

Best Practices in Health Emergency Management: Lessons from COVID-19 Response

Philner P. Salindo*, June Keziah B. Salindo, Eden Grace V. Tabanao

Social Science Department, Negros Oriental State University-Guihulngan Campus, Guihulngan City, Philippines

*Corresponding Author Email: philner.salindo@gmail.com

Date received: July 5, 2024

Date revised: July 17, 2024

Date accepted: July 23, 2024

Originality: 95%

Grammarly Score: 99%

Similarity: 5%

Recommended citation:

Salindo, P., Salindo, J.K., & Tabanao, E.G. (2024). Best practices in health emergency management: Lessons from COVID-19 response. *Journal of Interdisciplinary Perspectives*, 2(9), 13-21. <https://doi.org/10.69569/jip.2024.0332>

Abstract. The local government units (LGUs) in the First District of Negros Oriental confronted significant challenges during the COVID-19 pandemic. This research article aims to identify and analyze the best practices in health emergency and risk reduction management responses within the district. The study focuses on several critical dimensions: Policies, strategies, and legislation; Planning and coordination; Human resources; Financial resources; Information and knowledge management; Risk communications; Health infrastructure and logistics; and Health and related services. Employing a mixed-method design, the research draws on the framework of Social Systems Theory, particularly emphasizing its four functional imperatives: adaptation, goal attainment, integration, and latency. These imperatives serve as lenses to understand how the LGUs navigated and responded to the evolving challenges posed by the pandemic. In 2020, the district recorded 166 COVID-19 cases, a number that sharply increased to 2,440 in 2021, underscoring the escalating impact of the virus over time. The study identifies several sub-themes encapsulating the best practices of the LGUs in health emergency and risk reduction management. These include pro-active adaptation, emphasizing the importance of anticipating and swiftly responding to emerging challenges; the principle that frequency is key, highlighting the significance of consistent and regular actions; the more the merrier, signifying the value of deploying adequate human resources; busy bank accounts, reflecting the essential role of sufficient financial resources; official "marites" and "marites at work," emphasizing effective communication strategies; and build-build-build, symbolizing investments in health infrastructure to enhance response capabilities. These practices are not merely reactive measures to address inconsistencies in national government policy implementation but are rooted in the LGUs' proactive adoption of functional imperatives. By analyzing these dimensions and sub-themes, this research aims to provide insights into effective strategies for managing health emergencies at the local level, contributing to broader efforts in pandemic preparedness and response planning.

Keywords: Health emergency management; COVID-19; Negros Oriental; Philippines.

1.0 Introduction

The Republic of the Philippines experienced its first pandemic and faced a public health crisis (Logrosa et al., 2021). The COVID-19 pandemic and its consequences presented an unprecedented and enormous challenge to the Philippine government at the national and local levels, requiring full attention and massive resources (Dolo et al., 2021; Logrosa et al., 2021). The COVID-19 pandemic has put a tremendous amount of strain on healthcare capacity and disaster management infrastructures, not only in the Philippines but also around the world, as the majority of countries struggle to contain the virus and its devastating effects on life and economies (Duma et al., 2022; Tabuga et al., 2020).

The pandemic highlighted the importance of coordination and synergy between and among national and local government agencies (Tabuga et al., 2020). The solution is the National government issuance of executive orders that mandate LGUs to implement certain levels of containment protocols (Community Quarantine, General

Quarantine, Enhanced Community Quarantine, Lockdown, hard Lockdown) (Executive Order 112, 2020). The Philippine response to COVID-19 has been described as one of the world's longest and most stringent lockdowns. Entire provinces and cities were locked down, restricted mobility, and mask-wearing and social distancing were strictly enforced (Dolo et al., 2020; Hapal, 2021). All national agencies and local governments have been directed to allocate resources and take steps to eliminate the COVID-19 threat (Dolo et al., 2020). Punishment was laid out for violations. The government relied heavily on the police and the military to keep order and follow all health protocols (Hapal, 2021). Different levels necessitate a different emergency response system, which varies from city to city based on the policy issued by local government officials following a meeting with health committee experts with varying degrees of success (Amit et al., 2021).

Espia et al. (2021) describe that since the National government's policies are ineffective in response to COVID-19, the local government unit's intervention scheme resulted in various legislation and imposed guidelines within one region or province. Local Chief Executives (LCEs) upgraded or downgraded quarantine classifications and imposed, removed, or extended quarantine periods that included the regional equivalent of the IATF. Other local governments imposed additional entry requirements and prohibited OFWs (Overseas Filipino Workers) from returning. Another example is the requirement that those who previously tested positive undergo a repeat test before returning to normal activities. This policy deviates from DOH (Department of Health) guidelines that do not require repeat tests and instead count such cases as "recoveries." Furthermore, some local government units have lockdown zones manned by the Philippine National Police or the Army, while others have a local task force (Espia et al., 2021). Talabis et al. (2021) said that to address differences in the local COVID-19 transmission dynamics caused by heterogeneity and diversity in communities, local government units (LGUs) considered granular policies as well as real-time interventions. Some of the policies in place, such as voluntary physical separation, wearing Facemasks and shields, mass testing, and school closures, could be useful in one location but not in another (Talabis et al., 2021). The reactive policymaking by the national government and the variety of policy implementation at the local level added to the public's confusion.

The COVID-19 pandemic was fought, and its effects were kept under control by the local governments in the first districts of Negros Oriental. In order to establish the foundation for future policy formulation about health risk assessments and containments to protect the lives of its constituents and prevent unnecessarily depleting the finances of the government and individuals, it is necessary to evaluate the governance of each city and municipality in one of the poorest provinces in the country (Salindo, 2021). This study sought to answer the following questions: What were the local governments' best governance practices in the 1st District of Negros Oriental that contributed to the containment and control of the COVID-19 pandemic? These are the pertinent issues that this study will address and investigate in order to formulate future policies concerning health emergencies and hazards.

In order to address the challenges posed by local or global disasters like the pandemic and to save lives and protect health, the World Health Organization (2019) published the Health Emergency and Disaster Risk Management Framework. The framework places a strong emphasis on prevention, preparedness, and readiness, as well as response and recovery. This also emphasizes the importance of working together as a health system (WHO, 2019). The framework outlines the following components. Policies, strategies, and legislation; Planning and coordination; Human resources; Financial resources; Information and knowledge management; Risk communications; Health infrastructure and logistics; Health and related services (WHO, 2019). The framework aided national and local governments in the Philippines in developing their own health emergency and disaster risk management plans. This is to achieve the highest possible standard of health and well-being; this can be incorporated into the established International Health Regulations (2005), the Sendai Framework for Disaster Risk Reduction 2015-2030, the Sustainable Development Goals, and the Paris Agreement (WHO, 2019).

Numerous academics have looked into the reaction to the COVID-19 pandemic and the policies of the Philippine government. The actions and responses of the Philippine cities of Ilo-ilo and Cebu were documented by Espia et al. (2021), who attributed them to their close relations to Malacañang Palace. Interventions were identified by Bonardi et al. (2020) to lower infection and mortality among Filipinos. Talabis et al. (2020) said economic and demographic factors influence the communities' COVID-19 epidemiological parameters. The concept of "pasaway" was created due to the government's harsh action, and the COVID-19 response shows different degrees

of usefulness (Duma et al., 2022; Hapal, 2021). Risk assessment and decision-making methods were incorporated in the analysis of COVID-19 outbreaks (Logrosa et al., 2021). Philippine policy was also described as punitive and unequal among pandemic victims (Bekema, 2021). However, little has been done to assess qualitatively and quantitatively the effectiveness of the local policies in preventing and containing the virus in the localities.

This paper examines the local government units' health emergency and risk reduction management response through the components of the Health Emergency and Disaster Risk Management Framework, which include local policies, strategies, and legislation; planning and coordination; human and financial resources; risk communications and information and knowledge management; and health infrastructure and logistics. These elements are critical components in the best practices of local government units that employ the Social Systems Theory. This analysis contends that the selected municipalities and cities' best health emergency response practices in response to the COVID-19 pandemic should serve as the foundation for prospective policy formulation for future emergencies.

The Social System Theory of Talcott Parsons serves as the guiding framework for analyzing the local governments' health emergency response and risk reduction management. The theory has been applied to explain phenomena in economic sociology (Tittenbrun, 2014), to link sociology and criminology (Chriss, 2007), to establish an entrepreneurship system (Elam & Sardana, 2008), to investigate the COVID-19 healthcare response model (Ahmed et al., 2021), and to analyze the establishment and development of an academic institution (Salindo, 2021).

How effectively did the local government units use the COVID-19 pandemic response's risk reduction management and health emergency components? The four functional imperatives of Talcott Parsons' Social System Theory provide the answer to these questions. The first is adaptation, which involves gathering sufficient resources from the environment and distributing them throughout the systems (Salindo, 2021). In this context, the pandemic compelled local government units to respond immediately to the pandemic. Municipalities and cities have identified human and financial resources to address the public health crisis. The second is goal attainment, which entails prioritizing system goals and allocating system resources to achieving them (Salindo, 2021). To stop and control the spread of the COVID-19 virus within the area, local policies, strategies, legislation, planning, and coordination of the local government units and all other concerned agencies were put in place. The third concept is integration, which refers to managing potential connections and coordinating their activities among system components. Harmonization of society as a whole necessitates the existence of solid and sufficiently convergent values and norms (Salindo, 2021). To protect the health of their constituents, this necessitates, for example, a strong connection and understanding among local government units at the local, provincial, and national levels through local government risk communications and information and knowledge management. The last one is Latency, which covers two related issues. These influence the survival and maintenance of order among social units in a social system by kinship systems, values and norms, and beliefs and ideologies (Salindo, 2021). Because of this functional imperative, it is under societal pressure to maintain some level of integration. In other words, maintaining a progressive and responsive health infrastructure and logistics. According to this point of view, effective governance must be ongoing within the constraints of required and available resources.

The analysis of the health emergency and risk reduction management response of the local government units in the 1st District of Negros Oriental in this study cannot only be interpreted as a reaction to the National Government's ineffective policy implementation in response to the COVID-19 pandemic. The response is the result of the harmonious coordination of functional systems. The interaction of social systems with their adaptation, goal attainment, integration, and latency also contributed to the sound and responsive health emergency and risk reduction management response in the COVID-19 pandemic.

2.0 Methodology

2.1 Research Design

This study aims to assess the health emergency and risk reduction management in response to the COVID-19 pandemic. It uses mixed methods (i.e., surveys and one on one interviews) to identify the best practices of the COVID-19 pandemic response of the local government units in the first District of Negros Oriental.

2.2 Research Locale

This study focused on five municipalities: La Libertad, Tayasan, Ayugon, Bindoy, and Manjuyod. Two cities, Guihulngan and Canlaon, are located in the First District of Negros Oriental. The area is 107.8 kilometers from Manjuyod to Canlaon City, which are 67.2 kilometers and 175 kilometers from the provincial capital, Dumaguete City.

2.3 Research Participants

The authors selected the participants using purposive sampling, focusing on individuals who are local heads of the Inter-Agency Task Force within the 9 Local Government Units (LGUs) in the First District of Negros Oriental. The selection included nine respondents in total. Those who were not part of the LGUs in the First District were excluded from the study.

2.4 Research Instrument

The interview questionnaire was adapted from the World Health Organization's framework for managing health emergencies and risks. The questionnaire was left open-ended so respondents could respond in their own words. The quantitative data were derived from the Provincial Health Office's statistical records of COVID-19 cases/mortality in the Province of Negros Oriental from 2020 to 2021.

2.5 Data Gathering Procedure

The qualitative data were collected through one-on-one interviews, and the quantitative data were identified through appropriate literature research. Nine one-on-one interviews were conducted with the Inter-Agency Task Force on COVID-19 response's local head of office. Key informants were purposely chosen. Consistent with established protocols, a communication letter was drafted and transmitted to the appropriate authorities. In-person meetings were conducted in each LGU to distribute the survey instrument to the respondents. Throughout the survey administration, the researchers diligently offered comprehensive explanations for each item in the questionnaire to improve the respondents' understanding and guarantee the precision of the obtained data. Additionally, strict procedures were put in place to ensure the privacy of the participants' responses. After the poll was finished, the collected data underwent automated tallying and a tabulation method.

2.6 Data Analysis

The quantitative data were analyzed using frequency analysis. Qualitative data were analyzed using Virginia Braun and Victoria Clarke's six-step approach (2012). Initially, codes were derived from interview transcripts. Themes were identified based on semantic domains within the responses of selected key informants. These themes were then reviewed and refined to capture patterns, relationships, and overarching themes accurately. Finally, the identified themes were systematically analyzed to draw meaningful conclusions from the data.

2.7 Ethical Considerations

This study followed ethical principles by collecting all participants' informed consent, maintaining confidentiality and privacy, and receiving ethical approval from an institutional review board. The researchers prioritized goodwill and kindness to enhance the community while reducing harm. Cultural sensitivity was maintained throughout the study, and attempts were made to reduce prejudice while ensuring transparency and accountability. Community engagement was essential, with residents participating in the research process to reflect their perspectives and needs. The findings were shared with local governments and the community to inform and improve future health emergency and risk reduction management actions.

3.0 Results and Discussion

3.1 COVID 19 Cases in Negros Oriental

The statistical data of COVID-19 cases across municipalities and cities in 2020 and 2021 reveals a detailed progression of the pandemic in the region. In 2020, Guihulngan City recorded the highest number of cases, peaking at 39 in October and gradually declining to 67 cases by December. La Libertad followed with 31 cases, showing a significant rise in November. Tayasan had 24 cases overall, while Canlaon City recorded 20 cases, with a peak in September. Ayugon reported its first cases in September and October, reaching 11 cases by November. Bindoy recorded cases sporadically, totaling 9, and Manjuyod had 4 cases throughout the year. The data reveals that COVID-19 cases emerged as early as June 2020, peaking in October, with municipalities and cities

implementing effective policies and strategies to mitigate the virus's spread, leading to a decline in cases by the end of 2020.

In 2021, Guihulngan City experienced fluctuating numbers, starting with 5 cases in January and peaking at 134 in October and 135 in November, totaling 515 cases by December. Canlaon City followed a similar pattern, beginning with 1 case in January, reaching a peak of 155 in October, and ending the year with 510 cases. Among the municipalities, La Libertad topped the list with significant increases, peaking at 96 and 99 cases in October and November, totaling 364 cases. Manjuyod saw a steady rise, particularly from June to November, culminating in 361 cases. Ayungon experienced its highest number of cases in June and November, ending the year with 295 cases. Bindoy had a notable increase in October and November, totaling 282 cases, while Tayasan, although lower in numbers, peaked in October, finishing with 113 cases. This data highlights a substantial increase in COVID-19 cases in the First District of Negros Oriental during 2021, with peaks in June and October attributed to relaxed policy implementations. The relaxation led to a surge in cases as constituents forgot pandemic protocols, necessitating local government units (LGUs) to tighten policies to bring the numbers down by the year's end.

The spike in COVID-19 cases seriously affected Negros Oriental's economic operations, particularly tourism and trade. The pandemic's impact spread to academic institutions, which were forced to close again, harming the micro-market and micro-industries that rely on them. Such disruptions severely affected people and the economy (Tabuga et al., 2020; Duma et al., 2022). In response, the Philippine government established a national health response strategy emphasizing collaboration between national and local governments (Tabuga et al., 2020). Local governments were entrusted with contributing money and enforcing COVID-19 prevention measures (Dolo et al., 2020). The success of these interventions varied, depending on the precise policies implemented by local government representatives in cooperation with health committee professionals. This highlighted the importance of personalized emergency response systems that could adapt to the specific needs of different cities and municipalities (Amit et al., 2021).

3.2 Best Practices

Table 1 shows how the cities and municipalities in the First District of Negros Oriental responded to the health emergency and managed risk reduction. The themes, inspired by the World Health Organization's framework, cover Policies, Strategies, and Legislation; Planning and Coordination; Human Resources; Financial Resources; Information and Knowledge Management; Risk Communication; and Health Infrastructure and Logistics and other Health Services. Sub-themes identified include Pro-active adaptation, Frequency is key, The more the merrier, Busy bank accounts, Official Marites, Marites at work, and Build build build.

Table 1. The best practices of the LGUs in COVID-19 response

Themes	Sub-Themes
Policies, Strategies, and Legislation	Pro-active adaptation
Planning And Coordination	Frequency is key
Human Resources	The more the merrier
Financial Resources	Busy bank accounts
Information And Knowledge Management	Official Marites
Risk Communication	Marites at work
Health Infrastructure and Logistics and Other Health Services	Build build build

Local government units (LGUs) took a proactive stance on virus prevention and containment, implementing policies, strategies, and legislation. They held regular planning and coordination meetings and boosted human resources to handle the challenging situation. They allocated significant financial resources for emergencies. Effective information and knowledge management kept everyone informed, much like the "Marites" who spread gossip, but in a more official and useful capacity. The "Marites at work" concept emphasized the importance of risk communication in reducing community vulnerability. The "build build build" initiative ensured that health service infrastructure was built and operational to meet community needs.

Policies, Strategies, and Legislation

The health emergency in the First District of Negros Oriental prompted local governments to adopt the National Policy on COVID-19 and supplement it with localized policies, strategies, and legislation. This adaptive approach involved establishing Barangay Health Emergency Response Teams (BHERTs) to manage health emergencies at

the grassroots level, providing immediate response and monitoring within their respective barangays. Another key strategy was the "closed, crowded, and close contact" (3C) approach, aimed at minimizing virus spread in high-risk settings. Lockdowns and granular lockdowns were meticulously planned and coordinated with various local agencies, allowing for targeted restrictions in specific areas with high infection rates. These measures balanced public health needs with economic and social considerations (Espia et al., 2021; Talabis et al., 2021). Local legislation supported these strategies by enforcing health protocols, such as mandatory mask-wearing and physical distancing, and imposing penalties for non-compliance. Financial resources from the Local Disaster Risk Reduction and Management Fund (LDRRMF), Quick Response Funds, Special Purpose Appropriations, and the National Government's "Bayanihan Grant" ensured the monetary capacity to respond robustly. The collaboration and integration of efforts across different levels of government and sectors were crucial, involving national agencies, non-governmental organizations, and the private sector to mobilize resources and expertise. As one respondent added:

"In times of crisis, our commitment to safety is reflected in our unified approach: adopting national protocols, activating local response teams, and ensuring that preventive measures are in place for everyone's well-being."

Planning and Coordination

The local Inter-Agency Task Force (IATF) and Emergency Operations Center (EOC) play critical roles in the community's response to COVID-19, emphasizing the significance of regular meetings as a foundation of their coordinated strategy. These meetings are pivotal for continuously reviewing and updating health protocols in response to evolving epidemiological data and governmental directives. According to the Philippine Department of Health (DOH), these gatherings enable ongoing assessment of COVID-19 statistics, such as active cases, recoveries, and fatalities, thereby guiding informed decision-making (DOH, 2023). The EOC's involvement ensures the efficient allocation of resources to support these strategies, as emphasized in the World Health Organization's (WHO) guidelines on pandemic preparedness and response (WHO, 2022). Speedy contact tracing, underscored by the United Nations Development Programme (UNDP) as essential for outbreak control, involves rapid identification, testing, and isolation of contacts to interrupt transmission chains (UNDP, 2021) effectively. Concurrently, Barangay Health Emergency Response Teams (BHERTs) are integral to enhancing community-level preparedness through their participation in regular meetings focused on orientation, information dissemination, and coordinated response efforts. This comprehensive approach, which is documented in community health reports, demonstrates its effectiveness in enabling prompt and effective responses to COVID-19 challenges (Community Health Report, 2023). As the head of office recalled:

"The local IATF holds regular meetings to update health protocols, analyze COVID-19 data, and plan responses, working closely with Barangay Captains and BHERTs to ensure our community is well-prepared and coordinated in our fight against the pandemic."

Human and Financial Resources

In response to the challenges posed by the COVID-19 pandemic, authorities have taken proactive measures to bolster their ability to respond effectively. This includes strategically deploying additional personnel in critical locations such as provincial borders, local communities, and quarantine facilities. By increasing staffing in these areas, authorities aim to enhance their capacity for early detection, rapid response, and effective management of outbreaks (Bonardi et al., 2020; Espia et al., 2021; Talabis et al., 2021). However, the decision to escalate manpower is accompanied by substantial financial requirements. Local government units (LGUs) have demonstrated resourcefulness in securing necessary funding through various channels, including the Local Disaster Risk Reduction and Management Fund (LDRRMF), Quick Response Funds, Special Purpose Appropriations, and the National Government's "Bayanihan Grant" (Bonardi et al., 2020; Talabis et al., 2021). These financial resources are instrumental in recruiting and deploying additional personnel. They also facilitate the continuous operation of key points of entry and quarantine sites, crucial for preventing the further spread of the virus within communities (Espia et al., 2021). This coordinated effort shows the commitment of local authorities to prioritize public health and safety amid the evolving challenges posed by the pandemic. By ensuring adequate staffing and financial support, LGUs aim to mitigate the immediate impacts of COVID-19 and strengthen their resilience and preparedness for future health emergencies (Talabis et al., 2021). As another interviewee has disclosed:

"By strategically deploying more personnel and securing essential funding, we are enhancing our ability to respond to the pandemic, prioritizing the health and safety of our communities amidst these ongoing challenges."

Information and Knowledge Management

Local governments have set up a strong system for managing and sharing knowledge to ensure everyone gets the latest and most reliable information during the COVID-19 pandemic. This system, discussed in studies by Duma et al. (2022) and Bekema (2021), focuses on centralizing platforms that gather, process, and distribute important updates efficiently to the public. Using tools like social media, radio broadcasts, and direct communication between different government departments, officials work hard to ensure accurate information gets to all parts of the community quickly and effectively. This approach is like the "Marites" concept, which emphasizes being proactive and responsive in how information is shared, but with an added emphasis on ensuring the information is trustworthy and accurate (Bekema, 2021). This is important for countering false information and building trust within the community, especially during times of uncertainty. By keeping communication channels open and reliable, authorities not only educate people about crucial health guidelines and updates but also involve the community in working together to tackle the ongoing challenges posed by the pandemic. This was emphasized by the respondent when he said:

"During the COVID-19 pandemic, local governments have established a strong system to ensure everyone receives accurate information quickly. Using platforms like social media and radio, they work hard to share updates people can trust, fostering community and unity in tackling these challenges together."

Risk Communication

The local government unit (LGU) stepped up its game in managing COVID-19, drawing on insights from Amit et al. (2021) and Bekema (2021). They did not rely on traditional methods; they used Salta Radio and Barangay Health Emergency Response Teams (BHERTs) to get crucial information through Information, Education, and Communication (IEC) campaigns. Collaborating closely with the City Epidemiology and Surveillance Unit (CESU), they ensured everyone stayed updated on COVID-19 cases via Facebook. It was not just about online efforts; they plastered barangays with signs and informative materials and even invested in a text-blasting machine for lightning-fast updates (Amit et al., 2021; Bekema, 2021). On top of that, they made full use of radio airtime for official announcements. They adopted a style that caught people's attention, known as the *rekorida* style, showing they understood the importance of clear communication during crises (Bonardi et al., 2020). Following templates from the Department of Health (DOH), their regular risk communication efforts included everything from educational lectures to radio broadcasts and engaging posts on Facebook, showing just how serious they were about keeping everyone informed (Amit et al., 2021). To protect privacy and ensure efficiency, they set up exclusive chat groups for different sectors. They carefully restricted sharing of official swab test results to the Rural Health Unit (RHU) chat group. This move was not just about data security; it also showed their commitment to handling sensitive information responsibly within the community (Bekema, 2021). As one respondent recalled:

"We utilized radio, BHERTs, and social media to inform everyone about COVID-19. From signage to text updates and the engaging rekorida style, information was clear and accessible. Privacy was a priority with secure chat groups and restricted data access to the RHU, ensuring community safety and transparency."

Health Infrastructure and Logistics and Other Health Services

Their strategy was comprehensive and community focused. Recognizing the importance of public awareness, they conducted extensive education campaigns through local channels, ensuring everyone understood and adhered to COVID-19 precautions and guidelines. This approach, supported by Duma et al. (2022), emphasized practical communication methods to effectively reach diverse segments of the population. In terms of healthcare infrastructure, rather than constructing new facilities, they optimized existing resources like schools for quarantine purposes, as Duma et al. (2022) highlighted. This resourceful approach enabled them to swiftly accommodate and isolate suspected cases without unnecessary delays or expenses. To bolster their response capabilities, they prioritized the procurement of testing kits, enabling regular and widespread testing. Amit et al. (2021) underscores the importance of robust testing and monitoring protocols in managing COVID-19 effectively. Concurrently, they deployed health workers to frontline roles, provided essential supplies, and established dedicated monitoring teams, as Tabuga et al. (2020) advocated. Their proactive measures and resourceful

strategies, informed by Duma et al. (2022), Amit et al. (2021), and Tabuga et al. (2020), exemplified their steadfast dedication to safeguarding public health and maintaining community well-being throughout the pandemic. As the respondent explained

"Our approach focused on community education and resourceful management. We prioritized local outreach for COVID-19 precautions, optimized existing facilities like schools for quarantining, and ensured robust testing and monitoring," and "By deploying health workers and dedicated teams, we aimed to uphold public health and safety as our top priorities, demonstrating adaptive governance and resilience throughout the pandemic," he concluded.

4.0 Conclusion

This study indicates that Social Systems Theory may be used to find best practices in health emergency and risk reduction management by local government units (LGUs) in Negros Oriental's First District. Using this approach, the study gives a solid foundation for examining local policies, tactics, and legislative initiatives. The comprehensive identification of planning and coordination efforts, human and financial resources, information and knowledge management, risk communication, and healthcare infrastructures contribute greatly to our understanding of effective emergency response systems.

The entire framework developed in this study demonstrates how proactive policies can result in significant gains in human and financial resource allocation, information management, and risk communication. These components are essential for creating an institutionalized health emergency and risk reduction management strategy. The empirical data presented shows a rise in COVID-19 instances between 2020 and 2021, emphasizing the significance of a well-coordinated and resourceful emergency response system. Furthermore, the study reveals practical sub-themes such as proactive adaptation, frequency is vital, the more the merrier, active bank accounts, official Marites, Marites at work, and build build build. These sub-themes provide useful information about efficient health emergency management's dynamic and diverse character. They present a realistic blueprint for other regions looking to improve their emergency response tactics, outlining the importance of proactive and comprehensive measures.

The study contributes greatly to the existing level of knowledge by combining theoretical concepts with practical applications. It shows how Social Systems Theory may inform and improve real-world health emergency responses by providing a comprehensive picture of emergency management, including policy, resources, communication, and infrastructure. The focus on the First District of Negros Oriental provides context-specific insights that can be applied to similar places, expanding the worldwide understanding of health emergency management.

Future studies should compare regions to uncover similarities and differences in best practices. Longitudinal studies that follow the evolution of emergency response tactics throughout time might provide more insight into their long-term usefulness. Furthermore, evaluating the influence of specific policies on health outcomes, analyzing the role of emerging technology in emergency management, and researching community engagement in health emergency responses will all help to improve the field and advise successful policymaking.

5.0 Contributions of Authors

Philner P. Salindo –conception of research, the conduct of research, writing, and editing of the manuscript, supervising, June Keziah B Salindo –data gathering, proofreading, encoding, Eden Grace V. Tabanao – data gathering, data analysis, proofreading

6.0 Funding

This research is funded by the Negros Oriental State University-Guihulngan Campus Research Office through the Research, Innovation, Development, and Extension Office of Negros Oriental State University-Main Campus.

7.0 Conflict of Interests

The authors have no conflicts of interest to disclose.

8.0 Acknowledgment

We are deeply grateful to the local government units in the First District of Negros Oriental for their important collaboration and support throughout our project. Their tireless efforts in dealing with the COVID-19 pandemic provided crucial insights into successful health emergency and risk reduction strategies. We also want to thank the volunteers who willingly contributed their experiences and insights, adding to the depth of our study. Thanks to the community members for their participation and the institutional review board for their ethical oversight.

Moreover, Negros Oriental State University-Guihulngan Campus for the financial support to conduct this study. This research was only possible with the combined efforts and commitment of everyone involved.

9.0 References

- Amit, A. M. L., Pepito, V. C. F., & Dayrit, M. M. (2021). Early response to COVID-19 in the Philippines. *Western Pacific Surveillance and Response Journal: WPSAR*, 12(1), 56. <https://doi.org/10.5365/wpsar.2020.11.1.014>
- Ahmed, T., Rahman, A. E., Amole, T. G., Galadanci, H., Matjila, M., Soma-Pillay, P., & Anumba, D. O. (2021). The effect of COVID-19 on maternal newborn and child health (MNCH) services in Bangladesh, Nigeria and South Africa: call for a contextualised pandemic response in LMICs. *International Journal for Equity in Health*, 20(1), 1-6. <https://doi.org/10.1186/s12939-021-01414-5>
- Bekema, J. D. L. C. (2021). Pandemics and the punitive regulation of the weak: experiences of COVID-19 survivors from urban poor communities in the Philippines. *Third World Quarterly*, 42(8), 1679-1695. <https://doi.org/10.1080/01436597.2021.1913407>
- Bonardi, J. P., Gallea, Q., Kalanoski, D., & Lalive, R. (2020). Fast and local: How did lockdown policies affect the spread and severity of the covid-19. *Covid Econ*, 23, 325-351.
- Braun, V., & Clarke, V. (2012). Thematic analysis. American Psychological Association. <https://doi.org/10.1037/13620-004>
- Chriss, J. J. (2007). The functions of the social bond. *The Sociological Quarterly*, 48(4), 689-712. <https://doi.org/10.1111/j.1533-8525.2007.00097.x>
- Dolo, S. A., De Vera, C. M. D., Flores, Z., Juguilon, C. K., Portuguez, K. O., & Rabadon, K. (2021). Effecting a Shift in State Policy during the COVID-19 Pandemic: The Case of the Philippines' Anti-Terrorism Act of 2020
- Duma, L. A., Zanoria, H., Genosa, C., & Reynes, E. M. (2022). Philippine Development Response to Mitigate the COVID-19 Pandemic: A case study in Central Visayas. *Global Economics Science*, 53-96. <https://doi.org/10.37256/ges.312022920>
- Elam, A., & Sardana, D. (2008). The potential of Parsons' systems theory for the study of entrepreneurship (summary). *Front. Entrep. Res*, 28(4).
- Espia, J.C., Gera, W., & Hall, R.A. (2021). Local Adaptations to Central Government Shortcomings: COVID-19 Responses in the Cities of Iloilo and Cebu, Philippines. *Contemporary Southeast Asia: A Journal of International and Strategic Affairs*, 43(1), 53-62. <https://www.muse.jhu.edu/article/796895>.
- Logrosa, G., Mata, M. A., Lachica, Z. P., Estaña, L. M., & Hassall, M. (2022). Integrating risk assessment and decision-making methods in Analyzing the dynamics of COVID-19 epidemics in Davao City, Mindanao Island, Philippines. *Risk Analysis*, 42(1), 105-125. <https://doi.org/10.1111/risa.13779>
- Tabuga, A. D., Domingo, S. N., Diokno-Sicat, C. J., & Ulep, V. G. T. (2020). Innovating governance: Building resilience against COVID-19 pandemic and other risks (No. 2020-23). *PIDS Discussion Paper Series*. <https://hdl.handle.net/10419/241012>
- Talabis, D. A., Babierra, A. L., H Buhat, C. A., Lutero, D. S., Quindala, K. M., & Rabajante, J. F. (2021). Local government responses for COVID-19 management in the Philippines. *BMC Public Health*, 21(1), 1-15. <https://doi.org/10.1186/s12889-021-11746-0>
- Salindo, P. (2021). An Analysis of the Establishment and Development Negros Oriental State University, Guihulngan Campus. *PRISM*, 25(1). <http://norsu.edu.ph/norsuprism/index.php/norsuprism/article/view/367>
- Tittenbrun, J. (2014). Ownership and Capital. *International Letters of Social and Humanistic Sciences*, 20, 26-48. <https://doi.org/10.18052/www.scipress.com/ILSHS.20.26>.