DECEMBER 2022

DISCUSSION PAPER SERIES NO. 2022-32

Implementing Crisis and Risk Communication in a Pandemic: Insights from LGUs' COVID-19 Experience

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Abstract

Local government units (LGUs) are at the forefront of the Philippine government's COVID-19 pandemic response. One of their most important functions is crisis and risk communication to ease public fear, mitigate the damage caused by the pandemic, and promote the adoption of health and safety protocols to control the spread of COVID-19. However, only a few studies on local governments' COVID-19 experience are present, and an in-depth study of the crisis and risk communication of Philippine LGUs has not been done yet. To fill this gap, this study investigated the communication strategies used by LGUs to inform, educate, and connect with the public during the pandemic, particularly in 2020–2021. It employed a mixed method approach consisting of desk review and cursory audit of national plans and policies on COVID-19, key informant interviews with representatives of the selected LGUs (Pasay, Manila, Caloocan, and Navotas), and social media search and content analysis of the COVID-19-related messages on the LGUs' official Facebook pages. Results showed the use of traditional and modern communication channels in crisis and risk communication. Modern channels such as social media, virtual meetings and groups, and online messaging platforms were largely used and proved to be useful given mobility restrictions and the need for social distancing. Nevertheless, traditional channels remained an important communication strategy of the LGUs, particularly face-to-face communication whenever possible, printed IEC materials, and interpersonal channels on the ground, like barangay officials and health personnel. The effective and efficient conduct of the LGUs' communication functions during the pandemic was affected by many challenges, such as the late receipt of official memos on new policies and guidelines from the national government, the fast-changing guidelines, inadequate training in science, risk, and crisis communication, insufficient resources, risk of COVID-19 to personal health, and discrepancies in the COVID-19 case reports. Found in all four LGUs was the absence of a communication plan and monitoring and evaluation system, which hindered them from systematically implementing their communication interventions, monitoring progress vis-à-vis objectives, and evaluating the effectiveness of their communication strategies. Also, while social media have been widely used, the LGUs failed to maximize its potential to correct fake news and increase their responsiveness to the public. Only 45 of the 6,787 COVID-19-related posts on the LGUs' Facebook pages, or less than 1 percent, were posts intended to correct false information. Only one of the three LGUs responded extensively to public comments on its Facebook page. The analysis of the LGUs' messages on Facebook also revealed a need to improve the clarity of their social media posts, which can be achieved by using the local language more, explaining and simplifying technical terms, and using more visual communication.

Keywords: COVID-19, crisis and risk communication, social media, pandemic response

Table of Contents

List of Tables

List of Figures

Implementing Crisis and Risk Communication in a Pandemic: Insights from LGUs' COVID-19 Experience

Sheila V. Siar and Pauline Joy M. Lorenzo[1]

1. Introduction

Local governments have been at the forefront of the pandemic response since the COVID-19 crisis started in 2020. The Philippines' decentralized governance structure since 1991, in accordance with the passing of Republic Act 7160 or the Local Government Code, made local government units (LGUs) directly responsible for delivering basic services to their citizens. Subsumed in the Code are their obligations "during and in the aftermath of manmade and natural disasters and calamities" (Section 444, Item 1, vii), which include carrying out emergency measures to protect citizens; delivery of relief services and assistance, health services, and other interventions to assist them in regaining their livelihood; protection of human rights; and provision of information. Although the COVID-19 pandemic is not technically a natural or manmade disaster, a health emergency such as a pandemic or an epidemic is considered a disaster event, as can be gleaned from policy issuances of the Department of Health (DOH) such as Administrative Order 2004-168 or the National Policy on Health Emergencies and Disasters and Administrative Order 2019-0046 or the National Policy on Disaster Risk Reduction and Management in Health.

One of the most critical aspects of a pandemic response is risk communication and crisis communication—two different yet interrelated concepts. Risk communication seeks to change behavior to protect and improve public health and safety. In the context of COVID-19, the target behavior is the adoption of and continued compliance with minimum public health and safety standards to control the spread of the disease. Risk communication plays an important role in the overall strategy to control COVID-19 and promote the successful adaptation of the "new normal" practices (ADB and McCann Global Health 2021; Dugenia 2020). Meanwhile, crisis communication involves interventions to prevent or lessen the damage caused by a crisis, which, in the case of COVID-19, includes the loss of lives and livelihoods and business closures. It also entails easing public fear and panic and preventing the circulation of false information.

The role of LGUs in crisis and risk communication is crucial to manage the risks of the COVID-19 pandemic and mitigate its negative impacts. However, with or without a pandemic, local officials are the government actors directly closest to citizens; thus, they play a prominent role in communication tasks (Baranyai et al. 2021). This responsibility becomes more crucial when a disaster strikes as its impacts and effects are felt most strongly at the local level.

Soriano et al. (2020) noted that the implementation of good communication strategies during a pandemic could lead to a well-informed public and attainment of the desired collective behavior; conversely, poor communication may result in a distressed community with uncoordinated action. They also outlined several recommendations for effective health communication during a pandemic, which include having a coordinated communication

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protocol and strategy managed by a designated communications team to avoid releasing ambiguous messages to the public and to identify all possible channels for information dissemination; a readily available and accessible feedback mechanism; open interagency collaboration and communication; and targeted information materials. However, the presence of these factors is not a guarantee of success. LGUs may be confronted by resource constraints, lack of trained information officers in health communication, and communication inequalities due to demographic and social factors. These can be exacerbated by the lack of interagency cooperation, especially in planning and decisionmaking, citizens' distrust of their local officials, and the disconnect between national agencies and LGUs (Soriano et al. 2020).

Amid the complex nature of a pandemic and the pressures facing local governments, it is relevant to examine how Philippine LGUs conducted crisis and risk communication during the COVID-19 pandemic and managed to carry it out despite the challenges. Taking stock of the lessons and insights from their experience is important to guide the future actions of LGUs if another health emergency or a similar crisis arises.

1.1. Policy research question

Given the abovementioned background, this research sought to answer the question: "How did local governments carry out crisis and risk communication during the COVID-19 pandemic and how can their communication strategies be strategically improved?"

In investigating this topic, the study looked into the communication strategies used by the LGUs during the pandemic to inform, educate, and engage the public. At the same time, it analyzed the clarity and accuracy of the messages delivered to the public and which interventions were found to be useful. It also studied the LGUs' feedback and monitoring systems and how they used the information they gathered to improve their communication interventions. The study thus analyzed the communication activities of the LGUs in carrying out crisis and risk communication during the COVID-19 pandemic and drew insights from their experience.

The study used 2020-2021 as a reference period to make the analysis focused.

1.2. Objectives

The main objective of this research is to analyze how local governments carried out crisis and risk communication during the COVID-19 pandemic. Specific objectives included the following:

a. Determine and analyze the strategies used by LGUs in risk and crisis communication and how these were planned and executed;
b. Analyze the specific messages communicated to the public;
c. Explore the factors that affected or hindered the conduct of communication interventions;
d. Examine how LGUs ascertained the information needs of their citizens;
e. Determine how LGUs gathered citizens' feedback on their pandemic response, whether they used the information, and how; and

f. Identify effective practices in risk and crisis communication that other LGUs can replicate during this pandemic and in similar health emergencies in the future.

1.3. Relevance to policymakers and implementing agencies

Most studies in the literature about COVID-19 are about country experiences (e.g., ADB and McCann Global Health 2021). Only a few studies on local governments are present (Flores and Asuncion 2020; Vallejo and Ong 2020; Baranyai et al. 2021). More importantly, an in-depth analysis of the crisis and risk communication strategies employed by Philippine LGUs during the COVID-19 pandemic has not been done yet.

Given the strategic role of local governments during health emergencies, it is important to ensure that they can deliver their communication functions effectively and efficiently in times of crisis. The findings of this study can yield important insights into useful communication systems and practices of LGUs based on their experience during the COVID-19 pandemic and how these can be enhanced. The study can also shed light on why some LGUs are able to communicate better with their citizens than other LGUs.

As a core function that cuts across all the service areas of local governments, the importance of effective internal and external communication is often ignored, with little resources allocated to communication resources and strategies. LGUs will have a bigger share of the national tax allotment (formerly called "internal revenue allotment" or IRA) in 2022 with the implementation of the Supreme Court's ruling on the Mandanas and Garcia petitions. With bigger resources, they have more flexibility to beef up functions where they are weak, such as communications. They can allocate bigger budgets to expand their pool of information officers, pursue capacity-building activities (e.g., communication training), upgrade their communication programs, applications, and equipment, and improve their internet connection.

Moreover, the insights from this study are relevant not only for LGUs but also for policymakers and program implementers in the public and private sectors, as risk communication and crisis communication are concepts that apply to situations that involve a possible threat or danger that can escalate into a crisis.

Enhancing LGUs' communication functions can advance the quality of local governance. Timely and coherent communication strategies are important not just in times of emergencies but in everyday situations, as LGUs are mandated to deliver basic services. Effective communication can also boost local government capability, accountability, transparency, and responsiveness.

2. Review of Related Literature

2.1. Crisis and risk communication

The field of communication has gained increased attention in the wake of the COVID-19 pandemic. Crises and disasters require timely, relevant, and coherent communication of critical information by those charged with dealing with the situation. As a specialized area in communication studies and practice, crisis and risk communication is often associated with disasters and public health priorities and concerns (Bourrier 2018). It is a combination of two

concepts—risk communication and crisis communication—which differ in objective. Prior to their merging, risk communication and crisis communication were viewed as two separate fields. It later evolved into a single concept in light of the complex nature of global threats and crises.

2.1.1. As separate concepts

Understanding risk communication requires a clear understanding of risk. In the context of disaster management, it is defined as "the potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society, or a community in a specific period of time, determine probabilistically as a function of hazard, exposure, vulnerability, and capacity" (UNDRR n.d., par.1). Risk is also often associated with a potential threat to human health and the environment (Lundgren and Mcmakin 2013).

Reynolds and Seeger (2005) described risk communication in the context of public health as the delivery of public messages intended to inform the public and to encourage them to change their behavior to protect and improve public health and safety. Risk communication's goal of behavior change, as emphasized by Reynolds and Seeger (2005), is aligned with the explanation of Renn (2009), although elucidated differently, that is, in terms of making a risk-based decision. According to Renn (2009), risk communication aims at assisting people to make informed choices about matters that may affect them. He clarified that it is not about convincing people that the source of the message has done the right thing; rather, it is about providing people with all the information they require to make decisions or judgements. Given the deeper objective of risk communication, Renn (2009) added that it goes beyond public information and public relations. It is complementary to risk management as it aims to promote an understanding of risk and the choices people have to manage it.

In contrast to risk which is often associated with environmental and public health concerns, a crisis is often linked to political events, according to Palenchar (2009). Tracing the historical evolution of crisis communication in the United States, he explained that it was originally applied to political events, such as the Cuban missile conflict in the early 1960s, the Exxon Valdez oil spill in 1989, and the terrorist attacks on September 11, 2001 (more commonly known as 9-11). These incidents, especially 9-11, placed crisis communication—as part of crisis management—at the front and center of the government's response to a crisis.

A crisis is defined by Lerbinger (1997, p. 4, as cited by Palenchar 2009) as "an event that brings, or has the potential to bring, an organization into disrepute and imperils its future profitability, growth, and possibly, its very survival". In explaining the harm a crisis can bring, Coombs (2014) categorized damage into three types: (1) public safety, such as loss of lives; (2) financial loss; and (3) reputation loss. Following this, crisis communication is seen as the delivery of messages ''to prevent or lessen the negative outcomes of a crisis and thereby protect the organization, stakeholders, and/or industry from damage'' (Coombs, 1999, p. 4). In the case of a health emergency, such as a flu pandemic, the objective of crisis communication, according to Saliou (1994), is "to allay individual and collective fears, to prevent the circulation of uncontrollable rumors, and to stem generalized panic which could spread from one country or even one continent to the next" (p. 516).

Given the differences in the objectives of risk communication and crisis communication, Reynolds and Seeger (2005) noted that how the messages are crafted and delivered also varies. Crisis messages, he explained, are aimed at informing than persuading. They are also more spontaneous in providing a quick response. Meanwhile, risk messages are more persuasive and education-driven to explain the risk and prevent it from escalating into a crisis. It is also more controlled and structured. Figure 1 presents a comprehensive list of the differences between risk communication and crisis communication provided by Reynolds and Seeger (2005).

Table 1. Distinguishing features of risk and crisis communication

Risk communication	Crisis communication
Messages regarding known probabilities of negative consequences and how they may be reduced; addressing technical understandings (hazards) and cultural beliefs (outrage)	Messages regarding current state or conditions regarding a specific event; magnitude, immediacy duration, and control = remediation; cause, blame, consequences
Principally persuasive, i.e., advertising and public education campaigns	Principally informative, i.e., news disseminated through media or broadcast through a warning system
Frequent = routine	Infrequent = nonroutine
Sender = message centered	Receiver = situation centered
Based on what is currently known, i.e., scientific projections	Based on what is known and what is not known
Long-term (precrisis) message preparation, i.e., campaign	Short-term (crisis) less preparation, i.e., responsive
Technical expert, scientist	Authority figures = emergency manager, technical experts
Personal scope	Personal, community, or regional scope
Mediated; commercials, ads, brochures, pamphlets	Mediated; press conferences, press releases, speeches, websites
Controlled and structured	Spontaneous and reactive

Source: Lifted in full from Reynolds and Seeger (2005)

2.1.2. As blended concepts

The blending of crisis communication and risk communication was proposed and initiated by the United States Centers for Disease Prevention and Control (CDC). It was called Crisis and Emergency Risk Communication or CERC, which is promoted by the CDC as an integrated model of providing information about the possible outcome from an exposure or behavior to assist an individual in making an informed choice about their behavior (risk communication). It also pertains to the process of alerting the public about a crisis or an emergency (crisis communication) and the immediate response that must be made to reduce and contain the harm (CDC 2018). The insertion of "emergency" before risk communication is meant to emphasize the limited timeframe within which decisions about risks and behaviors must be made. Decisions rely on imperfect or incomplete information, and their outcomes may be irrevocable.

The merging of the two concepts can be traced back 20 years ago to the CDC's launch of a course on CERC in October 2002 for public health officials. Reynolds and Seeger (2005, p. 49) explained CDC's motivation to blend risk and crisis communication into a single concept.

> "…in response to a recognition that health communication in an era of bioterrorism as well as other emerging global threats to public health must be strategic, broad based, responsive, and highly contingent. This blended form of communication emphasizes the developmental features of crisis and the various communication needs and exigencies of audiences at various points in the ongoing development of an event."

Past terrorism-related events that posed global threats to public safety include the September 11 World Trade Center bombing and the anthrax attacks, which occurred shortly after the 9-11 incident. In terms of health emergencies, the sudden acute respiratory syndrome (SARS) outbreak in 2002-2004 and the Middle East respiratory syndrome coronavirus (MERS-COV) outbreak in 2012 immediately come to mind.

While it was the CDC that initiated the blending of risk and crisis communication, practitioners and academics also agreed that the two concepts overlap and thus should be regarded as complementary. The relationship is explained by Heath and O'hair (2009, p. 9) as follows:

> "If a risk occurs and is not well managed, it can become a crisis. A badly handled crisis can reduce trust for the offending organization (or chemical, technology, or process). A crisis may reveal the lack of effective risk management and communication. People may fail to recognize risks in an appropriate light. They may know the risks and not manage them properly. They may fail to communicate effectively. People may come to believe they are asked to bear what appear to be, but actually are not undue or intolerable, risks. Conceived in this way, crisis can be defined as a risk manifested."

In their exhaustive analysis of CERC, Veil et al. (2008) put forward several propositions that elucidate the concept and expound on the relevance of merging crisis communication and risk communication.

1. Risks and crises both create uncertainty, which, in turn, produce "specific informational needs and deficiencies" (p. 32). Communication as a management tool is essential in dealing with them. By merging the two concepts, "the CERC positions communication more centrally throughout the risk and crisis communication process" (p. 32).

2. Risks and crises affect people differently, given their "variable needs, interest, and resource, which, in turn, affect their communication capacities, needs, and activities" (p. 31). It is vital to consider audience diversity and the uneven vulnerabilities and different risk levels across individuals and groups when devising crisis and risk communication strategies.

3. Managing and reducing the threat of a risk is essential in crisis response.

4. Communication is an evolving process influenced by the specific stages of the crisis and its conditions. The communication channels and the audience's needs may change as a risk advances into a crisis and as a crisis transitions to recovery.

5. Risk and crisis messages should be crafted in a developmental sequence using an integrated framework. “Risk messages communicated before a crisis occurs influence perceptions, expectations, and behavior after the crisis erupts. In turn, these crisis responses then influence subsequent risk messages” (p. 31).

The CERC model came into being based on the experiences of CDC’s health communicators (Viel et al. 2008). The current version, otherwise known as CERC Rhythm, consists of four phases which show the communication objectives for each phase, the types of messages that must be disseminated, and how to carry out the communication interventions (Figure 1).

Preparation, which implies that there is no crisis yet, entails developing partnerships with organizations and stakeholders that can contribute to the response when a crisis occurs, creating a communication plan, drafting and testing messages, and determining the approval process for releasing information. Part of this phase is the selection and training of spokespersons, which the CDC underscored should be reputable leaders in the community or organization with knowledge and expertise of the situation.

The Initial phase reflects the onset of a crisis. At this stage, based on the CERC model, it is necessary to express empathy right away to those affected by the crisis, inform affected communities of the risk and what it constitutes, provide people with information about how to lessen the risk, inform the public of what the organization is doing to respond to the emergency, and provide them with regular updates.

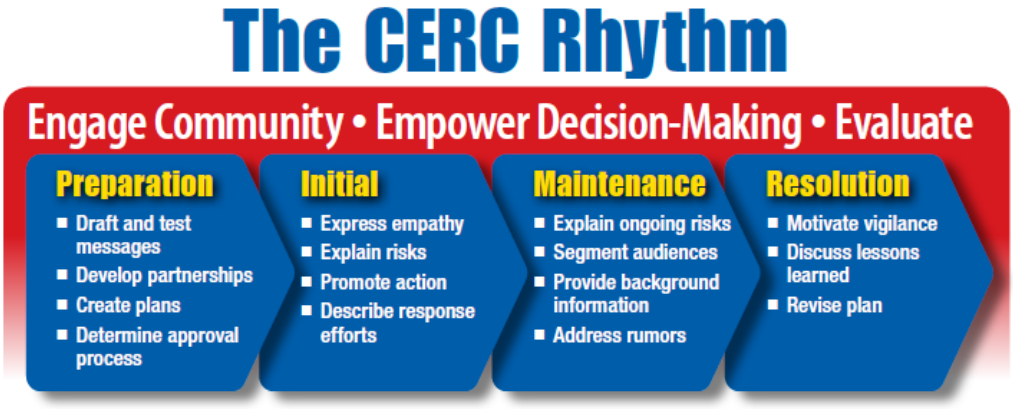
The Maintenance phase is more of a continuation of past communication efforts. The objective is for the community to sustain actions to reduce the risk or harm, hence, continuous diffusion of information on how individuals can take care of themselves and help in the recovery efforts is important. This phase also involves audience segmentation in message construction and delivery or explaining how the risks vary for different people and what actions are necessary to protect themselves. It is also important to encourage public support and cooperation in this phase to make recovery efforts successful. The Maintenance phase also entails dispelling rumors and addressing disinformation.

The final phase in the CERC model, Resolution, requires motivating people to stay vigilant and for organizations to take stock of lessons learned for future emergencies and revise communication plans based on those lessons. Messages that promote community preparedness for future crises and building from the current momentum in terms of emergency response are also recommended.

The CERC mode is not without criticism. Among the limitations pointed out in the literature is its deterministic and linear stages, which assume that a crisis erupts and is resolved in a predictable pattern—from precrisis, to the initial and maintenance stages, to recovery. In reality, a crisis or an emergency may not follow this sequence “due to a variety of factors including effective risk during the early stages, the emergence of secondary shocks, or unanticipated interactions” (Reynolds and Seeger 2005, p. 51). A reversal of fortune—or a turn for the worse—may unexpectedly occur due to unforeseen events just when a crisis is anticipated to be on the road to a resolution. This has been witnessed in the current pandemic

wherein the emergence of a more severe COVID-19 variant (Delta) and an easily transmissible one (Omicron) brought back the infection levels at a record high in many countries, halting the opening of their economies and forcing them to revert to lockdowns and border controls. In the Philippines, the sudden rise in infections amid the entry of more challenging COVID-19 variants resulted in cyclical lockdowns and varying alert levels to control the resurgence. These unforeseen twists and turns have an implication for the communication interventions of entities tasked to carry out crisis communication. They may require new communication strategies and alternative ways of delivering risks and warning messages (Reynolds and Seeger 2005).

Figure 1. The CERC Rhythm



Source: CDC (2018)

The overgeneralization and oversimplification of the CERC model were also pointed out by Miller et al. (2021). Missing the reality that a crisis can cycle through one or more stages more than once and that protracted crises can happen are among the model's limitations. They added its inability to recognize events with a long maintenance stage. Given its deterministic view of crisis stages and the seeming lack of recognizing possible deviations due to unforeseen events, the model has also been criticized for its inability to provide a clear guidance for shifting communication approaches when deviations occur.

In addition, this study finds the model lacking in timeliness by including messages to dispel rumors and disinformation only in the Maintenance stage. False information can circulate even during the initial phase of a crisis. Thus, messages aimed at fighting fake news should be present even at the start of a crisis and throughout the rest of the phases.

Despite these criticisms, scholars generally agree that CERC is still a valuable approach. Reynolds and Seeger (2005) noted that the systematic way the model views a crisis by depicting it in stages helps crisis managers, including communicators, anticipate communication needs and problems. Analyzing numerous references on CERC, Miller et al. (2021) found that it is widely used in risk and crisis contexts. A key strength of CERC is its acknowledgment of the importance of pre-crisis communication as "a method to increase the effectiveness of the response stages and reduce harm in the resolution stages" (Seeger et al. 2010 as cited in Sheppard et al. 2021, p. 8). Citing the work of the same authors, Sheppard et al. (2021) noted the model's usefulness as a crisis and risk communication framework in a number of past disasters, including Hurricane Katrina and the avian influenza pandemic. In the latter, it was

found suitable for thwarting false information, setting rules for information released to the media, and engaging international audiences to respond to the crisis.

2.1.3. Examples of the application of risk and crisis communication in health emergencies

Country-level implementation of risk and crisis communication in pandemic scenarios has been studied extensively in the past two decades before the COVID-19 pandemic shocked the world. H1N1 posed a similar context. In 2013, Barrelet et al. conducted a systematic review of social science studies from 2009 to 2011 about the H1N1 pandemic. According to the authors, risk perception varies across different groups and countries, which, in turn, affects trust-building. Moreover, the study highlighted research gaps, such as how risk perception is affected by various competing sources of information and how implementing agencies design and implement risk communication strategies.

Like COVID-19, the pandemic caused by infectious diseases like influenza, Ebola, Zika, and Yellow Fever presented a situation that calls for a communication response that should be done and adjusted at various phases. Studies that involved a systematic review of scientific studies and expert consultation meetings revealed essential elements of effective communication during a pandemic (Vaughan and Tinker 2009; Toppenberg-Pejcic et al. 2019; Jong 2020). These elements include maintaining public trust, clear call-to-action messaging from reliable influencers, targeted messaging considering various cultural norms, coordinated response strategy, and partnerships with different agencies.

Building trust, a common theme in most risk communication studies, was seen as challenging to establish (Abraham 2011). One study saw that timely and audience-specific messaging from relevant local leaders or groups, culture-sensitive practical interventions, and responsive feedback mechanisms helped build a community's trust in implementing agencies during health emergencies (Toppenberg-Pejcic et al. 2019).

ADB and McCann (2021) conducted a rapid assessment of the implementation of risk communication for COVID-19 and listed some of the notable communication campaigns from 40 countries. Many countries use social media to build trust, disseminate reliable information, address misinformation, and promote preventive practices. Examples were South Korea, Taiwan, and China, which used social media platforms to address misinformation, while Canada launched a campaign called 'Break the Fake' to guide people to detect misinformation. Vietnam banked on the popularity of Tiktok challenges to promote hand-washing practices. On the other hand, Pakistan used WhatsApp and repurposed its existing Polio Program network to disseminate COVID-19-related information. Rwanda used its current drones to broadcast health education messages in hard-to-reach areas. Taking advantage of existing technology, other countries explored various applications that will aid contact-tracing initiatives, such as South Korea's digital test and trace application. The same report also showcased initiatives that used traditional channels of communication. Senegal used murals depicting ideal health behaviors in times of pandemic in their rural areas. Kerala and China banked on physical cues to remind people of physical distancing and other preventive measures. The list of initiatives showcased the resourcefulness of many countries in carrying out risk communication.

Several systematic reviews and expert consultations were also done during the height of the COVID-19 pandemic to identify best practices and barriers to the implementation of risk communication. These studies aimed at creating a comprehensive document to help the national government plan, implement, and monitor their risk/crisis communication (Ontario Hospital Association, n.d.; ADB and McCann 2021; NFID 2021). Most of these studies carried the same key elements of risk communication for infectious diseases. The recurring theme of putting a premium on building the credibility of the information and establishing trust in the implementing agencies and leaders was evident from these studies.

2.2. Use of social media: opportunities and challenges

Social media, including messaging applications, gained traction in the early 2000s. They have increasingly become a major source of information as technology develops and becomes more accessible. However, the rapid development of technology that supports the growth of social media can be a double-edged sword. It makes information and resources readily available and easy to disseminate, whether reliable information or fake news (Barrelet et al. 2013; Ostherr 2020 as cited by Bonah and Laukotter 2020).

The role of social media in spreading misinformation that could lead to public hysteria can be exemplified by the study of Carvajal (2015), in which he analyzed the events that transpired after the airing of a local news report about a "mysterious" case of flesh-eating bacteria. The study found that misinformation can spread easily through social media and cultivate panic in a community. The author thus suggested that communication units should be easily accessible to clarify misleading information and minimize public fear and anxiety from fake news or misinformation.

Toppenberg-Pejcic et al. (2019) also pointed out some of the challenges in social media. The internet promotes user-generated information that may lead to misinformation and creates an avenue where dialogue is encouraged while blurring the distinction between expert opinion and that of a lay person (Abraham 2011). Given the overload of information posted online, it is important to verify if a piece of information is correct and identify credible sources of information. In the same study, traditional media was found to be more effective than social media during the Ebola pandemic and the more preferred communication channel, particularly when it came to safe burials and body management, which needed extra engagement from community leaders to incorporate information on proper handling of corpses appropriate to different cultural groups.

The use of social media during the COVID-19 pandemic was seen by Baradei et al. (2021). They conducted a case study using CrowdTangle software to analyze the content of four official Facebook pages of the Egyptian government. They looked into how it was used to inform the public, promote transparency, build trust, minimize panic, address rumors, encourage appropriate behavior, and gather feedback. They found that the Egyptian government maximized Facebook as one of their communication channels for their pandemic response. Public trust, measured through the increasing number of followers and social media interaction (e.g., likes, shares, clicks), was found to be high, suggesting that the people sought information from these official pages. The government also used these official pages to address misinformation. However, the authors saw clear disparities in the reported cases on the official pages and the reports of other relevant agencies, reflecting a lack of interagency data harmonization. The United Arab Emirate's pandemic response also relied on social media as a

source of credible information and a platform for information dissemination to a wider audience (Radwan and Mousa 2020).

In the Philippines, Flores and Asuncion (2020) conducted a study on the communication preferences of the public and the factors that affect their risk perception.[2] They carried out a two-phased project: a rapid assessment of how LGUs used social media during the pandemic in three cities, followed by an online survey of 250 respondents nationwide to determine the public's risk perception, communication preferences, and trust in LGUs. The results showed that LGUs used social media mainly to deliver updates about their strategies to mitigate the spread of COVID-19 and the social services they provided to their constituents. This was on top of their case reports to provide people with an overview of their COVID-19 situation. Lastly, LGUs used social media to increase disease awareness and promote preventive measures for COVID-19 through infographics, videos, and FAQs. They also used social media to address misinformation and fake news and encourage public and private sector participation.

The survey showed that social media was the channel preferred by 57 percent of the respondents, followed by television, online news articles, government websites, community announcements, and messaging applications. It was also found that the frequency and timeliness of the communication increase the effectiveness of risk/crisis communication. The presence of feedback mechanisms and the use of local language also increase communication effectiveness. Using structural equation modeling (SEM) analysis, the results supported the study's assumptions that (1) the frequency and timeliness of communication leads to its effectiveness, which, in turn, contributes to the creation of public trust; (2) risk perception affects the public's belief on the benefits of safety protocols, perceived susceptibility disruption, and severity of the disease and crisis; and (3) public trust affects public perceptions on safety measures and protocols that lead them to practice self-preventive measures.

2.3. Factors that affect communication interventions

Available evidence points to several factors that affect the success of communication interventions, particularly during disasters or emergencies.

Knowing the audience's characteristics and needs is a cardinal rule in communication. The **relevance of the information** to the target audience is highlighted in a study by Nikishawa (2018) on risk communication in the post-Fukushima nuclear disaster in Japan. She found that the information needs about radiation between the child-rearing generation and the older generation is different, with the former group craving more hands-on and practical information about radiation than the latter. This demonstrates the need to tailor-fit messages to the target audience's needs. During the interviews, Nishikawa (2018) and her volunteer interviewers found that the elderly generation was keener on receiving information about rebuilding their lives than radiation-related information and when they can return home. Meanwhile, the mothers were seriously concerned about the health effects of the radiation on their children and, thus, were more interested in practical information to protect their children and less interested in detailed, academic, and scientific information on radiation from experts.

[2] Risk perception refers to the individual's subjective interpretation of the severity of risk, which affects his/her health-seeking behavior (Ontario Hospital Association n.d.). Understanding risk perceptions serves as a good baseline in the messaging and content of communication materials to produce the desired behavior from the public.

Appropriate messaging, including the choice of communication channels, contributes to effective communication and the uptake of policies and interventions. The use of English in the communication materials in Uganda led to the discrimination of the non-English speaking communities, with the latter feeling left out during the pandemic (Awobamise et al. 2021). This led to protestation and noncompliance with health advisories and protocols from these communities due to unclear and confusing guidelines. Age can also determine the choice of communication channels. In a survey during the wake of the COVID-19 pandemic in Germany, Scholz et al. (2021) found that people 60 years old and above preferred television and radio over social media as their trusted source of information.

Rowan (1991, as cited by Heath and O'Hair 2009) underscored the **clarity of the message**. She explained that one of the obstacles to effective risk communication is a lack of clarity about what specific actions or behavior the public needs to take. This can be caused by using technical terms without a clear explanation, contradictory or confusing instructions, vague language, and unclear information on what to do if a situation progresses into a crisis.

Meanwhile, in their study of post-earthquake private housing reconstruction in Nepal after the 2015 Gorkha earthquake, the largest disaster recorded in the country, Sharma et al. (2021) found that the **timeliness and clarity of information** delivered affect the speed of reconstruction efforts, whereby the time spent on reconstruction significantly decreased when program beneficiaries received clear information on time. Moreover, it was found that using multiple communication channels is crucial in spreading information and may increase the believability of the information, particularly complex ones. Using multiple communication channels likewise enhances the perception of the timeliness and clarity of information. However, not all channels work effectively; some are more accepted than others. The **acceptability of the channels** varies by audience and the type of information delivered (as well as by age, as mentioned earlier in the study of Scholz et al. 2021). "Effective communication in post-disaster recovery can be attained by complimenting large-scale information dissemination through mass media with localized and specific information sharing through local radios, local governments and socio-technical assistance groups" (p. 8).

In the research, Sharma et al. (2021) visualized three tiers of communication in the reconstruction process: (1) the National Reconstruction Authority (NRA), the government body for reconstruction, as the first tier and main source of information; (2) the implementation actors, such as local government representatives, field engineers and officials deployed by NRA, and partner organizations, as the second tier; and (3) the main beneficiaries of the reconstruction program, as the third tier and main end-users. In the program implementation, the communication between these different tiers was facilitated by using various channels, such as television, radio, and newspapers; digital and social media; telephone (toll-free hotline); print media; and person-to-person communication through training, orientations, and door-to-door campaigns.

The study found that the choice of channel is influenced by the audience's level of education. Those with higher education chose to follow TV programs and social media/websites more than those with lower education. University-educated ones use newspapers as a source of information much more than those with lower levels of education. Almost three-fourths of reconstruction beneficiaries, mostly illiterate, relied on radio as a source of information. The proportion dependent on radio decreased among secondary and university-level audiences. Implementation-level respondents, particularly NRA officials deployed on the ground and partner organizations, mostly use social media and official websites to obtain and pass on

information. Local government representatives relied more on local radio and training/orientation events. Very few participants reported using phone inquiries or messaging to be informed of reconstruction issues.

For interpersonal or person-to-person sources of information, local government representatives and social leaders were the most preferred by the program beneficiaries, followed by government officials and partner organizations, if they had reconstruction-related questions. Awareness and use of the toll-free number set up by NRA were very low (only 18% and 3%, respectively).

In addition, the study underscored the importance of an **effective monitoring and evaluation plan** to identify gaps and challenges, such as inconsistent information, given that multiple sources of information are involved and other issues like misinformation. Part of this is an appropriate **feedback mechanism** to continuously enhance the communication channels. This mechanism should be something the program beneficiaries are aware of and can use to their full advantage. Sharma et al. (2021) noted that the toll-free number set up by NHA was a good initiative yet ineffective as its intended users (program beneficiaries) lack adequate information about this facility.

A study conducted in China found that the lack of public feedback and participation created one-way governance during the COVID-19 pandemic (Wang et al. 2021). Community feedback can also be utilized to improve the messaging of the communication materials, making these materials or interventions audience- and context-specific (Awobamise et al. 2021). Feedback can also improve trust (Tworek et al. 2020).

Dixit (2018) noted that determining audience feedback enhances communication effectiveness by allowing the sender to discern the efficacy of their message. As the final step of the communication process, feedback ensures that the message was received and interpreted by the receiver the way it was anticipated by the sender. Feedback is a tool for improving performance and continued learning. It is present anywhere, as people will always have something to say. To obtain feedback, effective listening is crucial, whether it is done verbally or through some methods, such as a survey.

Given the importance of feedback, establishing a feedback mechanism—whether structured or unstructured—is important. According to Lamba et al. (2017), the absence of feedback makes communication a one-way process. Feedback can also be nonverbal communication, so capturing this is important. The same authors cautioned that a feedback mechanism should also consider the "timeliness-quotient". It should facilitate the collection of prompt and specific feedback, which is necessary to immediately and accurately fine-tune the message and its delivery.

Another important variable for effective communication interventions is **trust**. Analyzing reports from various crisis incidents, Longstaff and Yang (2008) found a direct correlation between the trust of an organization's stakeholders and the organization's readiness for a crisis and its handling of it. The importance of a trustworthy source becomes more important in a crisis than in an ordinary setting, as it is difficult for individuals to double-check the information. Moreover, Longstaff and Yang (2008) qualified that trust should be two-way. The organization should be a trustworthy source of information, but this is also more likely to happen if the organization trusts the people it will communicate with.

One way the people can trust an organization, say, the government, is to make the citizens aware of its plans and programs. In a study conducted by the Southwest Center for Public Health Preparedness funded by the CDC on the avian influenza, Elledge et al. (2008) found in the focus groups that citizens' lack of awareness of disaster plans in place makes them lose confidence in public officials and agencies. The same study found that citizens highly desire "local, credible, trustworthy information from local, credible sources".

Trust is often linked to credibility. A person perceived as credible is usually trusted and can exert more influence than another person who is less credible. In her critical review of source credibility, Pornpitakpan (2004, p. 244) noted that credibility often has two dimensions: expertise, or "the extent to which a speaker is perceived to be capable or making correct assertions", and trustworthiness, or "the degree to which an audience perceive the assertions made by a communicator to be the ones that the speaker considers valid".

Other authors proposed similar or additional dimensions of source credibility, such as competence, trustworthiness, and dynamism; and authoritativeness and character (Berlo et al. 1969 and McCroskey 1966, as cited by Pornpitakpan 2004). Meanwhile, Covello (2009) argued that expertise is just one of the many characteristics that determine whether a person is trustworthy or not. He noted several trust-determining factors, such as "(1) listening, caring, empathy, and compassion; (2) competence, expertise, and knowledge; and (3) honesty, openness, and transparency. Other factors in trust determination are accountability, perseverance, dedication, commitment, responsiveness, objectivity, fairness, and consistency" (p. 146). In a similar vein, Heath and O'Hair (2009) said that facts are important in crisis and risk contexts, meaning, the expertise of a person matters, but the character of the person, particularly how he/she displays care and concern for those affected, "give life to facts rather than the other way around" (p. 11). Covello (2009) added that in risk communication, trust is considered a prerequisite to achieving other goals, such as consensus-building and dialogue. However, it is built over a long period, not overnight, and is difficult to regain once lost.

In their rapid scoping study of health authorities' risk communication with the public during the COVID-19 pandemic, Berg et al. (2021) found that consistent with the literature, people trust healthcare professionals as spokespersons and information sources in public health emergencies. However, they cautioned that this is not static. The trust may fluctuate depending on public perception of how health authorities manage the crisis. The same study noted that the effectiveness of communication methods varies by location and population. As such, those handling risk communication must adapt their communication methods, bearing in mind the diversity of multiple receivers/audiences on the ground.

Building public trust was pronounced in most studies about effective risk communication because it facilitates adherence to guidelines and policies. Varghese et al. (2021) conducted an online survey of 7,500 individuals from seven European Union countries to determine the trust in the information released by the World Health Organization (WHO) during the first wave of the pandemic as well as the public's uptake of the WHO recommendations. They found that trust in WHO press releases and familiarity with the guidelines were positively correlated with adherence to guidelines. Countries severely affected by the pandemic exhibited a lower trust level in WHO recommendations. The survey showed 86.3 percent of respondents were knowledgeable about WHO press releases and preventive measures, leading to a high adherence rate to social distancing and hygiene practices. This can also be attributed to people's perceived risk that affects their health decisions and behavior (Ontario Hospital Association n.d.).

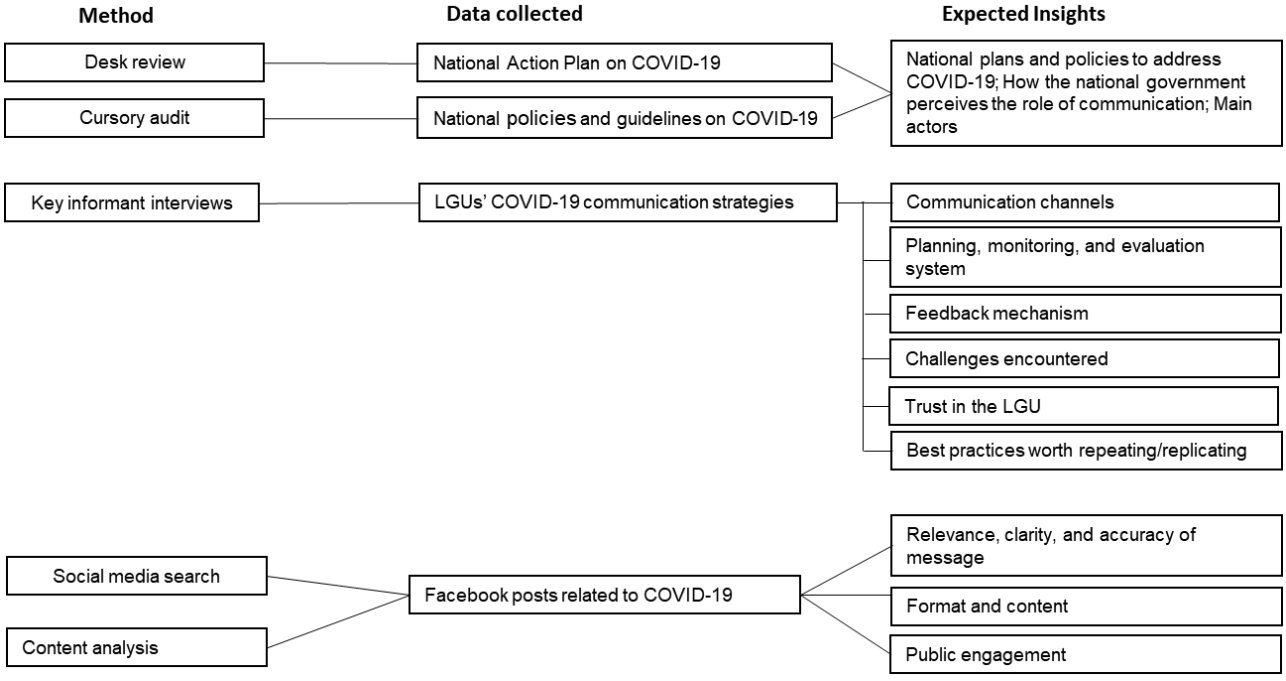
Other challenges undermining trust are information overload, information uncertainty, and misinformation (Vraga and Jacobsen 2020). Counteracting these challenges is essential to achieve effective communication in times of pandemic.

Finally, having an **established and dedicated communication office** is essential for implementing agencies to craft and implement their communication plan. Institutionalizing a communication unit is an integral part of an organization as it can concentrate on producing targeted campaigns, manage the timely delivery of information to the public, handle feedback, and combat public misinformation (Tworek et al. 2020).

3. Methodology

Based on the policy research question and objectives of the study and guided by the literature review, the following framework was developed, which sums up the data collection methods, the data collected, and the insights expected from the analysis (Figure 2). The following subsections provide details of the methodology.

Figure 2. A summary of the methodological framework



Source: Authors' rendition

3.1. Data collection

Data were collected using mixed methods consisting of desk review, cursory audit, social media search, content analysis of messages on Facebook delivered to the public by the study

LGUs, and key informant interviews (KIIs) with LGU officials and staff directly involved in the pandemic response, especially those who handled communication activities.

The desk review explored the government structures and the national action plan on the pandemic response of the Philippine government to determine how crisis and risk communication was considered and perceived by the national government where directives emanate. This review was an important starting point in the study to examine how communication is regarded in the pandemic response plan of the government and how it is envisioned to be carried out, especially at the local level.

In addition, a cursory audit of national policies on COVID-19 released by the government from January 2020 to December 2021 was conducted by visiting the official webpages of key national entities, particularly the Department of Health (DOH), Interagency Task Force (IATF) on Emerging Infectious Diseases, National Task Force (NTF) on COVID-19, and the Office of the President. This audit was considered essential because the policies released by the national government—which include quarantine classifications and alert levels, adoption of minimum public health standards, protocols for infected and exposed individuals, and vaccination guidelines—are the ones cascaded by LGUs to their citizens through local ordinances and various communication channels.

Meanwhile, the KIIs were intended to gather data on how the LGUs carried out their communication functions during the pandemic, their capacity level in handling crisis and risk communication, and practices worth replicating in the future by them and other LGUs. The interviews also focused on the communication channels used, the process employed to plan, execute, and monitor communication activities, and the challenges encountered by the LGUs.

Finally, the social media search involved an exhaustive search of the study LGUs' COVID-19-related posts on their official Facebook pages from March 2020 to December 2021. After completing the search, a content analysis of these posts was conducted to determine the messages' relevance, clarity, and accuracy, their format and content, and the public's engagement with the LGUs through these posts.

3.2. Selection of sample LGUs

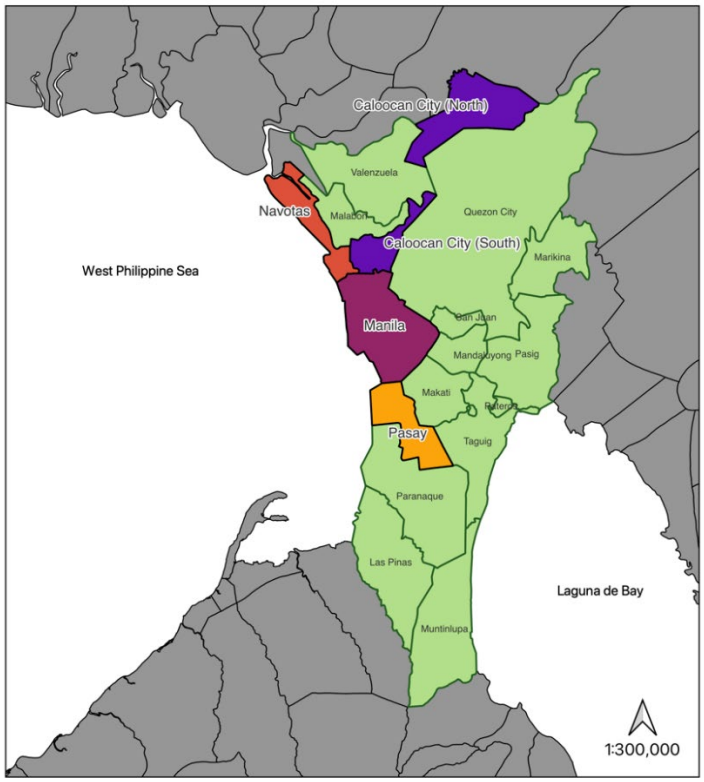
The study used purposive sampling in selecting the study LGUs. The focus was the National Capital Region (NCR) because it was the epicenter of COVID-19 infections in the country. The criteria used for the selection were (1) medium- to large-sized LGUs and (2) the presence of diverse socioeconomic groups. Up to four LGUs were decided to allow for comparison of cases.

As an initial step, the study team consulted a DOH official for recommendations, who suggested the cities of Manila, Pasay, Caloocan, and Navotas, taking note of the criteria and what she and their field directors and staff saw on the ground in terms of the pandemic response of these LGUs.[3]

[3] On February 8, 2022, the study team met with Dr. Beverly Ho, Director IV of the DOH Health Promotions Bureau at the time.

Geographically, Pasay and Manila are contiguous to each other (Figure 3). Both are in the central part of NCR. Navotas lies west in the periphery, while Caloocan is situated north. Navotas, Manila, and Pasay share the coastline facing Manila Bay. Caloocan is landlocked and divided into two administrative areas.

Figure 3. Map of the National Capital Region with the location of the four study sites



Source: Authors' rendition

Verification of the suitability of these sites was made by examining official data. All four cities surpassed the regional population density of 21,765 individuals per square kilometer (Table 2). Manila was the most densely populated, with 73,920 individuals per square kilometer (sqm), while Navotas was the closest to the regional population density at 27,689 persons per sqm. Consequently, Manila has the most barangays at 897, while Navotas has the lowest number at 18.

In terms of educational attainment, almost 30 percent of all the LGUs' residents are high school graduates. College graduates are around 19 percent in Pasay, 18 percent in Manila, 14 percent in Caloocan, and 11 percent in Navotas. All LGUs reported an almost perfect simple literacy rate, which means that the population aged 10 years old and above can read, write, and understand simple messages in any language or dialect. These characteristics are important factors to consider when crafting messages and designing communication strategies.

Table 2. Selected sociodemographic characteristics of study sites

Sociodemographic characteristics	Pasay		Manila		Caloocan		Navotas	
Population (2020 Census)*	440,656		1,846,513		1,661,584		247,543	
No. of barangays**	201		897		188		18	
% Population in NCR**	3.27%		13.69%		12.32%		1.84%	
Land area (km^2)*	13.97		24.98		55.80		8.94	
Population density (2020)*	31,543		73,920		29,777		27,689	
*Educational Attainment 2015****	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
No grade completed	7,078	1.86	32,263	2.02	27,485	1.92	5,117	2.29
Preschool	6,023	1.58	34,132	2.14	36,572	2.56	5,398	2.42
SPED	369	0.10	1,577	0.10	1,153	0.08	198	0.09
Elementary: 1-4 Grade	31,949	8.40	166,277	10.43	156,649	10.96	29,981	13.42
Elementary: 5-6 Grade	9,363	2.46	52,230	3.28	44,665	3.12	10,515	4.71
Elementary: Graduate	21,800	5.73	99,847	6.27	109,152	7.64	23,918	10.70
Highschool: Undergraduate	38,869	10.22	191,666	12.03	181,013	12.66	34,045	15.24
Highschool: Graduate	108,250	28.45	417,422	26.20	428,225	29.96	60,897	27.26
Postsecondary: Undergraduate	119	0.03	826	0.05	1,002	0.07	100	0.04
Postsecondary: Graduate	8,235	2.16	27,650	1.74	24,484	1.71	2,343	1.05
College undergraduate	73,165	19.23	274,021	17.20	210,019	14.69	27,010	12.09
College Graduate	73,628	19.35	288,127	18.08	207,143	14.49	23,712	10.61
Post Baccalaureate	457	0.12	3,243	0.20	1,103	0.08	99	0.04
Not stated	1,179	0.31	4,211	0.26	781	0.05	97	0.04
Total Population 5 YO and over	***380,484***	***100.00***	***1,593,492***	***100.00***	***1,429,446***	***100.00***	***223,430***	***100.00***
Simple Literacy Rate (10 years old and above)***	341,537 (99.9%)		1,410,170 (99.83%)		1,268,346 (99.83%)		197,273 (99.77%)	

Sources: PSA (2021)*; PhilAtlas**[4]; PSA (2017)***

The top occupations across the four LGUs were service and sales workers and elementary occupations (Table 3). Pasay and Manila have clerical support and manager occupations, which complete their top four occupations. Meanwhile, occupations like craft and trade, and plant and

[4] PhilAtlas website: https://www.philatlas.com/luzon/ncr.html

machinery operators and assemblers were common in Caloocan and Navotas. Among the four cities, Navotas has 5 percent of its working-age population employed as fishermen.

In terms of overall competitiveness, Manila and Pasay were ranked second and third, respectively, in the 2021 rankings of the 33 highly urbanized cities in the Philippines. Caloocan is in the middle at the 14th spot, while Navotas is at the far end at the 27th place.[5]

Based on PSA regional statistics in 2018, the poverty incidence in Caloocan was the highest among the selected sites at 4.6 percent (PSA 2021). This was followed by Navotas and Manila, whose poverty incidence was higher than the regional percentage at 2.25. In terms of the number of individuals, Caloocan and Manila ranked among the top five, with the greatest number of individuals classified as poor. Manila has large settlements of urban poor communities and informal settlers. Navotas and Pasay each have less than 9,000 individuals classified as poor (PSA 2021).

Table 3. Selected socioeconomic characteristics of the study sites

Socioeconomic characteristics	Pasay		Manila		Caloocan		Navotas	
HUC Ranking 2021*	3rd		2nd		14th		27th	
Poverty Incidence 2018 (% among the population)**	1.46		2.99		4.66		3.4	
Magnitude of Poor 2018 (Population in thousands)**	8.85		55.28		76.19		8.47	
*Major Occupation Group 2015****	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Managers	16,760	5.64	76,966	6.41	51,613	4.84	7,378	4.50
Professionals	15,247	5.13	66,930	5.58	52,088	4.88	5,445	3.32
Technicians & Assoc Prof	8,985	3.02	40,908	3.41	41,498	3.89	4,430	2.70
Clerical support workers	32,212	10.83	107,491	8.95	73,428	6.88	8,656	5.27
Service & sales workers	58,972	19.84	190,449	15.87	142,253	13.33	24,146	14.71
Skilled agricultural, forestry & fisheries	391	0.13	2,014	0.17	2,785	0.26	7,793	4.75
Craft & trade workers	14,499	4.88	55,661	4.64	97,205	9.11	13,025	7.94
Plant & machine operators & assemblers	16,086	5.41	66,917	5.57	87,246	8.18	10,736	6.54
Elementary occupations	28,477	9.58	134,354	11.19	109,059	10.22	22,700	13.83
Armed forces occupations	1,366	0.46	914	0.08	330	0.03	17	0.01
Other occupation	-	-	121	0.01	-	-	-	-
Not reported	593	0.20	3,226	0.27	928	0.09	148	0.09
Total	193,588	65.11	745,951	62.14	658,433	61.72	104,474	63.66
15-64 y.o. Population (2015)	297,303	-	1,200,381	-	1,066,766	-	164,118	-

Source: DTI, 2021*, PSA, 2021**, PSA, 2017***, PhilAtlas

[5] The rankings are based on the scores each LGU has on the four pillars set by the National Competitiveness Council through the Regional Competitiveness Council, namely, economic dynamism, government efficiency, infrastructure, and resiliency (DTI n.d).

3.3. *Data analysis*

Qualitative data were organized using NVivo 11 and analyzed using thematic analysis. Descriptive statistics were used to analyze quantitative data.

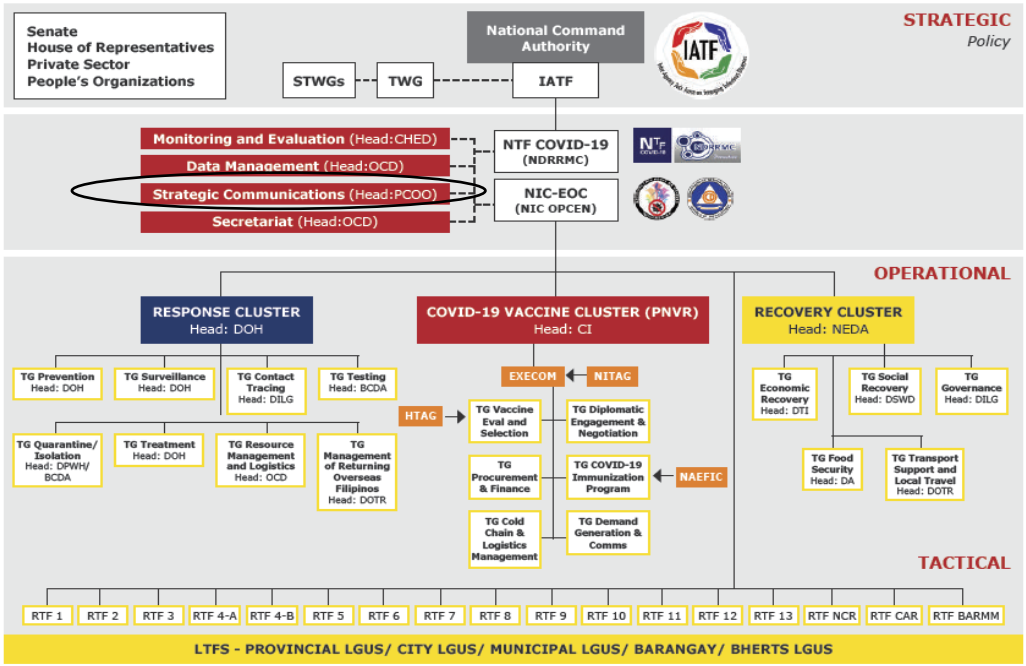
4. The National Action Plan on COVID-19: Structures and actors and how communication is perceived

To understand the government's crisis and risk communication function in the current pandemic, a clear grasp of the key government entities and actors involved in the pandemic response is essential. Three command levels are present: strategic, operational, and tactical (Philippine Humanitarian Country Team 2020). The latest overall governance setup is given in Figure 4.

At the apex of the strategic level is the National Command Authority (NCA), represented by the President of the Philippines, as the overall lead of the national government's COVID-19 pandemic response. The NCA is supported by the Inter-Agency Task Force on Emerging Infectious Diseases (IATF-EID), the lead advisory and policymaking body charged with managing COVID-19-related actions. The IATF was created in 2014 through Executive Order 168 and convened on January 28, 2020, amid growing concerns about a viral outbreak in Wuhan, China. The IATF is chaired by the Secretary of Health with members from various government departments.

In Resolution 25, series of 2020, released on April 17, 2020, the IAFT noted that it "adopts a national-government-enabled, Local Government Unit (LGU)-led, and people-centered response to the COVID-19 health event" (Item A, page 1). This shows that LGUs are at the forefront of the pandemic response.

Figure 4. IATF-NTF expanded organizational structure, August 2020



Source: NTF COVID-19 (2020)

Serving as the government's national strategy in responding to the COVID-19 crisis is the National Action Plan (NAP) created through Resolution 15 of the IATF.[6] The National Task Force (NTF) Against COVID-19 is tasked to implement the NAP. The NTF is led by the Secretary of the Department of National Defense (DND), chair of the National Disaster Risk Reduction and Management Council (NDRRMC). By law, "the DRRMCs at the national, regional, and local levels are the country's disaster management coordination structure as mandated by Republic Act 10121 or the Philippine Disaster Risk Reduction and Management Act" (DILG and World Bank 2021, p. 17). The Secretary of the Department of the Interior and Local Government (DILG) serves as vice-chair of the NTF, while the Office of Civil Defense (OCD) acts as its executive director and secretariat. This indicates that at the national level, the NDRRMC, which comprises almost all government departments (including the DOH), military forces, commissions, and LGU leagues, is regarded as the main lead in implementing the NAP. Tasked to oversee and manage the daily operations in the NAP's implementation is the National Incident Command – Emergency Operation Centers (NIC-EOC). The establishment of the NIC-EOC is based on NDRRMC policies stipulating the Incident Command System (ICS) as part of the Philippines' on-scene disaster response system, reflecting that the framework for the country's pandemic response is anchored on the DRRM.

The function of strategic communication is spelled out in the organizational structure (see the encircled part in Figure 4), suggesting that the national government considers it an essential component in the pandemic response. The Presidential Communications Operations Office (PCOO) is charged with strategic communications or the provision of overall communication directions, objectives, and messaging. Other functions stated are monitoring and evaluation (M&E) and data management, which are assigned to the Commission on Higher Education and the OCD, respectively.

At the operational level are three response clusters with specific task groups led by particular agencies: the response cluster by the DOH, the vaccine cluster by the NTF COVID-19 chief implementer, and the recovery cluster by the National Economic and Development Authority.

The tactical level consists of the regional task forces (RTFs) and local task forces (LTFs) that are intended to address the COVID-19 crisis. Their organizational structure is given in Figures 5 and 6. The chair of the RTF COVID-19 is the regional director of the OCD, while the DILG regional director serves as the vice-chair. At the provincial and municipal/city levels, the chair is the local chief executive (LCE). The RTFs and LTFs are expected to align local actions with the national strategic framework. DILG Memorandum Circular 2020-077, issued on April 24, urged all LGUS to fully establish and activate their respective LTFs.

In the "LGU Guide for Rehabilitation and Recovery from COVID-19", the DILG and World Bank (2021) noted that the composition of the LTF may include, in addition to the LCE, the

[6] The NAP consists of four phases: Phase I (March-June 2020) focused on the prevention and containment of COVID-19 while mitigating its effects on the economy. The government adopted the Prevent, Detect, Isolate, Treat, Reintegrate (PDITR) strategy through the "treat-trace-treat" (T3) management system. It also endeavored to ramp up the testing capacity per day and imposed localized lockdowns to avert the transmission of the virus within local communities. A national communication campaign was also launched during this period, which focused on the importance of following the minimum public health standards (i.e., regular handwashing, keeping physical distancing, and wearing of face masks and face shields) to protect oneself from COVID-19 and control its spread. Phase II (July-September 2020) aimed at striking a balance between protecting the health of the people and reviving the economy. Phase III (October 2020-March 2021) marked the government's transition plan to the new normal by managing the health risk while the country waits for the vaccine to be made available. Phase IV focuses on the vaccination program. (Sources: Kabagani [2020]; DILG and World Bank [2021]).

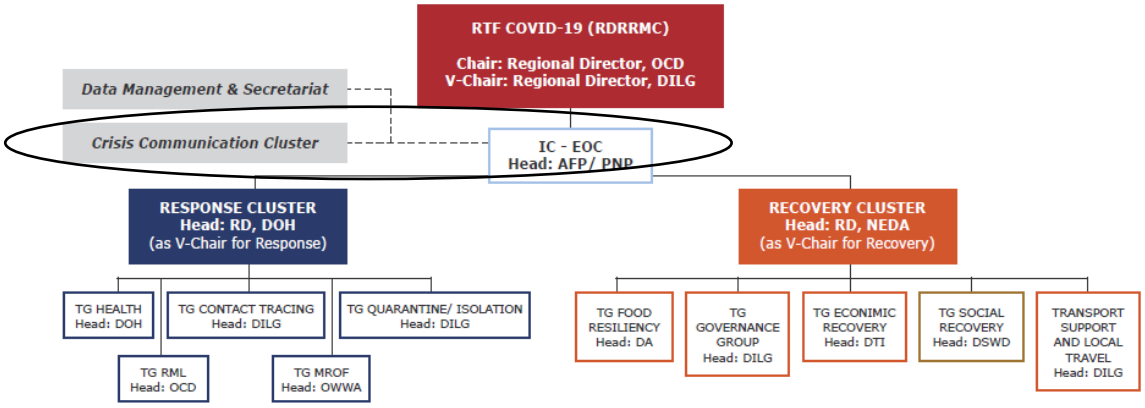
city/municipal local government operations office (C/MLGOO), Philippine National Police, Bureau of Fire Protection, Local Risk Reduction and Management Office (LDRRMO), Municipal Health Office (MHO), Barangay Health Workers (BHW), Barangay Health Emergency Response Team (BHERT), Barangay Public Safety Office (BPSO), and the Local Epidemiology Surveillance Unit (LESU). The LGUs have the liberty to organize their LTF based on their local needs and may add other clusters depending on their situation.

The importance of crisis communication is highlighted at the RTF and LTF levels. In their organizational structures, a crisis communication cluster is present. The LGU Guide mentioned earlier also devoted a chapter on Communication Strategy, which was emphasized as a vital ingredient to achieving the goals of the government's COVID-19 rehabilitation and recovery efforts. The said chapter briefly discusses the key principles in developing a communications strategy, the importance of identifying a suitable spokesperson for the LGU, and the different forms of communication materials and various communication channels that the LGU could tap for different intended audiences. It likewise underscored the core messages that must be crafted and delivered by the LGU, which include "(a) key roles of the government, the community, and other stakeholders; (b) sectoral rehabilitation and recovery priorities; (c) priority PPAs and their corresponding targets; (d) governing policies for recovery; (e) available rehabilitation and recovery funds; (f) timeframes for project commencement and completion; (g) implementation issues and proposed resolutions; (h) mechanisms for community involvement in the recovery process; and (i) overall progress of the recovery efforts" (DILG and World Bank 2021, p. 52).

At the regional level, the communications task shifted from strategic to crisis communication (Figure 5). While risk communication is not explicit in the structure, it is mentioned and discussed in the NAP's full report. A closer look at the structure would show that crisis communication is assigned to law enforcement agencies—the Armed Forces of the Philippines (AFP) and the Philippine National Police (PNP). This is reflected in the strong presence of police officers and other uniformed personnel enforcing the lockdowns. Most of the national heads of the various clusters of the NTF[7] are also former military officials handpicked by the then-Philippine president, who expressed his preference for them over health experts, saying in a late-night public address that the pandemic is "not a study of medicine" but should be treated more like a business transaction (Ferreras 2021). The president's preference for military generals is not new, as some key government departments in his time (e.g., the Department of Information and Communications Technology, DILG, and the Department of Social Welfare and Development [DSWD]) are headed by former military officials. Such a setup in the task force reflects the militarized nature of the pandemic response in the Philippines, which may not be the appropriate approach as the crisis is primarily a health emergency.

[7] For example, the NTF is headed by the defense secretary who is a retired army general just like the head of the vaccine cluster. The so-called "contact tracing czar" is a retired police officer.

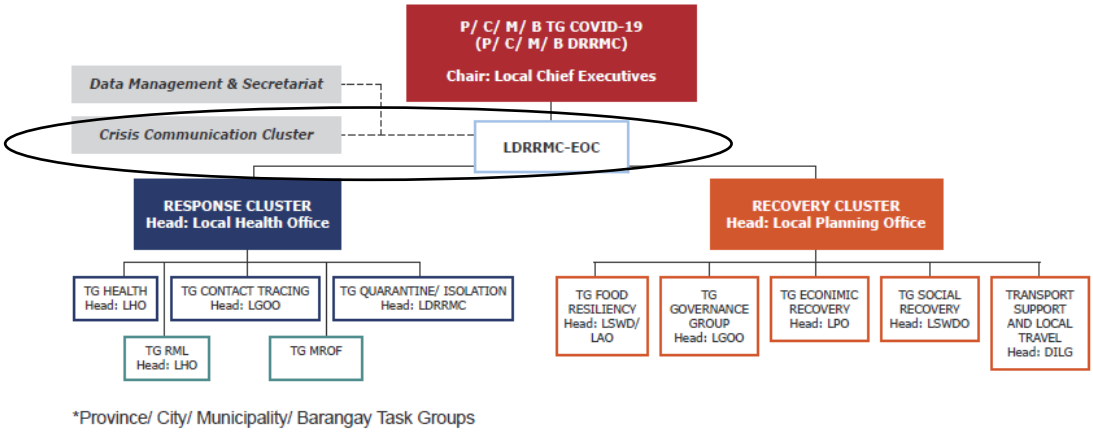
Figure 5. Regional task force structure for COVID-19 response



Source: NTF COVID-19 (2020)

At the local level (i.e., municipalities and cities), however, crisis communication is assigned to the Local Disaster Risk Reduction and Management Council (LDRRMC) (Figure 6). The same entity serves as EOC. The LDRRMC is an interoffice council responsible for setting the direction, development, implementation, and coordination of disaster risk reduction and management (DRRM) programs. It consists of the local chief executive (mayor) as the chairperson and the heads of the municipality's/city's social welfare and development, local health, agriculture, local engineering, gender and development, and local budget offices, to name a few. Entities that handle peace and order, such as the highest-ranking officer of the AFP and PNP assigned in the area, are also members of the LDRRMC. Given the comprehensive membership of the LDRRMC, vesting it with the crisis communication function is a good move as the mayor heads the council, and it also includes the local health office, which has the technical competency to handle the COVID-19 crisis, which is primarily a health emergency. Like the regional task force structure (Figure 2b), only crisis communication is explicit; risk communication is not mentioned. Nevertheless, the LDRRMC has a risk communication function, and as mentioned, the health office is also part of the Council. Risk communication is also mentioned in the Plan's full report.

Figure 6. Local task force structure for COVID-19 response



Source: NTF COVID-19 (2020)

5. National issuances related to COVID-19

To determine the key messages that LGUs are expected to communicate to their residents through various communication strategies, a cursory audit of COVID-19 national issuances released by pertinent NGAs between 2020 and 2021 was conducted. These policies must be cascaded to the LGUs in a clear and timely manner for their appropriate dissemination on the ground. These policies also reflect the national government's priorities in addressing the COVID-19 pandemic, which the public must know.

A total of 406 issuances were found on the official websites of the Department of Health (DOH) and the Presidential Communications Operations Office (PCOO), an entity under the Office of the Press Secretary. Table 4 provides the list and addresses of all the websites and subsites visited.

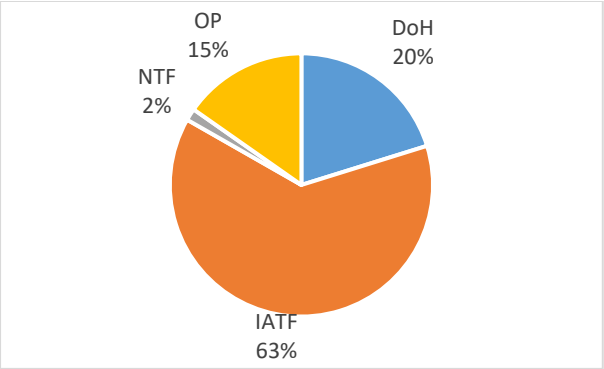
Table 4. Websites visited for the cursory audit of COVID-19 national issuances

Title	Website address
COVID-19 Inter-agency Task Force for the Management of Emerging Infectious Diseases Resolutions	https://doh.gov.ph/COVID-19/IATF-Resolutions
IATF- Resolutions	https://iatf.doh.gov.ph/iatf-resolutions/
PCOO	https://pcoo.gov.ph/issuances-archive/
COVID-19 Dashboard: NTF Issuances	https://covid19.gov.ph/information/issuances/5ee389415f0ff7001737a0e6
COVID-19 Dashboard: IATF Issuances	https://covid19.gov.ph/information/issuances
COVID-19 Dashboard: OP Releases	https://covid19.gov.ph/information/issuances/5ee2356ed0f689e5ec5c8e79
COVID-19 Advisories	https://doh.gov.ph/2019-nCov/advisories

Source: Authors' compilation

The sources of these issuances were the IATF, DOH, Office of the President, and NTF (Figure 7). The IATF issued most of the issuances (63%), followed by the DOH (20%), OP (15%), and NTF (2%).

Figure 7. Distribution of national issuances per source agency



Source: Authors' compilation

In terms of the type of issuance[8], more than half are resolutions released by the IATF (Table 5). The rest are circulars (14.79%), guidelines (9.11%), memorandums (8.13%), and orders (6.40%) from different entities like the DOH, OP, and relevant NGAs.

Table 5. National issuances released related to the COVID-19 pandemic response

Document type	No.	%
Resolutions	221	54.43
Circulars (Department, Joint Memorandum)	60	14.79
Guidelines	37	9.11
Memorandums	33	8.13
Reports	14	3.45
Orders (Administrative, Executive, Joint Administrative)	26	6.40
Proclamations	5	1.23
Republic Acts	3	0.74
Others	7	1.72
Total	***406***	***100.00***

Source: Authors' compilation

Most issuances have multiple objectives to address the COVID-19 pandemic, as described in Table 6. The audit revealed that most of the policy issuances in 2020-2021 were about mobility restrictions followed by directives on prevention, detection, isolation, treatment, and recovery (PDITR) of COVID-19 cases and policies on minimum public health standards (MPHS). During this period, policies on vaccination were also released.

The interval between the releases was also determined to know how often the national government issues new policies. The interval between releases ranged from 1 to 14 days, with more than 70 percent released with a two-day interval (Table 7). This reflects the high frequency of new policies issued within a short interval. Given the quick pace new policies are released in a short period, their timely cascading to the LGUs is important for immediate implementation on the ground. This also has implications on how well LGU officials can easily digest the policies to disseminate them effectively to the public.

[8] Executive orders are issuances that are permanent in nature from the Office of the President (OP) used in the exercise of statutory powers while administrative orders are like executive orders except that they tend to be specific to certain government operations. Proclamations are documents from the same office declaring a certain status or condition of public interest. These OP issuances can be used as basis for laws and regulations. (Source: EO 292 1987, Book III, Chapter 2, pp. -23, from https://www.officialgazette.gov.ph/1987/07/25/executive-order-no-292-s-1987/). Memorandum orders are agency-specific releases such as procedures, directives, or guidelines that are temporary in nature while circulars are issuances that address administrative concerns shared with different departments, agencies, offices, or bureaus concerned to ensure proper dissemination and compliance. (Source: EO 292 1987, Book IV, Chapter 11). Lasty, resolutions are formal documents summarizing or adopting rules or regulations created by a deliberate agency or body for a specific situation.

Table 6. Main content of national issuances released in 2020-2021 related to the COVID-19 pandemic response*

Content**	DOH	IATF	NTF	OP	Grand Total
Mobility	2	205	5	22	234
PDITR	58	80	3	25	166
MPHS	11	103	3	11	128
Vaccination	6	40	2	2	50
Social Services	5	26	0	14	45
Admin	7	17	0	9	33
Finance/Business	4	4	0	4	12
Leisure	0	8	0	0	8
Others	1	6	0	1	8
Data Privacy	7	0	0	0	7
Academe	1	4	0	1	6
Frontline	3	0	1	2	6
OFWs	0	4	0	1	5
Transportation	1	3	1	0	5
Communication	1	0	3	0	4

Source: Authors' compilation

*Multiple responses

**Notes: Admin – Policies on work arrangements, changes in organizational structures to address the pandemic, and inter-agency collaborations; Academe – Policies on class suspensions and guidelines in implementing limited face-to-face classes; MPHS – Policies and guidelines in implementing minimum public health standards, e.g., instructions on wearing face masks, face shields, physical/social distancing in different settings; Finance/Budget – Policies and reports on procurement; Social Services – policies on social amelioration program (SAP) distribution and other social services provided by LGUs; PDITR – policies on prevention, detection, isolation, treatment, and recovery, include guidelines on diagnostic services, isolation, contact tracing, and treatment ; Frontline – policies on compensation allowances, SRAs, and other support service for frontline workers; Transportation – policies regarding the resumptions of public transportation systems, like MRT operations and motorcycle taxis, etc.; Mobility – policies and guidelines on lockdown measures and implementation of community quarantine restrictions; Communications – launch of official social media pages for support for HFDU/COVID guidelines; Leisure – policies restricting the conduct of various social and sports activities; Vaccination – policies and guidelines for implementing vaccination programs for different priority groups and other reference materials for LGUs; Data Privacy – guidelines in collecting and managing health information; OFWs – policies on support services for repatriated overseas Filipino workers; and Others – policies and guidelines on prize freeze of commodities and waste management of infectious wastes from hospitals

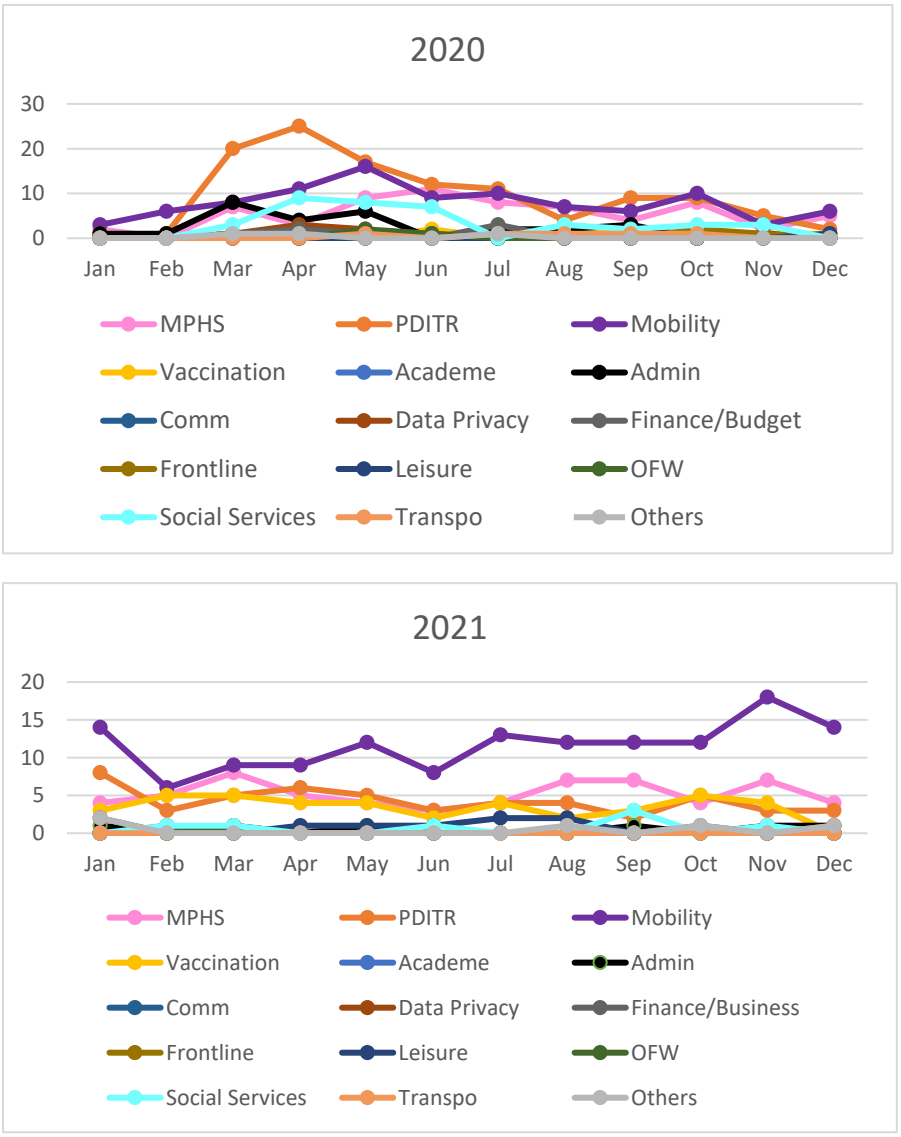
Table 7. Interval between policy releases

Interval	No.	%
0 - 2 days	296	72.92
3 - 5 days	75	18.47
6 - 8 days	30	7.39
9 - 11 days	3	0.74
12 - 14 days	2	0.49
Total	**406**	**100.00**

Source: Authors' compilation

Figure 8 describes the policy issuances by month according to objective. Most of the releases in the first half of 2020 were about PDITR and mobility restrictions to inform the public about the disease, what can be done to prevent its spread, and guidelines on testing and treatment. This was followed by policies on MPHS and social services, particularly the distribution of the social amelioration program (SAP) implemented by the DSWD and the LGUs. In the latter part of 2020, PDITR and MPHS policies remained prominent as the government geared toward partially opening the economy to alleviate the negative impacts of the crisis.

Figure 8. Policy issuances of pertinent NGAs per month according to objective, 2020-21



Source: Authors' compilation

In 2021, policies on mobility remained on top of the list with the most number of releases, followed by issuances about MPHS. These included directives for the gradual opening of the country to incoming foreigners while ensuring that minimum public health standards are still practiced by the public. Issuances on PDITR also remained prominent, providing information

on the availability of different diagnostic facilities, which had increased in the pandemic's second year. Moreover, as vaccines became available, guidelines on the priority groups and other pertinent information about vaccination were released.

6. Findings from the case studies

This section presents and analyzes the experience of the LGUs in crisis and risk communication.

A total of 14 KIIs were conducted between March and June 2022 with representatives from the four study LGUs. The study team tried to conduct all the interviews before the national and local elections in May 2022 until before the end of June 2022, which was the assumption of the new local chief executives and elected officials in the LGUs. A summary of the key informants interviewed per LGU and their offices/departments is given in Table 8.

Table 8. Data sources from the four LGUs*

Office/Department	Pasay	Manila	Caloocan	Navotas
Office of the City Administrator (OCA)	✓ (Administrative Officer)		✓ (City Administrator)	
City Health Office (CHO)	✓ (Disease Surveillance Officer and Contact Tracing Center Head)	✓ (Health Education Promotion Officer)	✓ (Health and Promotion Officer)	✓ (City Health Officer and Medical Director)
Public Information Office (PIO)		✓ (PIO Chief)	✓ (Information Officer)	✓ (PIO Chief)
City Disaster Risk Reduction and Management Office (CDRRMO)	✓ (Operations and Warning Division Chief)	✓ (Training Officer, Planning and Research Officer, Operations Center Officer)		✓ (Chief and Incident Command Center Head)
City Anti-Drug Abuse Office (CADAO)			✓ (CADAO Chief and Incident Command Center Head)	
Information and Communications Technology Office (ICTO)				✓ (ICTO Chief)

*Enclosed in parentheses are the designations of the respondents who participated in the interviews
Source: Authors' compilation

The findings from the interviews are discussed in the succeeding subsections organized by theme.

6.1. Pandemic response of the LGUs: Entities involved in crisis and risk communication

In all four study LGUs, the local chief executive (mayor) is considered the overall lead and decisionmaker of the COVID-19 pandemic response of the city government, with various entities in the LGU providing support. In Navotas, the mayor is described as a conductor (*tagakumpas*) that orchestrates all efforts. Meanwhile, the City Health Office (CHO) is considered the lead unit in the pandemic response, given the nature of the crisis, which is a health emergency.

In terms of the main entities in the LGU involved in crisis and risk communication, similar offices were mentioned by key informants from the four LGUs. These include the Office of the City Mayor, Office of the City Administrator, City Health Office (CHO), Public Information Office (PIO), and City Disaster Risk Reduction and Management Office (CDRRMO). However, other units were also mentioned in some LGUs. For example, the key role of the Information and Communications Technology Office (ICTO) was acknowledged in Navotas. In Caloocan, the City Anti-Drug Abuse Office (CADAO) played an active role, not because of its main function but because it was assigned to serve as Incident Command Center with the CADAO head as Incident Commander. According to a key informant, this decision was made to augment the city government's COVID-19 workforce. In Pasay, the Disease Surveillance Officer under the City Epidemiology and Surveillance Unit of the CHO was a key figure because he headed the contact tracing center of the LGU.

Table 9. LGU entities involved in crisis and risk communication during the COVID-19 pandemic

Local government	Office of the City Mayor	Office of the City Administrator	CHO/CHD	PIO	CDRRMO	CADAO (Re-assigned as Incident Command Center)	ICTO
Pasay	✓	✓	✓	✓	✓		
Manila	✓	✓	✓	✓	✓		
Caloocan	✓	✓	✓	✓	✓	✓	
Navotas	✓	✓	✓	✓	✓		✓

CHO – City Health Office; CHD – City Health Department; PIO – Public Information Office; CDRRMO – City Disaster Risk Reduction and Management Office; CADAO – City Anti-Drug Abuse Office; ICTO – Information and Communications Technology Office
Source: Authors' compilation

6.1.1. Roles/functions

Across the four LGUs, the city mayor made all the decisions, with the city administrator supervising, monitoring, and coordinating activities. The CHO was the primary authority advising the mayor on the medical side of the pandemic response, encompassing detection, surveillance, contact tracing, data management, treatment, and vaccination. It was also the main

source of all COVID-19-related data concerning the official number of cases, exposed or isolated individuals, vaccinated individuals, and others.

The PIO handled information dissemination of COVID-19 guidelines, local ordinances, and health data. The key roles of the PIO are to package these into information, education, and communication (IEC) materials, translate them into the local language, simplify technical terms when deemed necessary, and disseminate these through various channels. Before the IEC materials are released, they are reviewed/cleared by the mayor, city administrator, or chief health officer, depending on the content.

The CDRRMO also played a significant part in the operational side of the pandemic response of the LGUs but to varying degrees. Its role was most extensive in Navotas and Manila. In Navotas, it was involved in the provision of logistical services, such as bringing infected patients to quarantine facilities and back to their homes once treated, collection of deceased infected residents from the households to the crematoriums, provision of free transport service to household frontliners during the enhanced community quarantine, disinfection of public places, and implementation of the lockdowns and alert levels in coordination with the AFP and the PNP. The role of the CDRRMO in Manila was somewhat similar to that in Navotas. It handled the disinfection of public facilities, the establishment of quarantine facilities, the delivery of vaccines, the transport of patients to health facilities, the management of deceased COVID-19 patients, and assisted in the vaccination and drive-in swabbing. In both LGUs, the CDRRMO was designated Incident Command Center (ICC) and the CDRRMO head Incident Commander. This is consistent with the Local Task Force Structure for COVID-19 Response prescribed in the National Action Plan (see Figure 6).

In Pasay, its CDRRMO also served as the ICC, but its role in the pandemic response was limited. The office handled only the transport of infected individuals to hospital and isolation facilities and helped assess cases before bringing them to the testing sites or isolation facilities. Another staff, the Disease Surveillance Officer, who was not from the CDRRMO, was assigned as Incident Commander. He was also appointed head of the contract tracing center.

The role of the CDRRMO in the pandemic response was most limited in Caloocan. Here, the office only brought sick residents to hospitals and isolation facilities. The LGU tapped another office to handle pandemic-related tasks—the CADAO, which was made the ICC, and its chief, the Incident Commander. The ICC assisted the CHO in data management, contact tracing, and transporting the sick to health facilities.

The ICTO, mentioned only in Navotas, played a crucial role in data management by developing information systems and applications for contact tracing, patient monitoring, and vaccination registration.

6.2. Communication strategies

This section is divided into two types: internal communication and public communication. The first type describes how the city governments' various units coordinated with one another to achieve the common goal of carrying out an effective and efficient pandemic response.

Efficient communication within an organization (in this case, the LGU) is crucial in providing timely, adequate, and reliable interventions during a crisis.

The second type pertains to the communication strategies implemented by the city government to inform, educate, and engage with the public.

As the succeeding section shows, the four LGUs used various strategies for internal and public communication. These strategies were a combination of traditional and modern methods.

6.2.1. Internal communication

a. Virtual meetings, text messaging, and chat groups

All four LGUs used modern channels such as virtual meetings (Zoom) and messaging applications (Viber, Facebook Messenger, Telegram) to discuss new policies, updates on COVID-19 cases and vaccination, actions that need to be implemented or in need of follow-up, and next steps. Department heads and barangay chairpersons had daily virtual meetings with the mayor, who presided over these meetings. The choice of these online channels was driven by the limited face-to-face interaction during the pandemic. In Pasay, a key informant reported that their pandemic response team also maximized messaging applications in making the collection and transfer of contact-tracing data from the field to the office faster.

Various virtual chat groups were also set up. For example, the department heads, barangay officials, and the mayor have their own chat group, which facilitated immediate communication and feedback. Some LGUs also reported having a chat group among key DRRM personnel and barangay officials to cascade information on weather conditions and COVID-19 alert levels. Chat groups were also formed among department heads, barangay chairpersons, physicians in charge in the barangays, BHWs, BHERTs, and contact tracers.

Some key informants also reported the existence of chat groups outside the LGUs. Examples include the chat group of all public information officers in Metro Manila and the country's information officers. Both groups were formed by the Presidential Communications Operations Office (PCOO). According to a key informant from Navotas, these online groups were useful for the city government in being updated on new COVID-19 policies and programs. A key informant from Pasay shared that they also have a chat group composed of disease surveillance officers in Metro Manila; the chat group was used to send advance copies of issuances and coordinate patient transfers. Meanwhile, a key informant from Caloocan shared that all the mayors in Metro Manila are members of the chat group of the Metro Manila Council convened by the Metro Manila Development Authority (MMDA).

According to the key informants, having all the concerned personnel of the LGU in the loop through the abovementioned online channels facilitated the implementation of policies on the ground. A respondent from Navotas shared that because the barangay officials are included in the online groups, the implementation of the lockdowns was organized. For example, if a certain area is placed under lockdown, the barangay captain goes to the identified area the next day and cordons it. Similarly, the staff from the health office automatically goes to the site to test the residents, the City Social Welfare and Development (CSWD) personnel for the distribution of relief goods, and the DRRMO and Bureau of Fire Protection for disinfection.

6.2.2. External or public communication

The LGUs used a combination of modern and traditional communication channels, such as social media, online programs, text messaging, hotlines, meetings, public address systems, and printed and electronic IEC materials.

a. Social media

Across the four LGUs, social media was the most frequently used tool for cascading information, such as guidelines on lockdowns and alert levels, minimum health protocols, programs and services of the city government, news articles, official advisories and announcements, and other COVID-19-related information. The most common platform used was Facebook, particularly the LGUs' official accounts, namely, the Manila Public Information Office (@ManilaPIO), Pasay City Public Information Office (@lgupasaypio), Navoteño Ako – Navotas City Public Information Office (@navotenoako), and Caloocan Public Information Office (@caloocan.pio). While other departments in the LGUs have their respective Facebook pages, the said accounts are considered the official social media pages of the four LGUs. The COVID-19 posts on these pages were prepared by the PIO based on official policies and guidelines, COVID-19 data from the CHO, and updates from the different LGU departments. These pages also reshare posts from the Facebook pages of other departments as well as from the city mayors' personal Facebook pages. In Navotas, Manila, and Caloocan, the city mayors have their personal Facebook pages, which also provide COVID-19-related information and messages to their constituents about what the city government is doing to address the pandemic. The mayors of Manila and Navotas also use their personal Twitter accounts and YouTube channels to reach the public.

A separate section in this report (Section 7) presents the analysis of the Facebook posts of the four LGUs from March 2020 to December 2021. A total of 6,787 COVID-19-related posts were collected and analyzed.

b. Regular online broadcast

Two of the four LGUs have a weekly online program broadcast on their mayor's Facebook page and reshared on the PIO's page. Manila has the "The Capital Report", which provides updates on the city government's activities and accomplishments. This program commenced before the pandemic when the mayor assumed office in 2019. According to a key informant from Manila, the live broadcast was done three times a day during the early months of the pandemic to update and assure the residents of Manila that the city government was doing everything it could to ensure their safety and welfare. Meanwhile, Navotas airs the "COVID Situationer Report" weekly, a live broadcast of the mayor where he gives updates on the city government's pandemic response. Heads of the different departments of the LGU also appear in the program to give updates on the activities of their respective units or answer questions from online viewers. Pasay City also had several live broadcasts where officials answered public inquiries, but these broadcasts were not as frequent and regular compared to Manila and Navotas.

c. *Text blast*

An online channel unique to Navotas was a text blast through a messaging service called TextJRT that sends announcements from the LGU. JRT pertains to the initials of the mayor's brother, who was the congressman at the time of the interview. The service was started during his term as mayor and was sustained by his brother when he won the election in 2019 while he was elected as a congressman. During the interview, this was managed by the Navotas CDRRMO. All text blasts are approved by the city mayor prior to release. Aside from this, Navotas also has an online community on Viber where registered members receive COVID-19-related information from the city government. As of June 2022, it has 1,800 members.

d. *Hotlines*

COVID-19 hotlines were reported in all four LGUs. Manila established dedicated numbers for the Manila Emergency Operations Center (MEOC), which citizens can use for questions about COVID-19, and the Manila COVID-19 Vaccine Action Center (MCVAC), established for the LGU's vaccination program. Meanwhile, Navotas launched the NavoGabay in 2021, a telehealth service that can be accessed via text, Facebook, or Viber or by calling the NavoGabay-dedicated mobile and landline numbers. Pasay has a COVID-19 hotline set up in 2020. Managed by the Incident Command Center (ICC), it handles general inquiries on COVID-19 and the transfer of patients to hospitals and isolation facilities. Caloocan has 24/7 hotlines for COVID-19 inquiries, which were used to gather citizen feedback and complaints before the pandemic. These facilities are operated by the Gender and Development Office, ICC, and CDRRMO. At the height of the pandemic, these hotlines were repurposed to coordinate with patients and close contacts, those needing medical assistance or have to be transferred to isolation facilities.

e. *Meetings (virtual or face to face)*

Meetings of barangay officials and residents were organized in Caloocan and Navotas. These were mostly conducted virtually due to mobility restrictions. COVID-19 guidelines were disseminated to the communities through these meetings, which were useful in getting direct feedback from residents, according to the key informants.

Face-to-face meetings were also mentioned. In Caloocan, a key informant related that when the first COVID-19 case in Metro Manila was reported, the CHO immediately organized a face-to-face meeting with the 188 barangay officials of the city and the BHERTs. However, the succeeding meetings of the CHO with BHWs and residents shifted to virtual mode when the lockdowns ensued.

In Navotas, the LGU reached out to the small fishermen and owners of the big, motorized boats by meeting them virtually or face to face. The CHO organized virtual dialogues with the owners and the marine police officers to set policies in consultation with them, such as testing for COVID-19 before the fishermen depart for the sea and quarantining first as soon as they return.

The health office also initiated modifications in the practice of *bulungan* in the fish port.[9] For the cannery manufacturing sector, lectures via Zoom or face-to-face were scheduled in groups as the factory workers worked in shifts. To cascade information and policies to the small fishermen who were at sea most of the time, the CHO worked with the City Agriculture Office, which has direct contact with the fisherfolk.

f. Public address system

The use of a public address system was reported in Caloocan and Navotas. Caloocan's version, locally called "barker", consists of a roving van with a public address system. The vehicle went around the city, particularly in the inner barangays, cascading announcements on minimum health protocols and forthcoming lockdowns. The LGU used this strategy during the enhanced community quarantine when a stay-home order was imposed. A similar system was used again in 2021 when the vaccination started. The DOH lent a *Resbakuna*[10] van to the city government for one month. The van went around the barangays playing the Resbakuna jingle and providing information about vaccination. In Navotas, the city government used its existing public address system, locally called "bandillo", which is attached to CCTV cameras installed along the major roads, for broadcasting announcements from the city government. According to the key informants from Navotas, this equipment was present even before the pandemic.

g. IEC materials (posters and videos)

All four LGUs continued using printed IEC materials, such as tarpaulins, to disseminate information on COVID-19 and minimum health protocols. These were displayed in city halls, hospitals, and selected public places.

Figure 9 presents samples of printed materials produced by the LGUs. Some of these materials were also used on social media by posting their electronic copies.

Navotas also produced videos featuring testimonials of vaccinated residents and recovered patients. These were played in isolation facilities and vaccination centers. According to a key informant from Navotas, the videos of patients in isolation facilities were produced to dispel false information about the situation of patients, that they are not well taken care of and that the facilities are not in good condition. The city government also produced videos with children as talents urging adults to stay home and follow the health protocols. Samples of these videos are given in Figure 10.

In Caloocan, a key informant shared that they developed an informercial about the use of quarantine pass instead of releasing it using text-based communication material to promote public uptake.

[9] *Bulungan* is a price-setting practice wherein fish brokers (who manage hundreds of *banyeras*) accept whispered bids from buyers. With the imposition of social distancing, this system had to be revised. The LGU thus coordinated with the fish port associations to implement a revised system of putting the bids on paper and placing them on the "banyera ng isda" instead of whispering their bids to the broker.

[10] *Resbakuna* pertains to the information campaign of the DOH on vaccination.

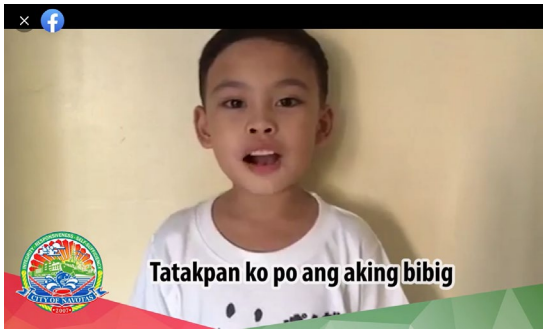
Figure 9. Samples of communication materials produced by the LGUs

(a) (b) (c) (d)

Notes: Items a and b are posters produced by the LGUs of Pasay and Manila. These were printed and placed in strategic areas. Their e-files were also posted on the LGUs' social media pages. Item c is a magazine produced by the City of Caloocan detailing the LGU's pandemic response. Item D is a sample of a social media post of the City of Navotas.

Figure 10. Samples of video produced by the LGU of Navotas

https://www.facebook.com/navotenoako/videos/783905215829248



https://www.facebook.com/navotenoako/videos/274279720482250

h. *E-billboards*

Pasay and Caloocan used electronic billboards, which could be attributed to the presence of big business establishments in these cities. In Pasay, one of the biggest shopping malls in the country and a popular hotel casino lent their electronic billboards to show IEC materials about the LGUs' pandemic response. In Caloocan, an electronic billboard in Monumento, a busy roundabout crossing that is part of South Caloocan, was used in playing the *BIDA Solusyon* campaign of the DOH, which aims to promote change in behavior and mindset among Filipinos.[11]

[11] BIDA is an acronym that stands for four recommended behaviors of the DOH, namely, B – Bawal walang mask; I – I-sanitize ang mga kamay, iwas-hawak sa mga bagay; D – Dumistansya ng isang metro; and A – Alamin ang totoong impormasyon.

A summary of the communication strategies used by the LGUs is given in Table 10.

Table 10. Communication strategies used by the four LGUs

Strategy	Pasay	Manila	Caloocan	Navotas
Internal communication				
Virtual meetings	✓	✓	✓	✓
Text messaging	✓	✓	✓	✓
Virtual groups	✓	✓	✓	✓
External or public communication				
Social media	✓	✓	✓	✓
Regular online broadcast		✓		✓
Text blast				✓
Hotlines	✓	✓	✓	✓
Meetings (virtual or face to face)			✓	✓
Public address system			✓	✓
IEC materials - Posters - Videos	✓	✓	✓	✓ ✓
Electronic billboards	✓		✓	

Source: Authors' compilation

6.3. Feedback mechanism

Having a feedback mechanism in place enhances communication effectiveness by promoting two-way communication. All LGUs reported having feedback mechanisms that enable them to gather comments and questions from the residents and ascertain their needs during the pandemic. According to the key informants, their LGUs use citizen feedback not just to determine the needs of the residents but also to improve their programs and services, including their communication strategies.

The main feedback mechanisms reported by the key informants are their COVID-19 hotlines and official social media pages. Inquiries or requests received through these channels were answered by dedicated personnel assigned to man these facilities. If action from another department is needed, the message is forwarded to the relevant department of the LGU. The same process is followed for messages received on social media. All four LGUs have dedicated personnel handling the official social media pages, usually from the PIO. In Navotas, the LGU's official Facebook page, Navoteno Ako, and the city mayor's Facebook page have social media administrators known as "community managers" working in shifts to monitor comments and messages. A key respondent from Pasay, one of the three social media administrators of the LGU, shared that at the height of the pandemic in 2020, they received an average of 200 messages per day. According to the same key informant, the LGU determines the information needs of the people through social media listening or reviewing the comments and frequently

asked questions they receive on social media. They focus the content of the LGUs' social media posts based on these. While all comments and direct messages were read, no LGU reported using the social media analytics of Facebook.

The content analysis of the LGUs' social media posts (see Section 7) revealed that almost all the posts had enabled the comment section. However, only Navotas was observed to have answered the public comments extensively, indicating that it was the most responsive among the four LGUs.

Navotas' text messaging service TextJRT managed by the CDRRMO also serves as another feedback mechanism of the LGU, in addition to their official Facebook page.

LGU personnel and offices on the ground also served as feedback channels in the case of Caloocan. According to a key informant, the CHO gathers residents' feedback through the BHWs and BHERTs. The barangay officials also provide updates from their constituents. These are relayed to the mayor and other LGU officials during the regular meetings of the city government. Key informants from Navotas and Manila mentioned that they also find vaccination sites and isolation facilities useful places to get direct feedback from residents.

In Manila, existing mechanisms concerning the different barangays were also useful as feedback mechanisms during the pandemic. One of these is the Manila Barangay Bureau (MBB), which was formed in 1973 under the Office of the Mayor to synchronize the city's programs, projects, vision, and thrust. Among the bureau's functions is to disseminate information to the 896 barangays in the City of Manila, such as policies, programs, and ordinances that may affect the communities. The MBB coordinates with the barangay officials and gathers feedback from the residents through them. According to a key informant, the city government tapped the MBB to implement the lockdowns and distribute the financial aid. Another is the League of Barangays, the formal organization of all the barangays in the city. Through this group, the city government gets feedback from the residents.

6.4. Communication plan and M&E system

A strategic communication plan is essential to ensure that the communication efforts are well-planned, coordinated, and consistent. If several units within an organization are involved, an integrated communication plan is desirable to harmonize efforts and optimize resources.

Across the four LGUs, the absence of a strategic communication plan for the pandemic was found. This was also apparent in the different units involved in crisis and risk communication.

A key informant from the PIO of Caloocan said that having a communication plan is important, admitting that this was lacking in their operations. Despite being able to perform their office's tasks during the pandemic, she said that having a communication plan is vital to guide their work and monitor the effectiveness of their communication strategies. The same respondent cited their limited workforce and the evolving and changing nature of the pandemic as reasons why having a communication plan is difficult. According to her, their strategies had to be flexible, so having a plan was impractical.

Meanwhile, a respondent from the health office of Caloocan mentioned that their office had a communication plan crafted in 2018, reflecting the lack of an updated one focused on the COVID-19 health emergency. The key informant from the city administrator's office mentioned that they have a crisis management plan for emergencies like fire. The said plan contains the protocols for responding to an emergency, which units are responsible for providing assistance, and the coordination line among the concerned units. Apparently, this informant was referring to the LGU's incident command system (ICS), not a communication plan.

The presence of an ICS was also reported in Pasay. A key informant—the LGUs' incident commander—described their communication protocol for health emergencies and disasters. This, however, is different from a communication plan, which describes an organization's strategy for communicating with its target audience to achieve its objective(s).

In Navotas, a key informant from the PIO said that the LGU did not have a communication plan for the pandemic, but it crafted one later for the vaccination campaign because the DOH required it. The said plan, she described, outlined the communication strategies of Navotas to increase the residents' demand for vaccination. She added that crafting the plan was challenging because none from their team had prepared one before. They were trained by the DOH on communication planning only after complying with the department's requirement to submit a communication plan for vaccine demand generation.

In Manila, the key informant from the PIO said they do not have a communication plan as they rely on the mayor's directives. The CDRRMO said they have a communication plan, describing it as embedded in their office's Emergency Operations Center manual, which specifies the offices that are expected to act if there is a heightened or red alert. The said respondent—like the others—was referring to their incident command system.

In terms of an M&E system for their communication activities, all four LGUs rely on their feedback mechanisms discussed in the preceding section. They do not have a defined system to track and evaluate the success of their communication campaigns. They depend on the feedback they gather from residents via social media and hotline facilities, which is insufficient, as the information the LGUs receive from these channels are mostly inquiries, requests, and complaints.

6.5. Challenges encountered

a. Delay in the cascading of policies at the local level

The cursory audit of national issuances conducted by the study (see Section 5 for the full results) found that almost two-thirds of the policies were released by the NGAs within a two-day interval, reflecting the high frequency of releases within a short period. This suggests that when a new policy comes out, another one likely follows in two days, leaving the LGUs little time to digest the policy and prepare for its implementation. This is compounded by the delayed cascading of the official memo to the LGUs, which serve as a basis for policy implementation.

Key informants from Pasay and Caloocan reported that the guidelines are not immediately transmitted to the LGUs. The city governments had to wait for the official memo from the

national government to ensure that their action would be consistent with the official policy. As explained by a key informant in Caloocan:

> *"Legal na basis ang kailangan natin in the project implementation. In the absence of that, lalo na kung may changes in the policy, in the agreed policy, eh magkakaroon ng problema in the implementation. Lalo na if it will entail budget, magkakaproblema sa COA."* – Key informant, Office of the City Administrator, Caloocan

A key informant from Pasay explained that because the official copies of the guidelines take time to be transmitted to the LGUs, the PIO often has a limited time to create appropriate communication materials and localize the content. The delayed transmission of the advisories to the local level also creates problems in their timely implementation on the ground.

In Caloocan, another key informant said that they usually learned about the new guidelines first on social media, while the official memo was usually received only the next day, which was already the day of its implementation. There were instances when the news sites were able to pick up the new policy first before the official documents reached the city officials. This scenario put the LGU in a tight spot as they could not have a definite plan given the lack of a legal basis. In Pasay, a key informant related that the PIO would be bombarded with inquiries from residents about an advisory they heard from social media. They had to explain to the residents that they had not received the official guidelines and had to wait before the LGU could act or make an official announcement.

b. Periodic changes in the policies

Compounding the first issue are the fast-changing guidelines, which pose another challenge to the LGUs, given the need to rectify the message or immediately issue a clarification. An example given in Caloocan was about the changes in the quarantine period for those who tested positive or were close contacts. The revisions had to be communicated clearly and immediately down to the barangay level. Any changes in the national guidelines meant that the LGUs had to repackage the communication materials and explain the changes to the barangay officials, leaving the latter little time to adjust and understand the new guidelines. Meanwhile, a key informant from Navotas shared that they need to keep in step with the official policies and monitor changes in the guidelines on contact tracing, as the definitions of close contacts and the number of required isolation days had to be reflected in their contact tracing system. This posed quite a challenge for them as the system developers, and the contact tracing team had to constantly update their Q-Band system[12] and re-orient their team on the changes.

[12] Q-Band (short for "quarantine band") is a tool that allows an LGU to easily monitor probable and positive patients. The Q-Band is a wristband worn by probable and confirmed COVID-19 patients on home quarantine or in an isolation facility. The band is made of durable acrylic with a QR code that, when scanned, provides personal information about the patient, including his/her health status, location, and infection risk. The Q-Band must not be removed during the quarantine period until the test is negative.

c. *Difficulty in communicating COVID-19 and insufficient training in science and risk communication, particularly concerning health emergencies*

The difficulty of communicating information about COVID-19 was another challenge mentioned. A key informant from Caloocan explained that COVID-19 is new to them; hence, particularly in the early months of the pandemic, they had a lot of difficulties disseminating technical information about it, including the policies that needed to be implemented to avert its transmission.

Respondents from Manila expressed the same communication problem. They had to understand the disease first to effectively educate people about it. Explaining things to the public in a manner that they would understand and not get offended was very challenging for them.

Because COVID-19 was something new to everybody, public misunderstanding was rampant. A respondent from Caloocan said that initially, it was tough to explain the need for the lockdowns and urge people to wear masks. Most residents also initially had an aversion to COVID testing due to the stigma once tagged as COVID-19 positive.

A key informant from Navotas also expressed the same challenge. This staff from the PIO said that she and her team have insufficient knowledge and skills in communicating health emergencies like a pandemic. She explained that while they have ample experience in disaster risk communication because Navotas is a flood-prone area, they have limited knowledge of science and risk communication in the context of health emergencies. The same challenge was shared by the key informants from the Manila CDRRMO. They said they lacked mastery in the four pillars of the DRRM (preparedness, mitigation, response, and recovery) in relation to pandemics. They said they knew that the COVID-19 emergency falls under disasters, but it was new to them. They admitted to being used to natural hazards like floods and earthquakes.

d. *Reaching poorer segments of the populations*

In heterogenous LGUs with diverse socioeconomic groups, reaching out to the population's poorer and less educated segments can be challenging. Explaining a disease as complex as COVID-19 and motivating residents to follow the health protocols had been difficult, according to the key informants in Manila. The city has a high percentage of poor urban dwellers and informal settlers with low education. Thus, the message and the communication strategy must be tailor-fit to these people.

> *"One cannot be too formal with them or act like an elite. You must understand and speak their language and behave like you're one of them, so they will listen and trust you. This is why the city mayor uses the urban poor's lingo to reach this segment of the population."* - Key informant, Manila DRRM Office

To address this communication challenge, the LGU personnel always coordinated with the barangay officials. They did not go to the communities alone but always sought the assistance of the barangay leaders, who knew the residents better.

The LGU of Navotas also faced a similar challenge. Although a highly urbanized city in Metro Manila, Navotas has been known as the commercial fishing hub of the Philippines. Seventy percent of its population derives their livelihood directly or indirectly from fishing and related industries. During the pandemic, the fisherfolk continued their livelihood and were at sea most of the time. Despite the popularity of social media, the majority of the fisherfolk community in Navotas are low-income families with limited access to new ICT tools like social media and the internet. Given their situation, the LGU had to use other strategies to reach this segment of the population and not rely on social media alone. The CHO worked with the City Agriculture Office to connect with the fisherfolk. The LGU also maximized interpersonal communication channels, such as linking with the fish port association and marine offices to set policies for the fishing stakeholders.

d. Fake news

The proliferation of false information was rampant during the pandemic, compounding the already stressful situation. In addition to fake news that circulated about COVID-19 and how it can be prevented and treated, false information about the side effects of vaccines also loomed (e.g., that vaccine will produce zombie-like effects on humans), which resulted in low inoculation rates in Caloocan. Another fake news related to vaccines, which circulated in Manila at the beginning of the vaccination, is the free rice given to those vaccinated. When the residents discovered this was false, many left and refused to get vaccinated. Fake news about the situation of the isolation facilities (i.e., that they are not well kept, and the food was horrible) was reported by the key informants from Navotas. During the implementation of the Q-Band system for contact tracing in Navotas, there were also public misconceptions that the city government would divulge the personal information of those who use the Q-Band.

According to the key informants, they addressed fake news by releasing clarificatory messages and official statements on their official Facebook pages and reminding the public to believe only in the news from the LGU's official information channels. Sharing of relevant social media posts multiple times was also done to amplify the message. However, in some instances, the LGU people themselves unknowingly were the source of false information. In Pasay, for example, a key informant reported how fake news spread about the distribution of financial assistance (*ayuda*) that confused the residents due to the outdated distribution schedule posted by a department of the LGU on its Facebook page.

Information dissemination in the barangays was also intensified through existing internal mechanisms (e.g., via barangay officials and support personnel such as the BHWs and BHERTs). The LGUs tapped barangay leaders, who occupy a strategic position and authority in their communities, to cascade information to their residents, augment the announcements posted on social media, and address the public's misconceptions about policies and programs of the city government. For example, in Caloocan, the barangay leaders helped debunk the idea that the Q-Band invades personal privacy.

> *"Sila [barangay officials] na yung nagsasabi na: "Ano yan? Hindi totoo". Ganyan, ganyan. So siyempre, ano nila yan, trusted nila yan. Iba*

pagka-barangay ang nagsabi." – Key informant, City Health Office, Caloocan

IEC materials were also produced to dispel fake news. In Navotas, the PIO produced testimonial videos of patients in isolation facilities to dispel misinformation about the facilities' poor condition and ill-treatment of patients.

e. Resource constraints and personal risks

The key informants reported feeling burdened with the insufficiency of adequate and trained personnel, the lack of relevant equipment to use in the pandemic response, and directly being at risk of getting infected with COVID-19.

Key informants admitted feeling overwhelmed by the scope and weight of responsibility in dealing with the pandemic. In Pasay, the CESU officer who was designated COVID-19 contact-tracing point person was the only one in their health team trained in disease surveillance at the beginning of the pandemic. He was assigned the difficult tasks of developing protocols for contact tracing, data management, and handling and transferring test specimens. In the same LGU, a key informant who manages the official social media page of the city government related the enormous number of messages they received on their Facebook account, particularly at the height of the pandemic. She admitted that her team had fallen short in answering all the messages due to the lack of ample staff to manage the Facebook page. The LGU addressed the shortage of social media personnel by deploying some staff from the mayor's office to the public information office.

In Caloocan, the city government had to address the needs of the 188 barangays under the LGU's jurisdiction. Geographically, Caloocan is divided into two areas (North Caloocan and South Caloocan). The big land area of the city, its large population (the fourth most populous in the country), and being subdivided into two geographical locations were big challenges for the city government, not just in rolling out communication campaigns but in implementing the entire pandemic response. Besides ensuring that information and assistance reach all the residents in the 188 barangays, it is important that whatever services available in North Caloocan are also accessible in South Caloocan. All these posed logistical and budget allocation challenges. The lack of adequate and relevant equipment was also cited as a constraint.

All the key informants reported that working past normal hours and even during weekends was the norm at the height of the pandemic. The personal health risks they bore while on the frontlines also added concerns. Getting infected with COVID-19 and the risk of their family members getting exposed to it when they return home was a difficult challenge they went through.

Resource constraints were addressed through the help of external entities. Staff augmentation helped solve workforce shortages. The contact tracers deployed by the DILG were a big help to Caloocan and the other LGUs. The DOH, DSWD, and OCD also provided material support (e.g., TV monitors, *Resbakuna* jeep, IEC materials, food packs, *ayuda*, and PPEs). All four LGUs also reported receiving assistance from other government agencies, private sector

companies, civil society organizations, and international organizations. For example, in Caloocan, the ReachHealth project of the USAID provided laptops, an e-jeep for their communication campaign, IEC materials, and healthcare personnel; the Philippine Chamber of Commerce and GMA Foundation gave food packs and PPEs, and their churches opened their doors to serve as vaccination sites. In Navotas, the key informants reported receiving help from Relief International and UNICEF. The national government also helped in setting up their isolation facilities. Respondents from Manila mentioned NGOs like Caritas, a religious organization, and Komunidad, a Philippine-based environmental platform, which organized and sponsored a community-based disaster risk reduction and management training for their DRRM personnel.

e. Inadequate health facilities for COVID-19 patients

Finding hospital beds for COVID-19 patients was one of the major challenges experienced by the LGUs, especially during the surge in cases. Hospitals were always at full capacity, and families of infected residents would find themselves going to other LGUs to get admitted. Manila built a COVID-19 field hospital at Rizal Park as part of the city's pandemic response. The hospital was intended to house mild to moderate COVID-19 cases. The other LGUs also established isolation facilities with the national government's help. Despite these, the shortage of hospital beds was a common problem when the infection rate was high, especially with the emergence of more transmissible variants. LGUs like Caloocan and Navotas strengthened their home quarantine system by developing and implementing the Q-Band system. According to the key informants in Caloocan and Navotas, where the system was implemented, the Q-Band helped decongest the health facilities and implement the home quarantine.

f. Managing voluminous health data

Management of large amounts of health data was another major challenge reported by the LGUs, particularly at the early stages of the pandemic. In Navotas, a key informant from the local health office said that the LGU addressed this by involving their ICT office in the pandemic response. Their ICT personnel took the lead in developing the LGU's data management and information system for the city's COVID-19 response. It developed a COVID-19 tracking system, the Q-Band, a vaccination registration and information system, and an information system for the distribution of financial assistance (NavoServe). On the other hand, Caloocan was forced to adopt digital means for collecting and recording data using Google Forms and open-source geographic information system (GIS) applications for their Q-Band system. In Pasay, a key informant shared that they relied heavily on their team of contact tracers and encoders to transmit digitized case records using Google Sheets and free messaging applications.

g. Discrepancies in the COVID-19 case reports

As reported by a key informant in Caloocan, the discrepancies in the COVID-19 cases reported by the DOH vis-à-vis those reported by the LGU caused confusion and delay in the

implementation of the granular lockdowns. The DOH data and the LGU data often do not match. According to the Office of the Caloocan City Administrator, there were also cases of overreporting due to the late transmittal of results from the laboratories to their system. The data inconsistencies also led to public confusion. For the LGUs, the information from the barangays is more reliable as the BHERTs can validate the reported cases daily through their meetings with the mayor. In the case of Pasay City, a key informant shared that to avoid data discrepancies in the case reports, they always specify the reports' cut-off period. All information received after the cut-off period is included in the next day's report.

6.6. Trust in the city government

Trust is an important ingredient for effective communication interventions. Trusted information sources can exert more influence. It is often linked to credibility, competence, openness, and transparency. All key informants from the four LGUs said that the residents' trust in their city government is high. In Manila, Caloocan, and Pasay, they attributed this to the positive perception of how the city government, particularly the mayor, managed the pandemic. In Navotas, a key informant from the CDRRMO added the effective performance of the barangay officials and BHERTs.

In Manila, the respondents cited their mayor's effective leadership and the good performance of their LGU's various departments and units before and during the pandemic. A key informant from CDRRMO said that the LGU was able to provide service not only to the residents of Manila but even to nonresidents. He mentioned that many overseas Filipino workers were brought to the Manila COVID-19 Field Hospital in Rizal Park and other LGUs also sought the help of their office in transporting their patients to Manila when their hospitals had reached full capacity.

In Navotas, a key informant mentioned the mayor's clear instructions to his staff and close monitoring despite not being physically present since he is a senior citizen with comorbidities. Another respondent mentioned that the success of their LGU's pandemic response could be attributed to the close coordination and harmonious relationship between the mayor and the city health officer and the full support of the former to the latter.

> *"Talagang may say dito si Dr. X because she's the City Health Officer. Pag sinabi nyang ganun dapat, paniniwalaan ni boss. Kami naman implement kami ng implement. Support kami ng support… Lahat kami nakasupport sa City Health. I, as Incident Commander, reporting to the Responsible Official, who is the mayor, is in full support of our City Health Officer."* – Key informant, CDRRMO, Navotas

This was also evident in Manila, where the mayor and the vice mayor, a medical doctor, worked closely in handling the city's pandemic response. The mayor had full support and confidence in the vice mayor, whose husband was the city health officer at the time.

Key informants in Caloocan and Navotas noted that the victory of the mayor and his ticket in the May 2022 national and local elections demonstrates their constituents' sustained trust in these officials. In Caloocan, the mayor won as representative of the first district of Caloocan while his son replaced him as the elected mayor. In Navotas, the former congressman, the mayor's brother, won the mayoralty race, while the mayor won the congressional seat.

In Pasay, the residents' high trust in the city government was attributed by key informants to the transparency of the LGU in releasing reports and data. Respondents from this LGU and Navotas also said the capacity of their city governments to act on the requests and concerns of the residents contributed to the positive perception of the LGU.

6.7. Perceived best practices

The LGUs varied in the best practices mentioned by their key informants.

In Manila, the LGUs' Open Governance Policy, the city mayor's first executive order when he assumed office in 2019, is one of the city's best practices. The key informant from the PIO said that having this policy intensified the LGU's information dissemination activities, which greatly helped the city government's pandemic response. In terms of communication strategies, she cited as a best practice the weekly live broadcast of the mayor called "The Capital Report", wherein he informs the public about what the LGU is doing, where the public's taxes go, and the plans of the city government. The key informant believed that "it bridged the gap between the public and the city government" because the public could raise their concerns directly to the mayor. Another best practice she mentioned was the CODE (Code and Delay) COVID-19 response strategy from other countries that the mayor adopted in Manila. She said the mayor learned about it in one of his international trips when the pandemic was in its infancy. Other best practices cited by the same respondent include the drive-thru swabbing and mass vaccination sites at the Quirino Grandstand and *Kartilya ng Kagitigan* (Bonifacio Shrine, Ermita), respectively, which catered to motorists and cyclists. These facilities enabled Manila to ramp up its testing and vaccination efforts and provide service even to nonresidents.

In Pasay, the city government's intensive use of social media as its primary communication tool was one of the best practices mentioned. A key informant who manages the LGU's official social media page also reported introducing innovations to efficiently manage their Facebook account, such as using a Frequently Asked Question (FAQ) autobot in the chat box to reduce the number of queries to common questions the social media administrators need to answer. The LGU also felt proud to have developed an incident command system (ICS) before the pandemic. The ICS specifies the communication protocols for managing an emergency, whether disaster or health-related. The LGU also intensified the IATF-mandated Coordinated Operations to Defeat Epidemic (CODE) strategy by including third-generation contacts and increasing the recommended symptom checking of neighboring households with positive cases from 10 to 40 households. It also boasts of having an established DRRM unit since 2010. One of the key informants said this significantly helped in their pandemic response as the system and workforce for emergency response are already in place. One of the key informants also cited that the LGU released 57 local ordinances for implementing national-level guidelines on COVID-19.

Other best practices cited were the free RT-PCR and antigen testing at their health centers for the public, including non-Pasay residents; the establishment of five isolation facilities during the height of the pandemic that provided free food and lodging; the COVID-19 hotline which handles inquiries on COVID-19; a command center that monitors cases 24/7; and the close coordination of the different entities of the LGU involved in the pandemic response.

In Caloocan, a key informant considered using traditional channels as one of the LGU's best practices. She explained that the barker or public address system was useful in reaching low-income households who do not have immediate access to the internet and social media. Disseminating information through the electronic billboard in Monumento was also considered a good way to reach the public as that area has high foot traffic.

For another key informant, the video clips that showed the mayor speaking to his constituents and encouraging them to follow health protocols was a useful strategy to show the mayor's leadership and the commitment of his administration to address the crisis. A respondent from the CHO added that the mayor's immediate recognition of the urgency of addressing COVID-19 helped focus the city government's efforts. According to the same respondent, the mayor tried to regularly communicate with his constituents through a weekly public address to provide situational reports on the positive cases and strategies implemented, explain guidelines and policies, and seek the people's cooperation.

Tapping the BHWs in health promotion and education was also a useful strategy in reaching the residents on the ground.

Other best practices cited by the key informants were the Q-Band and the Q-GIS, a case-tracking method using GIS. Caloocan adopted the Quantum GIS (Q-GIS) from Baguio City and implemented it to enhance its contact-tracing efforts. Using data from the Q-Band and contact tracing, QGIS, an open-source application, enables the LGU to plot the areas with probable, suspect, or confirmed cases. This helps local officials to identify hotspots and implement granular lockdowns to contain the virus. The implementation of the Q-Band included the passage of a local ordinance that specifies the details of the policy, including sanctions for offenders.

In Navotas, the key informants cited several best practices. One of these is the TextJRT messaging service that sends announcements to residents and can also be used by the latter in sending messages to the LGU. Another is the implementation of the Q-Band, which was also mentioned in Caloocan. Key informants from the CHO and the DRRMO said the Q-Band allowed the LGU to easily monitor probable and positive patients on home quarantine and helped decongest the hospitals since asymptomatic patients and those with mild and moderate cases can quarantine at home. The LGU developed it with minimal cost by tapping its ICT Office.

Other best practices cited by the key informants were the daily executive meetings presided over by the mayor, which facilitated internal communication, effective monitoring, and immediate action from the city government, and the close coordination within the LGU through the various internal communication channels such as the regular executive meetings and Viber groups.

Partnering with the PNP for contact tracing was also mentioned as a best practice, as this enabled the CHO to focus on the case management aspect of the pandemic response. The sustained daily posting on social media of COVID-19 cases even after the height of the pandemic and the production of testimonial videos of COVID-19 recovered patients, those who stayed in isolation facilities, and those who got vaccinated were useful communication strategies, according to a key informant from the PIO, to motivate residents to follow health protocols, get vaccinated, and correct fake news. She added that posting the number of people who violated the public health protocols helped convey the message that the city government was serious about implementing the laws. However, instead of imposing fines, offenders were required to undergo COVID-19 testing, which the key informants said was a more just and appropriate sanction as the pandemic already sank people into poverty. Requiring the violators to get tested was also a more effective sanction, as they did not want to be quarantined and miss work. This encouraged them to follow the public health protocols.

6.8. Suggestions for improvement

The need to capacitate health, information, and DRRM personnel on crisis and risk communication was emphasized by key informants from Manila, Pasay, and Navotas. In Pasay, a respondent also mentioned training barangay leaders in risk communication, given their key role in the communities. In Caloocan, a key informant said the local health office should be knowledgeable of crisis communication to handle health emergencies effectively. Another respondent from the same LGU said risk communication should be institutionalized within the LGU, without or without a pandemic.

Meanwhile, a key informant from the CDRRMO in Navotas said LGUs and government agencies should implement their respective Public Service Continuity Plans (PSCPs). The PSCP is a plan mandated by the Office of Civil Defense containing the strategies and mechanisms to ensure continuous delivery of social services to the public amid any disruption. All LGUs and government agencies are required to craft their PSCPs.

Another recommendation by the same respondent from Navotas is to broaden the scope of the disaster in the disaster contingency plans of LGUs by including health emergencies and pandemics, given the country's experience with COVID-19.

Respondents from Caloocan and Pasay underscored the importance of having dedicated staff in the LGU to manage their official social media page. These staff also said that social media listening or monitoring social media posts and comments regularly is important to know people’s concerns, especially at this time when social media is increasingly the public’s main source of information.

7. Analysis of messages disseminated via social media

To analyze the messages disseminated by the LGUs, a social media search and content analysis of the COVID-19-related posts on their official Facebook pages were conducted.

The search covered all posts from March 2020 to December 2021. In addition to using the filter option of the search bar, keywords such as COVID-19, vaccine, cases, quarantine, new normal, community testing, MECQ, ECQ, and GCQ were used to perform a comprehensive search. An attempt to collect the Facebook analytics report of the LGUs was made, but these reports were not available, as the LGUs are still not using the analytics facility of Facebook.

A total of 6,787 COVID-19-related posts were collected (Table 11). Navotas and Manila had the highest number of posts (30.79% and 29.25%, respectively), followed by Caloocan (21.42%) and Pasay (18.54%).

Their most common post types were advisories/announcements, which comprised more than half of the total posts (55.80%) combined from the four LGUs, followed by photo releases or stories (21.70%) and infoposters/infographic (10.90%).

The advisories and announcements were mostly about the status or number of positive cases and guidelines regarding community quarantines of the LGUs. They also include instructions on the release of social assistance programs, such as the SAP and food packages. Photo releases usually highlight the activities conducted by the LGUs to address the pandemic. Infoposters/infographics usually depict minimum public health standards (MPHS) and information about the disease to improve public understanding of COVID-19 and how it can be prevented.

Across the four LGUs, the most common posts differed. Pasay largely used only one post type—advisories/announcements (79.41%). The posts of other LGUs were more varied, especially in Manila and Navotas. While advisories/announcements were also their top post (43.88% in Manila, 59.42% in Caloocan, and 50.38% in Navotas), they also produced other post types. Manila frequently featured photo release/stories (33.25%), news alerts/releases (11.64%), and video livestreams (5.19%). Next to advisories/announcements, Caloocan relied heavily on photo releases/stories (33.01%). Navotas had more infoposters/graphics (29.86%) than the other LGUs and featured photo releases/stories (13.63%).

Table 11. Social media posts by type, March 2020-December 2021

Type of post	Pasay	Manila	Caloocan	Navotas	*Total (%)*
Advisory/announcements	999 (79.41)	871 (43.88)	864 (59.42)	1,053 (50.38)	***3,787*** ***(55.80)***
Photo release/story	48 (3.82)	660 (33.25)	480 (33.01)	285 (13.64)	***1,473*** ***(21.70)***
Infoposter/infographic	45 (3.58)	44 (2.22)	27 (1.86)	624 (29.86)	***740*** ***(10.90)***
News alert/release	95 (7.55)	231 (11.64)	71 (4.88)	7 (0.33)	***404*** ***(5.95)***
Video livestream	16 (1.27)	103 (5.19)	6 (0.41)	57 (2.73)	***182*** ***(2.68)***
Informational video	39 (3.10)	74 (3.73)	5 (0.34)	59 (2.82)	***177*** ***(2.60)***
Newsletter	11 (0.87)	1 (0.05)	1 (0.07)	-	***13*** ***(0.19)***

Instructional video	1 (0.08)	1 (0.05)	-	5 (0.24)	***7 (0.10)***
Podcast	2 (0.16)	-	-	-	***2 (0.03)***
Brochure	2 (0.16)	-	-	-	***2 (0.03)***
Total (%)	***1,258 (18.54)***	***1,985 (29.25)***	***1,454 (21.42)***	***2,090 (30.79)***	***6,787 (100.00)***

Source: Authors' compilation

Each social media post was categorized according to its content. Table 12 shows that most social media posts were information on PDITR for COVID-19 cases (37.54%). Examples include the status of COVID-19 cases in the area, guidelines for testing, quarantine guidelines, preventive measures like disinfection and misting, and contact-tracing methods. Vaccination efforts (36.85%) followed next, which include guidelines for vaccination and sites and information on available vaccines and boosters. The third most common content was about MPHS (28.69%), which included reminders on the use of masks, face shields, and social distancing in public places. The next most common information shared in the social media posts was about the various social services offered by the LGUs to their constituents. Examples were about the release of cash and relief assistance, the provision of mobile/roving markets, and other government services available in response to the pandemic. Information about mobility and community quarantine guidelines was seen in 13.23 percent of the total number of social media posts of the four LGUs. These include the guidelines explaining the different quarantine classifications implemented in 2020-2021 and the alert system implemented in the latter part of 2021. Regrettably, only 45 posts, or less than 1 percent, contained information addressing fake news or misinformation and just 140 posts, or 2 percent, were appreciation posts for the efforts of frontline workers during the pandemic. The other contents were acknowledgments of private sector donations, promotion of vaccination through raffles, and advisories of postponement of certain events due to the pandemic. Each post, however, may also fall into several categories, which means that one material may have several contents, e.g., the number of COVID-19 cases and reminders for MPHS and vaccination.

The top posts according to content varied by LGU, which may reflect the key messages the city governments targeted to highlight during the pandemic. In Pasay, the top three posts were on PDITR, MPHS, and vaccination. In Manila, vaccination topped the content of the LGU's social media posts, followed by PDITR and social services. Caloocan's social media posts were mostly about vaccination, social services, and PDITR. Navotas' posts focused almost equally on PDITR and MPHS, followed by vaccination and social services.

Table 12. Content of the social media posts, March 2020-December 2021*

Content	Pasay	Manila	Caloocan	Navotas	*Total (%)*
PDITR	667	612	288	981	***2,548 (37.54)***
Vaccination	409	707	771	614	***2,501***

					(36.85)
Minimum public health guidelines	721	238	39	949	***1,947 (28.69)***
Social Services	164	523	339	455	***1,481 (21.82)***
Mobility and quarantine guidelines/restrictions	185	188	144	381	***898 (13.23)***
COVID-19 Response plans	103	31	12	7	***153 (2.25)***
Acknowledging Frontliners	11	76	31	22	***140 (2.06)***
Correcting fake news/misinformation	8	13	15	9	***45 (0.66)***
Others	12	77	18	32	***139 (2.05)***

*Multiple responses
Source: Authors' compilation

Table 13 shows that the main communication objective of the social media posts in all four study LGUs was to inform the public. More than 99 percent of the posts were informative. Nevertheless, more than 60 percent were motivational, with a clear call to action. These are the social media post that deliberately urge the public to follow certain behaviors or practices. Only 2.9 percent of the posts had an engaging objective meant to encourage or urge the public to participate in some form of action (e.g., praying for frontliners).

Table 13. Communication objectives of the social media posts*

Communication objective	**Pasay**	**Manila**	**Caloocan**	**Navotas**	***Total***
Inform	1,224	1,987	1,454	2,089	***6,745***
Motivate	824	924	1,056	1,492	***4,296***
Engage	12	154	7	24	***197***

*Multiple responses
Source: Authors' compilation

To determine the accuracy of the social media posts, the content analysis looked at whether the LGUs cited the contents' source (e.g., DOH and NGAs; WHO). Table 14 describes the proportion of social media posts by type and whether the source agency was indicated. Only Pasay City cited a source in their posts by including the logos of the source(s). This can be attributed to the fact that most of Pasay's social media posts were largely advisories/announcements.

Table 14. Citation of official sources in the social media posts

Type of social media	Pasay	Manila	Caloocan	Navotas	Total
Advisory/Announcement	999	871	864	1,053	**3,787**
With reference (%)	936 (93.69)	127 (14.58)	93 (10.76)	94 (8.93)	**1,250 (33.01)**
Without reference (%)	63 (6.31)	744 (85.42)	771 (89.24)	959 (91.07)	**2,537 (66.99)**
Photo Release	48	660	480	285	**1,322**
With reference (%)	19 (39.58)	86 (13.03)	51 (10.62)	30 (10.53)	**178 (13.46)**
Without reference (%)	29 (60.42)	574 (86.97)	429 (89.38)	255 (89.47)	**1,144 (86.54)**
Infoposter/Infographic	45	44	27	624	**740**
With reference (%)	38 (84.44)	21 (47.73)	12 (44.44)	158 (25.32)	**229 (30.95)**
Without reference (%)	7 (15.56)	23 (52.27)	15 (55.56)	466 (74.68)	**511 (69.05)**
News release	95	231	71	7	**404**
With reference (%)	57 (60)	107 (46.32)	30 (42.25)	2 (28.57)	**196 (48.51)**
Without reference (%)	38 (40)	124 (53.68)	41 (57.75)	5 (71.43)	**208 (51.49)**
Video livestream	16	103	6	57	**182**
With reference (%)	11 (68.75)	57 (55.34)	-	53 (92.98)	**121 (66.48)**
Without reference (%)	5 (31.25)	46 (44.66)	6 (100)	4 (7.02)	**61 (33.52)**
Informational video	39	74	5	59	**177**
With reference (%)	21 (53.85)	5 (6.76)	-	5 (8.47)	**31 (17.51)**
Without reference (%)	18 (46.15)	69 (93.24)	5 (100)	54 (91.53)	**146 (82.49)**
Photo release	-	151	-	-	**151**
With reference (%)	-	8 (5.30)	-	-	**8 (5.30)**
Without reference (%)	-	143 (94.70)	-	-	**143 (94.70)**
Newsletter	11	1	1	-	**13**
With reference (%)	7 (63.64)	1 (100)	-	-	**8 (61.54)**
Without reference (%)	4 (36.36)	-	1 (100)	-	**5 (38.46)**
Instructional video	1	1	-	5	**7**
With reference (%)	-	1 (100)	-	2 (40)	**3 (42.86)**
Without reference (%)	1 (100)	-	-	3 (60)	**4 (57.14)**
Brochure	2	-	-	-	**2**
With reference (%)	2 (100)	-	-	-	**2 (100)**
Podcast	2	-	-	-	**2**
Without reference (%)	2 (100)	-	-	-	**2 (100)**
All posts					
With reference (%)	**1,091 (86.72)**	**405 (20.40)**	**186 (12.79)**	**344 (16.46)**	**2,026 (29.85)**
Without reference (%)	**167 (13.28)**	**1,580 (79.60)**	**1,268 (87.21)**	**1,746 (83.54)**	**4,761 (70.15)**
Grand Total	***1,258***	***1,985***	***1,454***	***2,090***	***6,787***

Source: Authors' compilation

The study also assessed the clarity of social media posts. To measure this, a six-point scoring system was used that assessed if (1) the objective was clearly stated, (2) the message was clear and simple, (3) the material explained technical concepts, (4) the material used Filipino/Tagalog as the medium, (5) the material used illustrations/images, and (6) the material used easy-to-read fonts. A "yes" answer for each item is equivalent to one point. However, the maximum scores per social media type varied because some criteria did not apply to some post types. For example, advisories/announcements and news releases may not have illustrations/images; informational videos and livestreams may not have text; and podcasts are sound files and neither have images nor texts.

Table 15 describes the average score for clarity per social media type. In general, photo release/story, infographic/infoposter, and instructional video got the highest average scores for clarity, between 4.14 and 4.83. This can be attributed to the visual nature of these post types. Pictures/images draw attention and help convey the message easily, thus aiding in understanding.

By LGU, the City of Manila's average score for advisory and announcement had the lowest score, while Pasay scored the highest. This can be attributed to Pasay's use of Filipino/Tagalog in almost all of its advisories and announcements compared with Manila. In fact, 68.31 percent of Manila's advisories and announcements used English as the medium. However, Pasay's clarity scores were the lowest among all the LGUs for its photo and news releases and infographics. A major reason for this is the use of jargon in their materials whose meanings were not explained.

Table 15. Average scores for clarity of the LGUs' social media posts

	Pasay	Manila	Caloocan	Navotas	*Grand Total*	Max Score
Advisory/ Announcement	4.27	3.32	3.76	3.59	*3.75*	5
Photo release/story	3.56	4.74	4.98	4.98	*4.83*	6
Infoposter/ Infographic	3.28	4.48	4.89	4.42	*4.49*	6
News Release	3.28	3.94	4.48	4.43	*3.89*	5
Video livestream	4.31	3.97	4	4.02	*4.02*	5
Informational video	4.26	3.66	4	3.95	*3.9*	5
Newsletter	3.73	4	4	-	*3.77*	6
Instructional video	4	5	-	4	*4.14*	5
Podcast	4	-	-	-	*4*	4
Brochure	2.5	-	-	-	*2.5*	6
Grand Total	***4.2***	***3.94***	***4.22***	***4.05***	***4.08***	

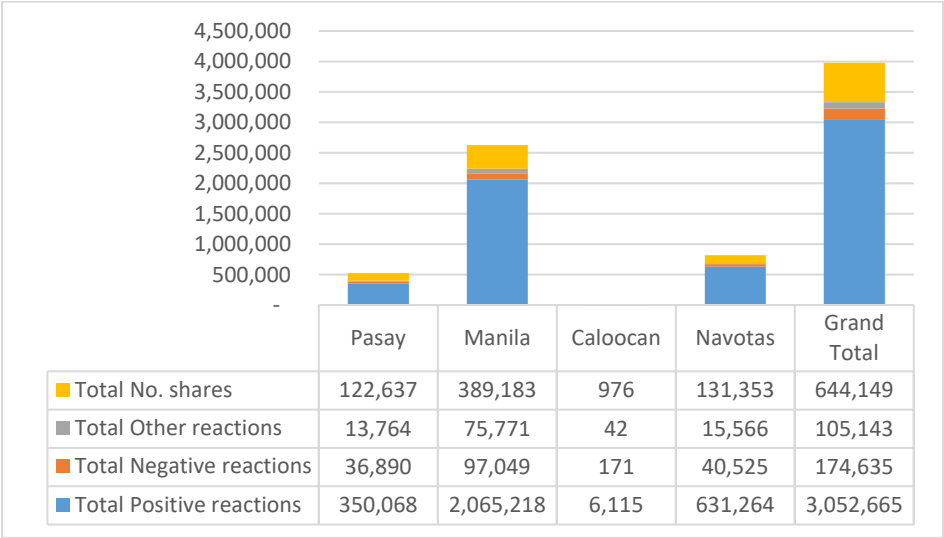
Source: Authors' compilation

Public engagement in social media is a measure of audience engagement. It provides insights into how well the message or content resonates with the audience. Social media engagement

can be determined through the presence of viewer reactions depicted by emojis and the number of times the post was shared. Figure 9 shows that most reactions to each post were positive. Positive reactions include the like, love, and care reactions. Negative reactions include anger and sadness, while other reactions include surprise (wow) and mocking (haha).

Among the LGUs, the social media posts of Manila, followed by Navotas and Pasay in this order, received the greatest number of engagements (reactions plus shares) from the public. Caloocan's social media posts had the least public engagement.

Figure 11. Public engagement on the social media posts by the study LGUs



	Pasay	Manila	Caloocan	Navotas	Grand Total
Total No. shares	122,637	389,183	976	131,353	644,149
Total Other reactions	13,764	75,771	42	15,566	105,143
Total Negative reactions	36,890	97,049	171	40,525	174,635
Total Positive reactions	350,068	2,065,218	6,115	631,264	3,052,665

Source: Authors' compilation

Table 16 shows the distribution of public engagement according to social media type. Advisories and announcements received the most engagements, followed by photo and news releases.

Among all sites, the social media posts of Caloocan received the least number of engagements at under 8,000, while the other cities received more than 500,000 reactions and shares. The City of Manila topped all sites, reaching more than two million engagements. Looking at the different social media types, public announcements and advisories received the greatest number of engagements on all sites, followed by news releases, photo releases, and infographics/infoposters.

Table 16. Public engagement by social media post

	Pasay	Manila	Caloocan	Navotas	*Grand Total*
Advisory/Announcement					
Positive reactions	193,425	635,111	2,673	323,457	1,154,666
Negative reactions	31,900	56,114	142	29,625	117,781
Other reactions	3,954	30,238	15	8,936	43,143
No. shares	89,306	177,213	769	99,528	366,816
Total (Reactions + Shares)	*318,585*	*898,676*	*3,599*	*461,546*	*1,682,406*

Photo Release					
Positive reactions	29,143	644,891	2,687	155,822	832,543
Negative reactions	445	6,836	24	3,188	10,493
Other reactions	2,293	15,286	19	4,603	22,201
No. shares	4,775	66,644	151	13,752	85,322
Total (Reactions + Shares)	*36,656*	*733,657*	*2,881*	*177,365*	*950,559*
News Release					
Positive reactions	56,427	585,470	490	6,019	648,406
Negative reactions	1,186	30,205	5	104	31,500
Other reactions	3,403	27,494	4	420	31,321
No. shares	8,826	124,734	42	1,124	134,726
Total (Reactions + Shares)	*69,842*	*767,903*	*541*	*7,667*	*845,953*
Infoposter/Infographic					
Positive reactions	28,590	43,365	116	108,402	180,473
Negative reactions	1,121	2,490	-	7,442	11,053
Other reactions	1,933	536	2	1,205	3,676
No. shares	11,904	19,174	12	16,326	47,416
Total (Reactions + Shares)	*43,548*	*65,565*	*130*	*133,375*	*242,618*
Video livestream					
Positive reactions	10,783	94,926	124	9,260	115,093
Negative reactions	688	1,028	-	38	1,754
Other reactions	1,200	1,466	2	34	2,702
No. shares	712	730	-	422	1,864
Total (Reactions + Shares)	*13,383*	*98,150*	*126*	*9,754*	*121,413*
Informational video					
Positive reactions	22,997	53,612	23	27,280	103,912
Negative reactions	486	347	-	126	959
Other reactions	480	641	-	357	1,478
No. shares	1,687	32	2	199	1,920
Total (Reactions + Shares)	*25,650*	*54,632*	*25*	*27,962*	*108,269*
Newsletter					
Positive reactions	6,180	3,516	2	-	9,698
Negative reactions	1,016	29	-	-	1,045
Other reactions	328	24	-	-	352
No. shares	5,144	656	-	-	5,800
Total (Reactions + Shares)	*12,668*	*4,225*	*2*	*0*	*16,895*
Instructional video					
Positive reactions	864	4,327	-	1,024	6,215
Negative reactions	14	-	-	2	16
Other reactions	126	86	-	11	223
No. shares	241	-	-	2	243
Total (Reactions + Shares)	*1,245*	*4,413*	*0*	*1,039*	*6,697*
Podcast					
Positive reactions	1,342	-	-	-	1,342
Negative reactions	34	-	-	-	34

Other reactions	43	-	-	-	43
No. shares	-	-	-	-	-
Total (Reactions + Shares)	*1,419*	*0*	*0*	*0*	*1,419*
Brochure					
Positive reactions	317	-	-	-	317
Negative reactions	-	-	-	-	-
Other reactions	4	-	-	-	4
No. shares	42	-	-	-	42
Total (Reactions + Shares)	*363*	*0*	*0*	*0*	*363*
Total Positive reactions	***350,068***	***2,065,218***	***6,115***	***631,264***	***3,052,665***
Total Negative reactions	***36,890***	***97,049***	***171***	***40,525***	***174,635***
Total Other reactions	***13,764***	***75,771***	***42***	***15,566***	***105,143***
Total No. shares	***122,637***	***389,183***	***976***	***131,353***	***644,149***
Grand Total (Reactions + Shares)	***523,359***	***2,627,221***	***7,304***	***818,708***	***3,976,592***

Source: Authors' compilation

Another way to promote public engagement on Facebook is to allow comments. Almost all social media posts have the comment section enabled, as seen in Table 17. Notably, only the Navotas Facebook page handled by their PIO was the only one observed to have responded to the public comments on their social media posts.

Table 17. Comments on the social media posts per LGU

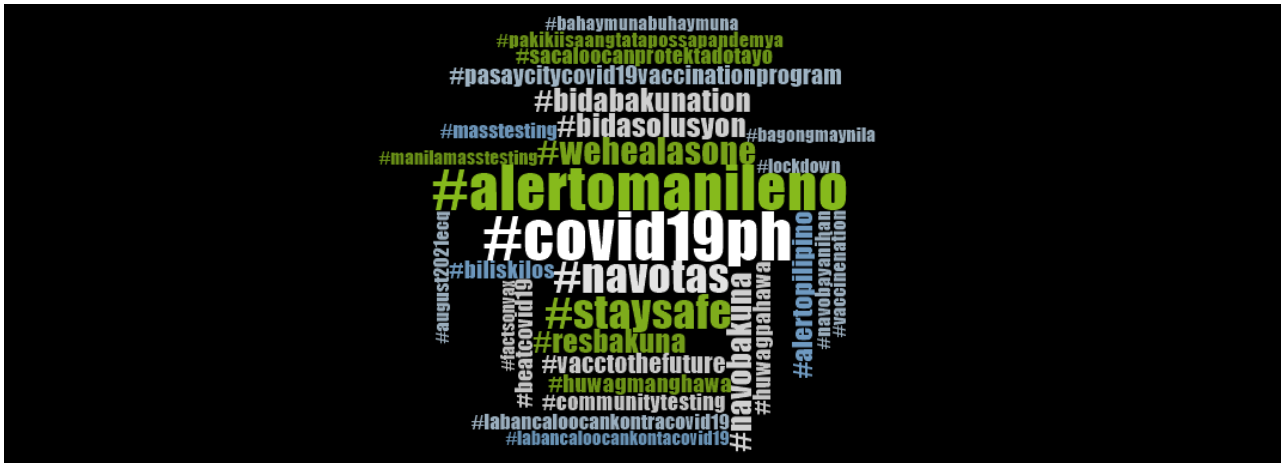
Social media post by LGU	**Total (no.)**	Enabled comment section	With page administrator feedback
Pasay	**1,258**	**1,245**	**3**
Advisory/announcement	999	987	-
Photo release/story	48	48	-
Info poster/graphic	45	44	-
News alerts/release	95	95	2
Video livestream	16	16	1
Informational video	39	39	-
Newsletter	11	11	-
Instructional video	1	1	-
Podcast	2	2	-
Brochure	2	2	-
Manila	**1,985**	**1,985**	**5**
Advisory/announcement	871	871	2
Photo release/story	660	660	-
Info poster/graphic	44	44	-
News alerts/release	231	231	3
Video livestream	103	103	-

Informational video	74	74	-
Newsletter	1	1	-
Instructional video	1	1	-
Podcast	-	-	-
Brochure	-	-	-
Caloocan	**1,454**	**1,454**	**-**
Advisory/announcement	864	864	-
Photo release/story	480	480	-
Info poster/graphic	27	27	-
News alerts/release	71	71	-
Video livestream	6	6	-
Informational video	5	5	-
Newsletter	1	1	-
Instructional video	-	-	-
Podcast	-	-	-
Brochure	-	-	-
Navotas	**2,090**	**2,086**	**386**
Advisory/announcement	1,053	1,052	234
Photo release/story	285	285	66
Info poster/graphic	624	623	67
News alerts/release	7	7	2
Video livestream	57	55	4
Informational video	59	59	12
Newsletter	-	-	-
Instructional video	5	5	1
Podcast	-	-	-
Brochure	-	-	-
Total (%)	**6,787**	**6,770 (99.75)**	**394 (5.81)**

Source: Authors' compilation

Figure 11 shows the top 30 hashtags used in all social media posts. Aside from the #covid19ph, #navotas and #alertomalineno topped the list, reflecting the active use of hashtags by the cities of Navotas and Manila. Hashtags are useful for connecting the audience to a specific topic. In addition, since the said hashtags mentioned the names of the cities, they are a good way of promoting awareness and recall of their LGUs. Call-for-action hashtags like #staysafe and #wehealasone promoted by the IATF were also used by the LGUs in their posts. There were also several hashtags that promoted the vaccination program of the LGUs.

Figure 12. Commonly used hashtags in all social media posts



Source: Authors' compilation

8. Summary of key findings

- The importance of communication in the pandemic response is explicitly shown in the organizational structures of the National Action Plan on COVID-19 at the strategic, regional, and local levels. At the level of LGUs, the responsibility of managing and coordinating crisis communication is assigned to the LDRRMC, which is headed by the local chief executive of the province, city, or municipality and with the different offices/departments of the LGU (including the local health office) as members.
- The audit of national issuances revealed the key policies that LGUs were expected to disseminate and implement in their areas in 2020 and 2021. A total of 406 issuances on COVID-19 were found on the official websites of key national agencies. The emphasis of these issuances reflects the government's priorities in response to the pressing issues at the time. The bulk of the issuances in 2020 was on COVID-19 prevention and detection strategies followed by mobility restriction to avert transmission. In 2021, policies still focused on mobility restrictions and health protocols, but the government also started issuing directives for the gradual reopening of the economy and the guidelines for vaccination (e.g., priority groups).
- Various entities in the LGUs were involved in their pandemic response's crisis and risk communication. It is a function largely undertaken by the LGUs' information, health, and disaster management office, with the local chief executive (mayor) providing the overall leadership, the health office leading the technical/medical side of the response given the nature of the crisis which is a health emergency, and the rest of the LGU units/departments providing support.
- LGUs differed in the involvement of their DRRM office in the pandemic response. In Manila and Navotas, the DRRM offices performed more extensive roles. In these LGUs, their DRRM offices also served as the Incident Command Centers and their DRRM chiefs as the Incident Commanders, which was consistent with the Local Task Force Structure for COVID-19 Response prescribed in the National Action Plan. In Pasay and Caloocan, a different unit of the LGU was made the Incident Command Center, and another person,

not the DRRM chief, was designated Incident Commander. It was observed that in the LGUs where the DRRM office was made the Incident Command Center and their chiefs the Incident Commander, the pandemic response of the LGU was more cohesive. The LGU was also able to easily tap the existing human resources, skills, and networks their DRRM office possesses.

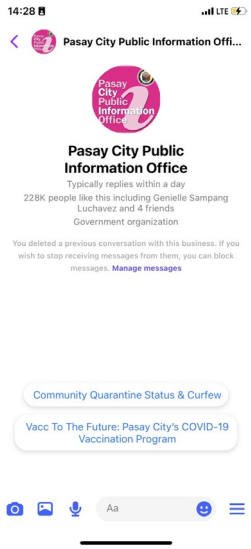
- The communication strategies used by the LGUs to promote and sustain internal communication (between and across units/departments) were virtual meetings, text messaging, and chat groups. These enabled LGU personnel down to the barangay level to discuss policies, updates on COVID-19 cases, actions, and next steps despite limited face-to-face interaction posed by mobility restrictions and the need for social distancing.
- For public communication, the communication strategies used by the LGUs include social media, online programs, text messaging, hotlines, face-to-face and virtual meetings, public address systems, and printed and electronic IEC materials.
- ICT-facilitated modern communication channels, such as social media and virtual meetings, played a big role in the pandemic response of the LGUs. However, traditional channels, particularly face-to-face communication (whenever possible) and printed IEC materials, remained an important communication strategy, especially for target audiences with limited access to ICT.
- Interpersonal channels on the ground, such as barangay officials, BHWs, and BHERTs, served as important communication channels during the pandemic by disseminating important information to residents, clarifying misconceptions, correcting misinformation, relaying citizen feedback to LGUs, and serving as a bridge between the LGU and the community. In Manila, working with barangay officials helped the LGU reach out to the city's informal settlers and slum dwellers. In Navotas, by linking with the fish port association and marine officers, the LGU was able to reach out to the fisherfolk community and craft COVID-19-responsive policies for the fishing stakeholders.
- The LGUs heavily relied on the messages sent to their social media pages and hotlines to obtain citizen feedback and determine their residents' needs. Barangay LGU personnel (e.g., barangay officials, BHWs, BHERTs) and health centers also served as feedback channels.
- The absence of a communication plan and communication M&E system was found in all the study LGUs. This hindered them from systematically implementing their communication interventions, monitoring progress vis-a-vis objectives, and evaluating the effectiveness of their communication strategies. Though an insufficient mechanism, the LGUs heavily depended on the feedback they received on social media in monitoring and evaluating the success of their communication interventions.
- The LGUs encountered many challenges in their conduct of communication activities and their entire pandemic response. These include:
    - *Late receipt of the official memo on new policies and guidelines due to the national government's delay in cascading these to the LGUs.* Based on the cursory audit of national issuances, more than 70 percent of the issuances are released within two days. However, these are not cascaded immediately to the LGUs, leaving them little time to digest the policies, prepare for implementation, and craft appropriate communication interventions.

- *Fast-changing guidelines*. The delay in the cascading of new issuances to the LGUs was compounded by the frequent changes or revisions in the policies, which meant the need for LGUs to rectify previous messages or issue a clarification immediately.
- *Difficulty in communicating COVID-19.* The novelty and emerging nature of the disease was a huge challenge for those charged with informing and educating the public about the disease and how to prevent it, which was exacerbated by their insufficient training in science and risk communication, especially for health emergencies.
- *Reaching the poor and less-educated segments of the population*. These groups require more tailor-fit communication interventions, which entail more time to plan and execute, a great challenge in a wide-scale health emergency.
- *Proliferation of fake news*. The spread of false information about COVID-19 and vaccines, the fake news about freebies given to vaccinated individuals, and rumors about the unpleasant state of the isolation facilities brought uncertainty and confusion and undermined efforts to control the pandemic.
- *Resource constraints and personal risks*. The insufficiency of trained personnel, the lack of relevant equipment, and the risk of contracting COVID-19 added to the weight of dealing with the pandemic.
- *Inadequate facilities for COVID-patients.* The shortage of hospital beds affected the LGUs' effective delivery of adequate and timely health services. This reflects the country's weak and unprepared health system to cope with a wide-scale health emergency.
- *Managing voluminous health data*. LGUs were inundated with large volumes of health data to process and use in planning their pandemic response.
- *Discrepancies in the COVID-19 case reports*. The discrepancies in the COVID-19 cases reported by the DOH and the LGU were another challenge. The DOH and LGU data often did not match, which caused confusion and delay in implementing the granular lockdowns.

- Citizen trust in the LGUs was perceived to be high by the key informants, attributing it largely to their mayor's leadership in managing the pandemic. The success of their local chief executive in the local elections, except in the City of Manila, where the mayor ran for a national position (president), was considered by the key informants as evidence of the people's positive perception of their leaders' effective handling of the pandemic.
- The best communication strategies for public communication found in the study that are worth sustaining or replicating by other LGUs with or without a pandemic are the following: (1) Manila: the weekly online program called "The Capitol Report", where the mayor informs his constituents about the LGU's activities, accomplishments, and plans and responds to questions of online viewers; (2) Navotas: the messaging service TextJRT that allows the LGU to inform the residents, connect with them, and know their concerns and the use of interpersonal (person-to-person) channels to interact with groups with low education and less access to ICT such as the fisherfolk; (3) Pasay: the use of an FAQ autobot to efficiently manage common questions on Facebook; and (4) Caloocan: the use of traditional channels such as a roving van with public address system to reach inner barangays and areas with limited access to the internet and social media (Figure 12).

- While LGUs intensively used social media as a communication channel during the pandemic, the clarity of their posts needs to be improved. The content analysis showed that using Filipino/Tagalog as the medium and explaining technical terms and health jargon are both important in health communication.
- Despite the proliferation of fake news about COVID-19, the content analysis of social media posts of the LGUs revealed that they did not proactively address fake news. Only 45 of the 6,787 COVID-19-related posts on the LGUs' Facebook pages, or less than 1 percent, were posts intended to correct false information.
- LGUs except Navotas fell short in being responsive to their citizens during the pandemic. While they allowed comments to be made on their social media posts, these were barely answered. Navotas was the only LGU that responded extensively to the comments made on their social media posts.
- Netizens' high engagement on the LGUs' Facebook posts of the LGUs as measured by the number of reactions and the number of times the posts were shared shows that social media was an important communication and engagement tool during the pandemic. However, the LGUs have not fully tapped social media, as reflected by their failure to use it in proactively correcting fake news about COVID-19 and increasing their responsiveness to the public.

Figure 13. The best communication practices found in the four LGUs



Pasay: Use of an FAQ autobot

Manila: "The Capital Report" online broadcast

Navotas: TextJRT messaging service

Caloocan: Roving van with public address system (no image available)

9. Conclusion and implications of the study

Drawing from the experience of the cities of Pasay, Manila, Caloocan, and Navotas, it was found that the LGUs implemented a combination of traditional and modern communication strategies in performing crisis and risk communication during the pandemic. While modern channels such as social media, virtual meetings and groups, and online messaging platforms were largely used, traditional channels remained an important communication strategy, particularly face-to-face communication (meetings, dialogues) whenever possible, printed IEC materials, and interpersonal channels on the ground like barangay officials and health personnel. The LGUs' effective and efficient conduct of their communication functions during the pandemic was affected by many challenges, such as the delayed cascading of official memos on new policies and guidelines from the national to the local level, the fast-changing guidelines, inadequate training in science, risk, and crisis communication, insufficient resources, risk of COVID-19 to personal health, and discrepancies in the COVID-19 case reports. Found in all the LGUs was the absence of a communication plan and M&E system, which hindered them from systematically implementing their communication interventions, monitoring progress vis-à-vis objectives, and evaluating the effectiveness of their communication strategies. Findings also indicate missed opportunities by the LGUs to capitalize on the power of social media to address fake news and enhance their engagement with the public. Only 45 of the 6,787 COVID-19-related posts on the LGUs' Facebook pages, or less than 1 percent, were posts intended to correct false information. Only the City of Navotas responded extensively to public comments on its Facebook page. There is also a need to improve the clarity of the LGUs' social media posts by using the local language more, explaining or simplifying technical terms, and using more visual communication (e.g., pictures, images, infographics).

The best communication strategies found in the study, which include online programs via social media, text blast/messaging service, use of FAQ autobot on Facebook for responding to common queries, interpersonal communication (meetings, dialogues), and roving van with public address system, are practical and cost-effective methods for public communication. But not all the communication strategies found in the four cases apply to crises like wide-scale natural disasters (typhoons, earthquakes) that cause power and internet outages. ICT-facilitated strategies worked during the pandemic as communication facilities remained intact. Nevertheless, they are applicable in day-to-day situations for informing and connecting with residents. Conducting virtual meetings is also worth sustaining. They are useful in engaging residents with physical difficulties attending meetings, like senior citizens and persons with disabilities. With people already familiar with virtual platforms, LGUs should explore switching to a hybrid mode (face-to-face plus virtual) in conducting town hall meetings, forums, and stakeholder consultations. Livestreaming city hall activities like council meetings is also a good way to promote transparency.

The four LGU cases also show that traditional channels remain essential to reach population groups with low education and limited access to digital technologies. Face-to-face communication is important to earn trust, explain key concepts, and gather immediate feedback. In Navotas, virtual and in-person dialogues with the fishing stakeholders were crucial in developing COVID-19 guidelines aligned with their situation. In Manila, the LGU engaged

with the city's urban poor and informal settlers through the barangay officials who knew them better. All of this indicates that internet-enabled platforms, despite their popularity, should not replace face-to-face communication methods, printed materials, and other legacy communication systems. Rather, they should be used in combination with modern tools to amplify communication.

Lastly, effective communication requires having the necessary communication resources (people, equipment, materials) to plan and carry out strategies. The pandemic is a wake-up call on the need to invest in communication resources. The bigger revenues LGUs have from the implementation of the Mandanas-Garcia ruling starting in 2022 pose an opportunity for local governments to beef up their communication capacity by upgrading their equipment, improving their internet connection, hiring additional communication personnel, acquiring essential software and applications, and allocating funds for training.

10. **Recommendations**

Based on the communication weaknesses and gaps found in the study, the following recommendations are proposed for local governments and NGAs to ensure the effective and efficient discharge of their communication functions in ordinary situations and during emergencies:

- *Leverage modern communication tools to improve government accountability and responsiveness.* The government should maximize the power of social media and messaging platforms to improve their responsiveness to citizen concerns, make them more accessible to the public, and increase organizational transparency and accountability. Hiring dedicated personnel for social media is essential to fully exploit the capabilities of different platforms and respond to public inquiries and concerns. Affordable, fast, and reliable internet connection is also vital for government offices to use internet-based tools for service delivery and for the public to access government services. Thus, improving the country's ICT infrastructure is a must to leverage modern communication tools.

- *Harness social media analytics.* While the government increasingly uses social media, there is limited use of data gathered from social media channels to measure performance and inform decisions and strategies. This can be attributed to the low usage of social media analytics due to a lack of awareness and knowledge. Part of social media analytics is social media listening or monitoring channels for problems and opportunities. Training and capacitating government personnel on analytics approaches is key to more effective use of social media in communicating and engaging with target audiences.

- *Institutionalize capacity building on risk communication, science communication, and crisis communication.* Capacitating government staff, particularly disaster risk reduction officers, health officers, and information officers on the abovementioned key subfields of strategic communication is essential for them to effectively carry out their communication functions during disasters and health emergencies. Effective

communication is key to preparation, mitigation, control, and recovery. As a subset of risk communication, science communication is important to explain concepts and ideas in a language that can be understood by people with no technical knowledge and low education. Training on effective public communication during health emergencies is a gap that needs to be addressed, given the country's limited experience in dealing with epidemics and pandemics. As one of the countries most at risk from natural hazards, the Philippines has more experience dealing with floods, typhoons, volcanic eruptions, and earthquakes.

- *Train LGU personnel on communication planning, monitoring, and evaluation and ensure these are in place.* Whether or not the situation is a crisis, LGUs should have a strategic communication plan. A communication plan is essential in setting goals and objectives, identifying the audience, message, channels, timing, and resources, and specifying accountabilities. Along with a plan, a clear communication M&E system should be in place to track outcomes against targets, identify communication pitfalls and areas for improvement, and evaluate the success of communication interventions. As the government agency mandated to oversee the LGUs, the DILG should institutionalize communication planning and M&E across local governments and ensure this system is in place and functioning in all the LGUs.

- *Proactively address disinformation and misinformation*. The government, including LGUs, should be at the forefront in addressing the fight against fake news. Through their proximity to the public, LGUs can help a great deal in addressing the worsening problem of fake news by using their social media pages and interpersonal channels on the ground, such as barangay officials, local health officials, and BHWs, to correct misinformation. However, for these interpersonal channels to serve as effective truth-tellers, they should receive continuous training and education. Fact-checking should also be promoted as a good practice. LGUs can help initiate the institutionalization of fact-checking by sponsoring awareness and skills training in schools, offices, and communities and partnering with media organizations, academic institutions, and civil society organizations.

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