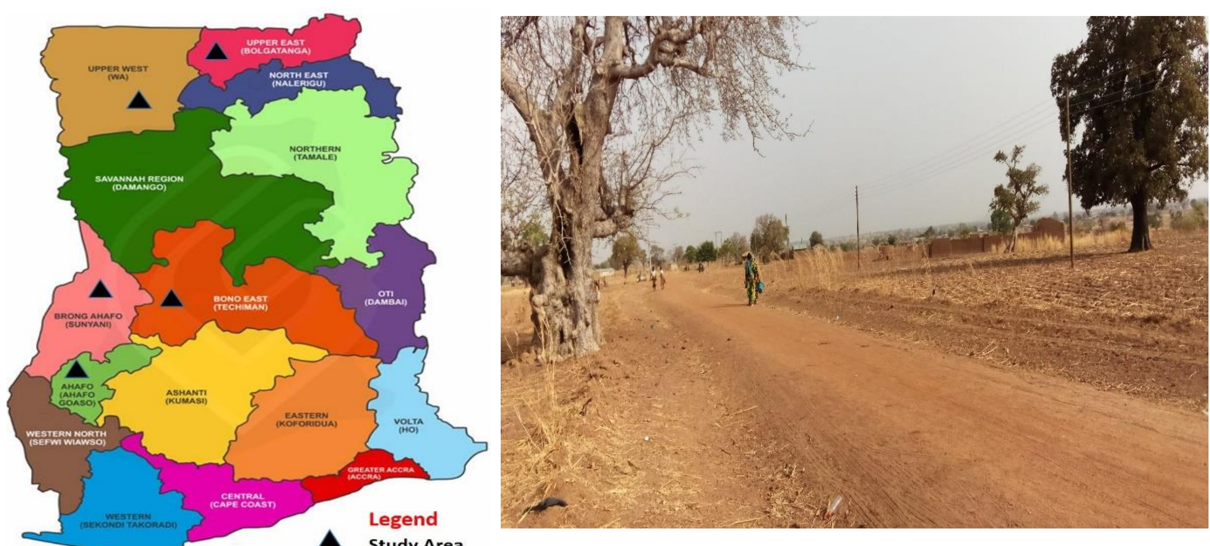
Since 2019, the world is faced with another health crisis, Covid-19. It is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The virus was first identified in December 2019 in Wuhan, China. Covid-19 transmits when people breathe in air contaminated by droplets and small airborne particles. The risk of breathing these in is highest when people are in proximity, but they could be inhaled over longer distances, particularly indoors. As of June 14, 2021, more than 170 million cases have been confirmed globally, with more than 3.55 million confirmed fatalities, making it one of the deadliest pandemics in history (WHO, 2021).

I have discussed in detail the Covid-19 pandemic spread, symptoms, and responses in Chapter 5 (Empirical Findings) since it is the pivotal case for this study.

2.2: Overview of Ghana

Ghana has an estimated population of 29.6 million (World Bank, 2019), located on the Atlantic Ocean and borders Togo, Cote d'Ivoire, and Burkina Faso. The capital city is Accra. Ghana is divided into 16 regions (**Figure 1**). These regions are Ahafo, Ashanti, Bono, Bono East, Central, Eastern, Greater Accra, North East, Northern, Oti, Savannah, Upper East, Upper West, Volta, Western, and Western North. These regions are further subdivided into 260 districts (Britannica, 2021). Ghana is also divided into localities. There are two main types of localities, namely rural and urban localities. The classification of localities into "urban" and "rural" is based on population size. According to the Ghana Statistical Service (GSS), localities with 5,000 or more people are classified as urban, while localities with less than 5,000 people are classified as rural (Ghana Statistical Service, 2012). Some 43% of the population lives in rural communities, relying on farming for survival (World Bank, 2021). Usually, some of these people move to big cities and towns to find work.

Figure 1: Map of Ghana



Picture credit: Georginatta Ayeebo

Picture credit: Permanent Mission of Ghana to the United Nations

Figure 2: Rural Community in Ghana

2.3: The healthcare system in rural communities in Ghana

Life in rural communities in Ghana is quite primitive (**Figure 2**) as there is a scarcity of running water and electricity. Rural communities in Ghana have poor healthcare systems(Peprah et al., 2020). Over the last decade, the expenditure in Ghana towards rural healthcare resources had increased, but much still needs to be done. Public health is an ongoing process, and continuous improvement is required, especially in rural communities. Some factors such as poor health infrastructure, inadequate education, hygiene, sanitation, extreme poverty, and hunger had contributed to the numerous healthcare problems in rural Ghana. For instance, Peprah, Abalo, Agyemang-Duah, et al. (2020) opined that some factors such as inadequate professional staff, inadequate basic equipment, infrastructural deficit, distance, transportation, and lack of access to health insurance had acted severely as barriers to formal healthcare use in most rural parts of Ghana.

Over the last decade, several unaddressed health problems pose serious risks to the Ghanaian population. These include malaria, HIV, tetanus, chickenpox, schistosomiasis, measles, anthrax, cholera, typhoid, tuberculosis, infectious hepatitis, yellow fever, dysentery, venereal diseases, and poliomyelitis (James Lind Institute, 2018). There is a vast difference between hospitals and emergency services in Ghana as compared to the Western standards. For instance, the availability and access to healthcare institutions and professionals are limited. This has resulted in high healthcare costs, making it challenging to prevent and treat diseases.

To manage some of these challenges, the government of Ghana has increased expenditure for the availability of better healthcare resources and infrastructure. A National Health Insurance Scheme (NHIS) was introduced (Severe Malaria Observatory, 2020). The services of the NHIS cover treatments

for communicable and non-communicable diseases like malaria, diabetes, respiratory diseases, hypertension, and other widespread ailments. This scheme is available to low-income employees with flexible premium rates (James Lind Institute, 2018). Some key strategic objectives of the government through these policies over the years have focused on the need to increase access to quality health services; improve governance and strengthen efficiency and effectiveness in health service delivery; bridge equity gaps in access to health care services; ensure sustainable financing arrangements that protect the poor; and, foster collaborations to improve health with the ultimate goal of re-allocating health resources, especially, to the needy and deprived communities (Hushie, 2016). There is a need for collaboration and partnership between the government, local communities, NGOs, Civil Society Organisations (CSOs), Faith-Based Organisations (FBOs), and international health and humanitarian organizations to achieve these objectives. For example, the support of World Health Organization (WHO) and other international humanitarian organizations (such as the International Committee of the Red Cross (ICRC), United Nations Children's Fund (UNICEF), International Federation of Red Cross and Red Crescent Societies (IFRC), United Nations Population Fund (UNFPA) and many others) have been very helpful in providing good healthcare to many rural communities in Ghana (Hushie, 2016).

In Chapter 5, I have presented further details, such as the safety responses adopted in Ghana in fighting the Covid-19 pandemic and the challenges associated with such measures on some selected rural communities.

Chapter 3: Theoretical Framework

This chapter explained the available related theories on crisis concepts, crisis typologies, crisis phases, crisis management, resilience, crisis communication, and trustworthiness. In part 3.1, the intersubjective and objective perspectives of the crisis concepts are elaborated. Crises could be classified differently; therefore, a brief description of some crisis typologies is explained in part 3.2. Kruke (2012) argued that there are three main phases of a crisis. These crisis phases are presented in part 3.3. Also, part 3.4 presents some strategies used in managing crises at the different phases. Some strategies such as flexibility, improvisation, and coordination are elaborated too. Furthermore, the need for trustworthiness and crisis communication during crisis management has been presented in parts 3.5 and 3.6, respectively. In part 3.7, building community resilience and some factors that influence resilience during crises are also presented.

3.1: The crisis concept

A crisis could occur in different shapes and forms resulting from conflicts, man-made accidents that affect our environments and health, and natural disasters that destroy the peace and order of our societies. A crisis is usually defined in two main perspectives, namely intersubjective perspective, and objective perspective. These perspectives are discussed below.

3.1.1: Intersubjective perspective

According to Boin, t'Hart, Stern, & Sundelius (2005), crisis refers to an undesirable and unexpected situation that befall a person, group, organization, culture, society, or world. Therefore, a crisis introduces a certain level of disorder in the normal development of a society. In this light, Rosenthal (1978) opined that crises are transitional phases of which the accepted normal means of doing things no longer work. Such disorder of normalcy and transition is considered a threat that needs to be addressed. The process for addressing such a disorder could be intersubjective. In this way, a crisis could be defined *as a construed serious threat to the basic structures or the fundamental values and norms of a system, which under time pressure and highly uncertain circumstances necessitates making vital decisions* (Rosenthal, Charles, & 't Hart, 1989, p. 10). This definition helps us deduced three critical components of crisis: threat, urgency (time pressure), and uncertainty.

Firstly, a threat as a component of crisis means that crisis occurs when some core values or life-sustaining systems of a society or community come under attack. Some of these values include safety and security, welfare and health, integrity, and fairness. Boin, t'Hart, Stern, & Sundelius (2005) opined that the more lives are governed by the value(s) under threat, the deeper the crisis goes. This may explain why Covid-19 as a health pandemic never fails to induce a deep sense of crisis since the threat of death clearly violates the embedded values of safety, welfare, and health for oneself and one's loved ones.

Secondly, a sense of urgency as a crisis component means that time compression is a defining element of a crisis. Accordingly, a crisis is perceived not only because there is a threat against our values but also since such a threat must be dealt with as soon as possible. Boin, t'Hart, Stern, & Sundelius (2005) argued that the time compression element of the crisis is relevant for understanding operational crisis managers since they have to make quick decisions on matters of life and death, sometimes within a few hours, minutes, or seconds.

The final component of crisis has to do with the sense of uncertainty. During a crisis, there is a perception of threat which is accompanied by some degree of uncertainty. There is uncertainty pertaining to the nature and the potential consequences of the threat. According to Lipshitz and Strauss (1997), such uncertainties are because of inadequate understanding of the crisis, incomplete information about the crisis, and undifferentiated alternatives for the responses for the crisis. Boin, t'Hart, Stern, & Sundelius (2005) opined that uncertainty might occur during the crisis process, such as people's initial and emergent responses to the crisis. Christensen, Lægreid, & Rykkja (2016) have also argued that there could be some level of uncertainty and complexity with the course of action chosen to deal with a crisis and the consequences associated with such a choice.

3.1.2: Objective perspective

Another way to define crisis is by setting aside the perception (intersubjectivity) of the society or group and looking at the impact of the threat as it develops. In this view, a crisis could be defined as *"an empirical phenomenon – a real threat – that has the potential to cause serious damage to critical values or systems"* (Boin, Ekengren, & Rhinard, 2020, p. 6). Some crisis examples include hurricane, a flood, a cyber-attack, or a wildfire. These are distinct phenomena that are measurable and their effects observable no matter how one perceives them.

In this study, I will make use of both the intersubjective and objective viewpoints of crisis. The intersubjective perspective elaborates on the importance of attention. Hence, if stakeholders such as policymakers, the media, and the public do not collectively share the sense of crisis, it becomes hard to speak of the crisis (Boin, Ekengren, & Rhinard, 2020). On the other hand, the objective perspective of crisis emphasizes the importance of the accumulation of the threat. Therefore, a crisis is well understood as a developmental process with root causes, an incubation phase (pre-crisis), an acute phase, and a post-crisis phase (Boin, Ekengren, & Rhinard, 2020; Kruke, 2012). The Covid-19 pandemic over the months had received the attention of all stakeholders (policymakers, media, and the public) no matter their previous perceptions about the pandemic. At the same time, the threat of death and the effects of Covid-19 on societies and the world at large are consequences we can all see and associate.

3.2: Crisis typology

Most crisis researchers have distinguished among various types of crises. The common of these typologies are based on how crises are caused. A renowned typology of this category is the study by t'Hart and Boin (2001), which depicted a crisis typology based on the speed of crisis development (onset) and termination (closure). Other crisis typologies have focused on the degree of uncertainty, the degree of transboundary factors, and the degree to which the crisis is a wicked problem or not.

3.2.1: Typology based on the speed of development and termination

In the view of t'Hart & Boin (2001), crises could be classified based on their speed of development and termination. Accordingly, four different types of crisis could be identified: fast-burning, cathartic, long-shadow, and slow-burning (creeping) crises.

		Closure	
		FAST	SLOW
Onset	FAST	Fast-burning	Long-shadow
	SLOW	Cathartic	Slow-burning (or creeping crisis)

Figure 3: Crisis Typology

Source: (Boin, Ekengren, & Rhinard, 2020) based on ('t Hart & Boin, 2001, p. 32)

't Hart & Boin (2001) argued that a fast-burning crisis ends as it begins. The onset and closure of such crises are short, sharp, and decisive. For instance, cases of plane hijack and hostage situations are classified as fast-burning crises. Such crisis situations are met with swift and quick interventions or negotiations. If such interventions succeed, everybody basks in glory, while if such interventions do not succeed, it may be construed as a "heroic failure" ('t Hart & Boin, 2001).

On the other hand, the cathartic crisis is characterized by a relatively quick termination (closure) following a long, gradual, and slow onset ('t Hart & Boin, 2001). Examples of such crises include political conflicts between authorities and extremist groups or international confrontations between major and minor powers. Usually, the crisis termination happens when the major power becomes fed-up with the threats (from minor power) and intervenes by imposing a decisive resolution to the conflict. Thus, such crises tend to be led by a slow build-up of tension and vulnerability until it reaches a critical point at which some parties decide to force a breakthrough.

Long shadow crises occur suddenly and raise some critical issues of a much wider scope and significance, triggering a political or institutional crisis almost inadvertently ('t Hart & Boin, 2001). In

the view of t'Hart and Boin (2001), incomprehensible, mismanaged, and agenda-setting incidents are some prototypes of long shadow crisis. The Three Mile Island accident in 1979 is a good example considering the politicization of nuclear energy despite the accident claiming no lives and causing no real damage.

According to 't Hart & Boin (2001), the last type of crisis is a slow-burning crisis. In their view, this type of crisis creeps up rather than bursts out and fades away rather than being resolved. A slow-burning crisis is also known as a creeping crisis. A creeping crisis is a *"threat to widely shared societal values or life-sustaining systems that evolves over time and space, is foreshadowed by precursor events, subject to varying degrees of political and/or societal attention, and impartially or insufficiently addressed by authorities"* (Boin, Ekengren, & Rhinard, 2020, p. 122). Creeping crises have a gradual emergence and development of a threat to society's core values. It requires shared attention to initiate and sustain remedial actions. The nature of creeping crises seems to provide policymakers the time to act. However, a generous time slot may not make a difference if crisis managers do not realize that time is of the essence. Creeping crises usually have a high level of uncertainty regarding the actual status of the threat and variations in the level of concern that it evokes within different stakeholders (Boin, Ekengren, & Rhinard, 2020).

3.2.2: Typology based on the degree of uncertainty and transboundary factors

Another typology of crisis is based on the degree of uncertainty (Christensen, Lægreid, & Rykkja, 2016). This way of classifying crises shows that the most demanding crises are those that transcend administrative levels, sectors, and ministerial areas and at the same time are unique, ambiguous, complex, and involve a lot of uncertainty. It is in the same way of thinking that Gundel (2005) opined that some crises are very hard or easy to predict, as well as some crises are easy or hard to influence. A crisis is predictable "*if place, time or in particular the manner of its occurrence are knowable to at least a third competent party and the probability of occurrence is not to be neglected"* (Gundel, 2005, p. 4). And a crisis is influenceable "*if responses to stem the tide or to reduce damages by antagonizing the causes of a crisis are known and possible to execute*" (Gundel, 2005, p. 4). Therefore, this typology acknowledges that some crises are harder to predict and influence than others and that some are even impossible to anticipate ex-ante (Christensen, Lægreid, & Rykkja, 2016).

Moreover, crisis typology based on the degree of transboundary factors indicates the rate at which the crisis could escalate along geographical, political, and functional lines and produce significant governance challenges (Christensen, Lægreid, & Rykkja, 2016). Accordingly, a transboundary crisis is a crisis that crosses geographical and/or policy boundaries (Ansell, Boin, & Keller, 2010).

3.2.3: Typology based on the degree of wicked nature

Crisis typology could also be on whether that crisis is a wicked problem or not. A wicked problem is a social or cultural problem that is challenging or impossible to find a solution due to the complexity and uncertain nature of such problems. According to Camillus (2008), wicked problems are characterized by the involvement of many stakeholders, having different ideas about what the problem is and its causes. These stakeholders have different values and priorities that matter to them, making it complex and ambiguous to find a solution. In the view of Rittel and Webber (1973), there is no definitive formulation of a wicked problem as these problems have no stopping rule (search for solutions never stops). In cases where solutions are obtained, the solutions to wicked problems are not true or false but could be good or bad (Rittel & Webber, 1973). Thus, we are usually judgemental about the solutions since it is difficult to evaluate such solutions objectively. Any solution stakeholders find has unexpected consequences over time, making it difficult to measure their effectiveness. These consequences cannot be undone because there is no opportunity to learn by trial and error. Therefore, every attempt counts significantly. Wicked problems are unique. They do not have a precedent (Camillus, 2008).

The Covid-19 pandemic could be considered a creeping transboundary crisis coupled with a high degree of uncertainty from all these typologies. The transboundary nature, ambiguity, complexity, and uncertainty associated with the Covid-19 pandemic could imply that sequential attention, local rationality, biased search, and constraints on information are likely to influence the crisis responses (Christensen, Lægreid, & Rykkja, 2016). The Covid-19 pandemic received little attention until it escalated to an international outbreak over time (WHO, 2021). Even at the time, it has received international attention; most key actors (political leaders) believed it was not dangerous and would disappear (Wolfe & Dale, 2020). The consequences of the Covid-19 pandemic influenced other sectors of society, such as the economic sector. As such, the Covid-19 pandemic could be considered a wicked health problem.

3.3: Crisis phases

According to Kruke (2012), there are three main phases for crisis development. These phases are the pre-crisis phase, acute crisis phase, and post-crisis phase (**Figure 4**). These phases are interconnected (Kruke, 2012).

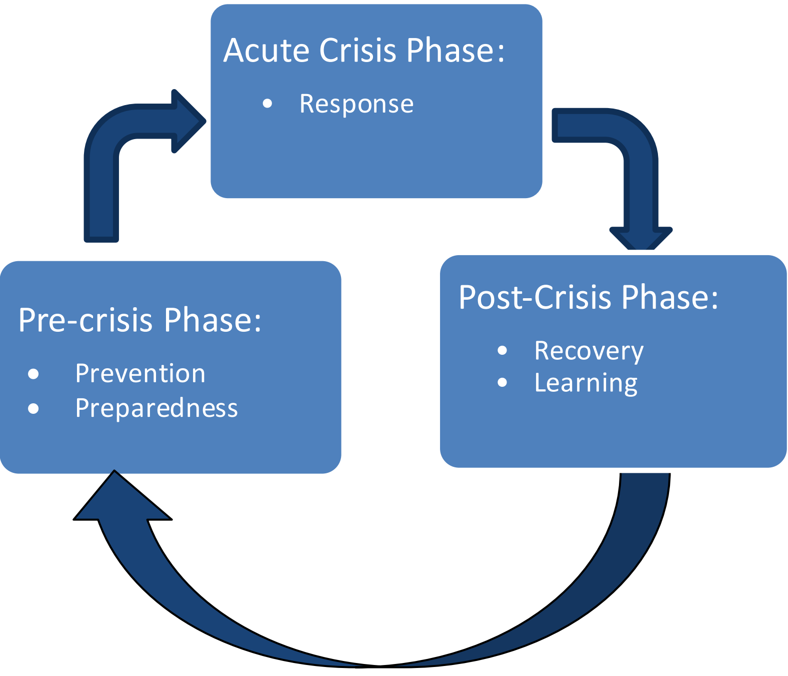


Figure 4: The three-crisis phase circle (Kruke 2012)

3.3.1: Pre-crisis phase

First, the pre-crisis phase includes some main activities such as prevention and preparedness. Prevention is about constructing robust communities, organizations, infrastructure, technological systems, industries, risk reduction, et cetera (Kruke, 2015). In the view of Perry & Lindell (2003), risk reductions are actions necessary to decrease the detected or projected levels of danger and identify the resources required for implementing those actions. Therefore, risk reduction in the broad sense includes developing and implementing activities to mitigate, prepared, respond, and recover (Mileti, 1999).

3.3.1.1: Preparing for residual risks and surprises

With all the risk reduction approaches, Aven and Renn (2010) have argued that there are some risks that we can not prevent from occurring since such risks are unavoidable. Thus, prevention could be easier said than done. In the view of Aven and Renn, there could be residual risks that persist after our preventive measures. Because of that, there is the need to prepare for such residual risks and other unexpected events or surprises (Aven & Renn, 2010). Taleb (2007) coined the term "black swans" to describe such unexpected events. Therefore, Kruke (2015) has argued that preparedness should be about handling events that cannot be prevented. Accordingly, crisis preparedness is about readiness to respond to a crisis event and typically involves technical, operational, and organizational measures, such as planning, training, and resource allocation (Kruke, 2015). Some scholars, such as Mileti (1999), have linked crisis preparedness to the ability to anticipate problems. Anticipation may be defined as predicting and preventing potential dangers before damage is done (Wildavsky, 1991). Therefore, through the anticipation of future problems, innovative means could be developed to address the

problems effectively. Hence, through anticipation, a clear connection is created between preventive and preparedness activities in the pre-crisis phase and the ability to respond to the crisis in the acute phase.

3.3.2: Acute crisis phase

The next phase, the acute phase, consists of implementing the plan, testing the knowledge and skills obtained during training sessions, and efficiently allocating resources to handle the crisis (Kruke, 2015). Accordingly, the planning and training at the pre-crisis phase must be put to use at the acute phase. However, there are cases where there is the need to deviate from the original plan as predicted in the pre-crisis phase since such plans would not work anymore. Kruke (2015) identified that there are moments such plans and training need to be changed because the crisis events may unexpectedly surprise us. Therefore, the crisis scenario may not fit entirely with the understanding obtained at the pre-crisis phase (Kruke, 2015). Usually, the main activities in the acute phase include searching and rescuing people by saving a life, protecting the environment from harm, protecting crucial assets, and finally, maintaining the reputation of organizations involved (Kruke, 2015).

3.3.3: Post-crisis phase

The post-crisis phase is the final phase. This phase focuses on recovering and learning activities. Returning into at least a stable condition is critical for crisis victims and responders (Kruke, 2015). Also, recovery activities include reconstruction and reorganization (Kruke, 2015). Learning activities include investigation and exploration of all learning opportunities from the relevance of the pre-crisis planning and training, the acute handling of the crisis, the reliability of response resources and equipment, and the appropriateness of the response structures (Kruke, 2015). Accordingly, the focus for such recovering and learning activities is to reach a new pre-crisis phase in a more robust condition than the previous pre-crisis phase, leading to the acute crisis. This illustrates that the circle in **Figure 4** is not about returning to the status quo after the crisis but returning to a more robust pre-crisis phase. This means the need for learning is essential (Kruke, 2015) in managing the next crisis.

So far, I have defined crises, discussed different typologies, and specified certain activities in the different crisis phases. With all these, how could one manage crises? The next part of this chapter presents some strategies appropriate to manage crises.

3.4: Concept of crisis management

In times of crisis, Boin, t Hart, Stern, & Sundelius (2005) opined that citizens look at their leaders to answer why such a crisis has occurred. These leaders could be national or local leaders such as presidents and mayors, local politicians, elected administrators, public managers, and top civil servants. Thus, citizens expect these policymakers to avert the threat or minimize the damage of the crisis at hand. It becomes the duty of policymakers to lead the citizens out of the crisis by explaining what went wrong and convincing citizens that such a situation may not happen again (Boin, t Hart, Stern, &

Sundelius, 2005). From this point of view, Christensen, Lægreid, & Rykkja (2016) argued that crisis management is the process by which an organization deals with a crisis before, during, and after it has occurred. These processes involve identifying, assessing, understanding, and coping with a crisis. Therefore, crisis management is required at all the crisis phases (pre-crisis, acute crisis, and post-crisis phases). In Kruke (2012) view, crisis management is critical decision-making under a high degree of uncertainty. By this, Kruke meant that crises are unique and that the next crisis has never happened before. As such, there is the need to prepare ahead (Kruke, 2015). Weick and Sutcliffe (2001) shared the same view as Kruke (2012, 2015) when they opined that there is the need to prepare for the unexpected. This need for anticipation links the pre-crisis phase (preparedness activities) and the crisis responses in the acute crisis phase (Kruke, 2015).

Kruke (2015) argued that crisis management at the acute phase is about testing the quality and relevance of the plans and anticipated responses that were identified during the pre-crisis phase. Another critical component of crisis management is cognition. Comfort (2007) argued that cognition is *"the capacity to recognize the degree of emerging risk to which a community is exposed and to act on that information"* (p. 189). Accordingly, such a view relates to how crisis management becomes crucial during the acute crisis phases. With this said, it is crucial to state that due to the uncertainty and uniqueness of the crisis, the preparedness activities in the pre-crisis phase usually are not enough to mitigate the crisis. Therefore, there is a need to adapt to new changes. Such adjustment calls for flexibility and improvisation.

3.4.1: Flexibility and improvisation in crisis management:

Kruke and Olsen (2005) have argued that flexibility and improvisation are key measures useful to meet the needs in a dynamic crisis environment. Flexibility and improvisation could lead to deviations from the prescribed rules and procedures. Such deviations may be essential for safe work practices, especially if the crisis is coupled with high uncertainty and uniqueness, where the standard of procedures is not useful (Klein, 2009). Consequently, people may not do what regulators expect them to do because they have discovered quicker, easier, and probably even more effective ways of adjusting to the crisis (Dekker & Suparamaniam, 2005). In the view of Klien (2008), the deviation usually occurs since people find the formal standards, training tools, and methods more cumbersome and irrelevant to work with. Thus, people depend on their experiences and intuitions when they find formal rules and irrelevant.

3.4.2: Concept of crisis coordination

Successful crisis response is characterized by rapid support, participation, and cooperation from stakeholders such as the public, private organizations, interest groups, international partners, and the media (Ansell, Boin, & Keller, 2010). Malone and Crowston (1994) defined coordination as the *"managing dependencies between activities"* (p. 90). Accordingly, there is no need for coordination if

there is no interdependency between activities undertaken by crisis stakeholders. Therefore, since it will be the first time some of these stakeholders would be working together, some coordinative effort is needed for each stakeholder to adjust. Managing the interdependent activities becomes difficult to accomplish, given the uncertainty, urgency, and stress associated with the crisis. Thus, coordination is a significant challenge and is identified as a critical area of failure in a crisis (Ansell, Boin, & Keller, 2010). In the same light of thinking, Koop and Lodge (2014) argued that coordination is *"the adjustment of actions and decisions among interdependent actors to achieve a specific goal"* (Koop & Lodge, 2014, p. 1313). Three key features are presented in this definition.

First, coordination is seen as a process of adjustment of actions and decisions. Koop and Lodge (2014) argued that processes might result in adjustments of actions and decisions being coordinated, but this does not need to be the case since the outcome of a process might differ from actions and decisions being coordinated. The latter may also result from other processes than what is coordinated (Koop & Lodge, 2014). Second, coordination is regarded as a process in which at least two interdependent actors are involved. These actors need to count on each other mutually. Such mutual dependence influences processes, actions, and outcomes. This is the more reason adjustments must be made. Therefore, adjustments suggest that actors respond to conditions of interdependence, whether involuntary or in more directed ways (Koop & Lodge, 2014). Third, coordination is seen as a process established to achieve some specified goals. With such a viewpoint, the focus is to ensure actors respect and not impede, frustrate or negate each other's activities. The activities leading to the specified goal may include codified standards, objectives, and shared norms (Metcalfe, 1994).

There are different ways that coordination can occur. Some of the means of coordination during a crisis are discussed below.

3.4.2.1: Forms of coordination

For coordination to be effective, one must know whom to coordinate with and the power balance between the actors involved (Boin & 't Hart, 2012). There could be vertical and horizontal coordination. Vertical coordination is about the relations between actors that stand in some form of hierarchical relationship to one another. This could be agency heads and executives of regional offices, central agencies and line departments, or between national and subnational levels of government (Boin & 't Hart, 2012). On the other hand, horizontal coordination is about the division of labor between organizations that do not stand in any hierarchical relationship with one another.

Moreover, Boin and 't Hart (2012) argued that crisis coordination is a technical and intensely political activity that involves structure and culture. Managing crises includes high-visibility, high-stakes, high-risk activity for leaders since a crisis can make or break leadership and organizational reputations. The

potential reputational consequences could influence political actors' involvement in crisis-management processes. Thus, crisis management is an intrinsically political event (Olson, 2000).

Centralization and decentralization could also influence coordination. During crises, the decision-making authority could be centralized or decentralized, in planned or unplanned ways (Boin, t Hart, Stern, & Sundelius, 2005). Centralization of a decision in critical situations may occur due to late or wrong responses in the field or because influential individuals reckon themselves better suited to take the vital decisions (Kruke & Olsen, 2011). Weick (2001) opined that a shared understanding of organizational values enables the decentralization of decision-making structures. The socialization of all organization members to use similar decision-premises and assumptions based on timely, extensive, and accurate vertical information exchange could open for decentralization of decision-power (Kruke & Olsen, 2011). Also, decentralization could occur on a principle of subsidiarity postulating. This means that the ones closest to the event usually have the best knowledge of managing it (Boin, t Hart, Stern, & Sundelius, 2005). Such an argument is based on the fact that the local population and organizational members in the field possess an underestimated capacity to promptly act to the rapidly changing crises (Kruke & Olsen, 2011).

Kruke and Olsen (2011) further argued that planned decentralization is recognized as an essential tool to strengthen crisis responses. However, unplanned decentralization could be dangerous when non-decision, slowness to act from head officers, or decisions taken appear to be unreasonable for the field officer. Therefore, Kruke and Olsen argued that field officers could start to make their strategies and decisions to cope with the situation in such cases.

3.4.2.2: Challenges of coordination

Coordination is desirable during crisis management. However, there are some challenges associated with coordination. For instance, different actors involved in the coordination process may hold different opinions of the goals that need to be achieved. This may result in policy disagreement (Koop & Lodge, 2014). Also, a disagreement could occur as a result of how actions and decisions need to be adjusted. Some sources of disagreement include self-interested behavior of actors (Koop & Lodge, 2014); close relations with third parties (Black, 1976); and, reasons of bounded rationality in cases of information mismatch (Christensen, Lægreid, & Rykkja, 2016; Kruke & Olsen, 2011). Therefore, to foster coordination, there is the need to build trust and excel in crisis communication (Boin, t Hart, Stern, & Sundelius, 2005).

3.5: Concept of trust

The concept of trust is far from straightforward. Building trust takes time and depends on many factors, including delivering on promises, transparency, and displaying real commitment by leaders to ensure a

good quality of life for citizens (Baradei, 2020). Therefore, positive events help build trust while adverse events destroy trust (Slovic, 1993). Accordingly, "*trust is fragile. It is typically created rather slowly, but it can be destroyed in an instant by a single mishap or mistake. Thus, once trust is lost, it may take a long time to rebuild it to its former state. In some instances, a lost trust may never be regained* " (Slovic, 1993, p. 677).

3.5.1: Forms of trust

Uslaner (1999) argued that trust could be classified into three different ways: particularized trust, generalized trust, and institutionalized trust. The basis for particularized trust is familiarity resulting from personal relationships with family or friends, where repeated situations provide strong incentives for cooperative behavior. Howoever, Győrffy (2018) argued that a personal relationship is not necessary for particularized trust. Thus, having a shared identity or membership in the same ethnic, religious, or professional group might be sufficient. In such situations, trust is based upon the assumption that group members share the norms concerning cooperation. The negative implications surrounding particularized trust have to do with the threats from people outside the group (Uslaner, 1999). Usually, when people trust only group members, it results in category-based trust, which relies on stereotypes. This brings a differentiation between "us" and "them" within the society (Larson, 2004). This attitude could easily turn into immoral familism, especially when, in the interest of the family or a small group, the common good of the society is sacrificed.

Generalized trust, on the other hand, is also referred to as social trust. Generalized trust is when people trust people outside their social group. Charron and Rothstein (2016) opined that there is some link between education and generalized trust. They argued that the more educated a person is, the more likely they will be characterized by generalized trust. Institutions could directly contribute to generalized trust, but they can also have a significant indirect effect on generalized trust. For instance, when an institution (police or court) creates inequalities among citizens, generalized trust will decline (Uslaner, 2002). Thus, excessive inequalities lead to society's polarization, which results in a decrease of value for shared fates (Rothstein & Uslaner, 2005). However, to have effective policies for reducing inequality, trust in institutions is also necessary.

The institutional trust focuses on formal institutions and involves the organizations responsible for adopting, applying, and enforcing laws such as parliaments, governments, and courts (Győrffy, 2018). Ullman-Margalit (2004) opined that institutions represent confidence. This means that an institution is capable of fulfilling its public role effectively and efficiently. Legitimacy is also associated with institutions. Unfortunately, one could not trust the state (institutions) always since it could abuse its power. In this view, Hardin (2006) opined that the natural attitude toward the state is distrust rather than trust. Ullman-Margalit (2004) had argued that institutional trust implies that an institution fulfills its

tasks regardless of which of its employees is responsible for the issue. Once trust becomes personal, and the institution's business depends on who handles it, the institution ceases to be impartial, as the majority, who do not have immediate access to decision-making, loses trust in it (Győrffy, 2018).

I have discussed the concept of trust and some forms of trust. But what is the influence of trustworthiness during crisis management?

3.5.2: Trust during crisis management

Győrffy (2018) has argued that the absence of trust for policymakers creates some punitive conditionality, resistance from crisis stakeholders, and lack of confidence from the crisis actors, leading to the failure of crisis management. Coordination and cooperation during crisis management could yield successful outcomes when there is trust among the crisis actors. In the view of Ullman-Margalit (2004), acting upon trust during crisis management assumes two things. First, the willingness of the other party to cooperate and the ability to live up to their commitments. Second, acting upon trust may lead to reputation building (Győrffy, 2018). It is appropriate to state that trust as an incentive to coordinate and cooperate during crisis management does not imply that all actors live up to their commitments (Seligman, 2000). There are situations that actors may abuse trust (James, 2002). Möllering (2006) opined that given the presence of vulnerability, acting on trust during crisis management is always a leap of faith. Thus, acting on trust requires courage.

The different phases of crisis management require different types of trust too. Győrffy (2018) identified that personalized trust within key actors (elites or political leaders) plays a vital role during the pre-crisis phase. In the acute crisis phase, institutional trust is critical. In the long-term prospects (post-crisis phase), the level of generalized trust plays a significant role. Baradei (2020) has argued that building institutional trust is very crucial for all crisis phases. For instance, trust between the government and citizens at the pre-crisis stage is essential so that when a message goes out during the acute crisis phase, there could be faith and confidence in such a message. When people trust government agencies that are supposed to inform and protect them, they become less skeptical (Ropeik, 2002). Thus, the less we trust the people informing us, the people protecting us, or the process determining our exposure to a crisis, the more skeptical we become.

During the acute crisis phase, leaders want to be in control. They want to be seen as credible and trustworthy sources of information. When leaders are trusted, their actions and words are more easily perceived as sincere, competent, and signs of good faith. Where trust has broken down, all actors involved in the crisis management process will scrutinize the words and deeds of the "untrustworthy" leader. Thus, they will be less likely to believe official announcements, let alone act upon them (Boin, t Hart, Stern, & Sundelius, 2005). On the other hand, in a trustworthy society, where people trust their

governments, such trust becomes a force of energy for their governments to do better (Christensen, Lægreid, & Rykkja, 2016).

Boin, t Hart, Stern, & Sundelius (2005, 2016) have argued that leadership credibility enhances the quality of the crisis response and increases the chances of their survival in the post-crisis phase. Unfortunately, credibility alone is not enough. Crisis managers must excel in crisis communication if they want to reduce the public and political uncertainty that crises cause.

3.6: Concept of crisis communication

When faced with a crisis, leaders must communicate the crisis responses to connect with all actors. This could mean the difference between life and death for some actors as they choose to follow the responses (Reynolds & Quinn, 2008). Therefore, crisis communication covers the exchange or sharing of crisis-related data, information, and knowledge between different target groups such as regulators, stakeholders, victims, media, and the general public. According to Coombs (2009), crisis communication comprises two related communication processes: crisis knowledge and stakeholder reaction management. Knowledge, as used here, means the analysis of information (Coombs, 2009). Thus, knowledge is created when information has proceeded, and crisis creates the demand for such knowledge. Crisis managers use communication to collect and process information into knowledge. This results in situational awareness, where managers believe they have enough information to make decisions about the crisis. The decision-making process must be communicated to all stakeholders. Usually, such communication is aimed to influence how stakeholders make sense, meaning, react, and learn from the crisis (Boin, t'Hart, Stern, & Sundelius, 2016). Therefore, communication is required throughout the entire crisis phase.

3.6.1: Communication during crisis management

Communication is required at all crisis phases. In the pre-crisis phase, creating a communication network is vital for the prevention stage since it is useful to collect as much risk-related information as possible. Coombs (1999) termed such a network as the "crisis sensing network." A wider crisis sensing network could be used to collect more information, which could evaluate the crisis more accurately and effectively. The crisis team must create a relationship with both internal and external stakeholders to form the crisis-sensing network. This approach is critical in sensing transboundary creeping crises (Blondin & Boin, 2020). Indeed, it is difficult to prevent all crises. This is the more reason to have a crisis management plan aimed at preparing for the potential crises. Such a plan must be communicated to all actors on "what to do and who will do it." Accordingly, crisis communication becomes a dialogue between crisis managers and stakeholders where stakeholders learn and give feedback about the threats and responses to the crisis presented by the crisis managers (Palenchar, 2005). Roberto, Goodall, &

Witte (2009) identified that such dialogue could motivate people to turn their fear for the potential crisis into action. On the contrary, where there is a lack of dialogue, or people do not believe the crisis response communicated, they are more likely to ignore the risk and messages linked with it (Roberto, Goodall, & Witte, 2009).

Coombs (2009) argued that crisis communication at the acute crisis phase focuses on the form and content of the communication. First, form refers to "how" the crisis team should respond, while content refers to "what" the crisis team should say and do. Coombs (2009) identified four key features on how to respond to a crisis, namely (1) be quick, (2) avoid "no comment," (3) be accurate, and (4) be consistent. To be quick means the crisis team must get its message out fast since crisis creates a knowledge vacuum and, stakeholders need to know what is happening. For instance, the mass media need to know the sources of the crisis, and if the crisis team does not speak quickly enough with the mass media, then the media will move on to other sources. Therefore, if the crisis team does not tell the story, someone else will tell the story of the crisis. Meaning-making is crucial at this moment (Boin, t'Hart, Stern, & Sundelius, 2016).

In most cases, the story from the mass media could be inaccurate and biased since it could be framed to make the crisis team look bad. The crisis team could take advantage of the internet (Social media) to intensify quick responses (Coombs, 2009). In times of providing quick response, it is crucial to avoid "no comment" as an answer, although at the acute crisis phase, little may be known about the crisis due to the high uncertainty nature of the crisis. In such moments, Coombs (2009) has argued that policymakers should tell stakeholders the truth that they do not have enough information about the crisis and promise to share more relevant information concerning the crisis they obtain new information. In the same view, Kempner (1995) has also argued that when policymakers say "no comment" to a question, most stakeholders assume that the policymaker is guilty and trying to hide something. Therefore, policymakers need to provide accurate and consistent information. It is worth making sure the message is correct and that the responses do not contradict one another (Coombs, 2009).

Second, content is another factor that delves more into the nature of the response and focuses on what the crisis message should communicate. Therefore, crisis communication content should focus on how to (1) prevent or minimize damage, (2) maintaining the societies' operations (business continuity), and (3) reputation repair (Coombs, 2009).

In the post-crisis phase, society aims to return to normal as the crisis is now considered a lower priority. However, crisis communication is still vital since all actors need to learn from the crisis. Post-crisis communication focuses on the need for follow-up of communication to stakeholders. Coombs (2009) argued that crisis communication at the post-crisis include providing updates on progress to recover from the crisis, actions taken to prevent a repeat of the crisis, delivery of information promised to

stakeholders during the crisis, the release of reports about the investigation of the crisis, and providing information to any government agencies that are investigating the crisis. Learning is essential at this phase. Usually, learning is achieved from the crisis post-morten, which aims to improve the crisis management process. Communication becomes an integral part of this process. For instance, a crisis post-mortem includes collecting information from people involved in the crisis management effort. If the crisis management effort went poorly, a barrier arises. Therefore, people could view a crisis post-mortem as a search for blame game (Boin, t'Hart, Stern, & Sundelius, 2016). This could result in people keeping vital information to themselves. Coombs (2009) opined that people usually do not like to share information in a crisis, especially if it negatively reflects them. The challenge is to create a climate where people know the purpose is improving the crisis response and not blaming anyone for the causes of the crisis (Coombs, 2009).

Crisis communication is integral throughout the crisis management processes. However, some factors impede effective crisis communication. Some of these factors are discussed below.

3.6.2: Challenges of crisis communication

Boin, t Hart, Stern, & Sundelius (2005) have argued that for policymakers to succeed in crisis communication, they must avoid overemphasizing rosy scenarios and the temptation to appear decisive when communicating. The mistake of overemphasizing rosy scenarios refers to policymakers becoming extremely optimistic about achieving their goals when the threats of the crisis still exist. Moreover, the mistake of temptation to appear decisive occurs when the mass media and other crisis actors pressure leaders into making some strong statements about the crisis and how they would manage it. Such quick promises often disappoint the crisis actors when they are impossible to achieve.

Openness and transparency are other key challenging factors that influence trustworthiness during crisis communication. Often, most crisis managers are not open and transparent about their understanding of the crisis and the process of handling them (Aven, 2020). The reason for not being open and transparent could be the uncertain effects associated, such as causing stress and panic among the population (Quarantelli, 1993). However, empirical research has shown that sharing information about potential threats has rarely resulted in panic behavior by the population (Quarantelli, 1993). On the contrary, when information is withheld and suddenly released by third parties such as the mass media, panic reactions are more likely to occur (Helsloot & Ruitenberg, 2004). Therefore, openness and transparency help actors to be aware of the threats they need to face and build trust and credibility in authorities in the long run. Aven (2020) has argued that authorities have to develop the need to invest extra effort to make information more understandable to their target audiences. This is crucial since open and transparent approaches could be useful for building a resilient community.

In the previous sections, I have discussed the influences of trust and communication during crisis management. Crisis communication and policymakers' trustworthiness are key to improve the crisis actors' behavior to cope with the crisis responses. In the next part of this chapter, I will discuss the need for community resilience before, during, and after the crisis.

3.7: Concept of community resilience

The idea of being resilient is appealing during crises. A common resilience perspective is a concept of "bouncing back." This relates to a system (such as a community) having the capacity to recover after being hit by some disturbance. Therefore, efforts to build community resilience usually have been improving the capacity to bounce back from disruptions (Lerch, 2017). Unfortunately, such a perspective has not always been the case when we are faced with highly uncertain and complex crises such as environmental crises and health crises (Walker & Salt, 2017). A community resilience approach should do more than merely bouncing back. A community resilience approach should engage and benefit all community members, and it should consider all the challenges faced by the community (Lerch, 2017). In this view, Walker and Salt (2006) opined that resilience should be understood as the ability of a system to absorb disturbance and still retain its essential function and structure or identity.

The United Nations Office for Disaster Risk Reduction (UNDRR) defined resilience as *"the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions"* (UNDRR, 2021). In this way, a resilient system could adapt to changes without losing the essential qualities that define what it is and what it does (Lerch, 2017). Such a system is understood to be a "complex adaptive system" that is not static but is constantly adapting to change. This constant change is often unpredictable (Walker & Salt, 2012). Walker and Salt (2012) have argued that a system's adaptability is a function of some core characteristics such as diversity, innovation, and feedback. These characteristics allow the system to cope with vulnerabilities specific to its situation and make more profound transformations when required.

Therefore, community resilience could be defined as the ability of a community to maintain and evolve its identity in the face of both short-term and long-term changes while cultivating environmental, social, and economic sustainability (Post Carbon Institute, 2015). With these in mind, building resilience could be a powerful concept for communities to manage crises.

3.7.1: Resilience during a crisis

Westrum (2006) opined that protecting the community from a crisis could occur in three main ways: proactively, concurrently, and reactively. Respectively, these three ways provide three significant

resilience meanings as the ability to; 1) prevent something bad from happening (resilience as foreseeing and avoiding), 2) prevent something bad from becoming worse (resilience as coping with ongoing trouble), and 3) recover from something bad once it has happened (resilience as repairing after the catastrophe).

First, resilience is the ability to prevent something bad from happening or the capacity to foresee and avoid a potential threat from occurring. Adamski and Westrum (2003) opined that "requisite imagination" is key to anticipate when and how a threat might occur. For a person to foresee when and how a calamity might occur, there is the need to learn from experience and be able to process "faint signals." According to Janis (1982), faint signals include symptomatic events, suspected trends, gut feelings, and intelligent speculation. Groupthink, coordination, and constant information sharing could improve stakeholder awareness and empowerment to boost their capability to detect, compile and integrate diverse information. This capability helps detect 'hidden events' and encourages proactive response to dangers that have not yet materialized (Westrum, 2006). Such a resilience perspective is integrated with the pre-crisis phase, where crisis managers focus on preventing and preparing for potential threats from happening (Westrum, 2006). Unfortunately, communities and crisis managers cannot always anticipate (foresee) all threats and avoid them due to the high uncertainties associated with such threats. Even in situations where the threats are identified, the complex nature of communities makes it challenging to have a resilient working measure put in place. This gives us the second meaning of resilience.

Second, resilience is the ability to prevent something bad from becoming worse. As the proactive resilience measures put in place have failed, there is the need to adapt to strategies that could help cope with the crisis threats (Westrum, 2006). Coordination, flexibility, and improvisation are key factors that could influence how to respond to the threat. Learning to be adaptive is crucial, but crisis managers do not have much time on their side; they have to learn from their experience (Klein, 2009). Westrum (2006) opined that monitoring what is happening in the community during the crisis is crucial to cope with the crisis. Therefore, it does not matter whether this monitoring comes from above (centralized) or with the immediate group involved (decentralized). Trust and communication are also key factors that could influence the rate at which crisis actors would be willing to cope with the resilient strategy. For instance, coping strategies coming from less credible sources have a high tendency of not being successful (Slovic, 1993). At the same time, coping strategies that have not been communicated effectively are likely to fail since they might not make sense and meaning to the actors (Boin, t'Hart, Stern, & Sundelius, 2016). Coping strategies are helpful at the acute crisis phase since they are robust responses that could help provide some breathing time for crisis managers to turn the crisis around.

Third, resilience is the ability to recover from something bad once it has happened. Westrum (2006) argued that once the crisis is over, there is the need to repair the damage caused by the crisis. Resilience

strategies such as repairing and recovering are used to put things back together. Accordingly, Pettersen & Schulman (2016) argued that *recovery resilience is about putting damaged systems back together to establish a "new normal," at least as reliable and robust as before, if not improved* (p. 461). Recovering becomes easy for the crisis team if the decision-making centers do not themselves come under attack. Kruke and Morsut (2015) opined that a learning process should accompany the recovery to provide a more resilient foundation for prevention and preparedness activities in the next pre-crisis phase. The learning process must also consider how to manage the residual risks that the crisis may leave behind. The UNDRR (2021) opined that the presence of residual risk implies a continuing need to develop and support adequate capacities for emergency services, preparedness, response, and recovery as part of a holistic approach.

3.7.2 Factors influencing resilience in crisis management

Building resilient systems require policymakers to prioritize values (Lerch, 2017). However, it is challenging to easily agree upon what is valuable in a community since different people may have different interpretations of what is valuable to the community. This shows that it is not easy to build resilient communities. Kruke and Morsut (2015) have presented some factors that influence resilience during crisis management. These factors were 1) speed of crisis development, 2) size of the crisis, 3) availability of resources, 4) level of preparation of response structures, and 5) assumptions about the knowledge and behavior of the local community.

First, the speed of onset and closure of a crisis could influence the resilience strategies to manage such a crisis. This factor reflects the crisis typology opined by t'Hart and Boin (2001), as shown in **Figure 3**. For instance, in a fast-burning crisis, there is the need for the crisis response to be quick and effective since time will be of the essence to the crisis team (Boin & 't Hart, 2010). Moreover, cooperation from the local community is crucial to make the coping responses succeed (Kruke & Morsut, 2015). Second, the size of the crisis may influence the kind of response to use. For example, a more significant crisis requires more skilled and knowledgeable human resources, equipment, and time. A crisis that causes vast and massive injuries, fatalities, material and infrastructure damage requires more actors and other resources to support the recovering response than a crisis with minor or no fatalities, material, and infrastructure damages (Kruke & Morsut, 2015).

Third, the availability of resources could influence the effectiveness of the crisis response. Resources such as time, tools and equipment, vehicles, and human resources are crucial for crisis management. Time is usually a limited resource during crisis management (Boin, t'Hart, Stern, & Sundelius, 2016). Faulty tools and equipment delay successful response implementation. Therefore, there is the need to prepare, show people how to use tools, and allocate resources before the acute crisis (Kruke & Morsut, 2015). Also, assumptions about the knowledge and behavior of the community members count a lot.

There is a need to train local members and ad-hoc volunteers. When community members and other actors know about applying the crisis responses, there is a high likelihood that the crisis response would be successful since the local community members are the first to be at the crisis scene in most cases (Kruke & Morsut, 2015).

3.8: Summary

In this chapter, I have discussed the related theoretical frameworks key to the study. The Covid-19 pandemic could be seen as a crisis from both the subjective and objective perspectives of the crisis concept. Moreover, the Covid-19 pandemic could be classified as a transboundary, creeping crisis coupled with uncertainties and complexities. The crisis phases literature shows that crises are developmental events that need enough attention and cooperation to manage. Some crisis management concepts such as stakeholder engagement, flexibility, improvisation, and coordination are essential to managing a crisis, especially when policymakers are considered credible leaders. However, the crisis communication theories indicate that policymakers could not depend on their credibility alone during crisis management; they have to excel in communication too. Finally, I zoomed into the resilience concept. The importance of community resilience and some factors that influence resilience during crisis management were also discussed. For resilience responses to be effective, multiple factors such as stakeholder engagement, adaptation, flexibility, improvisation, coordination, communication, and trustworthiness need to be taken seriously.

Chapter 4: Methodology

In this chapter, an overview of the methodological choices made for the study is presented. In part 4.1, an account of the research design, research strategy, background of the researcher, as well as some heuristics and biases are described. In 4.2, I presented the research processes starting from December 2020 to June 2021. In part 4.3, the data collection instruments used for the study and methods used to analyze the data are described. The challenges encountered in using such instruments are also described. In part 4.4, some reflections regarding reliability and validity are presented. In part 4.5, the ethical considerations are elaborated. Lastly, some strengths and weaknesses for the approaches used for the study are offered in part 4.6.

4.1: Research design and strategy

In this sub-section, the research design, research strategy, brief background of the researcher, and some biases are presented.

4.1.1: Research design

A research design is a systematic approach that a researcher uses to conduct a scientific study. Accordingly, a research design is a blueprint for a study addressing what to study, what data are relevant for the study, how the data is collected, and how the results are analyzed (Philliber, Schwab, & Samsloss, 1980). Blaike (2010) has argued that the research design is the bridge linking the methodology, theory, and empirical findings by demonstrating *'what'* to be studied, *'how'* it will be studied, and *'why'* it should be studied.

In this way of thinking, I used the exploratory research design to help understand the subjective ideas and experiences of the respondents in elaborating their views on how they are coping with the Covid-19 pandemic.

In the view of Blaikie (2000), to explore is to attempt to develop an initial, rough description or possibly an understanding of some social phenomenon. Therefore, exploratory research is necessary when very little is known about the topic being investigated or about the context in which the research is to be conducted. Consequently, "*the purpose of an exploratory investigation is to move toward a clearer understanding of how one's problem is to be posed, to learn what are the appropriate data, to develop ideas of what are significant lines of relation, and to evolve one's conceptual tools in the light of what one is learning about the area of life*" (Blumer, 1969, p. 40). In other words, an exploratory study should provide a detailed and accurate picture of the social phenomenon. This means the researcher needs to be flexible to feel at home and to be able to speak about the research problem with some confidence

(Blumer, 1969; Blaikie, 2000). To achieve this purpose of exploratory research, Blumer (1969) has argued that the qualitative method is much appropriate than the quantitative method.

In relation to this thesis, the qualitative method was used. A literature survey and online/telephone interview were used to obtain data for the study. I explored through available literature surveys on the Covid-19 pandemic management locally, regionally, and globally. After obtaining a fair understanding of the pandemic responses from the literature surveys, I wondered how rural communities might cope with such responses expressed in the available literature. Therefore, I interview the local population to understand the dynamic coping strategies being adopted during the Covid-19 pandemic.

4.1.2: Research strategy

Kaplan (1964) has argued that every inquiry must start somewhere. Therefore, when researchers frame their research question(s), the next task is developing means to answer those question(s). This approach or means used to answer the research problem is the research strategy (Blaikie, 2000). Blaikie identified four main research strategies: inductive, deductive, retroductive, and abductive. These strategies could make use of qualitative, quantitative, or mixed methods in collecting research data. Each of these strategies has a logic backing them. For instance, Blaikie (2000) opined that the inductive research strategy aims to establish universal generalizations to be used as pattern explanations.

In comparison, the deductive strategy aims to test theories to eliminate false ones. This is achieved by usually borrowing or constructing theory and expressing it as an argument, deduce hypotheses, and test the hypotheses by matching them with data. Retroductive strategies aim to discover mechanisms to explain observed regularities by documenting and modeling a regularity, constructing a hypothetical model of a mechanism, and finding the real mechanism by observing and/or experimenting.

On the other hand, the abductive strategy aims to describe and understand social life in terms of social actors' motives and accounts. This is achieved by discovering everyday lay concepts, meanings, and motives. Then, the researcher produces a technical account from the lay accounts, develops a theory or model, and tests it iteratively. Therefore, *"the idea of abduction refers to the process used to generate social scientific accounts from social actors' accounts; for deriving technical concepts and theories from lay concepts and interpretations of social life"* (Blaikie, 2000, p. 101).

In line with the logic behind the research strategies, I decided to use the qualitative data collection method for the abductive research strategy since this study aims to generate social scientific accounts from the population. Moreover, considering the type of research questions chosen for this study, the abductive strategy is the appropriate strategy to be used. The choice of research questions for this study requires that I explore the qualitative data collected, make meaning, and interpret the motives and intentions of the population to further understand their everyday lives and behavior during the Covid-

19 pandemic. Blaikie (2000) has argued that the role or task of the social scientist is to discover and describe (interpret) the social world as experienced by its members (social actors) from the "inside" and not to impose an "outsider view" on it. Thus, the interpretive social scientist seeks "*to discover why people do what they do by uncovering the largely tacit, mutual knowledge, the symbolic meanings, motives, and rules, which provide the orientations for their actions* (Blaikie, 2000, p. 115). Therefore, my main role during this study was to explore, make meaning, and interpret the Covid-19 pandemic coping strategies that are being used by some rural communities in Ghana.

The abductive strategy entails both ontological and epistemological assumptions. Blaikie (2000) has argued that the ontological assumption of the abductive research strategy is that of relativist instead of absolutist. Therefore, there is no absolute single social reality; rather, there may be multiple and changing social realities. This means that each social reality may be "real" to its inhabitants. The epistemological assumption of the abductive research strategy is that social scientific knowledge is derived from everyday concepts and meanings from socially construed mutual (inter-subjective) knowledge. Thus, the researcher enters the everyday social world to grasp these socially constructed meanings. Therefore, at one level, the accounts of a social world produced by the social scientist are redescriptions in the social scientific language of the social actors' everyday accounts. At another level, these redescriptions could be developed into theories or models that go beyond everyday knowledge to include conditions of which social actors may be unaware (Blaikie, 2000, p. 116).

In this study, I made meanings and interpretations of the inter-subjective socially construed accounts of the respondents' daily coping strategies for the Covid-19 pandemic. Later, those inter-subjective social realities of the respondents (especially on trustworthiness and crisis communication) were used to develop a model which aims to provide new insights into crisis typologies.

4.1.3: Background of the researcher

I am a Ghanaian national who has stayed in both rural and urban communities in Ghana for almost three decades. I have lived and schooled in both rural and urban communities as a native, student, teacher, and voluntary worker. During my stay at the rural societies, I have seen people lived in severe economic hardship (where people eat one meal per day), where there are no clinics, and in communities that are blessed to have a clinic, there are no health equipment or critical resources to take care of patients. Moreover, I have stayed in rural communities where more than six people have to share a single room made of mud and thatch. And in one of those communities, I lost a dear friend bitten by a snake. From these life experiences, I know firsthand how dangerous it is to live in rural societies, especially during a health crisis.

Although I am familiar with some of the rural societies that I conducted the study, the research did not proceed straightforwardly. During this study, I have to count on the support of friends, close relatives, and family members to identify and reach out to the local leaders selected for the interviews due to the Covid-19 pandemic travel restrictions in Ghana and Norway at the time. It is almost two years that I left Ghana for further studies in Norway. I assume many things could have changed during these moments, especially on how rural societies are coping with the Covid-19 pandemic. Accordingly, there could have been multiple and changing social realities during this time than some years back without the Covid-19 pandemic. Therefore, I needed to explore these multiple and changing social realities to uncover the tacit, mutual knowledge, the symbolic meanings, motives, and rules, which provide the orientations for their actions to cope with the Covid-19 pandemic. Accordingly, it was important for me to become a new inside learner who had to relearn his understanding of the social reality of rural communities than becoming a new outside expert who thinks he might know much about rural communities.

4.1.4: Heuristics and biases

As part of the abductive strategy, the researcher needs to create meaning and interpret the lay social accounts. In doing so, the researcher could connect his/her personal experiences and that of the larger social realities. Mills (1959) called such a creative moment “sociological imagination.” Mills argued that "*the sociological imagination enables its possessor to understand the larger historical scene in terms of its meaning for the inner life and the external career of a variety of individuals. It enables him to take into account how individuals, in the welter of their daily experience, often become falsely conscious of their social positions*" (p. 5). Therefore, sociological imagination provides social scientists the opportunity to explore new knowledge and insights. However, such creative moments of imagination could be influenced by heuristics and biases. For instance, the researcher could be biased when the meanings and interpretations given by the researcher to the lay social accounts do not reflect that of the inter-subjective knowledge and meaning of the population.

In this study, I can only assume that my previous experiences in rural communities in Ghana could result in biases that may have influenced the results of this study. As stated initially, I could not visit the rural communities to observe how they were coping with the Covid-19 pandemic due to the travel restrictions. To overcome this, I had to depend on literature surveys and online/telephone interviews to understand, make meaning, and interpret the social account of the populations. In doing so, my previous experience and understanding of the social reality (living in rural communities without Covid-19 pandemic) of the population could interfere with their new social reality (living in rural communities with Covid-19 pandemic). Some measures were considered to reduce the influences of such biases on the reliability and validity of the findings. Such measures are explained in **Part 4.4** (Reflections on validity and reliability) accordingly.

4.2 The research process

In **table 2** below, I have presented an overview of activities performed during the research process. The research process has been a process of readjustments, reassessments, and re-evaluation by continuously comparing the research problem, theoretical framework, data collected, findings, and discussions.

Period	**Activity**
December 2020	1) Online research about Covid-19 pandemic, creeping crisis, and crisis management 2) Topic proposal 3) Made plan for the thesis project
January 2021	1) Topic approval 2) Online literature survey relating to Covid-19 locally (Ghana), regionally, globally 3) Formulated research problems and questions 4) Decided on research design and strategy 5) Draft of the introduction chapter 6) Shared with some friends and family members about the interview plan and requested their help during the selection of interview respondents
February 2021	1) Reviewed related literature on crisis concept, typologies, crisis management, communication, trust, resilience 2) Developed themes from literature survey on Covid-19 in line with available theory frameworks. 3) Draft of the theoretical framework 4) Obtained a list of both close and distance friends, classmates, and family members (research agents) in all sixteen regions of Ghana / check how feasible it is to use random sampling 5) Randomly selected ten (10) rural communities from five districts in five regions 6) Developed a draft for a semi-structured interview guide (English and Twi language) based on the themes already identified 7) Organized a pilot with the semi-structured interview guide (Pilot respondents from Nigeria, Cameroon, Norway, and Ghana) 8) Purposively targeted 60 people for the interview in Ghana with the help of friends and family members
March 2021	1) Adjusted some of the semi-structured interview guide based on lessons from the pilot 2) Reframed research questions 3) Shared final semi-structured interview guide with research agents and target population. 4) Conveniently selected thirty (30) respondents for the study with the help of friends and family members (research agents)

	5) Conducted interviews with respondents through telephone calls / Whatsapp audio calls 6) Transcribed interview responses 7) Shared interview recordings and transcripts with respondents to confirm feedback 8) Adjusted interview transcripts as reviewed by respondents 9) Draft of methodology for the study
April 2021	1) Processed and analyzed interview transcripts using WordStat 8 software 2) Draft of interview findings and literature survey 3) Adjusted theoretical framework 4) Draft for discussions
May 2021	1) Re-organising findings 2) Data reduction 3) Adjusting discussions and making conclusions
June 2021	1) Data reduction 2) Final adjustments 3) Proof-reading

Table 2: Research process

4.3: Data collection instruments: Triangulation

Denzin (1978) has argued that *"multiple methods should be used in every investigation, since no method is ever free of rival causal factors (and thus leads to completely sound causal propositions), can ever completely satisfy the demands of interaction theory, or can ever completely reveal all the relevant features of empirical reality necessary for testing or developing a theory"* (p. 28). Such an approach he termed triangulation. Therefore, using multiple methods improves the researcher's confidence that he/she has an accurate picture of the investigations since differences in one method could lead to further investigations (Neuman, 2014).

In this qualitative explorative study, I decided to use a literature survey and semi-structured interview methods to collect data. The reason for using a literature survey was to help understand the Covid-19 pandemic management from a local, regional, and global perspective. The choice of using semi-structured interviews was to help elicit data from the respondents, understand and interpret their social accounts concerning the Covid-19 pandemic.

To understand the importance of this triangulation, I will describe these data collection instruments accordingly.

4.3.1: Literature survey

In deciding to conduct this study, the main challenge was finding official written documents about how the Covid-19 pandemic and previous heath crises were managed in Ghana by policymakers (especially in rural communities). Therefore, to better understand how rural communities were coping with the Covid-19 pandemic, there was the need to analyze online literature such as news articles, journals, and reports. Accordingly, an online literature survey relating to health crisis management globally (international), regionally (Africa), and locally (Ghana) provided the initial data selection for this study. This gave me the bigger picture of the impacts of pandemics as well as the responses being used. Periodic reports from the World Health Organization (WHO) as well as the Centers for Disease Control and Prevention (CDC) gave a general perspective and understanding of the Covid-19 pandemic. Literature surveys on epidemics in Africa, especially the Ebola epidemic, were very useful since they provided a general response overview of what to expect from policymakers in Africa. Moreover, literature surveys on the Covid-19 pandemic and previous health outbreak responses in Ghana gave me a contextual account of the study communities.

Bowen (2009) has opined that the information contained in documents could suggest some questions that need to be asked during an interview. Therefore, information and insights derived from documents could be valuable additions to a study as they provide supplementary research data. The literature surveys served as a data selection point for this study. It helped me reshape the research problem for the study as they provided a good understanding of the crisis themes, which were later used in designing the semi-structured interview guide.

4.3.2: Interviews

The data selected from the literature surveys provided insufficient details for this study since they were very generalized data and not specific as far as the study context was concerned. This means I had to use another method to collect data about how some rural communities in Ghana were coping with the Covid-19 pandemic. For this purpose, the interview method was used to collect data from the local respondents. Online and telephone interviews were used since I could not travel to Ghana due to the Covid-19 travel restrictions in Norway and Ghana at the time of the study. All the respondents were interviewed individually through WhatsApp calls. However, during some seven (7) interviews, I had to switch to telephone calls since the respondents did not have good internet service. I prepared a semi-structured interview guide to control the interview process, but the respondents were allowed to give extra information. The interview duration for the study was twenty-one (21) days in three (3) continuous weeks. The respondents scheduled a day for the interview from Monday to Sunday at 07:00 – 22:00 (GMT). Thus, the respondents were allowed to pick a time slot that was much convenient to them. This was necessary since most respondents were people with busy schedules performing multiple roles in

managing the Covid-19 pandemic in their communities. The semi-structured interview guide was shared with all the respondents to have prior knowledge and a better understanding of the scope of the interview. On average, each respondent spent 30 minutes for the interview. All interviews were recorded and transcribed. A copy of the recorded interview and transcript was sent to the respondents. Two respondents provided extra information after listening to the recorded interview and reading the transcript provided. Sharing the recorded interview and transcript with the respondents improved the level of trust between us (the respondents and me) and improved the interpretations of the interview responses.

4.3.2.1: The challenges associated with the interviews

During the interview sessions, respondents could speak English and Twi language (native language). The challenge associated with conducting the interviews in the local language was the difficulty in finding appropriate local language words for some of the crisis concepts. Translating some crisis concepts from English to the Twi language was complicated since there were no direct words for them in the Twi language. In some instances, I had to use multiple similar phrases in the Twi language to help explain such concepts. Such complications could have caused some misunderstanding to the questions asked, which could influence the answers provided. To overcome this challenge, I had to share the recorded interview and transcript with the respondents. Another challenge I experienced has to do with the time available for the respondents. I noticed that some of the respondents I interviewed in the evening provided brief responses during the interviews. One reason for this could be those respondents were busy and tired from their day-long activities. I could only assume that such brief feedback could have limited my exploration of their social accounts of how they were coping with the Covid-19 pandemic.

In the following, I have described in detail the interview process, starting with the selected study community, categorizing the respondents, sampling techniques used, and the background data for the respondents.

4.3.2.2: The rural communities selected for the interviews

Respondents selected for the interview were from ten (10) rural communities in Ghana. These rural communities were 1) Ntotroso, 2) Wamahinso, 3) Fetentaa, 4) Koraso, 5) Wiaga Central, 6) Suwarensa-Ndaasa, 7) Brutu, 8) Inalateng, 9) Ayerede, and 10) Akropong (see **Appendix 4** for maps of these communities). These communities were selected from some five districts, namely Asutifi North, Berekum, Builsa North, Nandom, and Nkoranza South districts. In all, 20,698 people were living in these ten rural communities (**Table 3**). Farming is the main occupation for people living in these communities. Many of the roads linking these communities to their district capitals are feeder roads

with poor surface conditions resulting from erosion and non-maintenance. Access to good healthcare is a challenge for the population in these selected communities. All these selected rural communities need to visit their district clinics when they are sick. Due to the lack of access to health facilities and healthcare costs, the rural community members prefer using traditional (native) medicines when they are sick.

Ten Communities Selected for the Study									
					Gender				Average Household Size
S/No	Community Name	District	Region	Total	Male	Female	House holds	Houses	
1	Ntotroso	Asutifi North	Ahafo	4,703	2,334	2,369	1,209	641	3.9
2	Wamahinso	Asutifi North	Ahafo	1,638	829	809	331	241	4.9
3	Fetentaa	Berekum	Bono	3,677	1,732	1,945	784	629	4.7
4	Koraso	Berekum	Bono	2,755	1,253	1,502	636	367	4.3
5	Wiaga Central	Builsa North	Upper East	1,406	621	785	362	271	3.9
6	Suwarensa-Ndaasa	Builsa North	Upper East	1,081	545	536	207	128	5.2
7	Brutu	Nandom	Upper West	1,212	609	603	202	137	6.0
8	Inalateng	Nandom	Upper West	882	436	446	139	96	6.3
9	Ayerede	Nkoranza South	Bono East	2,193	1,116	1,077	498	355	4.4
10	Akropong	Nkoranza South	Bono East	1,151	543	608	220	180	5.2
	Total			20,698	10,018	10,680	4,588	3,045	4.5

Table 3: Details for the ten rural communities selected for the study

Source: Extracted from the Ghana Statistical Service (2014)

Most of the houses in these communities are built with mud, brick, and cement. The materials commonly used for roofing are metal sheets, bamboo, thatch, and palm leaf. Usually, every house consists of a household. A household is considered as a person or a group of people who lived together in the same house or compound and shared the same house-keeping arrangements (Ghana Statistical Service, 2012). In general, a household consisted of a man, his wife, children, and some other relatives. Each household has a head. The head of the household is generally the person who has an economic and social responsibility for the household. The average household size in these communities was 4.5 people per household. Usually, every household stayed in a single room. The number of people who sleep in a room has implications for health and nurturing. Some diseases are spread by contact, and therefore, if many people live in one room, there is the tendency of such communicable diseases to spread. This has been one of the challenges these rural communities face during the Covid-19 pandemic (Bukari et al., 2021).

4.3.2.3: Categorization of respondents for the interviews

The respondents selected for the interview were local leaders in rural communities. These local leaders were engaged in the local management of the Covid-19 pandemic in their rural communities. In the selected rural communities, local leaders were classified based on their status and role in the community.

These classifications were 1) traditional leaders, 2) faith-based leaders, 3) civil society organizational leaders, and 4) assembly opinion leaders.

The traditional leaders' category consisted of chiefs, elders of families, and household heads. Traditional leaders are the heads of families in rural communities. They make decisions concerning the day-to-day activities of their families. In this category, chiefs are considered the most powerful. There is always one chief who leads the entire community. A community is made up of multiple families or clans, and the head of the family or clan is the elder of the family. Families or clans have different members living separately in their households. The person who takes the responsibility of taking care of the household members becomes the household head. Usually, male characters such as the father or first adult male child of the household lead them. However, there are some instances where females such as single mothers become household heads.

The faith-based leaders' category consisted of Islamic leaders (Imam), pastors, and priests. Faith-based leaders are people who manage a religious group in the community. Faith-based leaders are respected people in rural communities due to the humanitarian support they provide to the community, such as building schools and taking care of the needy. Most of the faith-based associations in rural communities have their parent association in urban communities who provide them with financial support for their activities in the rural communities. Many community members associate themselves with a religious group. Therefore, during crisis management, faith-based leaders have much influence on their followers.

Local civil society organizations (CSO) are not-for-profit and voluntary entities formed to support the needy. Usually, such not-for-profit organizations champion human rights, justice, and other humanitarian activities for the vulnerable. Rural communities are marginalized communities (Krieger & Higgins, 2002); therefore, civil society organizations' role is crucial for marginalized groups, especially during a crisis. The leaders (founders) of CSO are involved in the local management of the Covid-19 pandemic to advise on issues relating to human rights abuses.

The last category of respondents for the interview was the assembly opinion leaders. These are a group of leaders representing their community at the district assembly level (local government). They are elected by voting and serve a term of four years for their activities. They are influential and respected people in their communities. They are titled as being "honorable" members in their communities. They also lobby and seek development for their communities from the government at the district level. Due to their political role and influences, they are involved in all crisis activities in their communities.

4.3.2.4: Sampling the rural communities and respondents for the interview

Both probability and non-probability sampling techniques were used in different moments to select the population for the interview. The computer-based random sample was used to select the study communities. The computer-based random sample is a mathematically random method, such as a computer program that gives each sampling element of a population an equal probability of being selected (Neuman, 2014). The computer-based random-number approach was used to select five regions from sixteen regions in Ghana. The RANDOM.ORG online platform was used for this purpose. A number was assigned to all regions, and the first five random numbers generated by the online platform were used. The same approach was repeatedly used to select five random districts in each region and two (2) rural communities from each of the five selected districts. In the end, ten (10) rural communities were selected.

Later, the purposive nonprobability sampling was used to select local leaders who fall within the categories of traditional leaders, faith-based leaders, civil society organization leaders, and assembly opinion members. Neuman (2014) defines purposive sampling as a non-random sample in which the researcher uses all possible populations that fit a specific criterion using different methods. Therefore, the specific criteria used to select these local leaders for the study was due to their involvement in managing the Covid-19 pandemic in their rural communities. Their special daily role in managing the pandemic also meant they had busy schedules. Neuman (2014) opined that convenience sampling is used when the primary criteria for selecting the population is based on their availability. Since most of the local leaders were busy with their activities, I employed convenience sampling to select thirty (30) of them to interview.

4.3.2.5: Respondent background data

Thirty (30) respondents were selected conveniently for the interview. I have included the detail of the sociodemographic information of each respondent in **Appendix 1**. Due to ethical reasons such as privacy for the respondents, their names, gender, and their rural communities were not included in **Appendix 1.** The following **Table 4** indicates the summary of the sociodemographic dynamics of the respondents selected for the interviews.

	Item	Number (n=30)	%
Age Group	30 or Below	6	20.00
	31-40	11	36.67
	41 or above	13	43.33
		30	100.00
Level of Education	Non formal	3	10.00
	Basic	4	13.33
	Tertiary	23	76.67
		30	100.00
Employment Status	Full Time	21	70.00
	Part time	5	16.67
	Unemployed / Retired	4	13.33
		30	100.00
Settlement Duration	5 years or less	9	30.00
	6 years -10 years	7	23.33
	11 years or above	14	46.67
		30	100.00
Respondent Role	Assembly and Opinion members	10	33.33
	Civil Society Organization Representatives	6	20.00
	Traditional Leaders	8	26.67
	Faith-based Leaders	6	20.00
		30	100.00

Table 4: Sociodemographic characteristics of respondents

Out of the 30 respondents who were interviewed, 13 (43.33%) were at least 41 years, 11 (36.67%) were of age group between 31 years to 40 years, whiles only 6 (20%) were below the age of 30 years (**Table 4**). Also, the majority of the respondents (23, representing 76.67%) had tertiary education. A reason for this high percentage could be that most rural communities select assembly opinion leaders who have received the highest level of education to represent them since their work required reading and writing reports. Also, most civil society organizations are founded and managed by highly learned people who could read, translate, and interpret the national constitution and other by-laws. Likewise, faith-based leaders are usually sponsored by their religious group to receive the best form of theology education. Therefore, the highest educated people in the communities were included in the study. Four (4) respondents, representing 13.33%, have received at least the basic senior high educational certificate in Ghana. Only 3 (10%) of the respondents stated that they have no formal education. As far as the respondents' employment status was concerned, 26 (86.67%) of the respondents were employed. Out of this number, 21 (70%) were engaged in full-time work and 5 (16.67%) in part-time work activities. Only 4 (13.33%) were not in active work services at the time of the interview. Also, close to half of the respondents (14 representing 46.67%) have lived in their communities at least for 11 years. 23.33% of the respondents have lived in their various communities for 6 - 10 years. Moreover, 30% of the respondents have settled in their various communities for at most five years. The majority of the respondents interviewed were assembly and opinion members (33.3%), traditional leaders (26.67%), civil society organization leaders (20%), and faith-based leaders (20%).

4.3.3: Data analysis: content analysis and thematic analysis

In this study, there was the need to analyze the data that was selected from the secondary data (literature surveys) and primary data (interview data). Bowen (2009) has argued that data content could be analyzed by skimming, reading, and making interpretations. In this study, content analysis and thematic analysis were used to examine the data. Bowen (2009) defines content analysis as *"the process of organizing information into categories related to the central questions of the research"* (p.33). The content of the literature surveys used for this study was analyzed and grouped into categories, namely impacts of a health crisis, crisis management, crisis communication, and trust. These categories provided a supplement knowledge for the study. The categories were developed into themes for drafting the semi-structured interview guide. Consequently, a thematic analysis process which *"involves a careful, more focused re-reading and review of the data"* was used. Thus, thematic analysis is a form of pattern recognition within the data, with emerging themes becoming the categories for analysis (Bowen, 2009, p. 33).

To closely examine the data to identify common themes, topics, ideas, and patterns of meaning that came up repeatedly during the interviews, I used the WordStat 8 software developed by Provalis Research. WordStat 8 is a content analysis and text mining software useful in categorizing content using user-defined dictionaries. The transcripts from the interviews were imported into the software, and text mining was performed to generate common themes, words, and phrases.

During the interview, respondents were asked to rate (scale) their views on some of the Covid-19 pandemic responses. I analyzed and computed such data with a Microsoft Excel spreadsheet. Simple tables were used to tabulate such ratings.

4.4: Reflections on validity and reliability

In a qualitative study, some of the social constructs we intend to measure, create meaning, or interpret could be ambiguous, diffuse, or not observable. This means the researcher needs to establish the truthfulness, credibility, or believability of the findings for the study. Reliability and validity are research concepts that help the researcher establish such factors (truthfulness and credibility). According to Neuman (2014), reliability means dependability or consistency in the measure being used for the study. Thus, reliability suggests that when the same measure is repeatedly used at different times for a construct, a consistent result would be obtained, assuming the construct measured does not change (p.212).

On the other hand, the concept of validity means truthfulness (Neuman, 2014). However, Neuman has argued that in qualitative studies, the interest is in achieving authenticity than realizing a single version of 'truth.' This does not mean that qualitative researchers do not adhere to the core principle of validity,

which is truthfulness. Qualitative researchers adhere to truthfulness by avoiding false or distorted social accounts and "*try to create a tight fit between understandings, ideas, and statements about the social world and what is actually occurring in it"* (Neuman, 2014, p. 218).

Lincoln and Guba (1985) argued that credibility, dependability, confirmability, and transferability should be considered to identify that qualitative research is truthful and trustworthy. Such components were considered for this study accordingly.

Dependability and confirmability are closely linked components to check for the quality of qualitative research. Korstjens & Moser (2018) had argued that dependability includes the aspect of consistency. Consistency is the need to check whether the analysis process aligns with the accepted standards for a particular design or method. On the other hand, confirmability is concerned with establishing that data and interpretations of the findings are not figments of the inquirer's imagination but derived from the data (Korstjens & Moser, 2018, p. 122).

In this study, the dependability and confirmability were checked by making sure the themes used to design the semi-structured interview guide conforms with the subject matter of the literature surveys and the research problems. The semi-structured interview guide was adjusted multiple times before the final version was obtained. Such review of the semi-structured interview guide was to help make the interview guide more dependable in the end. The review process was done in line with the project supervisor, who is an expert in this field of study. Consequently, anytime there was a review of the research questions, there was also the need to review the literature surveys and interview guide themes.

There was pilot testing to check for the consistency and accuracy of the semi-structured interview guide items. Accordingly, the respondents for the pilot test were interviewed on all the themes of the study. The responses from the pilot testing were used to adjust the semi-structured interview guide further. The aim was to check for the accuracy and consistency of the instruments used for the study.

I also checked for the reliability of the respondents selected for the interviews by confirming from the informants (close relatives, friends, and family members) who helped me reach the respondents. During the interview, I asked related questions about the role of the respondents in managing the Covid-19 pandemic in their community, which aimed to confirm the respondents' reliability.

For the literature surveys, I checked for the reliability of the internet protocol addresses (IP addresses) for the websites that published the articles, journals, and reports. I always made sure the IP addresses were secured and authenticated addresses. In most cases, the sources for the literature were audited to confirm their authority on the subject matter, especially in health crisis management. Moreover, I checked to ensure a trustworthy author or institution wrote the information. To do this, I identify the owner or publisher by the Uniform Resource Locator (URL) or look at the copyright statement on the

end page of the website. Also, I compare the literature surveys to determine biases in the sources. At times, I check the reliability of the literature data by looking at the data coverage. In this way, I can check the relevance of the literature to the scope of this study.

To improve the literature survey data accuracy, I always verify the literature data with already known information found in the literature source. At times, I look for disclaimers (especially online news articles) regarding the accuracy of the content. When there is conflicting data, I double-check the information against a source that I already know is trustworthy.

To improve the accuracy of the feedback from the interview respondents, I shared the semi-structured interview guide with the respondents to have a clear perspective of the scope of the interview. This gave all respondents the chance to seek clarification before and during the interview sessions. This helped clear all doubts concerning interview questions and helped manage the time for the interview. However, not all the respondents could read and understand the semi-structured interview guide by themselves. Some of the respondents with non-formal education requested the interview be done in the local language (Twi) since they could not read and speak English fluently. These respondents were also given some guidance before the interview.

In some cases, someone who could read, such as a close relative or friend, helped to explain the interview items to such respondents in the local language. During these interviews (in the local language), translating the interview questions directly from English to the Twi language became challenging. There are some crises concepts in English that I could not find its corresponding Twi word. I had to use multiple words or phrases to explain such crises concepts. Similar challenges were encountered when I was transcribing the recorded interviews. Due to these challenges, I had to consult a friend who is an expert in translating English to the Twi language to help me interpret the semi-structured interview guide questions and the respondents' feedback. To improve the accuracy of interpreting the respondents' feedback (in local language), I also shared the recorded interview and transcript with him for reviewing.

The use of multiple methods to collect data about the same subject matter improves credibility. In this light, Bowen (2009) argued that triangulating data provides a confluence of evidence that breeds credibility. In this study, triangulation was used to improve the level of credibility and contributed to the trustworthiness of the findings. Both literature surveys and interviews were used to collect data about the same concepts for the study. The literature surveys helped in designing thematic topics, which were later used for designing the semi-structured interview guide. The use of these methods to collect data about the same themes helped in answering the research questions.

Recording the interviews also gave me ample time to play back and transcribed the respondents' feedbacks. This decreased the chance of me omitting vital information during the transcription. Furthermore, to improve the level of credibility, I shared the recorded interviews and transcripts to the respondents to cross-check and review the interpretations of the data they provided. This helped in reducing misinterpretations of the social realities as presented by the respondents. Therefore, trust was built as respondents were given a chance to fill in any gap from the interviews. The respondents gave a positive response to the transcripts that I shared with them. This improved the internal validity of the data interpretations.

The concept of transferability is "*the degree to which the results of qualitative research can be transferred to other contexts or settings with other respondents*" (Korstjens & Moser, 2018, p. 121). In qualitative studies, it is difficult to prove that outcomes based on the interpretation of the data are transferable; however, it is appropriate to establish that it is likely to transfer to other contexts.

In this study, I facilitated the transferability judgment by a potential user by adopting the "thick description strategy" (Korstjens & Moser, 2018; Lincoln & Guba, 1985; Geertz, 1973; Ryle, 1949; Holloway, 1997). According to Holloway (1997), the term thick description could be defined as the detailed account of experiences where the researcher makes explicit the patterns of cultural and social relationships and puts them in context. Lincoln and Guba (1985) have argued that thick description is a way of achieving a type of external validity where the researcher describes a phenomenon in sufficient detail so that one could begin to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people.

Accordingly, I have provided the detailed descriptions of the respondents interviewed, their background details, their role during the Covid-19 pandemic management, the sampling technique used to select the respondents, the rural communities used for the study (context or setting), my background as a researcher, my level of experience in rural communities, and the entire research processes. I have also provided copies of the interview guides (**Appendix 2 and 3**) accordingly. For readers to appreciate the findings for this study, I have made available such thick descriptions (research processes, sampling techniques, semi-structured interview guides, details of rural communities and respondents) to guide the reader accordingly. In this study, some of the findings addressing research questions 2 and 3 are likely to be transferred in other contexts. I have expressed these in Chapter 7 (Need for further research). Therefore, to transfer part of the findings for this study to other contexts, it is vital to consider the study's context, the respondents' culture, and current happenings available at the time of conducting this study.

4.5: Ethical considerations

A major ethical issue in qualitative research is the invasion of privacy. Respondents have the right to decide when and with whom to share their views (Neuman, 2014). Therefore, during this study, I tried to ensure anonymity and confidentiality for all the respondents. I strive to do this through the processes of sampling, interviewing, collating the data, and reviewing the data collected.

First, the convenient sampling method was used to select respondents who were willing and available to share their ideas concerning how they were coping with the Covid-19 pandemic in their communities. Therefore, I tried not to impose the data collection approach on any respondent. Respondents who were available for the study were given copies of the semi-structured interview guide to take some days to look at the semi-structured interview guide items. I informed the respondents to let me know if there were items in the semi-structured interview guide that makes them feel uncomfortable or breaches their privacy. Respondents were offered the chance to cancel the interview if they wish to do so. After that, respondents were allowed to select their own convenient time for the interview.

During the interview, I explained to every respondent the need to protect their privacy and assured them of doing so. All respondents were notified to withdraw from the interview sessions anytime they feel uncomfortable or could inform me if they wish not to answer a particular interview question. Respondents were also encouraged to ask me questions if they needed further clarification. The respondent's biodata, such as name, specific age, gender, and name of the rural community, was not asked during the interview. During the interview day, I requested from every respondent if I could record the interview session. After the interviews, the recorded interview and transcript were sent to the respondents to check and review their responses before I started the data analysis. This was to ensure that respondents' views were treated with respect.

4.6: Strengths and weaknesses of the approaches used for the study

In this study, I tried to make sure the methods used in collecting data were useful in improving the validity and reliability of the findings. These methods have their strengths and potential weaknesses, which could impact the final findings of the study. Some of these strengths and weaknesses are presented below.

This study was done at the time that most countries (especially Ghana and Norway) were experiencing the second wave of the Covid-19 pandemic. Therefore, there were many restrictive measures put in place, such as travel restrictions. To overcome this challenge, I have to use the internet to search for data and even adjust to conducting interviews through the Whatsapp social media platform. Moreover, using the exploration research design allowed me to adapt to changes as the study progressed. This was crucial due to the high uncertainty and complexity of Covid-19 pandemic management globally,

regionally, and locally. I limited the scope of my explorations to the influences of some crisis management concepts, resilience, crisis communication, and trustworthiness during the Covid-19 pandemic. This helped me design a model which could be further explored in the future. To be successful with this, I employed the abductive strategy to collect lay social accounts, made meaning of these lay social realities, and interpreted them into social scientific accounts. This qualitative approach to researching helped me obtain rich data to answer my research questions.

Literature surveys (secondary data) and semi-structured interviews (primary data) were the main sources of data collection. Depending on the available literature surveys globally, regionally, and locally helped me to have a better understanding of the research problem and context. It became the basis of which themes were further developed to help collect primary data for the study. The online and telephone interviews were appropriate for this study, considering that this study was time-limited (to be submitted on time) and coupled with travel restrictions (Ghana and Norway) at the time.

As some of the strengths for the approaches and methods used for the study have been presented, it is worth stating some weaknesses too. The main challenge associated with using the exploratory design and abductive strategy was that they provided qualitative data to which the researcher must provide meaning and interpretations to them. The process of interpretations could be judgemental and biased. Again, during the interview with the respondents, I became emotional due to the impacts of the pandemic. I could only assume such emotions could influence my understandings, meaning-making, and interpretations of the social accounts presented in this study. That could also impact the level of credibility of the interview findings.

Also, the respondents interviewed for the study were small. Therefore, the findings cannot be accurately interpreted for a generalized population, although the social accounts shared were inter-subjective accounts. Moreover, the secondary data (from Ghana statistical service) that was used to classify urban communities from rural communities was based on a census conducted in 2010. In this classification, communities with less than 5000 people were classified as rural communities. Thus, over a decade now, some of these communities are likely to have more than 5000 people living there now, and as such, they may not be qualified to be rural communities now. This means that I might have interviewed some urban respondents as part of the rural respondent selected for the study. Unfortunately, I had to use that data since it was the current credible national data available. Such potential changes could influence the reliability and validity of the findings. Moreover, in-depth face-to-face interviews (instead of semi-structured and online/telephone interviews) could have helped me gain extra relevant information, impacting the findings. The use of observations as an additional data collection method could have been beneficial to understand the social realities of the respondents.

Chapter 5: Empirical Findings

In this study, some available pieces of literature were reviewed to know much about the Covid-19 pandemic and the adopted safety responses globally and locally (rural communities in Ghana). Consequently, local leaders were interviewed to provide their social accounts on coping with the Covid-19 pandemic in the rural communities. In this part of the study, I presented the literature survey and interview findings accordingly. I have decided to present these findings in two separate parts. The first part (5.1) is dedicated to the findings from the literature surveys and the second part (5.2) is for the interview findings.

In the first part, much attention is given to the Covid-19 pandemic. In part 5.1.1, the spread and symptoms of the Covid-19 pandemic are presented. The global and local safety responses for the Covid-19 pandemic are also presented in part 5.1.2. Some management strategies that are used during health crises (outbreaks, epidemics, and pandemics) are elaborated in part 5.1.3. In part 5.1.4, the influence of crisis communication and trust during health crises are presented. Also, the impacts of health crises on rural communities are offered in part 5.1.5.

In the second part, a thematic approach is used to present the findings for the interviews conducted. Three main themes are identified. The first theme (5.2.1) is dedicated to the perceived impacts of Covid-19 on selected rural communities. The second theme (5.2.2) focused on crisis management and resilience responses that were adopted by the selected rural communities, and the third theme (5.2.3) focused on crisis communication and trust-building factors.

5.1. Results from the literature surveys

The literature survey provided some key insights into how pandemics are managed globally and locally (Ghana). Much attention is given to the Covid-19 pandemic since it is unique and the subject matter for this study. The symptoms and how Covid-19 spreads, global and local safety responses adopted, the influence of trustworthiness and crisis communication, and the impacts of health crises on rural communities are presented under this part.

5.1.1: Covid-19 pandemic: infections and symptoms

On March 11, 2020, the World Health Organization (WHO) declared Covid-19 as a pandemic. This was after the WHO had assessed the outbreak in Wuhan and found the alarming levels of spread and severity of the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The SARS-CoV-2 virus spreads when an infected person sneeze, speak, sing, or cough unto another person or object without covering their mouth or nose. A person could be infected when aerosols or droplets containing the virus are inhaled or come directly into contact with the eyes, nose, or mouth. The virus could also spread in poorly ventilated and/or crowded indoor settings, where people tend to spend longer periods. This is because aerosols could remain suspended in the air or travel farther than 1 meter long-range.

People may also become infected by touching surfaces that have been contaminated by the virus when touching their eyes, nose, or mouth without cleaning their hands (WHO, 2021).

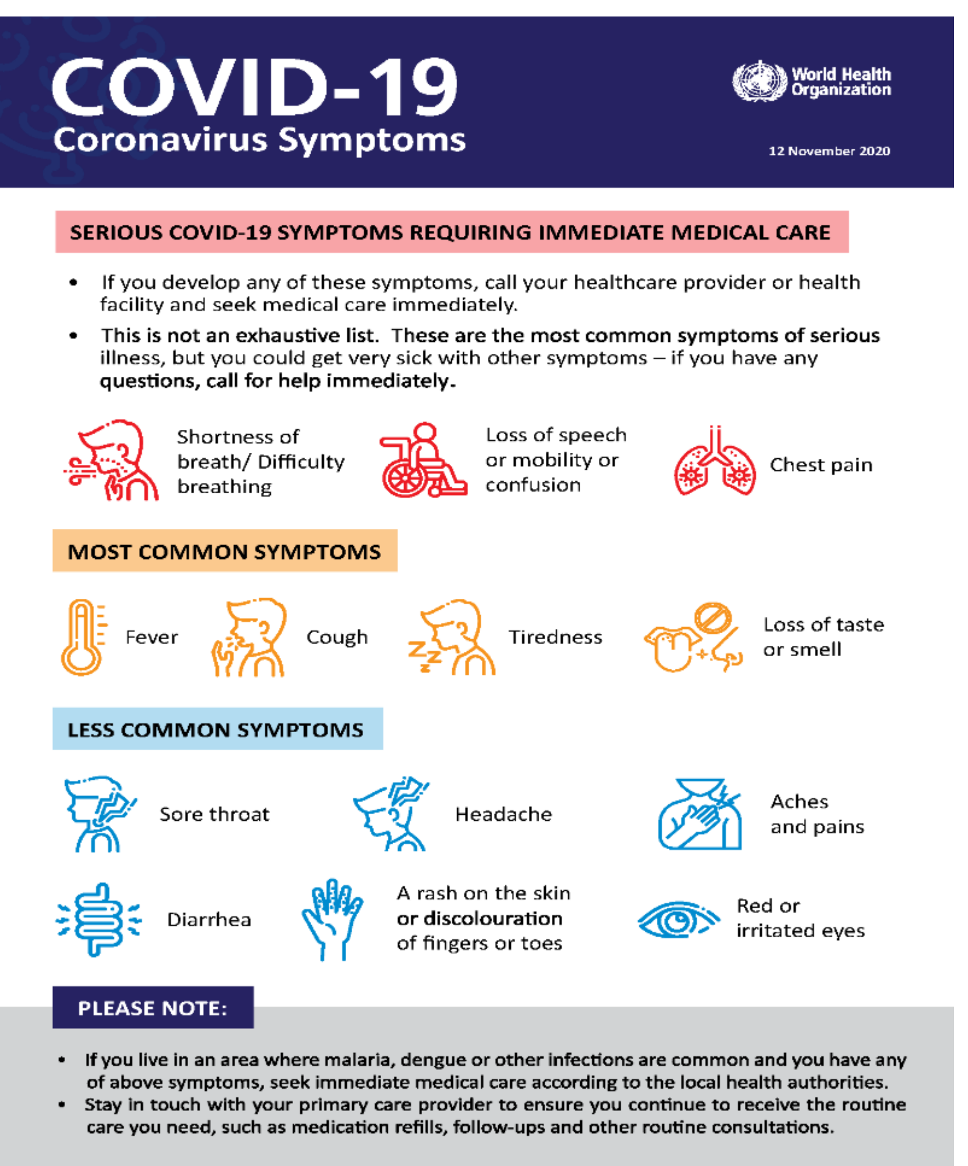


Figure 5: Covid-19 symptoms (WHO, 2020)

The common symptoms of Covid-19 include fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea (CDC, 2021; WHO, 2020). As of June 14, 2021, it was estimated that about 175,541,600 people were infected by Covid-19 globally, with about 3,798,361 deaths (WHO, 2021).

5.1.2: Global Covid-19 pandemic safety responses

After declaring Covid-19 as a pandemic, the WHO warned countries of the dangers associated with it. They further made some recommendations to countries to detect, test, treat, isolate, trace, mobilize and educate their people as a response to the Covid-19 pandemic. Countries that have not recorded cases as

of March 11, 2020, were advised to activate and scale up their emergency response mechanisms to 1) prepare and be ready for Covid-19 cases, 2) detect, protect and treat Covid-19 cases, 3) reduce transmission, and 4) innovate and learn (WHO, 2020). The public was also advised to cope with general hygienic safety responses against the virus. Accordingly, the WHO advised the public to stay safe by taking some simple precautionary measures. These measures included physical distancing, wearing a mask, keeping rooms well ventilated, avoiding crowds, cleaning of hands regularly, and coughing into a bent elbow or tissue. Physical distancing measures included maintaining at least a 1-meter distance between oneself and others to reduce their risk of infection when they cough, sneeze or speak. Therefore, it was also recommended that people maintain an even greater distance between themself and others when indoors. It was also recommended that people consider wearing a mask a normal part of being around other people if they can not maintain at least 1-meter distancing.

Figure 6: Covid-19 Do's and Don'ts (WHO, 2020)

Moreover, some measures geared towards good hygiene included washing of hands regularly with soap under running water or using alcohol-based hand sanitizers where appropriate. People were advised to avoid touching the eyes, nose, and mouth after touching commonly used objects such as door handles. Because such objects are used by many people, it is more likely such objects could be contaminated by the virus. Touching such contaminated objects and touching your face makes it easy for a person to be infected by the Covid-19 virus. Therefore, it was also advised that we clean and disinfect objects frequently, especially those we regularly touched, such as door handles, faucets, and phone screens.

Moreover, it was a good practice to cover our mouth and nose with our bent elbow or tissue when we cough or sneeze. Then, we have to dispose away of the used tissue immediately into a closed bin and wash our hands.

5.1.3: Ghana's Covid-19 pandemic responses

On March 12, 2020, Ghana confirmed the first cases of Covid-19. As of June 14, 2021, Ghana had recorded some 94,493 cumulative confirmed cases with some 789 fatalities. Therefore, the public health system has been challenged by the Covid-19 pandemic in Ghana (Ghana Health Service, 2021). The government of Ghana had set up a national Public Health Emergency Management Committee (PHEMCs) to initiate preparedness activities and enhance surveillance for the Covid-19 pandemic. The committee was tasked to institute responses to prevent, detect, and contain the country's spread of the Covid-19 virus. Accordingly, people were educated on the Covid-19 virus and its transmission. The public was also informed of preventive measures such as personal hygiene, including washing hands with soap under running water or alcohol-based hand sanitizers and wearing face masks (Kenu, Frimpong, & Koram, 2020). Some of the government's responses and their timelines are expressed in **Table 5**.

Response	Timeline
Closure of schools, ban on religious activities, and social and political gatherings	March 15, 2020
ban on entry for travelers coming from a country with more than 200 confirmed Covid-19 cases within the previous 14 days	March 17, 2020
Closure of all borders, all travelers that arrived in the country forty-eight hours before the closure of the country's borders were to experience mandatory quarantine	March 22, 2020
A partial lockdown of Accra, including Kasoa in the Central region and Kumasi (Kenu, Frimpong, & Koram, 2020)	March 30 - April 20, 2020
Mandatory usage of face masks and disinfection of market and schools	April 26, 2020
Reopening of schools (Lartey, 2021)	January 17, 2021
Oxford–AstraZeneca Covid-19 vaccine received (February 24, 2021) and national vaccination exercise starts (MyJoyonline, 2021)	March 1, 2021

Table 5: Covid-19 Government of Ghana responses

Kenu, Frimpong, & Koram (2020) has argued that the three weeks partial lockdown period gave policymakers a chance to enhanced surveillance in the form of active case search and contact tracing. These strategies helped to detect, isolate, and treat all confirmed cases early. Furthermore, Kenu, Frimpong, & Koram (2020) identified that the enhanced surveillance and contact tracing strategy helped the country to identify a significant number of cases, of whom about 93% were asymptomatic. Consequently, most of the total confirmed cases in Ghana had been detected through this approach. The "new normal" for living in Ghana has become practicing personal hygiene measures, the mandatory

wearing of face masks, ban on the social gathering, social distancing, increasing the number of testing sites, enhancing surveillance and contact tracing (Kenu, Frimpong, & Koram, 2020).
Initially, Ghana has only two main medical laboratories that were conducting the testing of Covid-19. These laboratories were the Noguchi Memorial Institute for Medical Research (NMIMR), University of Ghana, and the Kumasi Center for Collaborative Research (KCCR) of the Kwame Nkrumah University of Science and Technology. The lack of laboratory test centers slowed down the speed of testing and issuing test results. The government aimed to improve the laboratory turnaround time for confirming suspected cases by establishing new testing sites in each regional capital and municipal capital. Private laboratories were also included in the testing for Covid–19. For the government to ensure that people in both rural and urban areas could access testing regardless of their physical proximity to a hospital, drone technology to test for Covid-19 was introduced. The use of drones helped transport test samples and vital medical equipment in and out of rural communities (Baker, 2020).

5.1.4: Impacts of health crisis on rural communities

The consequences of health crises such as Covid-19, Malaria, Zika, Ebola, and many others have been severe on rural societies. For instance, some factors such as limited access to stable, quality, affordable healthcare and housing contribute to a higher prevalence of infectious diseases, chronic illnesses, poor nutrition, and mental disorders (Krieger & Higgins, 2002). Moreover, Bukari et al. (2021) posit that Covid-19 has negatively affected the living standards of households and that Covid-19 has a heterogeneous effect on demographic characteristics such as age, household size, income, educational attainments, and employment status. In the same light, Mueller et al. (2021) revealed that the effects of the Covid-19 pandemic on rural populations have been severe, with significant negative impacts on unemployment, overall life satisfaction, mental health, and economic outlook. In the same view, de la Fuente, Jacoby, and Lawin (2019) identified that the impact of the Ebola epidemic took a devastating loss of life and economic toll on agrarian societies making rural community members much poorer. This disrupted worker mobilization led to severe labor shortages leading to food insecurity.

In Ghana, the uncertainties surrounding Covid-19 have both short-term and long-term impacts on people. According to UNICEF (2021), in the short term, people, especially children, have experienced reduced access to essential goods and services, increased poverty, food insecurity, exposure to violence, abuse, and exploitation, as well as declines in physical and mental health. Moreover, the long-term impacts could be severe adverse effects on children's health, nutrition, learning outcomes, psychosocial well-being, and the ability of households to recover (UNICEF, 2021).

The Covid-19 responses such as lockdowns had negatively impacted the health-seeking behavior (maternal and child health services) of rural community members. Such changes in health-seeking behavior were associated with the unaffordability of critical services during the lockdowns (UNICEF, 2021). Also, fear of contracting the virus at the health centers reduced the health-seeking behavior for

many people, especially mothers requiring ante/post-natal care and children requiring critical health interventions such as vaccinations, malnutrition treatment, and injury (UNICEF, 2020).

Covid-19 has also impacted the educational sector too. The Innovations for Poverty Action (IPA) reported that only 60% of all children in Ghana are spending time on education since school closures were enforced, and these children were spending an average of only 5.9 hours per week on education in their household (Innovations for Poverty Action, 2020). Children spend less time studying since their households provide an unsuitable learning environment, no access to distance learning materials, and most of these children become vulnerable to traditional gendered roles in the household (UNICEF, 2021). This resulted in increased involvement of child labor and early marriage for young girls, especially in economically vulnerable households (UNICEF, 2021). In the same light, Chenjez (2020) reported that children in Malawi who were to be studying were taken to the streets to sell items for money since poorer-income families could not cope with the pandemic's adverse effects.

Although Covid-19 responses had severely impacted rural societies negatively, it is vital to indicate that there have been some positive influences as rural communities adhere to the hygienic safety protocols. For instance, the Christain Health Association of Ghana (CHAG) had argued that diarrhea and cholera cases in rural communities had seen a drastic decline due to the adherence to Covid-19 protocols. The report indicates that the handwashing measure and other hygienic measures have been effective against diarrhea diseases since March 2020 (CHAG, 2021). Also, Covid-19 has forced people, governments, religious communities, and families to be innovative in their responses. For instance, people have found creative ways to promote handwashing measures through music and maintaining physical distance by creating winged hats (WHO, 2020). In Ghana, people have found creative ways to make nose masks and other personal protective equipment from local fabric and used clothes. Also, policymakers are using drones to deliver critical medical supplies (including vaccines) to rural communities (Knott, 2020) and to transport Covid-19 test samples from rural communities (Balasubramanian, 2021).

5.1.5: Resilience and management strategies to health crises

The mammoth negative impacts of health crises require that stakeholders act swiftly to prepare, prevent, adjust and cope with potential health crises. In the Centers for Disease Control and Prevention (CDC) view, public health institutions and other key stakeholders need to prepare communities to respond to and recover from health threats and emergencies (CDC, 2019). The World Health Organization (WHO) outlined some preparedness plans during the Ebola outbreak. These were coordination, Surveillance/Rapid Response Team (RRT) /contact tracing/points of entry (PoE), laboratory capacity, case management, risk communication, community engagement, vaccination, operation support, and availability of logistics (WHO, 2019). These preparedness plans were useful to manage the Ebola epidemic.

Muvudi (2019) has argued that community involvement is key to eradicating health crises. Therefore, it is essential that policymakers first understand that every health crisis has its different characteristics. This means that there is the need to consider some factors such as geographical, socio-cultural, or economic context before a response is tailored. Second, making available resources needs to be followed with a sound mechanism to help facilitate coordination among different actors. This is vital since, during health crises, resources are always not enough, no matter the quantity distributed. Lastly, Muvudi (2019) opined that communities need to take ownership of the response put in place. Accordingly, the community needs to be involved and responsible by taking key roles and championing the safety responses identified. This helps in controlling and reducing the impacts of the health crisis (Muvudi, 2019).

In another study by Abramowitz et al. (2015), the researchers find out that community-based management strategies used in managing Ebola could be grouped into three main categories, namely (1) prevention strategies, (2) treatment and response strategies, and (3) community sequelae and recovery strategies.

First, as a preventive strategy, Abramowitz and his team identified that community leaders engaged in community-based training to prevent Ebola prevention, improved hygiene, sanitation, and the distribution of cleaning and protective materials, creating a system of surveillance, safely transporting infected individuals from the community into hospitals and Ebola Treatment Units, removal of the dead, and establishing a community-based infrastructure to care for people who were sick with Ebola.

Second, community leaders used responses and treatment as a strategy to adjust to the challenges that Ebola imposed on their communities. Awareness creation, education, and training of community members on how to take care of themselves and infected members were key. Providing first-aid treatment to the infected person and putting the infected household in quarantine were some of the approaches used. The researchers identified that lack of communication and lack of health capacities in the rural communities were the main challenges faced by community leaders (Abramowitz et al., 2015).

Third, Abramowitz et al. (2015) identified that community leaders engaged in sequelae and recovery strategies such as the reintegration of Ebola survivors into local communities, the care and management of "Ebola orphans" or children who had lost one or both parents to Ebola, and memorialization of individuals who have died of Ebola. The researchers indicated that the care of children orphaned by Ebola was widely regarded as a communal responsibility.

5.1.6: Trust building and communication approaches to health crises

Building trust and engaging with the affected population are key during health risk management. This is key since well-planned risk communication and interventions will fail if people do not trust the source of information. The WHO (2017) identified that to build trust; risk communication interventions need to be linked with functioning and accessible services, be transparent, timely, easy to understand,

acknowledge uncertainty, address and engage affected populations, link to self-efficacy, and be disseminated using multiple platforms, methods, and channels.

Usually, most health crises are associated with uncertainties. It is therefore appropriate that these uncertainties are communicated to the actors. Thus, communication by policymakers to other crisis actors must include explicit information about uncertainties associated with the health risk, events, and responses taken. It is also prudent to indicate what is known and unknown by policymakers concerning the uncertainties at any given moment (WHO, 2017).

Moreover, the WHO (2017) expressed that community engagement is crucial to improve crisis communication and trustworthiness in policymakers. Policymakers could engage the community by identifying key people that the community trusts and build a relationship with these trusted people. These people could be opinion leaders, traditional leaders, or faith-based leaders. Such trusted people need to be involved in decision-making to ensure that the responses taken are collaborative, contextually appropriate, and that conflicting interests (value trade-offs) are resolved where necessary. It is also important that the communication of these decisions, interventions, or responses are community-owned. Therefore, the trusted people identified must lead the crisis communication so that it can easily be accepted and understood by the community members. In this case, the health crisis must not be communicated in technical terms since that will not be helpful for understanding and promoting crisis mitigation behaviors.

The literature surveys about health crises have given a general viewpoint of providing responses, communicating, building trust, and managing health crises when they occur. However, these literature surveys do not address how people cope with such general health crisis management approaches. To understand how people were coping with the Covid-19 pandemic, I interviewed local leaders to determine what resilience strategies they were adopting. The interview findings are presented in the next part of this section.

5.2. Results from the interviews

Thirty respondents from ten rural communities were interviewed to share their views on the Covid-19 pandemic. The findings for their accounts are presented in three main themes. These themes are 1) the perceived impact of Covid-19 on rural communities, 2) crisis management and resilience strategies, and 3) crisis communication and trustworthiness. These themes were developed from the general understanding obtain from the literature surveys and were in line with the research questions set for this study.

5.2.1 Theme 1: Perceived impact of Covid-19 on rural communities

This theme provides some insights to research question 1: *What are the impacts of the Covid-19 pandemic on some rural communities in Ghana?* Since the data from the literature surveys indicated that the impacts of health crises were severe, especially on rural communities, I develop this theme to

explore more of such impacts. Therefore, to understand the severity of such impacts, I interviewed local leaders and members from ten rural communities to share their accounts on the perceived impacts of Covid-19 in their communities. Respondents (n = 30) were also asked to rate their perceived impacts under some five (5) scale categories, namely 1) much less than average, 2) less than average, 3) average, 4) more than average, and 5) much more than average.

Some three questions were asked concerning the perceived impact of Covid-19 on the rural communities. All respondents (n = 30) shared their views on these questions. These are expressed in **Table 6**.

Table 6: Perceived impact of Covid-19 on rural communities

Item	**Much less than average (%)**	**Less than average (%)**	**Average (%)**	**More than average (%)**	**Much more than average (%)**
Perceived threat/fear from Covid-19	-	13.33	36.67	33.33	16.67
Level of attention given to Covid-19	-	53.33	16.67	26.67	3.33
Perceived impact of Covid-19 on other sectors	-	6.67	16.67	63.33	13.33

First, respondents were asked how worried/fearful they were with Covid-19 in their community. The majority of the respondents expressed that they were worried about the threats of Covid-19. Some respondents (36.67%) said they feel averagely threatened by the Covid-19 pandemic in their community, while 33.33% of the respondents said that they feel more than average worried about the threats of Covid-19 in their communities. 16.67% of the respondents stated that they feel much more than average worried about the threats associated with Covid-19 (**Table 6**). When respondents were asked why they were worried about the threats of Covid-19, they explained that they were more worried about the economic hardship, uncertainty, and loss of lives associated with the Covid-19 pandemic.

We are worried about the condition of people; people are dying, we are losing loved ones. We are very worried (Respondent 1)

Respondents are also worried since the precautionary measures such as lockdowns in some cities and restrictions on social gatherings have affected their source of income and cultural values that they cherish much.

We are worried since it has slowed down economic growth. We are getting poorer every day (Respondent 16).

Another respondent affirmed this by stating that; *Yes! We were worried. Our community is in the northern part of Ghana. During the lockdown in the Southern part of Ghana, our people could not go to the southern part to seek work. Most of our people work in the cocoa farms in the southern part. Also, we value funerals. We always want to pay our last respect to the dead. The restrictions on social gatherings affected our culture. We have to bury the dead and organize funerals with a limited number of people (Respondent 11).*

On the contrary, 13.33% of the respondents stated that they were less than average worried or scared of the threats that Covid-19 directly posed to their community, such as being infected and dying from the pandemic. However, they feel disturbed by the economic impacts because of the precautionary measures imposed on them. For some of these respondents, they believe that they are less likely to be victims of Covid-19 due to their religious, social, and financial status. They assume that the Covid-19 virus is the enemy of the rich and not the poor. And that they religiously believe that a pandemic is a form of punishment from God to those doing something bad.

Most people are not worried. They think Covid is a rich person's disease. Most people in the community are considered not to have money and live a primitive life. They do not travel, and they think that makes them not worry (Respondent 3). Another respondent asserted that *this community is blessed we do not have a case. You see, this disease is a punishment from God, for we humans have been doing bad things for so long. If you are a true believer, you will understand what I am saying. Children of God are not worried at all, for the Lord will protect us always. We just have to do what is right (Respondent 25).*

Others are of the view that the virus is not as dangerous as they were informed since policymakers have been relaxing and flexible with the safety responses such as the lifting of lockdowns, opening of airports and land borders, lifting of the ban on the number of people at social events, and reopening of schools. For instance, many respondents referred to the action of politicians during the 2020 election campaigns where many political supporters did not obey the safety protocols during political campaign tours.

When covid started, people were worried since it was new, and people have little ideas about it. As time goes on, people made meaning to the covid situation. They believed it is not as dangerous as it was said initially. People also realized that policymakers had relaxed some precautionary measures such as lockdowns. This shows to them that things are not so bad as they knew initially (Respondent 10).

The government committee in charge of the pandemic management is the team tasked to identify what safety responses we have to use. They have been changing some of these measures lately. People were not forced to wear masks during election campaigns, but things were all good (less Covid-19 cases during the 2020 election duration). This makes us doubt if these measures work as assumed. Because if you are positive, a measure works, then why change it? (Respondent 22).

Another respondent compared the actions of the Covid-19 pandemic management team to a "mind game." This respondent believed politicians are the key players in this "mind game" where the ordinary citizen is a victim of their game. This respondent was speaking in line with a news article where a member of the government committee in charge of the pandemic undermined the role of election 2020 political campaigns as far as the spread of Covid-19 was concerned (MyJoyOnline, 2021).

They [government committee in charge of the pandemic management] are playing politics with the whole pandemic. During the election time, they said Covid-19 [infected cases] were less so that they can have their political campaigns. People did not obey the safety responses. After elections, they are now saying more people have the virus. People do not trust them due to such transparency issues. At times too, they seem to scare people with the numbers. It is like they are playing some mind games here (Respondent 2).

Second, respondents were asked about the level of attention they are giving to the Covid-19 pandemic. This was crucial since most of the respondents had expressed that they were worried about the threat of Covid-19 in their communities. More than half of the respondents (53.33%) indicated that they provide less than the average level of attention and time to Covid-19 (**Table 6**). The reasons behind this low attention given to the pandemic include the misconception that the virus targets the rich and political persons, Covid-19 is immune to Africans, and the view that the virus is a hoax. The small number of reported cases in rural communities has also been a factor that influences the level of attention people in rural communities to provide to the safety responses against Covid-19. Thus, the respondents seem to care less, although they have some friends and other family members in urban communities that have more Covid-19 confirmed cases. They refer to these people living in urban communities as "rich people."

People here are not giving attention to it (Covid-19). Most people think this is a political game. They just do not care about what happens. Some even say, is a disease for rich people. Especially, all the publicly named victims are all prominent people in Ghana. This makes the poor people assume Covid is not a disease for them since they do not travel to other countries. So, they do not care (Respondent 5, [Non-Formal Education]). This respondent continued to say that *people act as if nothing has occurred. They are acting in a laissez-faire manner (Respondent 5).* Another respondent echoed that *they are not giving much attention to the virus. They think it is not real. They do not have any experience like family members who have been infected by the virus. They think it does not affect African people (Respondent 9).*

Some respondents are of the view that there are other crises such as hunger that need more attention than the Covid-19 pandemic. They are of the view that such crises are worst and dangerous than the Covid-19 pandemic.

I give little attention to Covid-19. People are fed up now. People do not care about it anymore. Everyone is thinking of how to get the economy back to normal, and People do not want to be hungry. Dying from hunger is worst than dying from a disease that you think your body can fight. What has made people pay less attention is because we do not even have a case in this community. Why think of something that you do not have in your village. We might never have a case in this village (Respondent 27, [Basic Education]).

On the other hand, a gross total of 46.67 % of the respondents are of the view that the Covid-19 pandemic has received an average (16.67%), more than average (26.67%), and much more than average (3.33%) level of attention **(Table 6)**. Some factors such as limited health capacities, fear for more restrictive policies, and distrust for government to control the pandemic alone forces them to give much attention to avoid and stop the spread of the virus in their rural communities.

We are trying to stay away from each other and have told all our community members to tell their loved ones in the cities not to visit us for now. If we mistakenly have one imported case, we will all die. We do not have anything like a good health facility close to our village (Respondent 23, [Non-formal Education]).

Other respondents are of the view that policymakers could not be trusted with their policies. They believe policymakers have not prepared enough to manage the pandemic. Their distrust is based on failed promised policies on getting their communities better health facilities over the years. This means local leaders and members have to find their own ways to manage the Covid-19 without depending solely on the government.

We can not depend on and trust the government with its policies always. So, in as much as we are obeying the safety protocols from the government, we are also doing our best to go the extra mile in staying away from public places and requesting people to postponed their funerals and other festivals to indefinite dates (Respondent 24).

At the same time, some respondents believe that the harsh decisions from the government towards rural communities require that they pay attention and obey the safety responses; if not, the policymakers could implement very stricter measures such as locking their communities down. Thus, they are forced to cooperate with policymakers to avoid further restrictions.

We are giving much attention to [Covid-19 safety responses] since the Covid task force can close us down [lockdown the community] if we do not obey the safety responses (Respondent 21]).

Lastly, under this theme, respondents were asked to share their views on the impact of Covid-19 on other aspects or sectors of their community. Most of the respondents affirmed that Covid-19 had impacted other aspects of their community severely. Thus, 16.67%, 63.33%, and 13.33% representing average impact, more than average impact, and much more than average impact on other sectors,

respectively **(Table 6)**. The respondents identified that the impact of Covid-19 in their various communities had been both positive and negative. However, the negative impacts outweighed the positive impacts. Some of the positive impacts in their view include creating awareness for good hygienic etiquette, increase in health capacity to rural communities, increase in innovative ideas, need to plan, care for the environment, and family bonding.

We have become more hygienic than before. Food poison and cholera cases have been reduced. The government is now paying attention to poor communities as far as the building of clinics and health facilities are concerned. They now see the need to do that because of the pandemic. We have become innovative in doing things now. We are making our own face masks with old clothes (Respondent 4, [Tertiary Education]).

I must say that many families are bonding together now [because of the lockdown restriction]. Families are staying home together. For some busy families, this is like a family union (Respondent 5, [Non-Formal Education]). Families staying together and bonding during the pandemic is good, especially for addressing the psychological stress and trauma associated with the pandemic. It also helps build family values. However, such family reunions could make families more vulnerable since a family member who is infected with Covid-19 could easily infect other family members. This might be the case when people travel from the cities to rural communities due to the lockdown measures.

Some of the negative impacts of Covid-19 identified by respondents include health impacts like loss of life, fear of visiting health facilities, and stigmatization against the infected persons.

I am very worried as a health worker. In this community, people fear coming to the health facility nowadays. People are dying not because of covid but because of different diseases that are curable. People think the hospital is a hot spot that spreads the covid. So, they are avoiding coming to the hospital for other sicknesses. People do not care for the sick anymore since they fear being infected too. There is a stigma against people who have the virus. When you cough or have a disease that mimics covid, people easily conclude that you have the virus and avoid coming close to you. This is not how this community used to be (Respondent 4).

Also, Covid-19 had negatively impacted the socio-cultural values of rural communities. It has negative consequences on the psychological well-being of many people. At the same time, the economic consequences have been very severe.

Covid had impacted our social and cultural activities. Our way of life has changed drastically. We have to learn to compromise on some cultural values such as handshaking and social values such as burial and funeral services. The restrictions gave us a second meaning to these values. Indeed, our religious values were also compromised. We have to learn to worship in small families and individually at times. Even now, we can worship for only 2 hours under strict measures. These have psychological

consequences on our people too. We have become lonelier and more self-centered. Our economic activities were halted for some time. Many lost their jobs, and most small businesses have closed down completely. Our educational system was impacted too. We have to close our school for nearly a year. Our children have to stay home doing nothing. Our society has been frustrating during these times (Respondent 21).

The restrictive measures such as lockdowns and closure of schools influenced child marriage and violence against women and children. Some of the respondents expressed that;

People are getting frustrated every day, leading to social violence such as sexual violence. Child marriage has increased during these past months of covid situation. We are paying more attention to covid than other known social challenges. Since schools are closed, all the children are home, and families can not control them. Most of them find themselves being given to marriage secretly (Respondent 8, [Tertiary Education]). Another respondent echoed these by stating that *the women in my church have been complaining of violence especially sexual violence against them by their husbands. Due to the lockdown and closer of borders, many people lost their jobs. These people are always home. There is much misunderstanding between partners leading to divorce. Of course, families with children are also struggling a lot, especially if at least one of the couples (husband or wife) is not working. Their income level reduces much, forcing them to cut down their budget drastically (Respondent 25, [Basic Education]).*

In general, some Covid-19 safety responses such as lockdowns had made the poor, weak, and disadvantaged people become poorer, weaker, and more disadvantaged. For instance, when schools were closed, poor children and minors in rural communities could not access online (virtual) platforms that their mates in urban communities from rich families accessed. This has increased the social inequality among communities and families.

Covid affected the educational sector. All schools were closed for almost one year. The consequences were very high. Our local children could not even join the online classes that their mates enjoyed in urban cities. The financial burden on poor families increased a lot during these times. Those that have to travel to the southern part of Ghana to find a job and do "Kwa kwa kwa" [meaning petty-petty job in the informal sector] to survive were denied such opportunities because of the travel ban locally. The poor and weak became the most vulnerable (Respondent 11)

5.2.2 Theme 2: Crisis management and resilience strategies

This theme seeks to find answers to research question 2: *What are the resilience strategies adopted by some rural communities in Ghana in their crisis response against the Covid-19 pandemic?* The data from the literature surveys outline some responses being implemented by policymakers globally and locally. However, little is said about how people were coping with such a response. This theme was

developed to help identify the responses being implemented in rural communities in Ghana and to also explore to what extent rural communities were coping with such responses.

All the respondents (n=30) shared their views on some of the crisis management and resilience strategies that are being used to prevent, reduce, adapt, and cope with the Covid-19 pandemic in their communities. Respondents also shared their views about the pre-Covid-19 preparations, current responses used, and some challenges adjusting to such responses. In some instances, respondents were requested to rate their views under some five (5) scale categories, namely 1) much less than average, 2) less than average, 3) average, 4) more than average, and 5) much more than average. These are expressed in **Table 7** below.

Table 7: Crisis management and resilience strategies

Item	Much less than average (%)	Less than average (%)	Average (%)	More than average (%)	Much more than average (%)
Community preparedness for Covid-19	76.67	23.33	-	-	-
Perceived effectiveness of safety responses	-	60.00	40.00	-	-
Community adaptation of safety responses	6.67	33.33	46.67	13.33	-

First, respondents were asked to share their views on their community's level of preparedness towards Covid-19. All respondents (n=30) stated that their communities were not prepared enough for the Covid-19 pandemic. The majority of the respondents (76.67%) stated that their community was much less than average prepared for the pandemic, whiles 23.33% expressed that they were less than average prepared (**Table 7**). Many respondents attributed the poor preparation plans to a lack of resources such as health facilities in some rural communities, ambulances, less equipped health clinics, and fewer health workers.

No! The community was never prepared for Covid-19. The country might have some emergency responses, but my community was not prepared. We have no ambulances, no hospitals. The clinic we have is not equipped for such viruses. The country at the national level has experts who have first-hand knowledge about the virus and advise us all accordingly (Respondent 7).

Other respondents also expressed that policymakers have not been proactive in identifying and preventing crises even when there were signs of such potential crisis. They believe policymakers at times become complacent in doing their work.

Nothing was put in place. We had the chance to close our borders, but we did it late after we recorded some cases. [Policymakers] always act late. We need to be proactive (Respondent 5). Our leaders never believe it will hit our country to even think of our little community (Respondent 10). Another respondent expressed that policymakers need to be concerned with what happens in other countries since the world is more connected than before. *We live in a global village. Our towns and cities are now close to each other than in the last century. You only need a car or an airplane to visit another country. In some cases, you can use a bicycle or a motorcycle. We are one world now. Just look at it from this country's point of view. It is easy to travel from our community to the other community. This was not the case in the last two decades. This also has exposed us to such diseases too. We need to be concerned with what is happening in every country and plan ahead (Respondent 24, [Tertiary Education]).*

Another factor that resulted in the poor preparation could be attributed to the conflicting interests among stakeholders during the planning phase. The political interests versus the socio-cultural interests made it challenging for stakeholders to trade-off their values in the planning stage.

There was no preparation. The preparation plan usually has two sides, the political side, and the community side. The political authorities did less to support the community. Our community was not fumigated. The only thing we hear was the safety protocols to be followed. This was after we have recorded cases. From the community side, local leaders did not do well too. The cultural values were so important to them that they did not want to adjust initially. For instance, burial and funeral services were so important to them that they could not ask their community members to avoid crowding in these gatherings (Respondent 11).

A few of the respondents believe that the country was prepared in some way. They consider the preparation efforts to include delivery of ambulances to some communities, equipping clinics, and investing in drones to deliver health equipment to rural communities. However, they also point out that the uncertainty and complexity associated with the pandemic made it challenging for policymakers to prepare adequately.

Nobody saw this coming. It is a complex and uncertain incident. We were not prepared for that. However, I must say that the government's initial activities, such as ambulance distribution, drone delivering health items such as medicine and blood to rural communities, were helpful. The problem is that they were not enough (Respondent 12).

Second, respondents were asked to share their views on how they were managing the pandemic currently. Most respondents indicated that they were adhering to safety responses such as the washing of hands regularly, social distancing of at least 1 meter, wearing of a nose mask, avoiding public gatherings, observing the ban on festivals, and eating healthy food.

Now, there are "veronica buckets" (a plastic bucket filled with water to aid handwashing) at some key places like churches, mosques, etc., wearing nose masks, washing of hands, and social distancing. We also eat healthy food and fruits, drink a lot of water, and staying more hygienic. We exercise too. These are the safety responses used in the community (Respondent 2).

Community members who refused to adhere to these safety measures are punished by means of being refused the services they want. For instance, people are refused food items in the market if they do not wear the mask. In some cases, these people are educated and offered free masks. In some instances, too, they are forced to buy the masks by the local task force and police who were entrusted to enforce the policies.

We try to help people who disobey the safety responses. For instance, we give them masks if they do not have them. Most of them do not have the capacity to get the resources for the safety response. It is expensive to get masks. So, we are flexible, provide them what they need and even coach them. Some become guilty as soon as they see us without the masks. That is why we need to coach and guide them. We invite public health personnel to even talk to the people. However, at times, we can be radical. The police will force you to buy the mask or fine [charge you extra money] you no matter the reason (Respondent 1).

Third, the respondents were asked about their source for such safety responses and the perceived effectiveness of such safety responses. The main sources informing the respondents of such safety responses are the media (Radio, TV, social media), community leaders (assembly members and opinion leaders, faith-based leaders, traditional leaders), the government through the Ministry of Health, Ghana Health Service workers, and the president's monthly announcement.

The majority of the respondents (60%) perceive these safety measures to be less than average effective for them (**Table 7**). They believe that people need to be educated to understand the importance of these safety responses. This will help people pay attention to these safety measures for them to be effective.

I think to some extent, the responses work. But we must come down to the level of the people. We need to let people understand these responses. We have to tell people the responses in their native language. More education is needed. You can not just force someone to accept something because you think it is good for them (Respondent 2).

Some believe that the inconsistency in implementing some of the measures gives room for people to assume that the safety measures are not so effective as anticipated and that they are measures that one could do away with.

They have been changing some of these measures lately. People were not forced to wear masks during election campaigns, but things were all good. This makes us doubt if these measures work as assumed. Because if you are positive, a measure works, then why change it (Respondent 22).

However, some respondents (40%) shared that the safety measures are averagely effective (**Table 7**). They believe these safety measures are good hygienic practices that need to be encouraged not only for Covid-19 but also to be used post-Covid-19.

These safety responses work not just for Covid but for our health generally. Washing hands is a general good hygienic practice that protects us from bacteria infections. Wearing of face mask also helps us to prevent inhaling dust into our bodies. It is good to eat healthily, avoid smoking and reduce alcohol intake when possible. These things are multi-purpose safety responses and not just to be geared towards Covid alone. We must do our best and practice them always (Respondent 4).

Fourth, the respondents were asked to share how their various communities were adjusting to the safety responses identified. Some respondents (6.67%) expressed that their community is much less than average coping with the Covid-19 safety responses. Also, 33.33% of the respondents stated that their community members were less than average coping with the Covid-19 responses (**Table 7**). Some factors contributing to community members not coping with the safety responses include the misconception that Covid-19 is a hoax, financial challenges, personal and socio-cultural interests (believes and values), distrust for policymakers, and lack of education. Some of the respondents expressed these as;

hmm. not really. People are not coping because they think it is a hoax. So, some are adjusting, but most people are just doing their own things (Respondent 13). Another respondent added: *We could not cope with the effects of the lockdown. The financial consequence was too much. However, we were able to cope with the wearing of face masks and washing of hands to a large extent. The medical masks are expensive and not common to get (Respondent 28).* Thus, aside from masks being expensive, it is not available in rural communities to buy even if one could afford it. Another respondent also expressed that *People are not adjusting. They have their personal believes and cultural values they cherish so much. Others distrust the policymakers. Lack of education also counts. We need to educate people about the safety measures and the virus (Respondent 11).*

On the contrary, many of the respondents indicated that their community members are averagely (46.67%) and more than averagely (13.33%) adapting to the safety measures. The motivation behind their actions includes saving lives, improving their health conditions by being hygienic, and the zeal to see the pandemic end quickly and get back to normal activities.

People are coping with the responses because they are concerned about losing a loved person (Respondent 1). Another respondent expressed that *Some adults have seen the multi-purpose nature of the safety responses. When you wear the mask, it prevents you from dust and other exhaust fumes (Respondent 4).* Respondents are positive that they could get back to normal activities when they cope with the safety responses.

We need to get to normal with as many lives as possible. We need to save lives and our economy too. We can not sit and do nothing. We must do our best (Respondent 28).

In other to get back to normal or recover from the Covid-19 pandemic, respondents are not only adjusting to the safety protocols, but also, they are getting involved with the crisis management processes. They have seen the need to collaborate and cooperate with health officials and policymakers. This requires that community members need to trust the crisis team, especially with information shared with the community members.

We know we can all recover when the strong provide support for the weak. We need to support each other. We need to collaborate with the government and the health experts. We need to put our differences aside. We need to be ready to take vaccines and obey all the safety policies identified. We need to trust that these measures will work. It is difficult, but we have to believe in this. We need to trust our crisis leaders that they are giving us the right information and that, as citizens, we have a key responsibility to play for us to get back to normal (Respondent 15, [Basic Education]).

Some respondents expressed that their community local leaders are involved in coordinating the Covid-19 pandemic management at different levels. For instance, some local leaders are involved in organizing the community members to clean their environment. Others are involved in the local task force to help implement and enforce the safety responses, while others are involved in educating and creating awareness of the Covid-19 safety measures.

The community is involved at different stages. 1: They have a communal labor approach that helps to clean the communities. 2: They are part of the task force to make sure people obey the safety protocols. 3: They are involved in the education process (Respondent 4).

Some community leaders and members have put themselves at the core of the Covid-19 management. They have been improvising, finding new and innovative means to ensure all members have access to some safety equipment such as masks, water, soap, and hand sanitizers.

The community has been improvising. When we involve ourselves, we find our own way of making face masks from pieces of clothes. This was a very good initiative since we had few resources at the initial stage. The medical masks are expensive for us to buy, so we use the masks we made from our clothes. We even find out easy ways of turning our local "Akpeteshie" [local alcoholic drink] into hand sanitizer. It has a high volume of alcohol. We used it when we run out of hand sanitizers (Respondent 17).

Some community members have been cooperating by providing financial support to buy some personal protective equipment for the health facilities in their various rural communities. Some local leaders have made some houses available to be used as quarantine and isolation homes if a community member gets infected. Also, local members have supported health workers with contact tracing when there are suspected cases.

The rich members in the community are also raising funds to support and equip our community health facility and workers since the resources there are limited. We need a better capacity to manage the virus in case something very bad happens (Respondent 19).

For us, we know the role of the church in making sure the community is free from covid is important. We have involved the community leaders and elders in agreeing on some houses that we think we can use for quarantine and isolation purposes in case we record some cases. We have also agreed on a sub-task force to help assist the community health care workers as far as contact tracing is concerned. When the church was closed down, we requested the community health workers to use the church premises from Monday to Friday as a facility to assemble and educate the community, especially for pregnant groups and new mothers. We realized that these groups of people feared going to the health care facility for their periodic check-ups. The community members are very collaborative and supportive too. They provided the health workers with food items from their farms very often. The health workers are doing their best to make sure we are all safe and secured. Our relationship with them had increased the trust we have for each other (Respondent 21).

Again, some respondents elaborated on how they had compromised on some socio-cultural values that are key to them. Traditional leaders and faith-based leaders had been flexible with the celebration of festivals and burial services. These events hold sacred cultural values that are cherished most.

We are flexible with some of our cultural values, such as festivals and funeral services which demand a lot of people to gather around to celebrate. The reason is after this disease is under control, we can celebrate these festivals (Respondent 25).

All these cooperation, collaboration, improvisation, support, coordination, compromises, and flexibility by the community members had been fruitful since the respondents believe their local leaders are involved in the pandemic management processes. Some respondents attested that these successes are because of the credibility and trust community members have for their local leaders.

Fighting Covid is a shared responsibility. This shared responsibility is built on trust and credibility. Our community leaders, such as chiefs, are very trusted individuals. They have good credibility and reputation. When they ask us to participate in communal labor or do something, all of us do it without questioning. They are the kings of the land. They also take part in communal labor. They wear their masks too. They tell us the challenges they face too and encourage us to team together to fight this virus together. So, we are all cooperating and collaborating with the health officials in our community. Sometimes, we keep reminding ourselves with greetings and songs such as "Covid is real and dangerous," then we respond, "take care and protect yourself" (Respondent 30).

Fifth, the respondents were asked the challenges they encounter as they adjust to Covid-19 responses. The challenges the respondents expressed were classified into three (3) categories, namely 1) behavioral

challenges, 2) managerial challenges, and 3) trust and communicational challenges. These challenges, when addressed, could increase respondents' ability to respond to Covid-19 in a resilient manner and to adhere to the messages communicated by the policymakers.

The behavioral challenges include lack of attention given to Covid-19 responses, laissez-faire attitude of people, stigmatization, and discomfort associated with using the safety responses such as face masks.

Attention is an issue. People are not giving much attention to the directives. They do not care. They do whatever they want. When we asked them, they tell us they feel very uncomfortable wearing the mask. They always say they can not breathe. Sadly, some people do not even want to come close to people who have even be tested negative to talk about those who were tested positive. People need to be informed that having the virus is not a death sentence. So, most people have bad attitudes towards the adherence of the safety responses (Respondent 13).

Also, managerial challenges included poor planning for fro the pandemic, weak implementation, and enforcement of safety responses, less involvement of local leaders, conflicting interests of stakeholders, lack of resource capacity in rural communities, involvement of politics, and abuse of power by law enforcement agencies.

The police brutality causes much fear in the community. That is a big challenge than even the Covid itself, especially when we have not recorded any Covid case. We need to be flexible with the people. This is the more reason we want more of our local leaders to be involved with the Covid task force. They [local leaders] understand us well. They can help with the implementation and enforcement without beating people. The government should think about how to get us good health facilities and equip our health workers. Maybe, they should provide people with financial support instead of beating them (Respondent 29). Another respondent also stated that [It] i*s not easy to coordinate all the different people involved in this crisis. The traditional leaders want to make sure they can perform their traditional festivals, family heads want to bury their loved ones, and the youth wants to get back to parties too. It is not easy telling people to hold on to their values. There is a lot of politics in this thing [Covid management]. Politicians want their interests to acknowledge always. When [it] is a political campaign or election, they want safety protocols to be relaxed (Respondent 24).*

Trust and communicational challenges included lack of trust for policymakers, effects of fake news and conspiracy theories, inconsistency in information shared, and less education and awareness creation using local languages.

Ignorance is [a] challenge. People think covid is fake and not real. We need to educate people. People do not trust anymore. We are notoriously religious. We have become slaves to spiritual matters. People think this is a punishment for some certain group of people [from God] (Respondent 3). On the issue of trust, Respondent 5 elaborated that *trust has been an issue too. Policymakers have not proved that we*

can trust them. People always say if the government put the same level of attention, effort, and resources we have into fighting malaria and cholera, maybe, we could have a better community to live in (Respondent 5).

5.2.3 Theme 3: Communication and trustworthiness

This theme finds answers to research question 3: *What are the influences of crisis communication and trustworthiness during the Covid-19 pandemic in some rural communities in Ghana?* This theme is central since the literature surveys all seem to agree on the vital role of crisis communication and trustworthiness when managing health crises. However, little had been presented on the factors that influence crisis communication and trustworthiness when managing pandemics. To explore such influencing factors, I engaged all the respondents (n = 30) to share their views on their sources and frequency of information received about Covid-19, level of trust for these sources, policymakers openness to information shared, their trust in policymakers to manage Covid-19, and factors that influence trustworthiness and communication of Covid-19 in the selected rural communities. In some instances, respondents were requested to rate their views under some five (5) scale categories, namely 1) much less than average, 2) less than average, 3) average, 4) more than average, and 5) much more than average (These are expressed in **Table 8**).

Table 8: Communication and Trust

Item	Much less than average (%)	Less than average (%)	Average (%)	More than average (%)	Much more than average (%)
Perceived knowledge on Covid-19	6.67	30.00	63.33	-	-
Frequency of receiving information	-	30.00	36.67	33.33	-
Making meaning of information received	10.00	66.67	23.33	-	-
Trust for the source of information	3.33	66.67	30.00	-	-
Policymakers openness to information shared	23.33	76.67	-	-	-
Trust in policymakers to manage Covid-19	-	53.33	46.67	-	-

First, respondents were asked to rate their level of knowledge concerning Covid-19. The majority of the respondents (63.33%) expressed that they have an average level of knowledge as far as Covid-19 is concerned (**Table 8**). On the other hand, 30% of the respondents indicated that they have less than average knowledge about Covid-19, and only 6.67% stated that they have much less than average knowledge about Covid-19. Most of the respondents expressed that their perceived knowledge of Covid-19 was limited to the safety responses and how the virus spreads. They stated that their level of

knowledge about the Covid-19 pandemic does not include the technical health concepts about the virus. However, they believe that the virus is real and not something that is a hoax.

I think I do not know much about Covid-19. I am not a medical person, but I have some basic knowledge about how the virus spread and how I can prevent it by using safety protocols. The medical people do not even know much about the virus. They said there are many uncertainties with it. Things can change at any time. For me, I believe the virus is real. I have lost a family member to it. I just do not know so much about the virus (Respondent 1).

Second, respondents were asked their source of information concerning the pandemic. Most of the respondents stated that they obtain information about the pandemic from traditional media channels (such as local radio -FM stations, community information vans, TV stations, and Newspapers), internet channels (social media platforms, and WHO website), peers (friends and family), community health care workers, and local leaders (such as faith-based leaders, assembly members, and local task force members). Most respondents acknowledged that they receive information from multiple of these sources.

Respondents were then asked to rate how often they receive this information. About 70% of the respondents stated that they have average and more information at their disposal regularly. Thus, 36.67% and 33.33% stated that they receive average and more than average information about the pandemic, respectively. Only 30% stated that they receive less than average information concerning the pandemic.

Third, respondents were asked if they could make meaning of the information they receive. The majority of the respondents (76.67%) stated that they make less meaning of the information they receive. Thus, some 66.67% expressed that they make less than the average meaning of the information they receive regularly and 10% stated that they make much less than the average meaning of the information obtained. Some of the respondents expressed that;

A few of them (Covid-19 information) make meaning to me. Some of the safety responses we understand them—for instance, handwashing. But we do not understand why we should wear the mask. We are a small community and mere farmers. We walk to the farm with the family always. We have stayed here for years together. The task force will punish us if we do not wear the mask when going to our farm. Some of the safety responses should not be forced on us (Respondent 5, [Non-Formal Education]).
Thus, this respondent believes that there is a need for policymakers to be flexible with the implementations. It could be useful if policymakers also share specific information such as guidelines for mask usage. Such guidelines, when communicated, could provide a better understanding of when and how to use masks accordingly.

On the other hand, 23.33% of the respondents indicated that they could make some (average) meaning of the information they receive (**Table 8**). These respondents explained that their understanding of the information is based on the nontechnical aspect of the Covid-19 safety responses.

The information makes meaning. The safety responses are easy to understand. They are nontechnical. But I find it difficult to understand the Covid-19 death cases. They always say those dying have underlining complications. That does not make meaning to me. I think it becomes more technical when it comes to that (Respondent 9).

Fourth, respondents were asked if they trust their source(s) of information. Many of the respondents (70%) stated that they have less trust in the source of their information. Thus, 66.67% of the respondents expressed that they have less than average trust for the source that they receive their information, whiles only 3.33% of the respondents expressed that they have much less than average trust for their source of information (**Table 8**). Many respondents acknowledged that they do not trust internet-based sources such as social media platforms.

Hmm, you can not really trust the sources. Sometimes, the information from social media is not consistent with other sources such as community information vans (vehicles installed with public address systems to share information in rural communities), TV stations, and Newspapers. This makes it difficult to trust social media information. There are a lot of fake news and conspiracy theories. Usually, such news is very attractive and convincing. But later, you see they are not true (Respondent 6).

However, 30% of the respondents indicated that they have an average trust for the source they receive. These respondents explained that they trust information received from the traditional media and their local leaders.

I trust the TV and FM stations. They are the only institutions updating us. We think they like us more than the government. I also trust information from our local leaders. They love us and want us to be safe always. They have good reputations (Respondent 5).

Later, the respondents were asked whom they trust. Most of the respondents expressed that they trusted their religious figures (God/Allah). Others acknowledged that they trust people close to them, such as family members (mothers, wives, and children) and local leaders (faith-based leaders and traditional leaders). Only a few stated that they trust institutional bodies.

Fifth, respondents were asked to share their views on whether policymakers have been open with information to the community. All respondents expressed that policymakers have been less open and transparent with information they shared with the community. Thus, most respondents (76.67%) stated that policymakers have been less than average open to information they share with their community (**Table 8**). And 23.33% of the respondents stated that policymakers have been much less than average

open to information shared with their community. Most of the respondents expressed that policymakers have been political with the information concerning the Covid-19 pandemic. They believe there had been many inconsistencies with the information shared with the public.

Hmm, it is difficult to say they [policymakers] are open or transparent. They only come to tell people what to do as far as the safety responses are concerned. But there are so many things we need to know about the Covid-19 pandemic. They are trying to manage what to tell the public and what not to say to the public. Maybe they want to avoid fear and panic or show that they are in charge of this pandemic. The number of active cases and the recovering rate is an issue that needs to be addressed well. During the 2020 election campaigns, the number of people recovering from Covid-19 was very high. After the elections, they seem to always say people are not recovering from the virus. That makes it difficult to understand. People will say you are doing politics with the management of the virus. Then, you will lose much trust since you are not consistent with the information (Respondent 8).

Sixth, respondents were asked if they trust policymakers could manage the pandemic well. 46.67% of the respondents have an average trust in policymakers to manage the Covid-19 pandemic well (**Table 8**). These respondents believe that policymakers have been doing well by involving local leaders in the Covid-19 management team, doing fewer politics with the management, educating and creating awareness, and providing good policies before and during the pandemic. These actions of policymakers had gained them some level of trustworthiness.

I trust they can do a good job. They have a good past record in managing some health diseases such as malaria and cholera outbreaks. This past attitude is gaining them some trust. They are working well with our local leaders too. Also, they have been making some bold decisions now. They are trying to test as many people as possible. They have purchased vaccines too. They took bold decisions to close borders, lockdown some capitals, and close schools nationwide. They knew these could cost them much in the December 2020 elections, but they did it. So, I trust them for that. (Respondent 14).

Some respondents pointed out that there will be some residual risk at the end with all these good measures.

The leaders have done well. I think they can manage the pandemic well. The issue is there will still be some damages to our society in the long term. We can look at the Ebola epidemic. We must be ready to cope with such impacts that will be with us for a longer time (Respondent 12).

On the other hand, the majority of the respondents (53.33%) indicated that they have less than average trust in policymakers to manage the pandemic well (**Table 8**). The reasons for their claims could be categorized into three, namely 1) poor communication approaches, 2) involvement in politics, and 3) poor management strategies. These three categories had negatively influenced the level of trust these respondents have for policymakers to manage the Covid-19 pandemic successfully.

The respondents believed that policymakers were not providing accurate, consistent, and open information to them since they were influenced by the political powers that appointed them. Some of the respondents expressed that;

I do not trust them (policymakers). They are not open and transparent. If you do not hear from them for a while, you can not trust the information they give. They have not been consistent. It is possible they are using Covid for politics. During these times, politicians have done political campaigns for election. People did not experience the protocols. And they said there were few cases during that time. I think they are political sometimes (Respondent 1).

Respondents also believed that the poor management strategies being used by policymakers such as poor planning, poor implementation processes, poor enforcement of safety responses, less coordination and involvement of traditional leaders, fewer resources provided to rural communities, corruption, and poor accountability to the people had negatively influenced their trust in policymakers. The respondents expressed these views as;

Things may get worse. They (policymakers) provide some information, but information alone is not enough. It must follow with actions. Such actions should be consistent. We need actions such as providing health facilities and providing the resource capacity required to manage the pandemic. We need strong actions (Respondent 4).

Another respondent expressed the corrupt activities of the policymakers as: "*they (policymakers) have not involved our local leaders. They are doing things how they want it. People are taking advantage of the pandemic to be rich. They are stealing from the donations to be used for the management of the pandemic (Respondent 28).*

Respondent 8 echoed that policymakers had not been accountable and believe there will be a lack of accountability even at the end of the pandemic. The respondent expressed this as "w*e did not prepare well for the virus; we are doing nothing much now except asking people to follow the safety protocols. After this pandemic, the next problem will be whether these policymakers can make accounts of what happened and what lessons we have learned. For me, I do not trust the policymakers will do well after the crisis. They will shift blames and set up a commission to investigate the handling of the crisis. Then, we will return to business as usual (Respondent 8).*

Lastly, on the theme of trust and communication, respondents were asked to state some factors that could influence the communication of the Covid-19 pandemic in their various communities. The key factors that were identified include 1) involving local leaders and other stakeholders such as the media, 2) using local dialect to communicate, 3) use of songs to communicate the safety responses, 4) providing timely, accurate, and consistent updates, 5) providing open and transparent information, and 6) avoid using technical and medical terms and phrases.

Some of the respondents expressed these as;

A timely manner to address fake news is important. It helps reduce the conspiracy theories. Openness and transparency with the information available are key too. It helps build trust, which is very crucial now. We must trust our leaders. But this trust can not be automatic. The leaders need to be responsible to gain our trust. The involvement of local leaders is another issue to address. The chiefs and elders must be involved. The media must be involved too. They (the media) have been a very useful agency in educating the people (Respondent 3). Another respondent also echoed that "u*se of native language is important. When you speak to a man in his native language, it stays in their hearts forever. We need people from the community who stay and speak the language of the community. That will increase the community's trust and increase awareness. It is not good to bring someone who does not live with them and not known to them to talk to them in English. We must involve local people in the communication. We must educate some selected local people who have influence to also educate other people. Let us use songs. Our community members like music. It is time we channel some of the key things into music. They will easily understand and keep them (Respondent 2).*

In this chapter, I have presented the detailed findings for both the literature surveys and interviews. The findings from the literature surveys were more of general and global data to help understand health crises, especially the Covid-19 pandemic. The findings from the interviews provided specific data in the context of the ten selected rural communities in Ghana. The next chapter discusses these findings in line with the related scientific theories about crisis concepts, crisis management, resilience, trust, and crisis communication.

Chapter 6: Discussions

In this part of the study, I have discussed the empirical data collected in line with the related theoretical frameworks outlined in chapter three. I have decided to present this chapter in four main parts. The first three parts addressed each of the three research questions set for the study. Furthermore, in the last part, I presented a proposed crisis typology based on trustworthiness and crisis communication.

Accordingly, in part 6.1, I discussed the Covid-19 pandemic as a crisis and presented some impacts of the Covid-19 pandemic on rural communities. This provided insights in answering the first research question: *What are the impacts of the Covid-19 pandemic on some rural communities in Ghana?*

In part 6.2, I discussed the Covid-19 pandemic response strategies at the pre-crisis and acute crisis phases. This helped to answer the second research question: *What are the resilience strategies adopted by some rural communities in Ghana in their crisis response against the Covid-19 pandemic?*

In part 6.3, I elaborated on the role of crisis communication and trustworthiness during the pandemic. I also discussed some factors to build trust and improve crisis communication. This provided insights to the third research question for this study: *What are the influences of crisis communication and trustworthiness during the Covid-19 pandemic in some rural communities in Ghana?*

In the last part (6.4), I presented a proposed crisis typology based on the level of trust and communication among crisis actors.

6.1 The creeping transboundary crisis: Covid-19 pandemic

Generally, when we talk of a crisis, it rings the bell of an undesirable and unexpected situation that befall a person, group, organization, culture, society, or the world at large (Boin, t'Hart, Stern, & Sundelius, 2005). Therefore, the term crisis denotes a certain level of disorder in the normal development of a society. This disorder in normal activities imposes a severe threat on the values and norms that people cherish so much (Rosenthal, Charles, & 't Hart, 1989). These values include protecting people's life, environment, assets, and reputations. Policymakers must make vital decisions to avert such threats. The impact of the crisis threat could worsen if policymakers refuse to give much attention to the crisis. 't Hart & Boin (2001) have argued that the slow onset of such crises influences the required attention. 't Hart and Boin called such crises as creeping crises. The nature of creeping crises seems to provide policymakers the time to act. However, a generous time slot may not make a difference if policymakers do not realize that time is of the essence. When a creeping crisis is not well managed, it could easily escalate along geographical, political, and functional lines and produce significant governance challenges (Christensen, Lægreid, & Rykkja, 2016).

Health crises such as the Covid-19 pandemic is a transboundary crisis by nature since a pandemic is considered the manifestation of cases of diseases above what could usually be expected worldwide, or over a vast area, crossing international boundaries, and usually affecting a large number of people (Last,

2001, p. 131). Such a health crisis usually starts slowly and could last for days or years (Robinson, 2020). The Covid-19 pandemic started slowly in Wuhan in December 2019. At that time, it received little attention from policymakers. In a few months, it escalated and emerged outside China to Thailand, and then it spreads across Europe, Asia, America, Africa, and across the globe (WHO, 2021). Because of its impacts and fast spread across geographical borders, the WHO declared Covid-19 as a pandemic on March 11, 2020.

Consequently, policymakers were forced to find the appropriate precautionary responses to mitigate the threats associated with it. Unfortunately, there were uncertainties associated with the responses since such responses had ripple effects on other sectors of society (Bukari et al., 2021). For policymakers to excel in managing the pandemic, they had to be seen as credible and communicate well with the other crisis actors. This task could be challenging for policymakers (Boin, t Hart, Stern, & Sundelius, 2016). The transboundary nature and uncertainty associated with the Covid-19 pandemic could imply that sequential attention, local rationality, biased search, and constraints on information are likely to influence the crisis responses (Christensen, Lægreid, & Rykkja, 2016). Therefore, the threats of Covid-19, the urgency to mitigate the threat, and the uncertainties could make it hard enough for policymakers to manage.

6.1.1: Impacts of the creeping transboundary crisis: Covid-19 pandemic

When there is a crisis, the citizenry will look up to policymakers to avert the threats or at least minimize the damages caused by the crisis. Therefore, policymakers are responsible for leading the citizens out of the crisis by explaining what went wrong and convincing citizens that such a situation may not happen again (Boin, t Hart, Stern, & Sundelius, 2005). This responsibility could become challenging, especially when managing transboundary creeping crises, like the Covid-19 pandemic. In such situations, the threats of the crisis become very challenging to avert or minimize. Accordingly, if care is not taken, such crises could become uncontrollable for policymakers since they cannot avert the threats altogether. They have to learn to cope with some of the threats and impacts of the crisis. Some of the consequences of the pandemic's threats include loss of life, change in behavior, influence on policymakers trustworthiness, increase in social violence, and economic impacts.

6.1.1.1: Threat to the life of people

First, Covid-19 as a pandemic never fails to induce a deep sense of crisis since the threat of death clearly violates the embedded values of safety, welfare, and health for oneself and one's loved ones. As of June 14, 2021, Covid-19 was estimated to have infected more than 175 million people, with more than 3.7 million fatalities globally (WHO, 2021). At the same time, Ghana had recorded some 94,493 cumulative confirmed cases with some 789 fatalities (Ghana Health Service, 2021). Most of the respondents interviewed agreed that such fatalities are alarming and dreadful (**Table 6**). One respondent expressed

this: *We are worried about the condition of people; people are dying, we are losing loved ones. We are very worried (Respondent 1).*

6.1.1.2: Threat of behavioral change

The high rate of infection and associated death could easily impose fear in people. This could influence the way people behave. For instance, people could easily avoid visiting places that they deem as "hot spot" places. Hot spot places are easy for people to get infected, such as health facilities (hospitals, clinics, and community health centers), funerals, and other festival gatherings. This means people have to adjust their way of life. This adjustment could negatively impact the perception people have of other events, venues, and activities. For instance, some respondents expressed their change in behavior towards visiting health facilities in their rural communities. "*People fear coming to the health facility nowadays. People think the hospital is a hot spot that spread the Covid. So, they are avoiding coming to the hospital for treatment of other sicknesses" (Respondent 4).* This behavioral change is driven by the dread (Ropeik, 2002) of being infected by Covid-19. In the same view, the UNICEF Ghana situational report on November 2020 identified a decline in mothers requiring ante/post-natal care and children seeking critical health interventions since they were afraid of contracting the Covid-19 virus at the health centers (UNICEF, 2020). If not well addressed, this perception could negatively influence the health-seeking behavior of the people in the long term.

6.1.1.3: Threat of decreased trustworthiness

The change of behavior could also be attributed to the fact that people have lost trust in policymakers to avert or manage the Covid-19 threats. Thus, more than fifty percent of the respondents expressed less than average trust for policymakers to manage the pandemic effectively (**Table 8**). Therefore, some of the respondents believe they have to be responsible for themselves. Hence, their decision to avoid visiting the assumed Covid-19 "hot spots." This distrust could be attributed to their previous experiences with policymakers. Some respondents believe that policymakers failed to perform their basic responsibilities, such as providing health facilities and other resources to their communities (Respondent 8). Thus, building trust takes time (Slovic, 1993) and depends on many factors, including delivering on promises, transparency, and displaying real commitment by leaders to ensure a good quality of life for citizens (Baradei, 2020). Other respondents also expressed that some factors such as poor communication (Respondent 1) and less involvement of local leaders (Respondent 28) in the Covid-19 responses have decreased their trust for policymakers. Policymakers need to address this threat of decreased trustworthiness since when people less trust those informing, protecting, or the process determining their exposure to a crisis, the more skeptical they become (Ropeik, 2002). This could influence the confidence they have in the crisis responses too.

6.1.1.4: Increase in social violence and inequality

It could be argued that the Covid-19 pandemic seemed uncontrollable for many policymakers as they started to implement some responses such as lockdowns and closure of borders. Implementing crisis responses could have ripple effects on other core values (Bukari et al., 2021; Rittel & Webber, 1973). Locking down parts of a country means restricting the movements of people living in such places. People have to stay at home as they are out of work. This could trigger other social problems such as social violence and inequality. For instance, Respondent 25 expressed worry about sexual violence against women in his church, which could increase the rate of divorce in the long term if not addressed. Another social problem identified was the increase in child marriage and inequality against children living in rural communities.

The Innovations for Poverty Action (2020) identified that the lockdown and school closure responses implemented to reduce the spread of the virus also affected students, especially the adolescents living in rural communities in Ghana. Many of these students have to stay with their external families in poor rural communities. As they stay longer at home, these students have to help in the family's daily activities, resulting in exploitations such as child labor. In a similar finding, Chenjez (2020) identified in Malawi that the school closing responses forced children from poorer-income families to sell on the streets to cope with the adverse effects of the pandemic. In the same light, UNICEF (2021) reported that children from poorer families and communities were spending less time studying since their households provided an unsuitable learning environment as most of these children become vulnerable to traditional roles in the household. At the same time, many adolescent girls living in very low-income families could easily be victims of child marriage. Respondent 8 expressed worry about increasing child marriage in his community since the hope for such children to return to school could be lost. Consequently, child labor and early marriage for young girls had increased significantly in economically vulnerable households (UNICEF, 2021).

6.1.1.5: Economic impacts

Moreover, some extreme crisis responses could deepen the economic woes of the poor in rural communities (Mueller et al., 2021). The socio-economic challenges associated with the Covid-19 pandemic could make the less privileged and poor people in rural communities much disadvantaged and much poorer (Amewu et al., 2020). For instance, the partial lockdown in big cities in Ghana affected the lower class who travel from rural to urban communities to work in the informal sector. One respondent expressed this as "*the financial burden on poor families increased a lot during these times. Those that have to travel to the southern (urban cities and towns) part of Ghana to find a job and do "Kwa Kwa Kwa" [meaning petty-petty job in the informal sector] to survive were denied such opportunities because of the travel ban locally" (Respondent 11).* This respondent's view aligns with the literature survey findings from Bukari et al. (2021). Their study identified that the adverse effects of the Covid-19 pandemic were much higher on the unemployed and poor households. These findings

support de la Fuente, Jacoby, & Lawin (2019) and Mueller et al. (2021), whose study showed that the economic effects of health crises are severe on rural populations.

6.1.1.6: Positive influences: increase in hygiene and innovation

On the other hand, the study's data also suggests that the pandemic influenced people positively to be creative and innovative. Such creativity is helpful for people to cope with the responses to the pandemic. Some respondents expressed that they used songs and greetings (Respondent 2 and 30) to alert and remind themselves of the dangers of the pandemic. This had helped in promoting good hygienic behavior among families, peers, and friends in rural communities. Also, making face masks from used clothes and reprocessing the local gin "Akpeteshie" into hand sanitizers by rural communities had been very helpful for poorer families to stay safe from the virus, especially considering the high cost of this safety equipment (Respondent 17). Accordingly, this finding supports the literature survey findings by Knott (2020) and CHAG (2021) that people's motivation, creativity, and innovation during the pandemic had contributed to the decline of other health problems such as diarrhea and cholera cases in rural communities. In the view of CHAG (2021), such decline is due to the adherence to Covid-19 protocols related to good hygienic. This also means that policymakers have to provide basic resources to rural communities to aid them in coping with the pandemic responses.

6.1.2: Summary: impacts of the Covid-19 pandemic

This section has addressed the Covid-19 pandemic as a transboundary creeping crisis. Health crises such as pandemics are transboundary crises by nature due to the way a pandemic is defined. Thus, the concept of a pandemic denotes that it must be an epidemic that crosses geographical boundaries. The creeping nature of the Covid-19 pandemic is due to the slow onset and lack of attention from policymakers. The transboundary nature, complexity, and uncertainty coupled with lack of attention make it hard enough for policymakers to manage. Finding a solution to the pandemic had triggered other social problems too. Therefore, the negative impacts of the pandemic had been severe, especially on rural communities. The negative impacts include health impacts such as people being worried and afraid of losing a life, psychological impacts, impact on the educational sector, economic hardship, losing socio-cultural values, increased social violence, inequality, and distrust among policymakers. With all these negative impacts, there have been some positive influences too. Some of these positive influences include attention and awareness to good hygienic etiquette, an increase in health capacity to rural communities, an increase in innovative ideas and ways to adjust to the Covid-19 pandemic.

6.2: Crisis management and resilience strategies

In this part of the discussion, I elaborated on the selected local communities' crisis management and resilience strategies to cope with the Covid-19 pandemic. I also presented further discussions on the prevention and preparedness activities, stakeholder involvement, adaptive strategies, improvisation, flexibility, coordination, and collaboration before and during the Covid-19 pandemic. Since the

pandemic has not ended, I consider it appropriate to discuss these strategies appropriate for the pre-crisis and acute crisis phases.

6.2.1: Prevention and preparedness strategies: being ready for the Covid-19 pandemic

Before a crisis, policymakers are responsible for performing critical activities such as preventing and preparing for potential threats (Kruke, 2015). In the same view, one would expect policymakers to foresee and plan for the Covid-19 pandemic. Preparedness is the ability for policymakers to anticipate, plan, and allocate resources before the crisis occurs (Mileti, 1999; Kruke, 2015; Wildavsky, 1991; Westrum, 2006, Comfort, 2007). The prevention activities include building robust communities, infrastructure, and risk reduction (Perry & Lindell, 2003; Kruke, 2015; Pettersen & Schulman, 2016). The findings from the literature survey indicate that the WHO recommended to all countries to trigger and scale up their emergency response mechanisms to *1) prepare and be ready for Covid-19 cases, 2) detect, protect and treat Covid-19 cases, 3) reduce transmission, and 4) innovate and learn* (WHO, 2020). Policymakers were to educate the public on some precautionary measures to help protect them from being infected by the virus. These precautionary measures included physical distancing, wearing a mask, keeping rooms well ventilated, avoiding crowds, cleaning hands regularly, and coughing into a bent elbow or tissue. In Ghana, the government set up the Covid-19 committee to institute responses to prevent, detect, and contain the spread of the Covid-19 virus. The public was also informed of the hygienic preventive measures (Kenu, Frimpong, & Koram, 2020).

Although policymakers performed these preparedness and prevention activities, some respondents were not satisfied with the performance of the policymakers before the Covid-19 outbreak in Ghana. One of the respondents expressed this as *No! The community was never prepared for Covid-19. The country might have some emergency responses, but my community was not prepared. We have no ambulances, no hospitals. The clinic we have is not equipped for such viruses (Respondent 7).* The respondent believed policymakers could have prepared enough for the Covid-19 pandemic if they had invested in health infrastructure and allocated resources appropriately, especially in rural communities. Thus, policymakers have a critical responsibility to anticipate the crisis threats and prepare to avoid them (Adamski and Westrum, 2003; Wildavsky, 1991; Mileti,1999). For some respondents, preparing for the threats means identifying appropriate resources and allocating them to communities that need them. One of the respondents expressed that "*the government should think about how to get us good health facilities and equip our health workers" (Respondent 29).* Therefore, some respondents attributed the poor preparation plans due to a lack of resources such as no health facilities in rural communities, no ambulances, less equipped health clinics, and fewer health workers. Thus, policymakers need to put their preparedness and preventive plans into action since education and awareness creation may not be enough. However, when policymakers cannot foresee the crisis, it would be challenging for them to prepare for it even if they have the resources.

Moreover, some respondents expressed that policymakers could not foresee and avoid the threats of the Covid-19 pandemic because they were complacent after other countries had become victims of the virus. One of the respondents expressed that: *policymakers had the chance to close our borders, but they did it late after the country recorded some cases. Policymakers always act late. They need to be proactive (Respondent 5).* Another respondent also expressed that: *our leaders never believe it will hit our country to even think of our little community (Respondent 10).* This complacency could be a matter of lack of information or the uncertainties coupled with the Covid-19 pandemic. Some respondents recognized a lack of information and inadequate understanding resulting from the uncertainty and complexity of the Covid-19 pandemic (Respondent 12). Assumed that was the case, it could be argued that the high level of uncertainty coupled with complexity should have prompted policymakers to prepare ahead instead of being complacent. Therefore, it would be appropriate for policymakers to be guided by the question "when our community is hit with Covid-19, what would we do" since it was no longer a matter of "if or what if" the community was going to be hit by the pandemic. Thus, policymakers were responsible for identifying "faint signals" by collaborating with other countries and agencies to detect 'hidden events.' Consequently, policymakers could have taken proactive responses to dangers that have not yet materialized (Janis, 1982; Westrum, 2006). There is always a need to prepare for the unexpected (Taleb, 2007; Aven & Renn, 2010).

The interconnectedness of countries and cities requires that policymakers need to plan for crises. Modern societies are more connected than a century ago due to fast technological developments. This interconnectedness also suggests that we all live in "one big global village." Respondent (14) expressed this by saying: *We live in a global village. Our towns and cities are now close to each other than in the last century. You only need a car or an airplane to visit another country. In some cases, you can use a bicycle or a motorcycle. We are one world now.* This suggests that policymakers must be concerned with what is happening in other countries and prepare since no country is an island. Every country is exposed to the threats that one country may experience. Therefore, a need for collaboration between policymakers in different countries to plan and implement crisis measures is crucial.

6.2.2: Stakeholder involvement at the local level

In managing a crisis, the involvement of stakeholders is essential (Malone & Crowston, 1994; Kruke, 2012; Koop & Lodge, 2014) to improve trustworthiness and adjustments to crisis responses in the acute crisis stage. For instance, the findings from the literature survey indicated that one preventive strategy used in the fight against the Ebola epidemic in West Africa was to engage community leaders and members. This was useful since involving other stakeholders (community leaders) made it easy to reach the entire community, foster training, and create awareness (Abramowitz et al., 2015). In this study, some of the respondents expressed their involvement in managing the Covid-19 pandemic (Respondent 4 and 30). The stakeholders involved should take ownership of the responses put in place by championing and being responsible for the responses identified (Muvudi, 2019). In the same view, some

of the respondents for the study attested that managing the Covid-19 pandemic is a shared responsibility that requires all stakeholders to be involved especially credible local leaders in rural communities. Engaging stakeholders foster trustworthiness and crisis communication. One of the respondents expressed that: "*our community leaders such as chiefs are involved in the management process. They (local leaders) have good credibility and reputation. When they ask us to participate in communal labor or do something, all of us do it without questioning. They are the kings of the land. Fighting Covid is a shared responsibility. This shared responsibility is built on trust and credibility (Respondent 30).* Therefore, these respondents believed that sharing responsibility is the best way to control the spread of the virus and reduce the negative impacts associated with the Covid-19 pandemic. This also means that involving credible local leaders/members improves the chances of the crisis responses to succeed.

However, the involvement of stakeholders in a crisis needs to be very strategic since coordination among stakeholders could become a political activity (Boin & 't Hart, 2012; Olson, 2000). Therefore, if policymakers organizing the preparation plan do not have accurate information that explains what each stakeholder is required to do, then the coordination process could be chaotic (Koop & Lodge, 2014). Accordingly, this could result in distrust for policymakers. Every stakeholder would not see the need to trade-off their interest when there is distrust among the crisis actors (Kruke & Olsen, 2011; Christensen, Lægreid, & Rykkja, 2016). This could have a severe influence on the entire crisis management process. Some of the respondents expressed such a chaotic situation as some local leaders involved in the planning process did not want to lose the socio-cultural values that were going to be affected by the ban on social and religious gatherings. One respondent expressed this as "*from the community side, local leaders did not do well too. The cultural values were so important to them that they did not want to adjust initially. For instance, burial and funeral services were so important to them that they could not ask their community members to avoid crowding in these gatherings" (Respondent 11).* This chaotic tendency may have occurred since, at this level, all the stakeholders could not have a better understanding of the Covid-19 pandemic. This could also be attributed to distrust of policymakers since coping strategies coming from less credible sources have a high tendency of not being successful (Slovic, 1993). At the same time, coping strategies that are not communicated effectively are likely to fail since they might not make sense and meaning to the actors (Boin, t'Hart, Stern, & Sundelius, 2016).

In **part 6.3**, I have discussed in detail crisis communication and trustworthiness for policymakers. Therefore, I will not elaborate on them at this moment.

6.2.3: The new normal: adaptation

Crisis prevention and preparedness are good approaches to avert the threats of a crisis. However, not all crises are preventable. There could be some surprises that policymakers could not anticipate (Taleb, 2007; Aven & Renn, 2010; Westrum, 2006). In such instances, the crisis prevention stage (pre-crisis) moves to the response stage (acute crisis phase). Therefore, policymakers need to manage the crisis by

finding measures to help cope with the crisis (Westrum, 2006; Adamski & Westrum, 2003). Policymakers need to prove that they are in charge of the crisis (Boin, t Hart, Stern, & Sundelius, 2005). The literature survey findings showed that policymakers had to find appropriate coping measures to deal with the Covid-19 pandemic in Ghana. Therefore, the "new normal" for living in Ghana became practicing personal hygienic measures, the mandatory wearing of masks, ban on the social gathering, observing social distancing, increasing the number of testing sites, enhancing surveillance and contact tracing (Kenu, Frimpong, & Koram, 2020). Another promising safety response that was introduced in Ghana during this study was vaccination against the Covid-19 virus. Vaccines are effective and cost-saving tools for disease prevention in the long term (Saad & Sam, 2017). Unfortunately, at the time of this study, non of the selected rural communities had started the Covid-19 vaccination exercise. These identified responses were to help reduce the threats and negative impacts associated with the Covid-19 pandemic. Nevertheless, as the pandemic stays longer, people must learn to adapt to such responses in the medium and long term.

However, adapting to such responses could be challenging when they are not well communicated to all stakeholders (Kruke and Morsut, 2015; Lerch, 2017; Boin, t'Hart, Stern, & Sundelius, 2016). Some of the respondents expressed their challenges in adhering to such coping strategies. Some of the challenges include financial constraints and the spread of fake news. Respondent (28) expressed that they could not cope with the lockdown effects since the financial consequence was too much. At the same time, the high cost of face masks and hand sanitizers made it challenging for them to adapt. Another respondent elaborated that people were not giving attention to the crisis responses because they think the Covid-19 pandemic is a hoax (Respondent 13). Therefore, most respondents (60%) perceived these safety measures as less than average effective (**Table 7**) since they do not believe in them. Thus, more education and awareness are needed for people to understand the importance of these safety responses. Such education needs to be clear and expressed in the native language of the people. The message must be simple so that the people could easily understand them. The crisis responses must be communicated so that the people will not feel it is imposed on them since people are likely to reject responses forced on them by less trusted leaders (Ropeik, 2002; Boin, t'Hart, Stern, & Sundelius, 2016). This suggests that policymakers need to involve trusted local leaders in the communication process if they want the population to easily adjust to the new normal.

6.2.4: The new normal: improvisation and flexibility

Kruke and Olsen (2005) have argued that flexibility and improvisation are key measures useful to meet the needs in a dynamic crisis environment. Therefore, flexibility and improvisation are required when people have to adapt and adjust to new changes. In this view, some of the respondents interviewed indicated that they have to be flexible and improvise with the few resources available to them to cope with the impacts of the Covid-19 pandemic. These respondents find new ways of making face masks and hand sanitizers from their limited resources in their rural communities. Respondent (17) expressed

that: *our community has been improvising. When we involve ourselves, we find our own way of making face masks from pieces of clothes. This was a very good initiative since we had few resources at the initial stage. The medical masks are expensive for us to buy, so we use the masks we made from our clothes. We even find out easy ways of turning our local "Akpeteshie" [local alcoholic drink] into hand sanitizer. It has a high volume of alcohol. We used it when we run out of hand sanitizers.* This finding indicates that people are more likely to find creative means to survive during a crisis even when they have few resources at their disposal.

However, the Food and Drugs Authority (FDA) in Ghana accused and warned rural communities of the dangers associated with their "innovative" means of producing hand sanitizers and face masks since such products did not meet the minimum required standards (JoyNews, 2020). Thus, creativity and improvisation could lead to deviations from the prescribed rules and procedures (Klein, 2009). The people were not doing what regulators expected them to do because they were desperate to survive the threats of the pandemic. This led them to discover quicker, more accessible, and probably even more effective ways of adjusting (Dekker & Suparamaniam, 2005) to the Covid-19 pandemic with their innovations. Therefore, policymakers must be flexible and find new measures to coordinate, train, and guide people who deviate from such standards. Using abusive approaches to manage such people could make the entire adjustment process unsuccessful.

6.2.5: The new normal: cooperation and collaboration

Successful crisis response is characterized by rapid support, participation, and cooperation from all stakeholders (Ansell, Boin, & Keller, 2010). Some respondents for the study expressed that they provided financial support to policymakers by buying personal protective equipment for health care workers (Respondent 19). Some community members were also participating in the contact tracing exercises (Respondent 21). At the same time, others have been cooperating by organizing the community members together so that health workers could educate and create Covid-19 awareness with them (Respondent 4). Some of the respondents also indicated that they have been cooperating with policymakers by adjusting and trading off some of the socio-cultural values they cherished most. A respondent expressed that: *we are flexible with some of our cultural values, such as festivals and funeral services which demand a lot of people to gather around to celebrate. The reason is after this disease is under control, we can celebrate these festivals (Respondent 25).* These respondents expressed that they were providing all the support they could since they wanted to avert the negative impacts of the Covid-19 pandemic. These findings are in line with Koop and Lodge's definition of coordination as *"the adjustment of actions and decisions among interdependent actors to achieve a specific goal"* (Koop & Lodge, 2014, p. 1313). Therefore, the respondents' specific goal is to have the pandemic (Covid-19) under control and get back to "normal life." To achieve this goal, all crisis actors must adjust in managing dependencies between their daily activities (Malone and Crowston, 1994).

However, this cooperation process could be challenging due to the uncertainty, time pressure, and stress (Ansell, Boin, & Keller, 2010) associated with the Covid-19 management. This could make it difficult for policymakers to communicate well and gain the trust of all crisis actors. Such challenges could result in policy disagreement. Furthermore, a disagreement could occur due to how actions and decisions need to be adjusted (Koop & Lodge, 2014). Such disagreement could lead to a laissez-faire attitude. Therefore, when people choose not to care about the crisis, they are likely to pay less attention. Some respondents expressed this lack of attention to cooperate and adjust to the safety responses as; *people are not giving much attention to the directives. They do not care. They do whatever they want. When we asked them, they tell us they feel very uncomfortable wearing the mask. They always say they can not breathe. (Respondent 13).*

Another cooperation challenge could result when the actors or institutions tasked to enforce the responses abuse their power (Hardin, 2006). Since these are not "normal times", policymakers need to be flexible with the implementation processes. Some respondents expressed the abuse of power by the institution tasked to enforce the Covid-19 pandemic responses. A respondent expressed that: *police brutality causes much fear in the community. That is a big challenge than even the Covid itself, especially when we have not recorded any Covid case. We need to be flexible with the people. This is the more reason we want more of our local leaders to be involved with the Covid task force. They [local leaders] understand us well. They can help with the implementation and enforcement without beating people (Respondent 29).* Abusing people could lead to distrust for policymakers and the enforcement institution (Hardin, 2006; Győrffy, 2018; Uslaner, 2002) since people could lose the confidence they impose on the law enforcers (Ullman-Margalit, 2004). Therefore, some of the respondents would like local leaders they trust to be involved in the implementation and enforcement processes. These leaders could help communicate effectively to the people the identified safety responses. Thus, people trust and are ready to listen to people they are acquainted with (Uslaner, 1999).

6.2.6: Summary of crisis management and resilience strategies

I have discussed some of the crisis response strategies used by some rural communities to cope with the Covid-19 pandemic. The selected rural communities were less prepared for the Covid-19 pandemic. They depended on national precautionary responses to protect themselves from the Covid-19 pandemic. Some of the national responses, such as partial lockdowns, the closing of schools, and the ban on social gatherings, had impacted their daily activities. However, they still find the courage to adapt, improvise, coordinate, and cooperate with the harsh measures. These rural community members understand that coping with the Covid-19 pandemic responses is the new normal. There are some challenges associated with this new normal; however, working together (sharing responsibilities) with policymakers is the appropriate way to control the Covid-19 crisis.

6.3: Crisis communication and trustworthiness

In this part of the discussion, I focused on crisis communication and trustworthiness. These two factors are very crucial in crisis management. I discussed some crisis communication components such as meaning-making, transparency, and openness. Moreover, I deliberated on trustworthiness in policymakers. Also, I argued that there is a nexus between crisis communication and trustworthiness.

6.3.1: Crisis communication

When there is a crisis, policymakers must make meaning of the crisis by communicating the source of the crisis, its impacts, and the appropriate responses to manage the crisis to all actors (Boin, t'Hart, Stern, & Sundelius, 2016). Therefore, crisis communication is a process of dialogue between policymakers and crisis actors where the crisis actors learn and give feedback about the threats and responses to the crisis (Palenchar, 2005; Coombs, 2009). During the Covid-19 pandemic, the WHO communicated with all member countries the causes, symptoms, and anticipated precautionary measures to adhere to reduce the impacts associated with the pandemic. After that, each country was supposed to communicate its local plans and responses to its people. In Ghana, the Covid-19 committee was in charge of communicating and creating awareness about the pandemic to the people. At the same time, the president was providing Covid-19 situational updates every two weeks to the public (Kenu, Frimpong, & Koram, 2020). These Covid-19 situational updates were channeled through television stations, local radio/FM stations, newspaper outlets, and on different social media platforms. Thus, one can argue that the general public received enough information about the Covid-19 pandemic. The majority of the respondents asserted that they frequently received at least average information concerning the Covid-19 pandemic (**Table 8**). This frequent sharing of information had given the people some level of understanding about the pandemic. This could account for more than 60% of the respondents expressing that they had an average level of knowledge about the Covid-19 pandemic (**Table 8**).

6.3.1.1: Meaning-making during the Covid-19 pandemic

Crisis communication means much for crisis actors to adhere to the crisis responses (Reynolds & Quinn, 2008). Therefore, it is crucial that crisis actors can make meaning of the crisis and the responses communicated. Policymakers are responsible for making sure the public makes meaning to the crisis and its responses. If they do not tell the story of the crisis, other actors such as the mass media will do so (Boin, t'Hart, Stern, & Sundelius, 2016). The majority of the respondents indicated that they make less meaning of the information received about the Covid-19 pandemic (**Table 8**). One respondent expressed that: *a few of the Covid-19 information make meaning to me. Some of the safety responses we understand them—for instance, handwashing. But we do not understand why we should wear the mask. We are a small community and mere farmers. We walk to the farm with the family always. We have stayed here for years together. The task force will punish us if we do not wear the mask when going to our farm. Some of the safety responses should not be forced on us (Respondent 5).* Thus,

although the respondents frequently receive enough information about the pandemic, they find it challenging to make meaning of the information they obtain. When the respondents analyze the safety responses, it becomes challenging to relate the importance of the responses to their environment. Therefore, the respondents are more likely to ignore such safety responses and directives communicated since they cannot make meaning (Roberto, Goodall, & Witte, 2009; Boin, t'Hart, Stern, & Sundelius, 2016).

Policymakers need to be innovative to help improve the meaning-making of the Covid-19 pandemic and the safety responses identified. One way is to communicate with the people using the local dialect. It would also be helpful to involve trusted local leaders/members in the communication process since it could increase the willingness of people to listen (Ropeik, 2002; Baradei, 2020). Another approach is communicating the responses through songs (music). People are tuned to music and can easily understand messages coded in pieces of music and songs. Some respondents expressed this by saying: *The use of the native language is important. When you speak to a man in his native language, it stays in their hearts forever. We need people from the community who stay and speak the language of the community. That will increase the community's trust and increase awareness (Respondent 2).* The respondent further expressed that: *Let us use songs. Our community members like music. It is time we channel some of the key things into music. They will easily understand and keep them (Respondent 2).* In the same view, another respondent expressed that their community reminds themselves of the dangers of the Covid-19 pandemic through greetings. Thus: *we keep reminding ourselves with greetings and songs such as "Covid is real and dangerous," then we respond by saying, "take care and protect yourself" (Respondent 30).* Therefore, when people can make meaning to the crisis responses, they are more likely to adjust to such responses. One of the catalysts for such meaning-making and adherence to the safety responses is trustworthiness in the communicator.

6.3.1.2: Transparency and openness to Covid-19 pandemic information

During a crisis, sharing and exchanging timely, accurate, open, and transparent information among crisis actors is crucial in strengthening coordination (Kruke & Olsen, 2011) and fighting fake news associated with the crisis. Therefore, the spread of Covid-19 fake news could decrease when people have accurate and consistent information addressing the uncertainties associated with the Covid-19 pandemic. In this view, it is necessary to address the uncertainties associated with the Covid-19 pandemic, the mitigation initiatives (safety responses), and other events resulting from the initiatives employed (WHO, 2017). Many respondents expressed that policymakers are less than average open and transparent in sharing information concerning the Covid-19 pandemic (**Table 8**). One of the respondents expressed that: *Policymakers only come to tell people what to do as far as the safety responses are concerned. But there are more information people have to know about the Covid-19 pandemic. The leaders are trying to manage what to tell the public and what not to say to the public. Maybe they want to avoid fear and panic or show that they are in charge of this pandemic (Respondent*

8). These findings from the respondent suggest that policymakers are careful with the adverse effects (fear and panic) associated with transparency in sharing information. However, Quarantelli (1993) and Helsloot & Ruitenberg (2004) have argued that panic reactions are more likely to occur when information is withheld and suddenly released by third parties such as the mass media.

Allowing the mass media, especially the new media (social media), to tell the story of the crisis could be problematic. Some information from social media can not always be trusted. A respondent expressed this by stating that sometimes, *social media information is not consistent with other sources such as community information vans (vehicles installed with public address systems to share information in rural communities), TV stations, and Newspapers. This makes it difficult to trust social media information. There are a lot of fake news and conspiracy theories. Usually, such news is very attractive and convincing. But later, you see they are not true (Respondent 6).* Although the respondent has trust issues with social media information, it is vital to state that social media has a vast audience with fast delivery of information that appeals to them. Therefore, policymakers must be innovative and integrate social media in their crisis communication by sharing timely, consistent, open, and transparent information via social media platforms. This is crucial since such information helps the crisis actors to be aware of the threats that they need to face, and in the long run, build trust and credibility for policymakers.

6.3.2: Trustworthiness in policymakers

Győrffy (2018) has argued that trust is a crucial factor during crisis management since, in the absence of trust, coordination and cooperation may not yield successful outcomes. During this pandemic, policymakers want to be credible and trustworthy actors. When policymakers are trusted, their actions and words are considered sincere, competent, and signs of good faith (Győrffy, 2018). However, policymakers who could not deliver on their promises previously are likely to be considered untrustworthy to manage the Covid-19 pandemic. Some respondents believe that policymakers could not be trusted with their policies since they failed to honor their promises of getting the rural communities better healthcare over the years. A respondent expressed this as *trust has been an issue. Policymakers have not proved that we can trust them. People always say if the government put the same level of attention, effort, and resources we have into fighting malaria and cholera, maybe, we could have a better community to live in (Respondent 5).* Thus, trust is built slowly over time (Slovic, 1993), and in low trustworthy society, people would request policymakers to fulfill their previous promises to be considered trustworthy.

Therefore, policymakers' previous experience influences the level of trust imposed on them since trust is gained through proactive strategies in the pre-crisis phase. Also, trust is often maintained in the acute crisis phases by policymakers' ability to handle the situation in question, leading to improvisation, flexibility, and adaptation. Furthermore, maintaining trust in the post-crisis would require that

policymakers can recover from the threats imposed. Accordingly, in a situation where the policymaker is perceived as not credible, all actors involved in the crisis management process will scrutinize the words and deeds of such “untrustworthy” policymaker (Boin, t Hart, Stern, & Sundelius, 2005).

Therefore, Boin, t Hart, Stern, & Sundelius (2005) have argued that policymakers who cannot excel during crisis communication are likely to have credibility problems. Policymakers need to provide accurate, consistent, and transparent information for all crisis actors. When policymakers delay sharing information concerning the Covid-19 pandemic with other actors, it could be perceived as policymakers trying to hide something. One respondent elaborated on this by saying: *I do not trust them (policymakers). They are not open and transparent. If you do not hear from them for a while, you can not trust the information they give (Respondent 1).* Such doubts resulting from lack of information or delay in sharing information could lead to people anticipating that policymakers are engaging in some corrupt activities. To this extent, communication becomes one of the catalysts for trustworthiness.

Consequently, more than 50% of the respondents interviewed expressed that they do not trust policymakers to manage the Covid-19 pandemic well (**Table 8**). These respondents believe policymakers need to involve trusted local leaders and members as part of the Covid-19 management team (Respondent 28). Therefore, involving local leaders could be a measure to reduce the perceived corrupt activities of policymakers and improve crisis communication, which in the long term increases their credibility. This could also improve adherence to the crisis responses.

6.3.3: Nexus of crisis communication and trust

Christensen, Lægreid, & Rykkja (2016) had argued that when there is a crisis, and many crisis actors, especially the people, trust their policymakers, such trust becomes a force of energy for their policymakers to do better. In the same view, Boin, t Hart, Stern, & Sundelius (2016) opined that leadership credibility enhances the quality of the crisis response and increases the chances of policymakers' survival in the post-crisis phase. Unfortunately, credibility alone is not enough. Crisis managers must do very well to communicate the crisis if they want to reduce the public and political uncertainty that crises cause (Boin, t Hart, Stern, & Sundelius, 2005).

Accordingly, building trust and communicating with the affected population is key during health crisis management. Consequently, well-planned crisis communication and interventions will fail if people do not trust the source of information (Brugh, Sorokin, & Scott, 2019). In this line of thinking, the WHO opined that crisis communication and trust-building factors must be linked (WHO, 2017). Thus, some crisis communication factors such as openness, transparency, accuracy, consistency, and the timing of sharing information improve trustworthiness in policymakers (Davies, Chun, da Silva, & Roper, 2003; Boin, t Hart, Stern, & Sundelius, 2005). At the same time, trust-building factors such as involving (collaborating and coordinating) community leaders/members and respecting socio-cultural norms and values of the community influence the willingness of people to listen and accept the crisis responses

communicated (Baradei, 2020). Therefore, policymakers need to engage the community by identifying key people that the community trusts and build a relationship with these trusted people. These people could be opinion leaders, traditional leaders, or faith-based leaders. These trusted people need to be trained and involved in the decision-making process to ensure that the decisions taken are collaborative, contextually appropriate and that interests and value trade-offs are resolved where necessary. It is also crucial that the communication of these decisions, interventions, or responses are community-owned (Muvudi, 2019; Abramowitz et al., 2015). Thus, for the community members to make meaning of the crisis and its responses, the trusted local people must lead the crisis communication.

From these arguments, it is sound to say that crisis communication and trustworthiness complement another. Therefore, there is a nexus between communication and trust during crisis management. In many ways, they are the two sides of the same crisis management coin. Thus, one side being crisis communication, and the other side being trustworthiness. In a highly uncertain creeping crisis such as the Covid-19 pandemic, it is difficult to prioritize one over another. Accordingly, one can compare crisis communication and trustworthiness to the "chicken and egg" dilemma. Thus, it is hard to decide which one influences the other.

6.3.4: Summary of crisis communication and trustworthiness

In this part of the chapter, I have discussed in detail crisis communication and trustworthiness. Crisis communication is very vital in making meaning to the crisis and the responses that are to be adopted. Policymakers have the responsibility of making meaning of these to all the crisis actors. When policymakers refuse to do that, other crisis actors such as the mass media (social media) will take advantage to tell the story of the crisis to the public. This could increase the spread of "fake news" about the crisis since the mass media are likely to present the crisis from their limited perspective. Such a situation could make the crisis communication process more challenging for policymakers. Therefore, policymakers must provide timely, accurate, open, transparent, and consistent information to all the crisis actors. At the same time, policymakers must build trust among the crisis actors. Trust becomes a significant asset for policymakers to succeed in crisis communication and implementing crisis responses. Policymakers improving their trustworthiness require that they involve other stakeholders, especially credible local leaders, in the crisis management processes. I have also discussed the nexus between crisis communication and trustworthiness. The two complement each other. Hence, both crisis communication and trustworthiness influence each other in many ways.

6.4: Towards a crisis typology on level of trust and crisis communication

In this part of the chapter, I argued for a proposed crisis typology based on communication and trust among crisis actors.

The starting point for this part of the discussion is the nexus between trustworthiness and crisis communication. In **part 6.3.3**, I have discussed that crisis communication and trustworthiness are equally important during crisis management. They are more like the "chicken and egg" dilemma. They all influence each other in many ways. Such influences could be seen throughout the different crisis phases. Therefore, trustworthiness and crisis communication are two critical determinants for the effectiveness of crisis responses (Brugh, Sorokin, & Scott, 2019).

Accordingly, this suggests that it is appropriate to determine the type of crisis policymakers have to manage based on the level of trust built and the soundness of communication among the crisis actors. In this way of thinking, I consider trustworthiness and communication as a developmental process and not a static process. They grow over time. At one moment, these factors (communication [C] and trust [T]) could grow high (T_H, C_H) or low (T_L, C_L) based on how crisis actors will approach the crisis, initiative (response), or events that may occur. The combinations of these levels (rates) of development (high or low) for both communication and trust give a particular type of crisis at each moment. Accordingly, a crisis could be classified into four, namely 1) controllable crisis, 2) uncertain crisis, 3) complex crisis and 4) uncontrollable crisis (**Figure 7**).

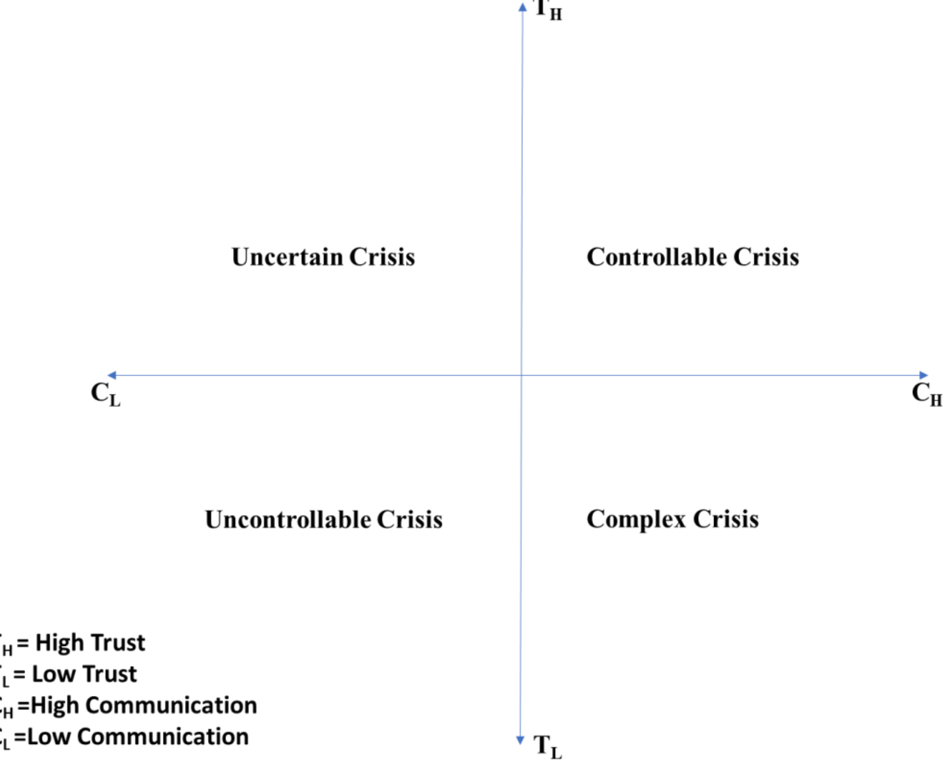


Figure 7: Towards a crisis typology on level of trust and crisis communication

First, controllable crises are straightforward to manage crises since communication had been effective (high), and there is much (high) trustworthiness among all the crisis actors. Therefore, the crisis becomes less hard to control or manage. Crisis actors are willing to obey the crisis responses since such responses make meaning to them, and they trust the policymakers in charge to do a good job. Therefore issues such as stakeholder interests and value trade-offs are all addressed appropriately. This is achieved through openness, transparency, timely, accurate, and consistent information sharing coupled with high trustworthiness among the crisis actors. In this way, all actors can have a common meaning-making (understanding and acceptance) of the crisis.

Second, uncertain crises are crises coupled with high trust among crisis actors but with weak (low) communication among the actors. Therefore, although the actors might regard each other as trustworthy, they still face a challenge as far as communication is concerned. Usually, weak communication occurs due to policymakers' inability to communicate changes in the dynamic development of the crisis. This challenge is due to the uncertainty associated with the crisis, initiative (response), or other events that may occur. The uncertainty could be a lack of information, lack of understanding, or undifferentiated alternatives with the responses to implement (Lipshitz & Strauss, 1997). These uncertainties make it difficult for crisis actors to communicate effectively. These uncertainties could negatively impact openness, accuracy, consistency, and time for sharing information. In such cases, crisis managers need to make decisions that will address such uncertainties. They can not depend on their trust alone. They must excel in crisis communication (Boin, t Hart, Stern, & Sundelius, 2005).

Third, complex crises are crises coupled with effective (high) crisis communication but lack (low) trustworthiness among the crisis actors. Therefore, although information is shared openly, timely, accurately, and consistently, the actors do not trust themselves as the receivers of crisis communication do not trust the communicator or sender of crisis communication. Usually, this lack of trust is because of previous distrust developed over time, especially in the pre-crisis stage. The distrust could also occur during the acute crisis phase because of policymakers' poor decisions and management approaches (‘t Hart, Rosenthal, & Kouzmin, 1993). There could also be distrust resulting from the post-crisis stage since crisis managers could not appropriately account for the crisis. Therefore, in a situation where trust has broken down, all actors involved in the crisis management process would scrutinize the words and deeds of the “untrustworthy” policymaker. Consequently, people will be less likely to believe official announcements, let alone act upon them (Boin, t Hart, Stern, & Sundelius, 2005).

Finally, an uncontrollable crisis is a crisis coupled with poor (low) communication and low trust levels among the crisis actors. Consequently, uncontrollable crises are associated with uncertainty and complexity at the same time. Therefore, in this developmental stage of the crisis, policymakers cannot share crisis information openly, timely, accurately, and consistently due to the uncertainties associated with the crisis, crisis responses, and events resulting from the crisis. Also, their crisis communication

is not well received because they are not looked upon as trustworthy (Brugh, Sorokin, & Scott, 2019). Accordingly, it becomes challenging to make sense and meaning from the limited crisis information available. Another factor coupled with uncertainty is complexity. There is complexity since there is a low level of trust among the crisis actors. Usually, the crisis's slow onset or creeping nature could influence the level of attention given to the crisis resulting in credibility challenges (Boin, Ekengren, & Rhinard, 2020). Also, credibility challenges could arise when policymakers are not flexible with the crisis responses. In this way, it could be challenging to obtain some level of resilience since the crisis events could escalate (Kruke, 2012; Westrum, 2006). The poor communication and less trustworthiness could result in coordination challenges such as policy disagreements, self-interested behavior of actors (Koop & Lodge, 2014), and reasons of bounded rationality in cases of information mismatch (Christensen, Lægreid, & Rykkja, 2016; Kruke & Olsen, 2011). These coordination challenges could result in crisis actors unable to manage dependencies between activities (Malone & Crowston, 1994; Koop & Lodge, 2014). Therefore, it becomes impossible to find solutions since stakeholders have different values and priorities that matter to them (Rittel & Webber, 1973; Camillus, 2008). At this level, it is appropriate to assume that the crisis is uncontrollable.

6.4.1: Reflection on the crisis typologies

I have argued that it is appropriate to classify crises based on the level of trust and communication among the crisis actors. The same typology could be used to classify the status of specific crisis events and consequences of crisis responses too. The status of a crisis could change as time goes on since trust and communication are developmental factors that could be classified as high or low. For instance, a crisis may be considered an uncontrollable crisis in the initial stages due to low trust and communication among actors. However, as time goes on, there could be developments that could increase the trust and communication levels. That could change the status of the crisis from an uncontrollable crisis to a complex, uncertain, or controllable crisis. Policymakers must integrate positive trustworthiness and good communication factors in all their activities and strategies during each crisis phase (pre-crisis, acute crisis, and post-crisis) for such developmental changes to occur. On the contrary, policymakers who cannot integrate positive trust-building factors and good communication factors with their crisis response strategies are likely to mismanage a controllable crisis to a worse crisis such as a complex, uncertain, and uncontrollable crisis.

Chapter 7: Conclusions and Recommendations

In this part of the study, I presented the conclusions, recommendations, and need for further research.

7.1: Conclusions

The main research problem for the study was to investigate *to what extent are some rural communities in Ghana coping with the Covid-19 pandemic?* Consequently, to explore this research problem, the following research questions were identified.

1. *What are the impacts of the Covid-19 pandemic on some rural communities in Ghana?*
2. *What are the resilience strategies adopted by some rural communities in Ghana in their crisis response against the Covid-19 pandemic?*
3. *What are the influences of crisis communication and trustworthiness during the Covid-19 pandemic in some rural communities in Ghana?*

The main conclusions for these research questions are as follows:

7.1.1 What are the impacts of the Covid-19 pandemic on some rural communities in Ghana?

The study identified that the Covid-19 pandemic and its responses positively and negatively impacted the selected rural communities in Ghana. To a large extent, the negative impacts outweigh the positive impacts. Some of the positive impacts included 1) attention and awareness of good hygienic etiquette, 2) an increase in health capacity to rural communities, and 3) increased innovative ideas and ways to adjust to the Covid-19 pandemic. The negative impacts include 1) health impacts such as people being worried and afraid for losing their lives or losing loved ones, 2) psychological impacts, 3) impact on the educational sector, 4) economic hardship, 5) losing socio-cultural values, 6) increase in social violence, increase in early girl child marriage, and child labor and 7) increase in distrust among crisis actors. These negative impacts are more integrated as they have ripple effects on the day-to-day activities of the community members. This had made the less privileged and poor people in rural communities much disadvantaged and much more destitute during this period of the pandemic.

7.1.2 What are the resilience strategies adopted by some rural communities in Ghana in their crisis response against the Covid-19 pandemic?

The study showed that the selected rural communities were not prepared enough for the Covid-19 pandemic. The majority of the respondents attributed the inadequate preparation plans to 1) lack of resource capacities such as no health facilities in some rural communities, no ambulances, less equipped health clinics, and fewer health workers; 2) lack of proactive decisions due to complacency on the part of policymakers; 3) conflicting interests among stakeholders such as political interests, economic interests, and socio-cultural interests; and 4) lack of information and understanding resulting from the uncertainty and complexity associated with the Covid-19 pandemic.

However, the study identified that the selected rural communities used some resilience strategies to cope with the Covid-19 pandemic. The selected rural communities have adopted some precautionary

responses to minimize the spread of the Covid-19 virus. These responses were 1) washing of hands regularly, 2) social distancing of at least 1 meter, 3) wearing of a nose mask, 4) avoiding public gathering, 5) observing the ban on festivals, and 6) eating healthy food. The study revealed that these safety responses were the "new normal" way of living in the selected rural communities.

The study showed that some rural community members were coping with the "new normal" (Covid-19 pandemic responses) by involving themselves with the Covid-19 pandemic management processes. Some rural community members cooperated, collaborated, improvised, compromised, and were flexible with the precautionary responses. Some of the rural community members were engaged in a shared responsibility to control the spread of the virus and reduce the negative impacts associated with the Covid-19 pandemic.

The study identified that some rural community members were flexible with their socio-cultural values, such as festivals and funerals. These rural community members were limiting the number of people who could attend a festival or burial service for their loved ones. Moreover, some community members were improvising by finding innovative approaches to cope with the Covid-19 pandemic. They were improvising by exploring new ways in turning limited local resources into valuable tools to support the Covid-19 responses. They were doing this by turning used clothes into face masks and reprocessing their locally high volume alcohol, commonly called "*Akpeteshie,"* into hand sanitizers.

The study identified that some rural community members cooperated by providing financial support to policymakers by buying personal protective equipment for healthcare workers. Also, some community members were participating in the contact tracing exercises to identify and help potential victims to test, quarantine, and isolate accordingly. Moreover, they were cooperating by organizing the community members together so that health workers could educate and create Covid-19 awareness with them.

The study identified that the selected rural communities were facing some challenges in coping with the Covid-19 pandemic. Some of these challenges were 1) the increased economic hardships in their communities; 2) less attention given to their community by policymakers; 3) issues of politics and less engagement of local leaders in the Covid-19 decision-making process; and 4) the continuous spread of false information about the Covid-19 pandemic.

7.1.3 What are the influences of crisis communication and trustworthiness during the Covid-19 pandemic in some rural communities in Ghana?

The study identified that most rural community members do not trust what policymakers communicate to them. This distrust resulted from unfulfilling previous promises made by policymakers and less involvement of local leaders/members in the pandemic management processes. The study showed that trustworthiness is essential for communities and the population to adhere to the responses communicated.

The study indicated that for policymakers to be considered trustworthy, they need to improve their level of communication with rural community members. The study showed that poor communication from policymakers was coupled with 1) lack of openness and transparency, 2) delay and poor timing of sharing information, and 3) lack of accurate and consistent information sharing.

The study identified that some factors that could positively influence the crisis communication of the Covid-19 pandemic in the selected rural communities included 1) involving local leaders and other stakeholders such as the media; 2) using local dialect to communicate; 3) use of songs to communicate the safety responses; and 4) providing simple (non-technical), open, transparent, timely, accurate, and consistent information. These factors, when addressed, could improve trustworthiness for policymakers in the long term.

Therefore, the study identified a nexus between crisis communication and trust as crisis communication influences policymakers' trustworthiness and vice versa. Crisis communication factors such as openness, transparency, accuracy, consistency, and the timing of sharing information influence trustworthiness in policymakers during crisis management. At the same time, trust-building factors such as involving (collaborating and coordinating) community leaders and members, respecting socio-cultural norms and values of the community could influence the willingness of people to listen and accept the crisis responses communicated.

The study showed that even if policymakers find the best tools and crisis responses, they may still find it challenging to implement such responses or put such tools to use if other crisis actors are unable to make meaning to such responses or distrust the policymakers. Therefore, I have suggested a crisis typology that is based on trustworthiness and crisis communication. The proposed crisis typology could improve the way policymakers classify a crisis which in a way could influence the approaches being used to mitigate the crisis.

7.2: Recommendations

Based on the findings of the study, the researcher recommends the following.

1. Policymakers need to build trust in the pre-crisis phase to make sure that they are looked upon as trustworthy in their crisis communication in the acute phase.
2. Policymakers need to communicate and make available a clear emergency response plan to all stakeholders.
3. Policymakers need to involve local actors in the crisis management processes. Engaging local members/leaders could help improve the level of trust the people will have for the policymakers.
4. Policymakers need to provide timely, accurate, consistent, open, and transparent information, devoid of technical terms and phrases to local stakeholders. It is recommended that such information is communicated to local stakeholders in their native dialect.

5. Policymakers need to consider giving special attention to rural communities, especially the vulnerable, as they are severely affected by the negative impacts of the Covid-19 pandemic.

7.3: Need for further research

Crisis communication and trust are vital factors that need to be given special attention when policymakers are faced with highly uncertain, complex, and uncontrollable crises such as the Covid-19 pandemic. As indicated in this study, the typical crisis management approach with less emphasis on communication and trust-building factors makes it challenging to manage highly uncertain, complex, and uncontrollable pandemics. Consequently, even if policymakers find the appropriate tools and pandemic responses, they may still find it challenging to implement such responses if other crisis actors cannot make meaning to such responses or distrust the policymakers.

Therefore, communicating appropriately and building trust during the pre-crisis, acute crisis, and post-crisis phases are equally important in providing resilience responses. However, communication and trustworthiness are developmental processes. Further studies to identify the positive trust-building factors and sound crisis communication factors at each crisis phase would be helpful. Such studies could support policymakers in making their decisions.

This study provided a new dimension to crisis typologies. I have proposed that crises could be classified based on the level of trustworthiness and crisis communication among the crisis actors. However, further studies could focus on identifying the indexes that distinguish high trust and communication from low trust and communication. Such a clear yardstick could help policymakers to determine what type of crisis they are faced with quickly.

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APPENDICES

Appendix 1: Details of the sociodemographic dynamics for respondents

Respondent	Age Group	Educational Level	Employment status	Settlement Duration	Respondent Role
1	31-40	Tertiary	Part Time	11 yrs or above	Assembly and Opinion member
2	31-40	Tertiary	Part Time	11 yrs or above	Traditional Leader
3	41 or above	Tertiary	Full Time	5 yrs or less	Traditional Leader
4	30 or Below	Tertiary	Full Time	6 yrs -10 yrs	Assembly and Opinion member
5	41 or above	Non formal	Unemployed / Retired	11 yrs or above	Traditional Leader
6	30 or Below	Tertiary	Part Time	5 yrs or less	Civil Society Orgnization Representative
7	41 or above	Tertiary	Full Time	11 yrs or above	Traditional Leader
8	41 or above	Tertiary	Full Time	11 yrs or above	Civil Society Orgnization Representative
9	31-40	Tertiary	Full Time	6 yrs -10 yrs	Assembly and Opinion member
10	41 or above	Tertiary	Full Time	5 yrs or less	Civil Society Orgnization Representative
11	41 or above	Tertiary	Part Time	5 yrs or less	Assembly and Opinion member
12	30 or Below	Tertiary	Full Time	11 yrs or above	Faith-based Leader
13	41 or above	Tertiary	Full Time	11 yrs or above	Traditional Leader
14	31-40	Tertiary	Full Time	5 yrs or less	Assembly and Opinion member
15	41 or above	Basic	Full Time	5 yrs or less	Faith-based Leader
16	30 or Below	Tertiary	Full Time	5 yrs or less	Assembly and Opinion member
17	30 or Below	Tertiary	Full Time	6 yrs -10 yrs	Civil Society Orgnization Representative
18	31-40	Tertiary	Full Time	6 yrs -10 yrs	Civil Society Orgnization Representative
19	41 or above	Non formal	Unemployed / Retired	11 yrs or above	Traditional Leader
20	31-40	Tertiary	Part Time	6 yrs -10 yrs	Assembly and Opinion member
21	31-40	Tertiary	Full Time	11 yrs or above	Faith-based Leader
22	31-40	Tertiary	Full Time	5 yrs or less	Traditional Leader
23	41 or above	Non formal	Unemployed / Retired	11 yrs or above	Traditional Leader
24	41 or above	Tertiary	Full Time	11 yrs or above	Assembly and Opinion member
25	31-40	Basic	Full Time	6 yrs -10 yrs	Faith-based Leader
26	30 or Below	Basic	Full Time	5 yrs or less	Civil Society Orgnization Representative
27	41 or above	Basic	Full Time	11 yrs or above	Assembly and Opinion member
28	31-40	Tertiary	Full Time	6 yrs -10 yrs	Assembly and Opinion member
29	41 or above	Tertiary	Unemployed / Retired	11 yrs or above	Faith-based Leader
30	31-40	Tertiary	Full Time	11 yrs or above	Faith-based Leader

Appendix 2: English version of the semi-structured interview guide

Privacy Statement: This interview is meant for academic purposes only. Please be aware that the researcher takes your privacy concerns seriously and will make every reasonable effort to respect them. If you feel uncomfortable answering any question, you can refuse to provide an answer. Also, if you feel like stopping the interview session at any time, you can alert me accordingly. I also seek your permission to record this interview. If you wish this interview should not be recorded, kindly alert me before we start the interview.

Guided Interview Questions:

Scale Meaning:	1 = Much less than average	2 = Less than average	3 = Average	4 = More than average	5 = Much more than average

Bio Data				
S/NO	***Question***			
1	What is your age group	30 or Below	31-40	41 or above
2	What is your formal educational level	Non-formal	Basic	Tertiary
3	What is your employment status	Full Time	Part-Time	Unemployed / Retired
4	How long have you lived in this community	5 yrs or less	6 -10 yrs	11 yrs or above
5	What is your role in this community	Traditional Leader (Chief, Community Elder, Household Head)		
		Faith-based Leader (Pastor, Imam, women leader, etc.)		
		Civil Society Organ. Leader (Advocate, Patron, President)		
		Assembly and Opinion member (Assemblyperson, opinion member)		

Crisis Concept and Typology			
S/NO	***Question***	**Scale**	**Explanation**
6	How worried are you with Covid-19 in the community/Why	1-5	
7	How is the community giving attention and time to Covid-19/Why	1-5	
8	How much knowledge do you know about covid-19 / Do you think Covid is Fake	1-5	

9	Do you think a pandemic in another country could affect your community/How is that possible	1-5	
10	How had covid-19 affected/impacted other aspects of the community/Why	1-5	

Crisis Management and Resilience		**Scale**	**Explanation**
11	Was the community prepared for covid-19/If No, Why/If Yes, what were the preparations put in place	1-5	
12	How is the community managing covid-19 now / What are the safety responses used	1-5	
13	What is your source for those safety responses/ Do they work	1-5	
14	How is the community adapting to the safety responses /Why	1-5	
15	How do you manage people who do not obey the safety responses	N/A	
16	How do you involve the community members in managing covid-19	N/A	
17	How do you think you can recover from the pandemic	N/A	
18	What motivates you to support the community currently	N/A	
19	What are the challenges you face in managing covid-19	N/A	

Communication and Trust		**Scale**	**Explanation**
20	Where do you get information concerning the pandemic	N/A	
21	How often do you receive information about the pandemic	1-5	
22	Does the information make meaning to you/why	1-5	
23	Do you trust your source of information concerning the pandemic/Why	1-5	
24	Whom do you really trust	N/A	
25	Have policymakers been open with information to the community/Why	1-5	
26	Do you trust that policymakers are managing the pandemic well/Why	1-5	
27	What factors influence the communication of Covid-19 to the community	N/A	

Appendix 3: Twi version of the semi-structured interview guide

NSƐMFUA A MEREBƐ BISA WO

Nsania nkyerɛasɛɛ:	1 = ketoa ketoa paa	2 = ketoa kakra	3 = *mfifini*	4 = k*ɛse kakra*	5 = k*ɛse kɛse paa*

WƆHO NSƐM					
S/NO	***NSƐMFUA***				
1	Wo mfeɛ wɔ kuo bɛn mu	30 ɛne nase	31-40	41 ɛne nesoro	
2	Wakɔ sukuu aduru mpɛmpɛnsoɔ bɛn?	Nsanodwuma adesueɛ	Sukuu adesueɛ mu kakra	Sukuu adesueɛ mu keseɛ	
3	Woyɛ adwuma anaa?	Daa adwuma	ɛto daabia adwuma	Menni adwuma /Megye ahome	
4	Woatena wo kuro mu mfeɛ dodoɔ sɛn?	5 ɛne nase	6 -10	11 ɛne nesoro	
5	Dwuma bɛn na wodi wɔ kurom hɔ?	ɛfie panin / abusua panin			
		ɛsom bi mo panini			
		Adwuma mo panin			
		Mposuaso panin			

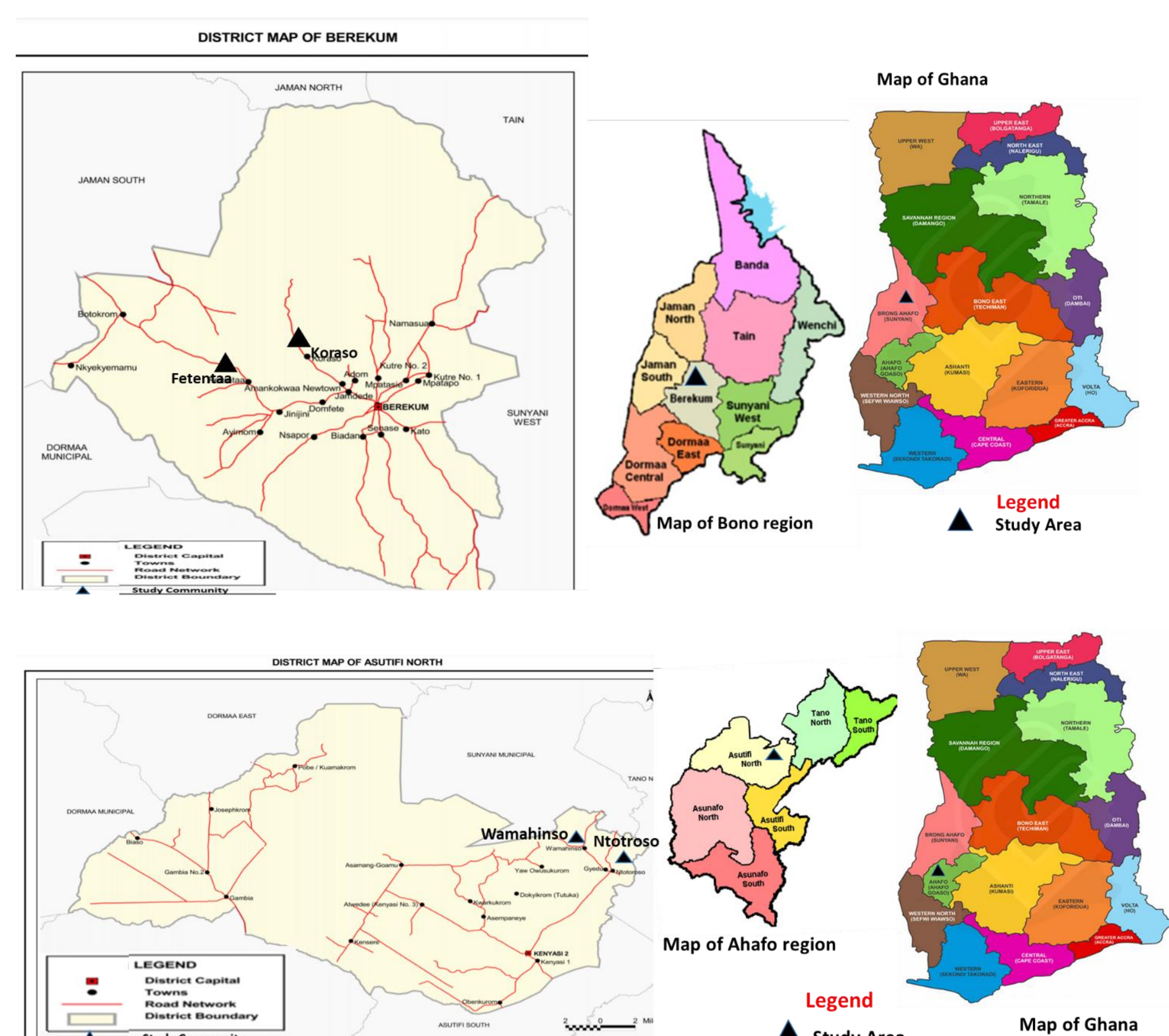
ATOWERƐKYƐM NKYERƐMU NE NA FOFORƆ			
S/NO	***NSƐMFUA***	***NSANIA***	***NKYERƐKYERƐMU***
6	ɔhaw bɛn na woakɔ mu wɔ wo kurom fa Covid-19 ho / Adɛn?	1-5	
7	Ahwɛyie ne mmerɛ sɛn na ɔmanfoɔ a wɔwɔ wo mpɔtam de ma Covid-19	1-5	
8	Nimdeɛ bɛn na wowɔ wɔ Covid-19 ho / Wodwene sɛ Covid-19 yɔ bɔsrɛmka?	1-5	
9	Wodwene sɛ atowerɛkyɛm a ɛwɔ ɔman foforɔ so bɛtumi anya nsunsuansoɔ wɔ wo mpɔtamso?/ wɔ ɔkwan bɛn so?	1-5	
10	ɔkwan bɛn so na Covid-19 anya nsunsuansoɔ wɔ ɔmanfoɔ a wɔwɔ wo mpɔtamso no abrabɔ so?	1-5	

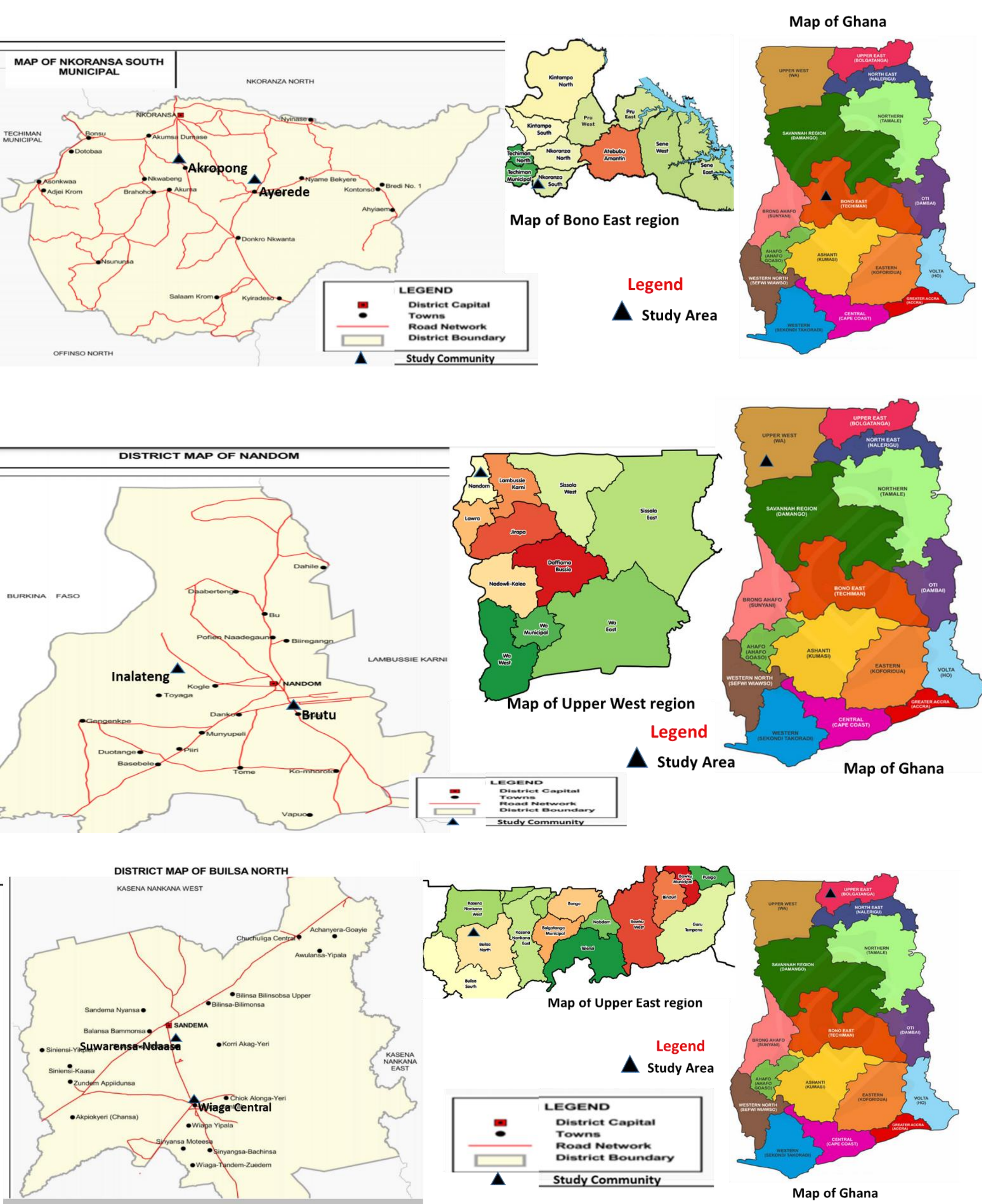
ATOWERƐKYƐM SO HWƐ		***NSANIA***	***NKYERƐKYERƐMU***
11	Na ɔman no ayɛ ahoboa rehyia Covid-19? Sɛ daabi a, adɛn? / Sɛ aane a, ahoboa bɛn na na wode agu akwan mu?	1-5	

12	Sɛn na ɔman no redi Covid-19 so? / Ahwɛyie nhyehyɛe bɛn na wɔredi dwuma?	1-5	
13	Kwan bɛn so na wɔfaa so nyaa saa nkyekyɛe no?	1-5	
14	Sɛn na ɔmanfoɔ no de saa ahwɛyie nhyehyɛe rebɔ wɔn bra?	1-5	
15	Sɛn na mosi tete nkorɔfoɔ a wɔnni saa ahwɛyie nhyehyɛe yi so?	N/A	
16	Sɛn na woka ɔmanfoɔ no nyinaa bɔm fa Covdid-19 nkyerɛkyerɛ ho?	N/A	
17	Kwan bɛn so na wobɛfa ade moho afiri saa atowerɛnkyɛn yo ho?	N/A	
18	Deɛn na ɛhyɛ wo nkuran sɛ boa ɔman no seesei ara?	N/A	
19	Akwansideɛ bɛn na wonya fa Covid-19 nkyerɛkyerɛ ho?	N/A	

KASAE AMANEBO ƐNE GYIDIE		***NSANIA***	***NKYERƐKYERƐMU***
20	ɛhe na wote nsɛm a ɛfa saa atowerɛnkyɛn yi ho?	N/A	
21	Mperɛ dodoɔ sɛn na wote saa nsɛm a ɛfa atowerɛnkyɛm yi ho?	1-5	
22	Saa nsɛm a wote no ma wo nteɛaseɛ? / kwan bɛn so?	1-5	
23	Wogye bea wonnya wo nsɛm no firi no di? Adɛn ntia ?	1-5	
24	Hwan na wogye no di pa ara?	N/A	
25	Wofiri sɛ aman nhyehyeɛfoɔ ama nsɛm mu ada hɔ ama ɔmanfoɔ no? / Adɛn?	1-5	
26	Wogye di sɛ aman nhyehyɛefoɔ resisie saa atowerɛnkyɛn yi yie? Adɛn	1-5	
27	Deɛn na ema amanebɔ a ɛfa Covid-19 ho ɛto ɔmanfoɔ sɛdeɛ ɛsɛ?	N/A	

Appendix 4: Maps of rural communities selected for the study





Map of Ghana
MAP OF NKORANSA SOUTH MUNICIPAL
NKORANZA NORTH
TECHIMAN MUNICIPAL
Akropong
Ayerede
OFFINSO NORTH
LEGEND
District Capital
Towns
Road Network
District Boundary
Study Community
Map of Bono East region
Legend
Study Area
DISTRICT MAP OF NANDOM
BURKINA FASO
LAMBUSSIE KARNI
Inalateng
Brutu
NANDOM
Map of Upper West region
Legend
Study Area
Map of Ghana
DISTRICT MAP OF BUILSA NORTH
KASENA NANKANA WEST
KASENA NANKANA EAST
SANDEMA
Suwarensa-Ndaasa
Wiaga Central
Map of Upper East region
Legend
Study Area
LEGEND
District Capital
Towns
Road Network
District Boundary
Study Community
Map of Ghana